

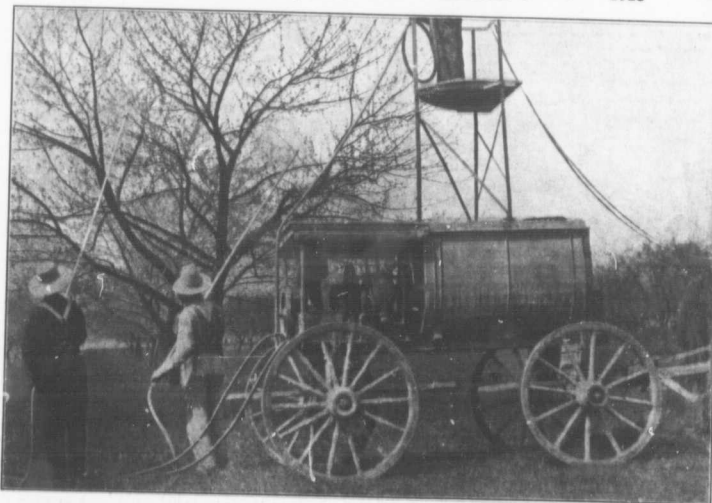
FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

MARCH 6

1913



SPRAYING IS ESSENTIAL TO No. 1 FRUIT, THE ONLY PROFITABLE KIND NOW-A DAYS Spraying, pruning, cultivating, fertilizing,—all of these operations find a place in the practice of the up-to-date fruit grower; but of all these the most important is spraying. Only when we spray can we hope for clean, worm-free fruit. Our cooperative fruit growers' associations recognize the importance of spraying and no member is tolerated who neglects this important operation. Manufacturers have also noted the growing interest in spraying and now make high-power machines that do the work efficiently and cheaply. Such a machine is the outfit here illustrated, at work in an Essex county orchard. Sooner or later we all must spray. The time to start is now.

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Read this Testimony of the B-L-K Milker, which it will pay you to have to milk your cows and be independent of hired help.

Q Your enquiry as to the success we have had in operating the 5 B-L-K Mechanical Milkers, supplied by you, received, and in reply would say that we are well pleased with them. We have kept records of our herd yields for some time and find that the machine does not affect the yields of our cows to any appreciable extent.

Q There have only been four cows in our herd that did not take kindly to the Milker, and we are milking something like eighty to one hundred cows regularly. The best results are obtained from heifers that are started on the machine. In this case, the stripping, while we follow the practice with them as with the older cows, might be dispensed with, as the heifers in all cases have always milked out clean, unless a mistake of some kind has been made.

Q As to the economy of the installation, I figure that with average milkers in a herd the size of ours, the outfit will pay for itself in one year.

Write us for an estimate of just what it will cost you to have a B-L-K Milker in your stable. Our booklet describing these machines will interest you. Send to-night for your copy.

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Q In a smaller herd the savings would be less proportionately. We have had no difficulties with men since installing the machine, and the men appreciate the saving as much or more than the management, if that were possible.

Q From experience, I would not hesitate to strongly recommend the machine to anyone considering the matter if they are prepared to follow the instructions to the letter. If they are not, they had better leave the machine alone. We supply milk to the hospital trade, and so have to look to the bacteriologist, and if the machines are properly taken care of, there is no cleaner way of milking possible.

Q You may use this letter in any way you like, for I feel, after a year and a half's experience, that the milker is an undoubted boon to the dairy farmer.

(Signed) R. E. GUNN, Owner and Manager, Durrbin Brook Farm, Beaverton, Ontario.

HOW EASTERN FRUIT MEN MAY RETAIN A MARKET IN THE WEST

N. B. Ireland, Saskatoon, Sask.

A one time Ontario Fruit Dealer, now in the West, tells of some of the things that Eastern Shippers must do, if they would Successfully Compete with their Western Rivals, for the Prairie Markets.

FRUIT growers East and West are both competing for a place on the markets of Western Canada; and

in this case the wise men do not come from the East. The Western producer or packer in place and rapidly ousting the Ontario producer. If Ontario producers wish to retain a place in the western fruit trade it will be necessary for them to observe some of the following points, which from my experience in the fruit trade of the West, I judge would enable them to meet the consumers' demand.

For small fruits a box of a pint to a pint and a half with 18 boxes to the crate and the crates of heavier material than the present 24-box crate now used is advisable. This applies to boxes for strawberries, raspberries and all the more juicy fruits, as the present imperial quart box is too heavy for long shipment, the lower berries being weighed down by those above. In the shallower box the berries would be only two to three layers deep and would keep better. If a flat box crate with three-quarters of an inch in thickness were used, the crates could then be piled in a car and would not be damaged by handling or the rolling of the car. In a crate containing three boxes there would be sufficient ventilation to prevent the fruit molding.

PACKING TENDERS FRUIT

Such fruit as peaches, pears, plums, tomatoes and early apples should be packed in a small box about eight to nine inches square and four to the crate; or eight to the crate if there is a bottom placed under the under boxes by an inch or so. The boxes should be deep enough to contain not more than two layers of paper lapped fruit of all the soft varieties as the fruit, coming in contact and rubbing, the vibrations while in transit, begins to decay and therefore lowers the profit of handling and also the desire to order any more from the same source.

Ontario fruit men must adopt a standard box of about 50 to 70 pounds for the apples and harder pears. For several reasons the box is preferable. The barrels now in use are unsatisfactory. They are too heavy for one person to handle and have to be rolled or dropped to places required. Many people prefer to buy two or three kinds of apples or one or two boxes of apples and one box of pears; or they may be driving many miles into the country with a buggy in which a box of pears or apples is all they can accommodate. And still another and all too frequent a reason why the box is preferred, is that many have only \$2 or \$2.50 which they feel they can spare to buy apples. All these are valid reasons for the producer complying with the requirements of the customer.

As regards grading of fruit and honesty in packing, I believe that a law requiring the packer to place

his name on each outer crate in type plain enough to be read distinctly would soon compel the dishonest packer to go out of business. The consumer would learn that he, the packer, was dishonest. By making the law so that an inspector or any consumer or police officer could identify any person using a receptacle with another's name on it or packing fruit not true to name and grade, before the most convenient magistrate for trial and place the risk upon the likelihood of gain by stiff penalty, this constant receiving of doctored boxes and barrels experienced in this country would be stopped. And from many years of experience on the market at Hamilton, Ont., before coming here, three years ago, I can say the writer is pretty sure it is possible to have Ontario Fruit so good as to hold the same respect in this western market as the fruit of any other place.

THE TRANSPORTATION PROBLEM

I know the producers in Ontario are handicapped by the railroads into these provinces giving them poor accommodation. There is no reason why fruit should take 11 or 12 days to get from the Niagara Peninsula to this point, three or four of which is spent at Sutherland station three miles from here. If proper methods of packing were followed there would soon be enough fruit in cars shipped west that the railroads could either, by cooperation, place their cars at a central point and send them to Toronto and then make a solid fruit train to some central point such as Brandon, Regina, Moose Jaw or here, and then have those cars attached to the first freight train to continue the journey to destination. I am sure I believe this would prove as profitable to the railway companies as the present arrangements by which they forward settlers' effects and other merchandise. If proper methods are given in compelling the railroads to give the people the accommodation to which they are entitled. The people have helped our railroads handsomely with guarantees of bonds, bonuses and grants of different kinds; and fair play hurts no person.

A third reason why the Ontario producer is not meeting the market demand to best advantage is the same step, the loss of millions of dollars to the farmers of the West on their grain, no arrangements having been made to hold the fruit of keeping varieties. As it is there is a slaughter market soon as the fruit is picked. The farmer builds large buildings to house his stock so that he may not be forced to sell off in the fall of the year, and then buy again in the spring. He does not make the profit he would like to make the trouble of feeding the stock all winter, but because he knows if that were the rule he would have to sell when all his neighbors were selling; therefore a farmer gets a high price and when he came to buy in the spring he would be forced to buy in competition with many of his neighbors and therefore pay a high price. So he invests his money in material, time, feed, etc., and when the buildings are completed he disposes of what he considers he can do without at a price that he dictates to the purchaser, whether that customer is a consumer or a wholesaler.

STRENGTH FOR FRUIT

If Ontario fruit growers would use the same business tact with regard to (Continued from page 32.)

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Vol. XXXII.

FOR WEEK ENDING MARCH 6, 1913.

No. 11

HOW TO MAKE NEGLECTED ORCHARDS PRODUCE 85 PER CENT. OF No. 1 FRUIT

W. F. Kidd, Toronto, Ont.

Why do we Produce such a Large Proportion of Inferior Fruit? The Pruning Methods that were used in Restoring many Neglected Orchards to Profitable Productiveness: Described by the Man who Did It.

ARE we producing even creditably good fruit in Ontario? From what I have been told by the managers of apple associations and judging from the orchards I have seen, I believe that the average apple pack of Ontario will not grade better than 50 per cent. No. 1. Some good authorities say that 40 per cent. is nearer the mark. This enormous per cent. of No. 2 apples is largely due to neglected pruning. And what are the possibilities? Six orchards used for demonstration purposes in Simcoe county by the Ontario Department of Agriculture three years ago graded 85 per cent. No. 1. These orchards were sadly neglected, could not be more in need of pruning, and had never been sprayed.

The aim of all apple growers should be to grow the best. Good apples are profitable—I mean apples of high quality. Red apples should be as nearly red all over as it is possible to make them. Apples grown among dense foliage where the sun cannot reach them are usually poor in color and not tempting in appearance. It is often said "Ontario can grow the best apples in the world," but it may be as truthfully said that Ontario is growing a great number of very poor ones. The highest priced apples selling in Toronto are not grown in Canada, but come from the Western States. A small town in Eastern Ontario is also importing apples from the States. A storekeeper of this town said that some of his customers wished something better than that with which Ontario growers were supplying the home market.

ORCHARDS WITH POSSIBILITIES

There are a great many neglected orchards which, if they were properly pruned, sprayed, and cultivated, would produce paying crops. As a matter of fact, the finest Spy apples at the Ontario Horticultural Show in 1911 were grown on old trees carefully reclaimed. The following directions indicate the methods followed in producing 85 per cent. No. 1 fruit in the Georgian Bay District.

First, we removed all dead wood, high limbs were cut back, and cross branches cut out. This pruning induced an abundant growth of suckers upon the large limbs. Those most favorably situated were selected and cut back to form new fruit-bearing wood lower down on the trees and at points where no fruit buds had previously grown. In this way the long

bare limbs were made in time just as fruitful as the top and outside branches. In reclaiming these old orchards in case they were in sod, we plowed in the spring after pruning. We plowed as shallow a sod as could be turned. Where tillage has been neglected the roots feed near to the surface and deep plowing the first year will destroy a great many of these feeders.

And now for the farmer who has an old orchard to be reclaimed. A thorough overhauling of the orchard should be undertaken. All rough bark should be scraped off because it covers many insects that are hard to reach with spray materials. A hoe is a convenient tool with

which to scrape. An ordinary handle will reach the higher limbs. It is not often necessary to scrape higher than a man can reach with an ordinary hoe, standing on the ground. A hoe with a short handle is convenient for the trunk and lower branches. If the centre of the hoe is filed out to make a circular edge it will do better work and not slip so often. Do not scrape deep enough to expose the live yellow bark.

Pruning now is not done in the way many did it 20 years ago. Low-headed trees are now considered most profitable; they are easier to prune, spray, and pick. But if we have high headed trees we can but make the best of it. Again, some old orchards have the main branches destitute of bearing wood 12 or 15 feet from the ground. After the trees have been pruned, as already described, part of the top branches should be cut off, always cutting back to a lateral. Cutting back the head has a tendency to force out sprouts on the bare lower branches. This high wood is a dead loss. There are some trees so high that it is next to impossible to spray or pick. There is no profit in growing apples that cannot be sprayed, and apples shaken off are almost without value. Twenty-five feet is a high tree, rather lower is better. There are many trees in Ontario 45 feet high. Such high trees should not be lowered to 25 feet in one season. That would be a terrible shock to the tree, and it might die.

PLAN FIRST—THEN ACT

In pruning, it really takes more time to determine what to cut off than to do the cutting. This suggestion to some may look like a waste of time, but it is not really so. Look carefully round a tree and determine where there is a likely place to head back to. About five or six feet in one season would be lowering a tree very fast. The pruner should make up his mind when on the ground where he means to cut to, but after looking at the top from the tree he may find it necessary to cut slightly higher or lower because of the lateral branches not being exactly as he thought they were when on the ground.

I would first cut back the centre, then the outer branches to laterals corresponding in height to the centre. The centre of the tree should be highest, gradually sloping lower to the outer branches. In every case cut back to a lateral. The following season those trees still high should be lowered more, to the next lateral, several feet lower, and so on, every season or every other year until the tree is th desired height.

DON'T LET TREES CROWD

When trees are so closely planted



One of Four Important Factors in Orchard Improvement Work

Spraying, pruning, cultivating and fertilizing—all of these four factors must receive attention if we would derive the greatest profit from our bearing orchards. Mr. Brimmingcomb, Haron Co., Ont., may be here seen performing the first and most important of these operations with an up-to-date power sprayer. In the article adjoining, Mr. W. F. Kidd deals with the second orchard improvement factor, pruning, and in the following page the remaining two factors, cultivating and fertilizing, are also dealt with. The neglect of any one factor is bound to result in reduced profits.

that the branches are growing into each other, I would cut these trees back all round, leaving at least four feet of space free from branches. That much space or more is necessary for sun and air and to enable free driving with the spray outfit. Cutting back all side branches of large trees has a tendency to make the branches stiffer so there is less danger of fruit being rubbed by swaying branches. The sprouts that will likely come on lower branches after such top pruning I would leave on where necessary to fill vacant spaces, others would be cut off at once. Next I would cut back those sprouts that are to be left to a length of six inches, leaving the last bud pointing in the direction the branch is desired to grow. Sometimes it is necessary to tie a sprout and force it to grow where it is needed. These sprouts, if cared for, will bear fruit in three years.

As a rule there has not been nearly sufficient labor put on the outside of the tree. To have fine apples they must have light and room. A safe rule is never to leave a branch or twig that can rub or touch another branch when loaded with fruit. It is not advisable to cut large branches if it can be avoided. Occasionally there is a large branch so low that a team cannot get close enough to plow or cultivate. In such a case I would cut the branch off.

ABOUT PRUNING TOOLS

There is no tool the equal of a fine-tooth, sharp saw for pruning. When the branches can be reached clippers may be speedier, but they do not do such clean work. There is a saw manufactured in the States that is superior to anything yet made in Ontario. This saw has a blade half an inch wide and about 18 inches long, with a strong back about three inches from the blade, so there is little or no friction. Last season some of these saws were in constant use during a long pruning season and never required sharpening. (Spare blades can be had for these saws.) What is generally known as a long-handled pruner may be used where saws cannot reach. These pruners are of various lengths. Eight feet is a convenient length, with one 12 feet long for very high trees. In every case cut as close to the branch as possible. Shoulders or stubs are unsightly, and the wound does not heal so well.

The pruner should be very careful not to bruise or break the bark with rough boots or ladders. Broken bark is a most likely place for spores or black rot canker to start. In some districts there are a great many trees injured with this disease, and if not cut out or treated the tree is likely to die. If the disease has gone completely round the branch, cut it off about 12 inches below the injured part. I burn all black rot canker at once. When only a small portion of the branch is infected it can be treated and brought back to a healthy condition. With a sharp knife cut off all the discolored bark and anything that looks unhealthy; then disinfect with corrosive sublimate at a strength of 1 to 1,000. Corrosive sublimate can be procured from any drug store. Apply the

solution with a small stiff brush, rubbing well into the bark. When the wound is dry, paint with two coats of white lead and raw oil paint. This paint is only for protection until bark grows over the wound.

Thorough pruning of large neglected trees is a slow and expensive business. I have seen a first-class pruner being as long as eight hours on one tree. Many districts are spraying thoroughly, but few can be called well pruned.



There are Many Orchards in need of Similar Treatment

This month, March, is the one generally adopted by fruit growers as pruning time. Mr. Brown, Simcoe Co., Ont., may be here seen pruning up some trees in an old orchard. Notice the high heads and generally undesirable shapes of these trees. And yet orchards in just as bad shape as this one, through thorough pruning, followed by good spraying, have been made to yield profitable crops.

Experience with Commercial Fertilizer

J. W. Clark, Brant Co., Ont.

I have been using commercial fertilizer for 15 years and fully appreciate its value. I value it especially for fruit and vegetables. Before one can use commercial fertilizer to best advantage, however, he must thoroughly understand the needs of the plants to which he is applying fertilizer, and he must also have a good knowledge of the deficiency in his own soil. Otherwise, how can he decide what fertilizers are needed?

Experimental experience is the only way in which this knowledge can be gained. From my own experience in orchard work, I have found that mature trees show best results when treated with acid phosphate and muriate of potash, about 200 lbs. to the acre. I prefer finely ground bone as a source of supply for acid phosphate. This bone is not in a very available condition, and it must be applied as early in the spring as possible.

In addition to this, I have been using a cover crop which is plowed down each year and every third year I make an application in the orchard of barnyard manure. Where wood growth is desired nitrate of soda is the desirable fertilizer, but I find that with bearing trees the nitrate tends to delay maturity, and its use will not be advisable on winter varieties, especially where color is essential.

Fertilizers, however, are not all. The fruit grower must ever bear in mind the importance of humus in the soil as a retainer of moisture. Proper pruning, thorough spraying, and cultivation are the other factors in successful fruit growing.

To get the best results from food and labor, the cow must be comfortable, and have light and air. Simply because we know that cows will live in a dirty, dark, ill-smelling place does not prove that they are doing their best there.—P. H. Moore, Victoria, B. C.

Where do we stand in Apple Industry?

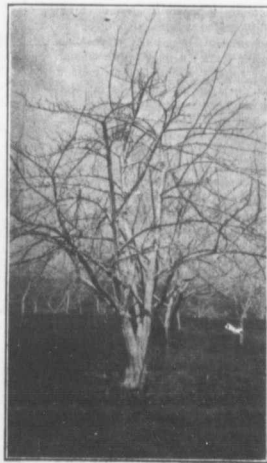
P. J. Carey, Dominion Fruit Inspector.

After a season such as the past year has been, many people are asking the question, where do we stand in the apple business? Have we overdone the industry? Is it advisable to plant out more apple trees? To these questions I make answer that it is advisable to plant still more trees, but these must be only of desirable varieties. We must cut out the undesirable. We must give the people what they are asking for—the varieties they want.

In the West, and in our larger cities even here in the East, we are up against competition from American apples such as the Roan Beauty, which are even now retailing in Toronto at five cents apiece. They are not up to much in quality, but they have a most attractive appearance. They are clean apples, perfectly formed and attractively packed.

The bad state of the markets this past year put a great many irresponsible buyers out of business. The money from abroad usually advanced to them was withdrawn. Only the reputable buyers and the cooperative associations were left, and thus there were not enough buyers to go around, and many apples of necessity went begging for buyers, realized a very low price, and in some cases even rotted in the orchards.

The key to the whole situation is to produce good fruit, properly care for it, properly pack it and market it where the people want it. Our Ontario and Eastern apples cared for and packed as they should be have Western apples beat to a frazzle. We have got to raise better apples and larger apples having abundance of high color. There is a good thing in apples yet—in fact, they are the best thing yet on the



Not Much Chance for Insects Here

"Spray till every last twig is dripping." These words, from one of our best fruit growers, describe spraying as it should be. Notice this tree sprayed with lime wash. Everything is white.

farm—but it all depends on how you treat your orchards. "Eternal vigilance in orcharding is the price of success."

It was generally agreed by sheep men at the Winter Fair at Guelph that belled sheep were less liable to attack from dogs than sheep with out bells.

The Management of a Farmer's Orchard

R. R. Sloan, Huron Co., Ont.

When the editor of Farm and Dairy first asked me to write on orchard management, I was rather shy of the subject. So much has been written about the fruit growing industry the past few years that one would naturally think that anyone with an orchard of any size would surely learn to see the advantages of good sound or-

chard work in the soil from the previous winter's snow and spring rains for the use of the trees during the summer. We continue to cultivate every 10 days or two weeks till the end of June, or the middle of July if the season is very dry. By this time the trees will have enough wood growth, and this new wood must be ripened before winter comes on. The buds require considerable energy while developing in July and August, and

A Living from an Acre

"Ten acres and a home" has long been the dream of many landless city men who long to own a home of their own on land of their own. F. W. Krouse, of Guelph, Ont., once a laboring man working on the college farm at Guelph, gave up his position, bought one acre of land and started in to make the home that so many other landless men desire. We will give his story in his own words as he told it at the last annual meeting of the Ontario Experimental Union at Guelph.

"The first year that we lived on our one acre farm we made \$425 enough to keep my wife and myself. Our ideas then enlarged and we bought one and one-half acres just at the back of the one acre we already had. Next year from that two and one-half acres we sold \$1,600 worth of produce, and the third year \$2,700 worth. Our ideas then suffered from further enlargement and we bought seven and one-half acres more of much better land, bringing our small estate up to 10 acres.

"We have not done as well proportionately on the 10 acres as we did on the two and one-half acres. We consider ourselves land poor, and are willing to sell some of the farm. We cannot work the 10 acres as thoroughly as we did the smaller area without much hired help.

"We put bees first in our list of moneymakers. From 100 colonies this past season we extracted 11,000 lbs. of light honey and 2,000 lbs. of dark honey and had an increase of 80 colonies. We sell our honey on the Guelph market. The light alone brought us \$1,650, the dark honey \$78, and the increase in colonies we value at \$250. From a one-half acre bed of asparagus we had an income of \$200. We have 400 bags of potatoes still on hand, and from poultry we derived \$250. The total value of all this produce we would estimate at \$3,000 and nearly all of it came off the original two and one-half acres.

"We do most of the work ourselves. I work from daylight to dark in the busy season, but I thoroughly enjoy the work and it never gets



A Style of Sprayer ever Becoming More Popular, with Large Fruit Growers

Spray solution, to do its work effectively, must be applied at just the right stage of growth. In some cases there are only four days to a week in which to do over a large orchard. Here it is that the power sprayer is almost a necessity. It will do the work of several hand pumps. The one here illustrated is at work in a Huron Co., Ont., orchard.

chard work as practised by the up-to-date grower. But such is not the case. There are still many good orchards unmolested, and allowed to remain in somewhat dormant condition. And as long as this condition exists I feel that I have an excuse for writing on what should be, but is not, a time-worn subject.

Before we can intelligently manage the orchard to obtain the best results, we must learn the why and wherefore of the different problems that confront us in our endeavor to grow fine, clean, well shaped specimens of fruit. The best way to impart this information, I believe, is to tell just how we go about it in our own orchard.

We begin to prune our orchards about the first of March; that is, we do not expect to have time to do that particular work in the month of June. The latter month, we believe, is the better period of the year for such work, as we get a better set of fruit buds by pruning in the summer. The amateur grower has much to learn as to the habit of growth of the different varieties he may be growing. We find the Spy the heaviest wood grower; hence we must make an extra endeavor to keep Spy trees as open at the top as we desire to have other varieties. This openness of the top admits plenty of air and sunshine to properly develop and color the growing fruit. Also the fruit buds, which determine the crop for the coming year, which must have plenty of sunshine.

As to cultivation: We start the plow, or whatever implement we may use, according to the condition of our land, as early in the spring as possible so as to retain all the moisture that is

this they do not get if wood growth is allowed to continue.

Young orchards up to eight or 10 years of age may be successfully intercropped with hoed crops such as roots, beans, and potatoes. Clover may also be grown as a hay crop for one year and then plowed down the following year. We have practised both systems of cropping.

We follow the custom of covering the crop of some kind, preferably clover or vetches. These crops usually make a good growth before winter comes on. This vegetation protects the roots by holding the snow and the following spring we have a crop to plow down as a green manure. This practice helps wonderfully in keeping up the fertility of our soil.

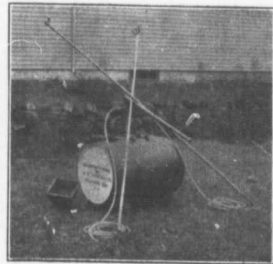
(Concluded on page 33)

Success with Pears

John Beemer, Brant Co., Ont.

My one acre orchard of Kieffer pears is the most profitable acre on my farm. This orchard was set 14 years ago, and for the past eight or nine years has yielded an average income of \$300 for the acre.

Pears are particularly subject to pear blight or canker on account of the soft spongy character of the bark. I have found that they are less subject to this disease when the pear orchard is kept in sod. Good pruning and spraying are, of course, as essential with pears as with apples. Kieffer, to give best results, must be pruned, cultivated, and fertilized. It will not do well in sod. Dempsey and Bartlett also must be cultivated and thoroughly sprayed.



Suitable for the Small Grower

The outfit here illustrated, mounted on a truck, will meet the requirements of the farmer with a small orchard of one to four acres. Such an outfit is also handy in spraying potatoes and whitewashing stables and outbuildings.

laborious. When first we started, strawberries were our mainstay, but we have gone out of this fruit, as it involves too much labor. In the winter we take matters easy and enjoy life."

I have visited many hundreds of orchards, old and young, and do not recall ever having seen a dozen dead or dying trees that were in this condition as the result of old age. Accidents, neglect, mistakes in pruning and injuries of various sorts, in the nearly all cases preventable, have been the cause. — A. McNeil, Chief, Fruit Division, Ottawa.

Essential Points in Apple Growing

"Mac" Smith, Burlington, Ont.

Any man who grow the right kind of fruit and pecked it right did not need to be, nor is he, ashamed of the apple business, even under the market conditions that prevailed last season. There are a few things essential to the success of apple growing. We must grow quality first, it is quality that is wanted. We must pack them properly and use reasonable horse sense and learn how to sell them. When we learn to market our apples properly one-half or more of the difficulty has been overcome.

To grow good apples there are four things we have to do. First of all, we have to spray. We have to spray as it ought to be done, using the right material at the right time and the work must be done thoroughly. When we have over five or six acres of apples we must have a power pump and spray at a pressure of from 200 to 225 lbs.

Second: Pruning is absolutely necessary. It is not true that the more limbs we have, the more apples. This is a big mistake. Many men are afraid to cut out enough or to cut off the tops of the trees. Always start from the outside to prune a tree and work in. Don't go to the inside and work out. We want to see daylight down each row of apple trees, even if we have to cut off 10 feet at the ends of the limbs. Head the trees back and thin them from the outside.

Third: Cultivation is a very important thing. We can't start too early in the spring, nor keep up a too rapid cultivation up to the end of June.

Fourth: Fertilize. Do the preceding three things first, then attend to the fertilizing. Barnyard manure is good, but we will have to resort to commercial fertilizers as well.

Fifth: Thin the apples. This practice is necessary in the great majority of years. It is generally possible to take off from 2,000 to 3,000 apples from a tree and then not get enough off. Some varieties particularly, have got to be thinned.

Follow the foregoing direction and we most surely will grow the very best.

Why the Farmer Fails with Apples

J. A. Wink, Jordan Cooperative Company. Orchard in the Niagara District as regards the setting of apples is something of the past. While the fruit grower who has an orchard takes care of it or takes it out (generally the latter) the farmer lets it take care of itself. I am glad to say there has been an awakening among the farmers lately and that they, profiting by the example of the fruit-growers, have procured spraying outfits and cultivate their orchards occasionally. This will result in a higher percentage of No. 1 fruit and more money for the grower. There is no reason why fruit growing should not be carried on to a limited extent as a side line to general farming.

The cause of so many failures to make a profit on orchards is sufficiently apparent to any person, who, while driving through the country, looks about himself. No farmer would expect to grow a crop of corn by simply planting it and yet this is precisely what the farmer-fruit-grower does with his orchard and expects a crop. Orchards are usually allowed to go to seed

which is mowed till it no longer pays, then when the sap-producing roots of the trees in their search for moisture and plant food are near the top of the soil it is resolved to "plow up the orchard," which they might just as well do as far as the next year's profit is concerned.



A Garden in the Great Clay Belt of Ontario

The garden of Mr. Lorne McDougall, Nipissing District, Ont., is a fine example of what settlers are producing on the soils of Northern Ontario. The peas in the background are seven feet high. The seed was sown on June 1st and the photo was taken on Aug. 15th. They had a small application of Muriate of Potash, followed with good cultivation.

It is a matter of regret to me to see orchards which with a part of the tillage and fertilization necessary for the successful production of ordinary crops and which are capable of producing \$150 to \$200 an acre go to grass and destruction. If these farmers would prune and cultivate for three successive years they would let some other farm work "in" and attend to their fruit.

With the rapid expansion of our Northwest



Ideal in Every Respect

This orchard is located in the Wenatchee Valley of Oregon, where orchard lands are valued at \$1,500 an acre. Notice how thoroughly well cultivated is the soil, how thrifty looking are the low headed trees. And when the crop is harvested the fruit will be packed in boxes and sold at double the price of most Canadian fruit.

trade for summer, fall and winter varieties of apples and the Niagara District owing to the growing of more tender fruits practically out of it our northern friend should bestir themselves not only to take care of orchards already planted but to plant more extensively.

A Western Advantage

W. J. L. Hamilton, Nanaimo Dist., B. C.

I have read much about the relative merits of Ontario and British Columbia as regards fruit growing, but not knowing Ontario, I will keep out of the discussion except to point out one inestimable advantage we possess in British Columbia in having a compulsory spraying law.

If only one orchard in a district is unsprayed it acts as a pest preserve, from which, as a centre, all the fruit growers' enemies are disseminated. Moths and beetles have wings, spores of the fungi can be carried long distances by the wind and by the feet of the birds and insects, and this is true also of the scale insects, both San Jose and Oyster-shell. It has been calculated that one San Jose scale is capable of producing at least three million descendants in one season. This alone should suggest the amount of damage done a district by one neglected orchard or even tree.

THE DAMAGE ONE MAY DO

Take the codling moth: If all spray, the first brood should be reduced by about 95 per cent., and two more sprayings should check the next brood, another death blow being given by careful fruit thinning and banding the trees. But one infested and neglected orchard just doubles the cost of fighting this pest, since double the number of sprayings at least will be called for. Not only that; much more arsenic will be applied to the tree, which, many authorities believe, will ultimately injure it.

Need I say more to show how manifestly unfair it is to all progressive orchardists for one "back number" to work such widespread injury. Moreover, this negligent orchardist will sell his inferior fruit for what he can get for it, thereby spoiling the market for all and lowering the high standard of fruit, which it should be the object of each district to maintain.

By all means enforce sanitation in your orchards as you do in your towns, or you will be heavily handicapped by those who do.

A Story of Great Results

"Do you wish to get a good article in few words?" asked Mr. Clark of the Niagara Brand Spray Co., of an editor of Farm and Dairy, who, with pencil in hand, stood near their booth at the last Ontario Horticultural Exhibition.

"Certainly, go ahead," we replied.

"Well, here goes. Paul Campbell, Merton, Ont., picked 65 boxes of No. 1 Snows, one box of No. 2 Snows and one box of culls off of one tree. Of 1,000 barrels of apples from his orchard, 97 per cent. of them were No. 1. He has sprayed thoroughly with lime-sulphur for the last five years. So good is his fruit that he readily disposes of all of it directly to his customers by private order."

"Thank you."

I have often been asked why we have larger yields of grain on our Experimental plots that are common throughout the province. Our soil is not extra good. We do not fertilize heavily. The explanation lies in the careful selection of best varieties, good seed, the best of cultivation and in underdrainage.—Prof. C. A. Zavitz, O. A. C., Guelph.

Our Methods of Cherry Culture

Wm. B. Leavens, Prince Edward Co., Ont.

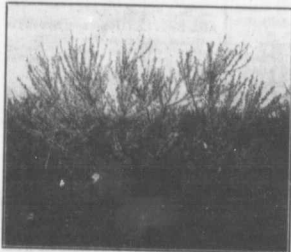
We have plenty of land adapted to the growing of cherries; that is well drained clay limestone. We have also a partially for the culture of fruit. I first decided to specialize with the cherry and



we now have in the "Leavens," in which my son is also interested, 22 acres planted to this fruit. The trees are placed about 20 feet apart, from 100 to 110 trees an acre. We prune the tops to three or four branches so that each may have room to expand without much interference with the growth of the others. We use two-year-old trees for planting, though, I believe, one-year-olds would give equally good results.

CHOICE OF VARIETIES

Owing to climatic conditions in Prince Edward county, in common with other counties on the north shore, we do not attempt growing some of the more tender varieties of sweet cherries in a commercial way. We have a dozen varieties, but for market purposes, they have simmered down to three, the Early Richmond, Montmorency, and English Morella. The e varieties meet the requirements of 95 per cent. of our customers. The Early Richmond when grown upon proper soil and allowed to remain on the tree until really ripe is an excellent cherry. Unfortunately it is often shipped when just turning a light red color and as full of acid as a chemist's bottle. If it had been left a week or ten days longer on the tree it would have been larger, a darker red, richer and riper, and the buyer would have wanted more, instead of regretting his purchase.



A Well Balanced Cherry Tree

This seven-year-old cherry tree, about 12 feet high, is considered by Mr. J. W. Smith, Wentworth Co., Ont., to be about the right shape.

The Montmorency is the standard cherry; no better all-round cherry is to be found. We usually plant two trees of this variety to one of all other varieties. They have size and color, stand shipping well, and ripen at the time they are wanted by the housewife. English Morellas are heart-shaped, nearly black, growing on a drooping, dwarf tree. They are very late and in favorable seasons are a good preserving cherry. The demand for English Morella is limited but they extend the season.

The cultivation of the cherry is similar to that of a well-cared for apple orchard. The diseases of the cherry require the most careful attention. Black Knot must be cut out and

burned as soon as it appears; leaf blight is controlled largely by spraying, though lime-sulphur failed to answer the purpose last year and we may have to go back to Bordeaux for better results. Insecticides also have to be used when required.



Strawberries on a Commercial Scale Involve Labor in Wholesale Quantities

The commercial strawberry plantation has proved itself a profitable proposition with abundance of cheap labor available at picking time, such as Mr. H. Gushie, Lambton Co., Ont., whose strawberry patch is here illustrated, has secured.

When picking time comes, the aim is, to get careful intelligent people to assist who are interested in getting a beautiful fruit put up in the most attractive form and thus far we have not been disappointed. At a later date we will describe in detail our methods of packing and marketing the product of our 22-acre cherry orchard.

How I Grow Strawberries

J. B. Semple, Colchester Co., N. S.

In selecting a piece of ground for strawberry culture I prefer soil that is naturally or artificially well drained and where water is not likely to remain on the surface in winter, as ice over the plants prove fatal. If the land has grown a crop of roots, and was well manured the previous year so much the better. A second application of coarse manure plowed in in the fall will greatly benefit the land and put it in condition for the setting of the plants the following spring.

After the surface is well pulverized to a sufficient depth with the disc harrow, finishing with the roller or drag, allowing time between the workings for the weed seeds to germinate, the rows are measured three and one-half or four feet apart using stakes the length required set at each end and centre of the rows. Then we run off lightly with the plow. We place the plants two feet apart in the furrow opened with the plow. The planting is done as quickly as possible, so as to get the benefit of the moisture in the freshly turned soil.

After planting we keep the ground well stirred to prevent crusting, and also to upset the little weeds as they germinate. For this work we use the one-horse sifter, garden rake, and hoe, and external vigilance.

As to varieties we have had good success with Brandywine, Wm. Bell, Parsons Beauty, Sample and Clyde, in the order named.

Buy a Spray Pump.—Even if you have no more than a dozen trees it will pay you to buy a spray pump. The barrel sprayer is what the average small fruit grower needs. It will be cheaper to buy the pump and then mount it on a good molasses or vinegar barrel, than to buy one already mounted. Any man handy with tools can easily mount the pump on the barrel himself. It is poor economy to select a cheap pump. A.K.L., Northumberland Co., Ont.

The Question of Thinning

R. M. Winslow, Prov. Horticulturist for B. C.

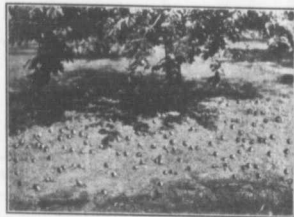
A tree may set more fruit than it can possibly bring to perfection, as the fruit-grower understands perfection. Nature cares nothing for the fruit, except as an aid to produce seed; the orchardist cares nothing for seeds, except as they are necessary to the production of fruit. We wish each tree to carry all the fruit it can bring to commercial perfection, and no more. Hence we thin out the surplus setting.

As soon as the crop can be determined and the supply of labor permits, thinning should be commenced. Start with those varieties which are most advanced. Generally, apples, pears and peaches are thinned when about the size of a hickory-nut, and the thinning should be completed before they are more than double that size. On the various plums the work should be commenced as soon as possible after the dropping, familiarly known as "the June drop," is over.

Apricots, cherries and crab-apples are not usually thinned by hand because the crop which they are to bear is a reasonably certain quantity, and can be controlled to a greater extent than the larger fruits by proper pruning. The Italian prune and the peach plum are not usually thinned, because normally the set of fruit of these varieties is not great enough to warrant the expenditure.

HOW TO THIN

To set rules for thinning is even more difficult than to set rules for pruning. The fruit-grower must determine for himself just how much crop the tree will be able to carry. Much depends on the variety, the age of the tree, its vitality, the soil, cultivation, climate and district. Under equal conditions the Winesap may be thinned to, say, five inches, where the Jonathan would be



After the Thinning

The photograph from which this illustration was taken was snapped by Prof. J. W. Crow, O. A. B. Gushie, in a British Columbia orchard two years or more ago. The apples, seen on the ground, do not represent one-twentieth of the number that were picked off the tree to give the remaining fruit a chance to develop into a fancy sort. This practice is becoming common in the West, but as yet it is little practised in the East.

thinned to six or seven and the Northern Spy to eight. In climates such as that of Vancouver Island, where no irrigation is available, and the rainfall averages about half an inch per month during the summer season, or one-fifth that of the average Ontario district, all varieties are thinned to a greater distance than in districts of greater rainfall or where irrigation is available. In this district it is advisable to thin many crops, the whole of which could be carried to advantage under other conditions. Unhealthy or diseased trees should not be expected to grow as

(Continued on page 31.)



Own your car—don't let it own you. A new Mr. Dooley rises to remark that there are only two kinds of cars—"the Fords and the can't afford." You'll want a Ford when the season is on. Then buy it to-day.

There are more than 220,000 Fords on the world's highways—the best possible testimony to their unexcelled worth. Prices—runabout \$675—touring car \$750—town car \$1,000—with all equipment, f.o.b. Walkerville, Ont. Get particulars from Ford Motor Company of Canada, Limited, Walkerville, Ontario, Canada.



Flower and Vegetable Seeds

Selecting good seed has a great deal to do with the ultimate success of growing flowers or vegetables. The love of flowers should inspire those who cultivate them to select the choicest and most reliable seeds. Gardening for profit or pastime

should be done with a view to getting the best results. The size, quantity and excellence of flowers and vegetables are things that are governed largely by the character, strength and pedigree of the seeds.

CARTER'S TESTED ENGLISH SEEDS

These famous seeds are known, sown and grown the world over. Wherever used they have made extraordinary records for productiveness. Your flowers and your garden vegetables for next season will be the admiration of all who see them and a source of pride and satisfaction to yourself if you sow Carter's Tested Seeds this Spring. Order from the catalogue. Write for a copy at once, so you can order early.

Send for 1913 Catalogue—FREE

Printed on fine paper, profusely illustrated with half-tones and containing four full page pictures in natural colors. When you write, please address
Department O

PATTERSON, WYLDE & CO.

Sole Agents in Canada for James Carter & Co., of London, Eng. Seed Growers to His Majesty King George V.
133 KING ST. EAST, TORONTO, ONT.



The Feeders' Corner

The Feeders' Corner is for the use of our subscribers who are interested in feed questions and are invited to ask questions or send items of interest. All questions will receive prompt attention.

Experience Recommends It

Robt. Jariott, Middlesex Co., Ont.

I have used a cement block silo for three years. I feed ensilage to cattle, horses and swine. I consider that good ensilage is the best of feed available for farm stock.

I feed my cattle about all the ensilage they will eat twice daily. I feed straw or hay at noon in place of silage. To my horses I feed silage once a day.

Corn should not be cut too green for the silo. I leave my corn until it is well glazed. I would advise any farmer to build a silo as I have had good results with mine.

Alfalfa for Dairy Cattle

J. H. Grisdale, Director Experiment-
al Farms, Ontario.

It is as a feed for dairy cattle that we most value the alfalfa crop. Alfalfa is unsurpassable. (1) As a soiling crop; (2) as a hay crop; (3) as a substitute for meal. We can get two to three times as much value for alfalfa as from an acre of alfalfa as from an acre of any other crop. One of our neighbors who keeps a large number of dairy cattle, says he would rather do away with any other crop he grows than alfalfa.

We have fed it as a substitute for meal. In some carefully conducted tests we fed alfalfa against bran, pound for pound for two months, changing the two lots of cows, first to one feed and then to the other. We found that the alfalfa fed cows gave just as much milk and kept in just as good condition as when being fed bran. This gives an idea of the value of alfalfa.

When we can harvest two and one-half to five tons of alfalfa and sometimes six tons to the acre, when we consider that alfalfa is one of the cheapest crops to produce and then compare it with bran at \$20 or more a ton, we have an additional appreciation of the value of this crop. I believe that every farmer should conduct experiments similar to the one I have described on his own farm.—Summary of an address.

Bees in the Orchard

The presence or absence of bees in an orchard is often of sufficient importance to determine whether the fruit-crop shall be large or small. Since practically all fruit-blossoms are fertilized by the passing of pollen from one flower to another, and since the wind too frequently fails perfectly to perform the office of a pollen-bearer, great numbers of blossoms must remain unfertilized but for the friendly office of the bees; which seldom skip a bloom as they pass from one to another in search of nectar. The pollen gathers on their wings and bodies to such an extent as often to change their color, and it is dropped on the waiting pistils of blossoms before fertilizing; thus ensuring the "setting" of the fruit.

A few hives of bees in the orchard not only make the services of the little creatures in this way far more reliable than when dependence is placed upon the visits of wanderers from distant colonies. If clover and other blooms are near to supply them with food after the fruit-blossoms have performed their office, the hives may afford a profitable crop of honey.

DOUGLAS GARDENS

OAKVILLE, ONT.
SPECIAL INTRODUCTORY OFFER TO READERS OF FARM AND DAIRY
a—Aquilgia (Columbine), 5 plants in 2 pots.
b—Asters, Hardy (Michaelmas daisies), 10 plants in 3 pots.
c—Antella (Spiraea), 5 plants in 4 pots named.
d—Shasta Daisies, 5 each of 3 sorts named.
e—Delphiniums (Larkspur), 5 plants.
f—Hemerocallis (Day Lily), 5 plants in 3 pots named.
g—Knapweed (Torch Lily), 9 plants.
h—Phlox, "Miss Lingard", 5 plants.
i—Antirrhinum (Snapdragon), 15 plants.
j—Asters (China), 6 plants in 3 pots named.
k—Dahlias, 6 each of 3 sorts named.
l—Geraniums, 12 plants in 3 sorts named.
m—Salvia, 15 plants in 2 sorts named.
n—Sticks, 40 plants in 2 sorts named.
o—Gladioli, light colors, 35 norms, very fine.

Any five or more of above items safely packed and sent carriage prepaid, for \$1 for each item.

All of the above are fully described in our Spring Planting List, sent free on application.

JOHN COVERS

Motion Farm and Dairy

MALLORY'S SEED CORN

Improved prize winning strains
N. E. MALLORY, BLENHEIM, ONT.

MAIL CONTRACT

SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa until Noon, on Friday, the 4th April, 1913, for the conveyance of His Majesty's Mail on a proposed Contract for four years, six times per week, over Rural Mail Route No. 1 from Peterboro, Ontario, to commence at the pleasure of the Postmaster General.

Printed notices containing further information as to conditions of proposed Contract may be seen and blank forms of Tender may be obtained at the Post Office of Peterboro and at the office of the Post Office Inspector, Kingston.

J. MERRICK,
Post Office Inspector,
19th February, 1913.

Farm Help

Farm Laborers will again be brought out this year by our Immigration Department.

Also Boys and Domestic Servants

We are making a special effort this year in country districts and will have the best class of immigrants. We seek desirable places for these.

Apply early for application forms to

The Salvation Army Immigration Dept.,
Albert Street, TORONTO, Ont.

SYNOPSIS OF DOMINION LAND REGULATIONS

Any person who is the sole head of a family or any male over 18 years old, may homestead quarter section of available Dominion land in Manitoba, Saskatchewan or Alberta. The applicant must appear in person at the Dominion Lands Agency or Sub-Agency for the district in which the land is to be made at any agency, on certain conditions by father, mother, son, daughter, brother, or sister of existing homestead.

Duties—Six months' residence upon and cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 20 acres solely owned and occupied by him or by his father, mother, son, daughter, brother, or sister.

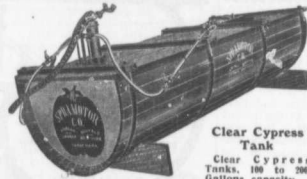
In certain districts a homesteader in good standing may pre-empt a quarter-section alongside his homestead. Price, \$100 per acre.

Duties—Six months' residence upon the homestead or pre-emption six months in each of six years from date of homestead entry (including the time required to earn homestead patent) and cultivate fifty acres extra.

A homesteader who has exhausted his homestead right and cannot obtain a pre-emption may enter another homestead in certain districts. Price, \$350 per acre. Duties—Must reside six months in each of three years, cultivate fifty acres and erect a house worth \$300.00.

Deputy of the Minister of the Interior.
N.B.—Unauthorized publication of this advertisement will not be paid for.

SPRAMOTORS ARE THE WORLD'S STANDARD



Clear Cypress Tank
Clear Cypress Tanks, 100 to 200 Gallons capacity.

The tank is the coming vessel for spraying. Saves greatly in time. A 100-gallon tank saves 30% in day's work over barrel.
For orchards of 150 to 400 trees the 100-gallon tank and No. 2 Spramotor as shown above is an ideal arrangement.

Prices range from \$6.00 to \$75.00.
Price: 100-gallon tank complete, \$14.00.

Spramotor Nozzle (Patented)

The best nozzle for all purposes yet invented. Single or in clusters. No sprayers, water, screws, nor packing glands in this nozzle.



It can be disassembled by forward thrust. Warranted to apply oil and water, paint, or to produce a better spray than is possible with any vermorel nozzle.
Supplied with hardened steel interchangeable discs, without extra charge.
Price, single and clusters, from 75c to \$5.00.

In the famous Spraying Contest held at Grimsby under the auspices of the Board of Control of the Fruit Experimental Stations of Canada, and by approval of the Dept. of Agriculture, in which there were eleven contestants, the Spramotor was awarded first place. The judges were Prof. H. L. Hutt, of the O.A.C., and Mr. Murray Pettit, President O.F.G.A.

Spramotors are used the World over. They are acknowledged to be the standard. They are made by the Spramotor Co.—the only Canadian firm in their line who have an American branch manufacturing in the United States, where they have been established for 12 years.

We show you herewith a tank and a pump most suitable for general use. There is a big line of Spramotors, including Hand, Horse-power, and Gas Engine outfits. Also all kinds of Spraying accessories. These are all described in our valuable handbook

A Gold Mine On Your Farm

This book also contains much valuable information on the sprays to use, how to prepare them, when to apply them for each of the various kinds of insects, spots and scabs which affect your fruits. This book will be sent you free.

Write us to-night for your copy of "A Gold Mine on Your Farm." It will show you the very style of Spramotor you will want for your work—a style as low as \$12.00 up to big power machines run by horses and gasoline engines. Address me personally for this book.

W. H. HEARD
c/o **SPRAMOTOR CO.**
1709 King Street, - LONDON, Ont.

Largest Manufacturers of Sprayers and Accessories in the World.



Duplex Spramotor No. 4

Duplex Spramotor No. 4, here illustrated, has a stroke of 6 inch double action, Scamline Tube, Heavy Compression Plungers, 116 lb. pressure; 6 to 8 nozzles at 150 lb. pressure, when operated by hand. If by power 12 nozzles can be used at 200 lb. pressure.
Prices from \$25.00 to \$75.00.

BASIC SLAG

RENOVATES OLD WORN OUT PASTURES WITHOUT RE-SEEDING

There are thousands of farmers in Ontario whose pastures have been worn out by the continued grazing of dairy stock. Such lands have been drained of fertility and now grow only poor, worthless vegetation. Clover has entirely disappeared. This need not continue. A dressing of Basic Slag applied broadcast at the rate of 100 lbs. per acre will bring such pastures back into good heart and double or treble their capacity for stock carrying. The effect of such an application should be apparent for four or five years.

Basic Slag is being used in thousands of tons in the Maritime Provinces and Quebec, and the consumption in Europe amounts to over two million tons per annum. It is therefore no untried fertilizer. Every farmer from the Old Country knows about Basic Slag, but for your own satisfaction ask the Dept. of Agriculture Instructor for your district, or the editor of any farming journal as to its merits. Basic Slag is the ideal fertilizer to apply to stiff clay lands, to wet marshy fields and to all soils which have become sour. If you have any such pasture buy one ton of Basic Slag and broadcast same over two acres, applying it at the earliest opportunity—the sooner the better.

Until our selling arrangements in Ontario are completed, you can be supplied direct from the factory at \$20.00 per ton, freight prepaid to your nearest station—cash with order.

Make this experiment and you will feel grateful to us for bringing the merits of Basic Slag under your notice. An interesting pamphlet, giving particulars of the results obtained by leading agriculturists from the use of Basic Slag will be forwarded by post on application to

THE CROSS FERTILIZER CO., Ltd.
SYDNEY, N. S.

Or to their Sales Agents:

For Western Ontario, MR. A. E. WARR, Wainstead
For Eastern Ontario, Mr. A. L. SMITH, 220 Alfred St., Kingston

Put In a BT Manure Carrier For the Spring



Your cows will be in the barn for two months more—and it's slow, heavy work wheeling the manure through the muddy yard. A BT Manure Carrier will do the work in half the time and without any hard work on your part. You can load it, run it out, and dump it on the pile or into the spreader in a jiffy—half-a-ton of manure at a time—one big load cleans your stable. It's easy to get the manure rods away from the barn for the level overhead track it is not affected by any condition of the yard.

NOW IS THE TIME TO INSTALL A BT MANURE CARRIER. It will save you enough time and enough tedious work in the spring months alone to almost pay for itself. Mail the coupon to-day for our Catalog and investigate.

OUR SPECIAL OFFER

If you will put in a BT Manure Carrier now, we will give you our best cash price, and make it payable in the fall. This offer gives you three months' use of the BT Carrier, without costing you anything. The spring is your busy time. Get a BT Manure Carrier to help you with your chores—get it now on easy fall terms.

MAIL COUPON NOW
Tell us number of feet of track you will require, and we'll send catalog and full information by return mail. Address
BETTY BROS. Limited
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I will need.....feet of track
Name.....
P.O.....
Prov.....

Free Coupon

BETTY BROS. Ltd.
453 Hill Street,
Fergus, Ont.

Please send me your Catalogue on Manure Carriers by return mail.

CYCLE HATCHER



A twentieth century wonder. Hatches good, strong, healthy chicks at a very little cost.

Made of all metal: is fire proof; easily run.
FIFTY EGG SIZE, \$7.00
 I. o. b. Toronto

We manufacture both Hot Water and Hot Air Incubators; Brooders; Bone Mills; Poultry Remedies.

Also Poultry Foods, Nursery Chick Food, Egg Wash, Grill, Shell, Granulated Charcoal—in a word everything needed by Poultrymen.

SEND FOR CATALOGUE

MODEL INCUBATOR CO., 196 River Street, Toronto, Ont.

EGGS, BUTTER 264 Page Book on Silos and Silage and POULTRY

For best results ship your live Poultry to us, also your Dressed Poultry, Fresh Dairy Butter and New Laid Eggs. Eggs cases and poultry crates supplied.

PROMPT RETURNS

Established 1855

The **DAVIES** Co. Ltd.
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1913 copyrighted edition just off the press. Most complete work on this subject published. Used as text book by many Agricultural Colleges. Gives the facts about Modern Silage Methods—tells just what you want to know, 264 pages—indexed—over 45 illustrations, a vast amount of useful information boiled down for the practical farmer. Tells "How to Make Silos," "Silage System and Soil Fertility," "Concrete or Cement Silos," All about "Summer Silos" and the Use of Silage in Beef Production. Ninth Edition now ready. Send for your copy at once. Enclose five cents and mention this paper.
10c
 Silver Manufacturing Co., Salem, Ohio



"Clay" Gates

STRONGEST and best farm gate made. \$0,000 sold in 1912. Can't sag, bend or break. Can be raised as shown. Good for Winter and Summer. Send for illustrated price list.
THE CANADIAN GATE CO. LTD.
 29 Morris St., GUELPH, Ont.

HAMILTON INCUBATOR

Are you planning to make 1913 your most profitable chicken raising year? Then what make of incubator? As unready, a Hamilton—because by actual test, supported by testimonials from Canada's leading poultry raisers, and a Diploma from the Canadian National Exhibition, the Hamilton is the most profitable, the most economical.



It Hatches Sturdier Chicks and More of Them

The Hamilton requires the least oil and attention because absolutely no heat is wasted. The walls are constructed of five thicknesses of non-conducting material. One enthusiastic owner writes that his Hamilton hatched 23 chicks out of

90 fertile eggs, and he only used a gallon and a half of oil. The system of ventilation is perfect. Fresh air and moisture are supplied equally to all parts of the incubator, as well as even temperature—that is why the chickens hatched are all equally sturdy and big.

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The Hamilton Incubator Co. Limited
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POULTRY YARD

Points on Turkey Culture

For 27 years, Mr. W. J. Bell, of Angus, Ont., has been raising turkeys. Many consider Mr. Bell the most successful turkey raiser in Ontario. He is the only man we know of who has bought a farm and paid for it out of turkeys. At the recent Guelph Winter Fair, Mr. Bell was asked to lecture on his turkey experiences. Following are some of the practical points made by Mr. Bell in his address:

"Turkeys are not plentiful enough. Too many of them have to live on grass hoppers.

"Never use late hatched immature or sickly birds for breeding purposes. "For brooding, use female females weighing 14 to 15 lbs. and the best male you can get anywhere.

"I would not care to undertake to raise turkeys on the same ground year after year, with an allowance of less than an acre a bird, I would prefer 100 acres for 50 young.

"Hatch turkeys with turkeys and not by hens.

"In spring I give a moderate feeding of oats in the morning and a full feed of wheat at night. They have apples for green feed, a bank of gravel for grit and pure water at all times. I would especially emphasize the latter point. Many turkeys die from drinking filthy water in the barnyard.

"In spring I take wheat from the females as on it they get too fat. Let them range freely and do not compel them to roost inside in the summer.

"I do not try to raise two broods in a year as the second brood has not the constitution to prevent disease. I plan to hatch the last of May or the first of June.

"Prepare the nest boxes early in the spring, three feet deep, two feet high and two feet wide. For nesting material I use wheat chaff without beads.

"I collect the eggs wanted for hatching daily, put them in bran at a moderate temperature and turn three times a week.

"I make the nest boxes flat, thus avoiding the breaking of eggs.

"The turkey is dusted with insect powder and allowed to sit two days before a setting of 15 eggs is placed under her.

"During hatching the birds are confined in a covered yard. If they cannot see the top of the fence they will not try to fly over. They are at liberty to come off the eggs whenever they like.

"During hatching grass is the only food I give the birds with a dust bath and lots of pure water.

"Directly before hatching on the 25th day, I dust the birds with insect powder, remove the broken eggs, wash the dirty ones and thus give the young a clean start.

"The young birds are kept in a rough coop until four weeks old. The coop is moved to a fresh place every day. I keep them away from the other fowl.

"The feed of the pullets the first day is stale bread cooked in skim milk and fed five times a day. The second day I add a little shorts; the third day I keep out the bread and give only shorts and milk. I cut dandelion leaves and onion tops for them for four weeks. They have water and milk to drink. Through the summer they get full wheat at night and shorts in the morning until cold weather; then oats are substituted. I give no stimulating drugs such as pepper.

"Diseases such as black head and

Planet Jr.

Scientific soil cultivation gives bigger results, and you save time and lighten labor if you use Planet Jr. tools. Light, strong, practical, fully guaranteed.

Planet Jr. 12-tooth Harrow, Cultivator, and Pulverizer, invaluable in strawberry and truck patches and the market garden. In any soil condition without throwing dirt on plants. It is used with all wheat—acres this year.

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MAKERS

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The Fence That's Looked Together

It's close enough to keep small fowl in, and strong enough to keep large animals out. Securely locked together at each intersection of the wires. It's many times heavier and stronger than poultry netting, and being well galvanized, will last many years longer. Top and bottom wires extra heavy. No top and bottom boards required. PERLESS Poultry Fence is so strong and heavy, that but half the ordinary number of posts are required. It gives you real fence service.

Here's How Strong It Is

Read this Letter:
 Dear Sir: I am writing a testimonial as to the strength of PERLESS Junior Chicken Fencing. Mine is four feet high. It keeps my broods safe, weighing 100 pounds. They run full tilt into the fencing about 1 mile from each other at the same time. The result was that they both burst a somewhat over the fence, which was on their heads and necks, scratching them up, but the fence remained intact.
 Henry Cusick, B. C. Joe Boothroyd
 Think of it—this is a poultry fence strong enough to withstand the combined weight of two big hogs. And that without a top or bottom board either. If you are interested in such fencing, write me. Ask for our literature. We also manufacture farm fence and ornamental gates.
 Agents nearby everywhere. Live agents on land in unpopulated territory.
The Russell-Hoyle Wire Fence Co., Ltd.
 Kingston, Ont.

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ESS TION

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The ... Together

... recommended as the ... Chicken Fencing, ... wire setting, and ... can fall in into the ... wire fence which ... may both bend a ... of electric wire, ... and, but the fence ...

spotted liver are not very frequent. If I see a bird's head swelling I lose the bird and if the head remains swollen for two days kill it.

"If I were sure that I had black head in my flock, I would quit turkey raising for two or three years.

"The best indication of the turkeys health is in the droppings."

Poultry Possibilities of P.E.I.

T. A. Benson, Dominion Poultry Representative for P. E. I.

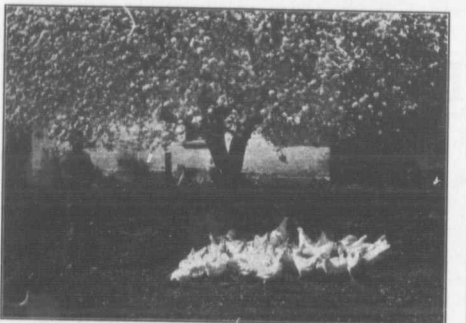
It is not too much to say that in no province of the Dominion is the immediate future of the poultry industry brighter or more assured than in Prince Edward Island. The conditions of soil and climate may be described as almost ideal, and what is of perhaps even greater importance, the farmers, a thrifty highly intel-

two weeks, January 27th to February 8th, attending all classes regularly and the interest was at high tension up to the last hour. These signs all portend a great future for our Island. Prospects are enhanced by assured better transportation. Watch the industry in Prince Edward Island as an example to the poultry industry of the other provinces of Canada.

Chicks in Orchard

Poultry and leas are the natural allies of the orchardist in stimulating the productivity of his trees, and improving the quality of their fruit.

A flock of chickens, domiciled in one or more movable "colony houses," will feed to a large extent on the insects and larvae of insects found in the ground. Especially will they do this if the ground is cultivated—as it



Two Dairy Farm Side Lines, and Both Worth While

"Do not put all your eggs in one basket," says the old proverb; and it's wisdom holds good when applied to farming. As a rule the most profitable farms are those on which one or two lines are made specialties and at the same time provision is made for several smaller money-making side lines. Mr. John Durst, Huron Co., Ont., has the right idea. A small representation of two of his side lines, fruit and poultry, may be seen in the illustration.

lignat class, are keenly alive to the importance and great value of the industry. Much is being done to introduce up-to-date methods of housing, feeding and general care of poultry of all classes, and these efforts are meeting with due appreciation.

Good meetings are the order of the day, more particularly in the districts in which Farmers' Institutes are organized. These institutes are really live institutions well supported in every way, the attendance at regular meetings being excellent. The writer has had the greatest pleasure in addressing many of these meetings. One is assured of good hearing and an abundance of intelligent questions. All the more general branches of poultry culture are engaged in, chicken raising, being of course, the most important; goose and turkey growing stands out prominently. The question of improved methods of marketing is awakening a keen interest which bids fair to place Prince Edward Island in the foremost ranks in the not distant future.

The Agricultural Short Course, for the inception of which the far-seeing and deep-thinking Commissioner of Agriculture, the Hon. Murdoch MacKinnon, was responsible, was the strongest evidence possible of what may be confidently looked for in an agricultural future of the Island Province. This Agricultural Short Course was probably the greatest of its kind ever held in the Dominion and certainly the largest proportionately to the population if not the largest actually. Five hundred farmers and farmers sons and daughters came to the Capital and stayed for

should be for the best results in orcharding. Many of these insects, at future stages of their existence, if not thus destroyed, may become agents of injury and destruction to trees and fruit. Chickens will also devour the wormy fruit which falls from the trees, thus assisting in the destruction of the coding moth and some other pests.

MORE RELIABLE THAN BIRDS

We read much of the valuable work done by insectivorous birds in general, in this direction. They certainly do shoot-gun, merit protection against the pest, even though they do occasionally "take toll" of the fruit. But the faithful hen does the same work, and without taking any toll. The droppings of poultry also continually add a valuable fertilizer to the soil of the orchard, and their constant scratching helps maintain the moisture-conserving "dust blanket." Meanwhile, if the feed they gather from the soil is properly supplemented with grain rations, their production of eggs is as large as anywhere else, and they can be fattened for the market with equal facility.

Ground alfalfa makes an excellent food for growing chickens. Had I a cutting box to run it through it could be fed to much better advantage.—John Boemer, Brant Co., Ont.

A few days ago I pulled a dandelion stem, 41 inches long, growing in the gravel bed of the C.P.R. track. Is this a record?—B. C. Subscriber, Golden, B.O.

Feed Growing Chicks Right

They must be furnished with the right kind of material if they are to make a satisfactory growth of muscle, bone and feather. Fruit less able size and turn them into money. Buy these chickens to market completely developed and ready to fill the bins with fat and water eggs.

Pratt's Baby Chick Food

contains just the necessary ingredients to give them during the first three weeks the best possible start, at a cost of 10 per chick. In boxes and tins, 25c, 50c, \$1 up. After the third week use

Pratt's Poultry Regulator

In the ration to aid digestion and make the greatest use of every pound of food consumed. 25c, 50c, \$1, 25-lb. Pk. \$12.50. Use money back if it fails. Our products are sold by dealers everywhere, or PRATT FOOD CO., OF CANADA, LTD. TORONTO, ONT.

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Every person interested in the cause and remedy of all poultry diseases should read CHICKEN CHAT. Free if you ask for it. It returns diseased and resistant chickens, restoring them, and offers ideas for preventing contagion and infection.

The most eminent poultry authorities in the world have corroborated their stories to this book. An interesting report is made by the Ontario Government poultry expert, Fred C. Graham, in regard to his successful handling of incubators, and the prevention of white diarrhoea in his hatcheries.

Ask the Druggist or Poultry Supply Man

At Analysis 5c, 25c; Quart, 60c; Gal., 1.30 Postpaid 8c, 30c; Quart, 60c; Gal., 1.30

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Order your baby chicks now from our splendid laying strain of SINGLE COMB WHITE LEGHORNS

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ALBERTA LBS EGG

POULTRY PAYS WELL

Special advertisement for a "Poultry Pays Well" contest. It includes details about the contest, prizes, and how to enter. The text is partially obscured by a graphic of a chicken.

FOR SALE AND WANT ADVERTISING

BUFF ORPINGTON COCKERELS, bred from laying strain and Exhibition stock. Pure bred. Price, \$3.00. Apply E. R. Tate, Lakeside, Ont.

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FOR PEERLESS WAY POULTRYMEN

Into the pockets of the users of The Peerless Way last year went five million dollars made from the poultry these people raised. Yet chickens are scarce in Canada and eggs are the scarcest of all food commodities. That is positively the fact.

To-day there are not enough Canadian CHICKENS or EGGS to go around. Thousands of chickens and hundreds of thousands of dozens of eggs being shipped into Canada from the United States and other countries to help meet the demand.

Yet there is a shortage! Eggs are commanding a tremendous price—chickens are worth dollars.

Now is the time to take advantage of this situation and make money out of it yourself. You can raise and sell 600 chickens this next year, and you will find a quick and sure market for every one of them. You can get the top notch price for all the hundreds of dozens of eggs that your poultry lay.

Let us tell you how!

Poultry raising is the best business for any farmer, any farmer's wife or farmer's child. The poultry crop is the one crop that never fails. It pays better for the time and money invested; the profit is sure; it isn't overcrowded and never will be.

Our book "When Poultry Pays," will show you. Let us send it to you. It is interesting; it is instructive, and it contains the proof.

You need this book. It will be mailed free. A post card will bring it.

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This cut represents a **BEAN GIANT** 3-cylinder Pump, designed for high pressure work in large orchards. Is run by a $2\frac{1}{2}$ or $3\frac{1}{2}$ h. p. engine. Will supply 4 lines of hose, displacing 9 gallons spray per minute.

Our Line of Spray Pumps is Complete Both Hand and Power

The **NIAGARA TRIPLEX** and **BEAN DUPLEX** have made a record all over Ontario for results. Let us refer you to our hundreds of satisfied customers. These pumps run every day and all day. They will supply 2 lines of hose and spray at any pressure up to 300 pounds. Built with all troubles left out.

The **BEAN HAND PUMPS** are without an equal for ease of operation at high pressure. **PRESSURE** is essential for **SUCCESS** in **SPRAYING**. Ask for descriptive catalogues.

NIAGARA for QUALITY

This has been proved by 5 years results in Ontario. Growers who use **NIAGARA SPRAY** always find a demand for their fruit. It is the grower who tries to make his own spray or who listens to some imitator who has trouble in finding a purchaser.

THERE IS A REASON WHY—NIAGARA is the original and only safe **Lime-Sulphur Solution**—Highest in insecticidal and fungicidal values—Absolutely clear and uniform—Every gallon guaranteed.

ARSENATE OF LEAD (Swift's Brand)—Always was and is the only dependable poison.

NIAGARA SOLUBLE SULPHUR—The most talked of Spray in America. A new product in powder form. 100 lbs. does the same work as a 600-lb. barrel of Solution. Has all the advantages of Lime-Sulphur and has the following additional advantages. Is Cheaper, Easier to handle, Keeps indefinitely, Acts quicker, Saves freight. This material is patented and can only be obtained from us.

NIAGARA was always years ahead and still keeps years ahead of all competitors.

Write for our **SPRAY BOOK**, and for information on these valuable **Sprays**.

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Head Office: BURLINGTON, Ont. Factories: BURLINGTON, Ont., TRENTON, Ont.

HORTICULTURE

Orchard and Garden Notes

Test all vegetable seeds as soon as they are received.

Calliopsis is a desirable quick growing annual for the cut-flower garden. Go over the tools, put them in repair, and order any new ones needed for the summer's work.

Order plenty of sweetpea seed. There is no annual that is more appreciated than this.

Sow a few asters, pansies, cobaea, and hardy carnations in the house the last of the month for earliest flowers outside.

The Senator Dunlap strawberry, Beta grape, King raspberry and Wealthy apple are good fruits for the garden. Plant liberally of each.

Lilac branches may sometimes be forced into bloom by cutting them and keeping in water in a cool, moist place, gradually giving more heat until the buds expand.

Plant out a few shrubs about the yard this spring. Spiraea Van Houttei, common lilac, Japanese lilac, Japanese rose, Mayday tree, mock orange and flowering currant are all good for the purpose.

Golden Bantam, sweet corn, Swiss-chard, Golden Self-blanching celery, purple eggplant, Kohl Rabi, White Japan muskmelon, Sweet Heart watermelon, are all vegetables that are worth trying.

Canadian Apples in England

W. J. Egan, Trade Commissioner, Manchester.

Direct shipments of Canadian apples from Montreal to Lancashire are some 16,000 barrels less during the season of 1912 than 1911. The big decrease is at the port of Manchester, there being some 34,000 barrels shipped from Montreal to this port than in the shipping season of 1911. It was pointed out in the Weekly Report that owing to certain conditions, the Manchester fruit brokers would depend almost entirely on consignments. However, it is gratifying to note that the port of Liverpool increased its importations from Montreal by about 17,000 barrels. The figures for total shipments from Nova Scotia have not come to hand as yet, but there is sure to be a very large increase to Lancashire in the Nova Scotia apple.

With very rare exceptions the trade here commends very highly on the Canadian fruit and packing this year. Particular reference is made throughout the trade to the packing of Nova Scotia apples. There have been much larger shipments this season from Nova Scotia of No. 3 grade than usual, and some company shipping from there have adopted a new system; adding to the grade No. 3 such words as "ordinary," "plain," "A," "B," "special," "large," "extra large." The brokers and wholesale dealers in connection with the salesrooms here do not approve of this system, as it has the effect they claim of inducing certain people in the fruit trade to sell such fruit designated as No. 3 "extra large" as No. 1. This creates great dissatisfaction. On the other hand Nova Scotia has been shipping direct to firms who have no connection with the salesrooms, and these people of course approve of the system, as they say that for No. 3 of different grades they secure prices in proportion. As to results financially, the shipping trade of Nova Scotia will know best if it has been of advantage to make what is practically several grades in Canada's No. 3 apple. There is no doubt that generally

speaking the system, which has been in existence here for some time, of three grades only, viz.: No. 1, 2 and 3, and to which the fruit trade here has been educated, would seem the best system.

Apples for Profit

What six varieties of apples do you consider profitable, was a question discussed by J. R. Anderson, M.P.P., at the last meeting of the Ontario Fruit Growers' Association. Mr. An-

son said that it would take "75 trees of King to produce one barrel of apples a year." Mr. Brown of Norfolk county, an orchard man, recommended that the Duchess be added to the list as a profitable apple and another fruit man present said it was the only early variety he would grow. Growers looking at the question from their standpoint, were unanimous in rejecting the King.

Profitable Plums

W. Dewar.

We never hear high flowing terms and eloquent praise bestowed on the common place plum, but it is a profitable sort of fruit after all. I believe that a much more money can be made from land devoted to good varieties of plums as from peaches. In selecting varieties of plums for planting we must first consider the demands of the canners, both at the factory and in the home, as plums are not extensively eaten out of hand. If we would cater to all demands we must grow both small plums and the larger and more fancy kinds. I believe there is more profit in raising for the large crop of small plums than for the smaller crop of the fancy kinds.

I place the Burbank first in my list of profitable plums. It is a heavy yielder and a great shipper. It has, however, a poor habit of growth and must be pruned carefully. The Bradshaw is a good shipper if

A Productive Prince Edward County Cherry Orchard

The 15-year-old cherry orchard of two acres here illustrated, owned by J. S. Cross and Sons, Prince Edward Co., Ont., has made the following yields for five consecutive years, from 1907 to 1911: 150, 300, 400, 400 and 400 eleven-quart baskets respectively. The price averaged about \$1 a basket. How is that for returns from two acres of ground?

erson who is an apple buyer selected his varieties as follows:

(1) Wealthy: This is one of the best early apples. It requires to be grown under proper conditions and must be pruned and thinned. The thinning in the case of this variety is as important as thinning a field of turnips. It is popular on the market.

(2) Snow or Macintosh: Either of these varieties are popular here or in Great Britain.

(3) King: Mr. Anderson expressed the hope that Ontario Fruit Growers would never cease planting Kings. We can always sell them and always will. The King may not produce so many barrels to the acre as some other varieties, but what we have are worth something.

(4) Golden Russet: This variety is always on top of the price and returns a fair profit on the output.

(5) Baldwin: This can always be One-third of the canned vegetables and much fruits of Canada depended on as are grown in Prince Edward Co., Ont. The bean field here a prolific bearer illustrated is in that county. Note the amount of labor necessary to harvest the crop. Returns per acre, however, are proportionately large.

(6) Northern Spy: This is the best apple when grown under right conditions, but a poor Northern Spy is the poorest apple marketed. A green Spy seems to lack character. "They want our good apples in the West, but not our poor ones," said Mr. Anderson. "Many that are picked now and shipped to the West are enough to drive Ontario fruit out of those provinces."

The fruit growers assembled at the convention were not inclined to agree with Mr. Anderson's selection of profitable varieties. Mr. W. F. Macoun of Ottawa suggested that the Rhode Island Greening be substituted for the Golden Russet. "Nova Scotia," he said, "grows enough Russets to supply the entire British demand." Mr. Dempsey of the Northumberland and Durham Fruit Growers' Association, expressed the



Crops for the Cannery Demand Much Labor

packed well. The Reine Claude is a desirable variety but the trees die early. The Lombard I regard as the cheapest plum for the factories and for shipping in large quantities. The Monarch, a late plum, is an excellent shipper and a heavy yielder.

When it comes to selecting a fancy plum I prefer the Shropshire Damsion. It is the highest priced plum I know of and the demand greatly exceeds the supply, although there is no telling when this demand may be overtaken. A yellow plum should be included in this selection and for this purpose I would take the Imperial Gage.

Trim out and burn the old raspberry and blackberry canes. Currant and gooseberry bushes should also be thinned. The fruit is improved in quality and size.

The Brantford Ideal Power Sprayer

CANNOT BE EXCELLED

If interested send for special printed matter and revised Spray Calendar.



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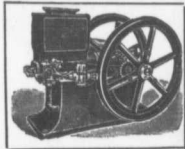
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Make a "Monarch" Do Your Chores

Our special factory for building farm engines has experts to work on each part of the "Monarch." It is built differently from ordinary engines, with very big bearings (adjustable), oversize carbon-steel shaft, etc. Besides it has equipment not found ordinarily—protected fuel tank and sight gauge in base, governor, timer, primer, etc. It is the best engine made—size 1 1/2 to 3 h.p. for farms.



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Our wonderfully low prices and high quality on all sizes and generous terms of sale will astonish you. Whether your dairy is large or small, do not fail to get our great offer. Our fully illustrated catalogue, sent free of charge on request, is the most complete, elaborate and expensive. Shipments made promptly from Winnipeg, Man., St. John, N. B., and Toronto, Ont.

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have from 1/5 to 1/4 more real flesh-forming food-value than other feeds. This has been proved by actual tests on the Livingston Farm. From the very first they fatten the cattle and better the milk.

Made by skilled experts, with every up-to-date manufacturing aid to help them—by the Old Patent Process, which cooks the food, insuring its keeping for any length of time and making it more easy to digest.

Neither too soft (which means waste), nor too hard (which hinders digestion)—the animal gets the full strength of each particle. Suppose you try them at once—they both

Save and Make Money

Talk to your dealer, to-day, about Livingston's Cake and Meal—or write us direct. Address: The Dominion Lined Oil Co., Limited, Baden, Toronto, Montreal and Owen Sound.

WHAT you want WHEN you want it



No farmer wants to buy a flash in the pan, the kind of fertilizer that starts and stops, or the kind that begins to work next year. What he wants for his crop is a supply of plant food that once applied in

the right amount and form will feed the crop from seed to harvest. It is not a question of being available at the start, or available at the finish, but being available all the way through.

The A. A. C. Fertilizers are made that way, timed to be available at each stage of the growing season.

We have a number of factories, all located at convenient points, and wherever you live, we can reach you with the right fertilizers, the right service, and the right price. Write today for copy of "Plant Food," a practical hand book on fertility. No advertising in it; sent without cost, while this edition lasts.

Agents wanted in unoccupied territory. Liberal terms and goods that sell. It pays to sell our fertilizers as well as use them. Ask for agency proposition.

The American Agricultural Chemical Co.

Makers of brands with fifty years of quality and results behind them.
70 Lyman St., - Buffalo, N. Y.
P. O. Box 814-F - Detroit, Mich.

Pointers on Nursery Stock

Prof. J. W. Crow, O. A. C., Guelph, Ont.

I always prefer a low headed tree. I don't see what use a tree has for more than 12 inches of trunk or 15 inches at the most. It is difficult to get this kind of tree from the nursery. The only way that we can get it is to buy a one-year-old, unbranched tree and grow the head to suit ourselves. Nursery men object to selling us these one-year-old trees, but there is a growing demand for them.

If nursery men would head all trees low it would be well, then those who want high headed trees could cut off the lower branches. Nursery men will here again tell us there is no demand for this kind of tree, but if they would use their influence to make low headed trees more popular, there soon would be a demand.

Oyster Shell Scale in N. S.

A. Kelsall, Willmot, N. S.

A large percentage of the orchards in the Annapolis Valley are infested with bark louse. This is particularly true of the older orchards, probably on account of the greater protection offered the lice by the more rugged bark. How to effectively exterminate them is an important problem.

It has been proved in various parts of the United States, and also in localities having a comparatively mild climate, that a strong solution of lime-sulphur applied in the dormant season will destroy the bark lice. Acting on the assumption that what is a fact elsewhere will be a fact here, several orchardists sprayed with lime-sulphur early last spring, and were surprised late in the season to find that the bark louse had not been killed. It is supposed that the bark louse in Nova Scotia has a considerably tougher shell than it has in localities having a milder winter, and consequently the lime-sulphur is not capable of penetrating that shell and reaching the insect itself. The orchardist in Nova Scotia has to find some other method for attacking the louse.

WHITEWASH EFFECTIVE

In young trees where the lice are confined to the trunk, whitewash can be applied with a brush during the early spring with effective results. It is better to make more than one application in order to do the job thoroughly. The scales peel off in a very short period after this and the trunk is effectively cleaned. It may be possible to apply whitewash with the ordinary insect pump to both young and old trees, though it is doubtful if the usual nozzles will admit of the whitewash being made thick enough.

The most effective way of exterminating the louse is by means of kerosene emulsion. The young lice generally hatch about the beginning of June, and are at that time unprotected. They can be then as small white spots with the naked eye, and as there is but one brood during the year the exact time to spray with kerosene emulsion is easily ascertained. In view of the doubts which exist regarding lime-sulphur as a scalecide in Nova Scotia, June spraying with kerosene emulsion should take its place in the attack against the bark louse. If the aphid is present the emulsion will destroy them also.

I have had excellent results from two sprayings with lime-sulphur, one with the strong solution, when the trees are dormant, the other dilute, when the blossoms have fallen. I obtained 90 per cent perfect fruit, when other years the apples were largely unmarketable.—I. Wolverton, Lincoln Co., Ont.

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You could buy a new IDEAL GREEN FEED SILO every year and still be money ahead.

Get our new Silo book and learn how to make more money from your cows.

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Pioneer Farm Seed Potatoes

Guaranteed free from disease, including Canker Green, M. Irish Cobber, Delaware, Early Rose and Beauty Hebron are among my supply. \$1.25 per 50 lbs. here, with package free. When possible I will ship in barrels to avoid bruising.

I will this spring deliver, on order, to any express office in Ont. or Que., a crate of Potato Sets (any of above varieties), all ready for planting, about 25 lbs. net for \$1.00. Cash with order.

H. Gordon Smith, Union, Ont., says the seed he got from me, planted side by side with his own, yielded 100 bus. per acre more than his own seed. Think this over and let me supply you.

C. FRED FAWCETT
Upper Sackville - N. B.

BROWN'S TREES

WRITE FOR CATALOGUE
WRITE FOR AGENCY

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WELLAND COUNTY, ONT.

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Celery for the Home Garden

George Baldwin, York Co., Ont.
No home garden, no matter how small, is complete without a trench of celery, though from personal observation in the gardens of people with whom I am acquainted, the proper quality and size of celery is not brought out as it should and can be done.

The elements of success in celery growing are many. First and foremost among them is a love for your work. If you do not like your job, you will never be a real success.

Providing you can make room for a three row trench, I would recommend White Plume, Paris Golden and Roe Ribbed Paré. As soon as seedlings have got three leaves, prick them out into more space, giving them about

better than the old one of marking by the plow and cultivating but one way.

My method requires only about one-third the amount of seed used in the old method. The ground can be kept clean with much less expense, and practically all of the ground is cultivated and more moisture retained which is so desirable, especially in dry seasons.

System in Planting Onions
A. H. MacLennan, O. A. C., Guelph, Ont.

The soil for onions should be worked down very fine and level and rolled as the onion grows on the surface of the ground and the seed requires to be largely covered. First of all the seed should be tested for germination power.



An Ideal Plantation, showing Thorough and Intensive Cultivation

The strawberry plantation in connection with the Felixtoe Orchards, Victoria, B. C., here illustrated, is a model one. Notice how vigorous are the plants, and how thoroughly cultivated is the soil. Strawberries are the ideal crop for the young orchard. They must be well fertilized and well cultivated, and in winter the strawberry mulch is also an insurance against the winter killing of young trees.

one inch or room each way, keeping them as close to the glass in the hot bed as possible to prevent them getting too long and spindly. Stir the earth frequently with a small pointed stick and when they are about two inches high transplant again, giving three inches of space. About the second or third week of May they will be ready to plant out in the trench.

Methods With Potatoes

Chas. Pierce, Prince Edward Co., Ont.

For a good crop of potatoes I have the ground fine and mellow to a good depth through working with plow, disk, cultivator and harrow. I take the cornmarker and mark the ground both ways the same as for corn. Then take the spring tooth cultivator and remove all teeth but four. These teeth are placed close together in pairs and the pairs far enough apart to make two furrows.

These furrows are narrow in the bottom and this makes the potatoes line up well for the cultivator. The soil in the bottom of the furrow is loose and when the potato is dropped it does not lounce. By stepping on each piece dropped, it is pressed in the mellow dirt, and by watching the cross marks made by the cornmarker it is quite easy to have them as straight and easy to cultivate as corn.

CULTIVATE AND COVER AT ONCE

In covering I use the spring-tooth cultivator with all the teeth on except in centre. This fills one furrow each time and gives the ground an extra cultivating leaving the surface quite level. I like this way much

There are two methods of getting the crop into the ground.—One: The seed may be sown with a drill in rows 12 inches to 14 inches apart, which will require four to five pounds per acre. The seed drill should be tested and the sowing done accordingly, so as to be sure of sowing enough and not too much. This will save much tedious work of thinning later on. This system is suitable for all of the medium sized onions. If the sowing is done properly, no thinning will be necessary, as the small percentage of smaller onions may be used for pickling. Two: The seed is started in a hot-bed or greenhouse in February and later transplanted into the field. This will give a large onion and is suitable for the onions of the Gibraltar type.

Lime on Seed Potatoes

We have picked over our potatoes and sprinkled the good ones with old lime fallen apart. I now hear people say that lime destroys the seed germs in potatoes, making them useless for planting. Is this so?—E. F. Bruce Co., Ont. Air-slacked lime should do no harm to the sprouts of potatoes. The trouble is that many use fresh lime which is only partly hydrated.—A. H. MacLennan, O. A. C., Guelph.

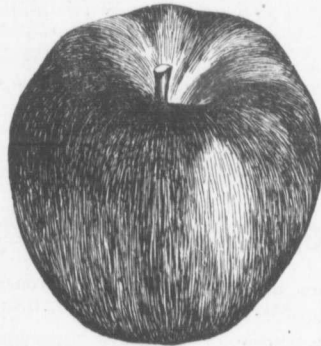
I bought a power sprayer last year. It is the only way to spray. In the last sprayer season the wind did not change and many orchard men got only one side of their orchard sprayed. With my power sprayer the trees were thoroughly drenched on all sides and we did not have one per cent. of worms.—J. W. Clark, Brant Co., Ont.

A Big Money Maker

For the Fruit Grower, for the Farmer, or for any Land Owner

The ever increasing value of Farm-lands calls for larger profits per acre. To keep pace with this the farmer pays more attention to the breed of cattle he is raising; he applies scientific methods in tilling and working his soils. The fruit-grower does the same, and is growing those varieties of apples and other fruits that command the "tip-top" market prices. We are not introducing to our readers a new variety of apple—we are only reminding them again of one that is well known amongst apple growers as "a big money-maker." We refer to—

STARK



This is certainly one of the most profitable commercial apples. The tree is a rapid and strong grower, hardy, and one that bears at an early age. The fruit is large, splashed pink and washed with a beautiful darkish pink and the flesh yellow, juicy, and a good marketable quality.

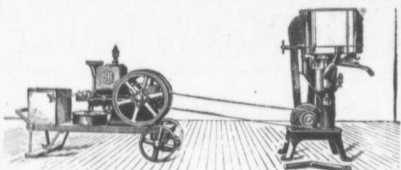
We have been propagating this much-called-for apple in enormous quantities and we still have a heavy stock of choice trees ready for immediate shipment.

We have also a general assortment of all other standard varieties and lists, and prices will be furnished free on application.

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NURSERYMEN
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When writing state quantities required and we will quote special reduced rates.



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See the I H C local agent and ask him to explain carefully all of the good points of these outfits. You can get catalogues and full information from him, or write the nearest branch house.

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Orchards in the Georgian Bay District

Jas. Laughland, B. S. A., Collingwood, Ont.

Along the shores of the Georgian Bay lies a tract of land that offers great possibilities for the production



of high class apples. Much of this land has been under apple orchards of varying sizes for a great number of years and most of it is covered with orchards that have been set out within the past two or three years. Many of the old orchards have been unproductive and unprofitable, not because there is no money in growing apples, but on account of the trees being left absolutely to themselves to battle with grass and weeds for possession of the soil and the plant food it contains and to battle with insects which in many cases resulted in these winged marauders getting possession of the fruit and foliage leaving the trees neither useful nor ornamental. In growing a crop of grain or roots if the ground is not well prepared and the crop matured, the maximum profit will not be obtained. The same may be said of the orchard land, neglected trees will not produce a full crop.

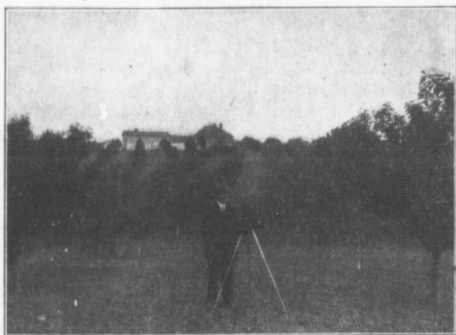
All orchards in this district have not been neglected. Some farmers have given the trees constant care from the time they were planted and have received handsome profits from the sale of fruit. Other orchards that were well set out, but received no further care until they became sod-bound and the trees from lack of care became rough in the bark, unhealthy and possessed of too much wood, have been made productive after they have been given proper treatment. Since the Department of Agriculture through the local representative commended to give farmers assistance in fixing up their orchards some growers have taken orchards in which the trees were in a very untidy condition and by giving these trees good care in two years time they were made to yield a net profit of over \$200 per acre.

AN IMPORTANT SOURCE OF REVENUE
In a section of the province like the Georgian Bay district where apples can be grown so successfully every farmer should have at least enough trees to supply the household with fruit and the man who enjoys growing fruit will find a good profit in growing apples more extensively and supplying some of the larger markets. Although in some cases as high as \$200 per year clear profit has been made one cannot hope to obtain this every year, but still when the trees are properly handled they are a very important source of revenue to the owner.

In a short time the apple trees will be taking on new life and now is the time to begin to give them the necessary care to insure a full crop of fruit in the fall. The treatment that neglected orchards need is first, a good pruning to remove dead wood and other branches to open up the tree; secondly, the rough bark should be scraped off and this can easily be done on a morning in spring when the trees are wet. The next operation is careful spraying with lime-sulphur solution at least three times; first, just before the trees leaf out, secondly, before the blossoms burst, and third, just when most of the blossoms have fallen. Arsenate

Potash for the Orchard and Garden

View of Young ORCHARD, property of Mr. T. Brydon, Saanich, B.C.



Mr. Brydon applies large quantities of POTASH, annually, in his Orchards

POTASH is essential in both ORCHARD and GARDEN for the growing of first class crops. The grower cannot afford to have his soil deficient in available POTASH as this important plant food has its own functions to perform; no other material can replace it. POTASH improves quality, promotes maturity and increases quantity.

MURIATE of POTASH and SULPHATE of POTASH can be obtained from all reliable fertilizer dealers and seedsmen.

Write for Free Copies of our illustrated Bulletins, which include:—

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- "Artificial Fertilizers, Their Nature and Use."
- "The Principal Potash Crops of Canada."
- "Farmer's Companion," etc.

GERMAN POTASH SYNDICATE

1102-1106 TEMPLE BUILDING

TORONTO, ONT.

of lead should be added to the last two sprayings. The next remedy to be applied to the sick orchard is to cultivate it thoroughly and apply some manure. A cover crop of clover sown in the middle of summer will help much in enriching the soil. Such treatment brings the trees back to new life and puts them in shape to produce good fruit.

Late Cabbage

A. H. MacLennan, O. A. C., Guelph, Ont.

For late cabbage, the young plants must be started in a seed bed that can be covered because of the cabbage by that appears in late May and early June. A plot eight feet by 12 feet will hold enough plants to set an acre. The large headed types should



Three Crops on the Same Ground

This illustration, from a photo taken by an editor of Farm and Dairy on the farm of Mr. W. B. Anderson, Peterboro Co., Ont., shows the way in which market gardeners are enabled to make a profit on their high-priced land. Here we may see tree fruits, raspberries and potatoes all in the same field.

be planted about 36 inches by 24 inches, and the smaller early types, 24 inches by 18 inches.

When transplanting to a field, about half of the larger leaf surface should be pruned off to reduce transpiration, and a batter of clay and cow manure should be made in which the roots of the young plants are immersed and carried to the field. They should be taken from this and planted direct. This treatment will give the plants a start in the ground because they have both moisture and fertilizer at hand in the shape of a film of this batter adhering to their roots.

Market for Vegetables

I am on a small farm, only 20 acres, and want to get started in growing garden truck. I have tried it for one year, expecting to sell to the nearby towns, but there are so many retired farmers in our towns who grow garden truck to sell that there is very little money in it for me. Could you recommend some buyer to whom I might ship at a fair profit? Kindly give me the names of two or three if possible.—D. W.

There are, of course, large houses in Toronto. These, as a rule, give first-class satisfaction. Of course, there is always the danger of running into a glut. The Dawson, Elliott Co. and William Davies Co. are two such firms. Some make a practice of shipping to smaller towns; in these they have some grocer who handles their goods.—A. H. MacLennan, O. A. C., Guelph.

Grand Rapids lettuce is best for hot-bed or greenhouse. It is also a good variety for outside.

NEW COAL OIL LIGHT

Beats Electric or Gasoline

Powerful white incandescent mantle light. Replacing common oil lights everywhere. Burns 70 hours on one gallon of coal oil (kerosene) No odor or noise, simple, clean. Tests by Prof. McKergow, McGill University, Montreal, on leading oil burning lights show this gives over twice as much light as the Kero and other round wick lamps and uses less than half as much oil. Thousands of satisfied users endorse it as the best light in the world. To introduce this modern white light quickly, we

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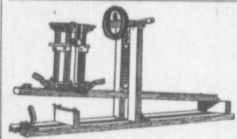
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FACTS ABOUT THE SOUTHEAST

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sent free to any farmer upon request. This book has shown thousands of Canadian farmers how to make their farms more profitable. In asking for it, you do not place yourself under the slightest obligation to buy cement, or to do anything else for us. Simply ask for the book, by letter or post card, and it will be mailed at once. Address,

**Publicity Manager
Canada Cement Company Limited
514 Herald Building, Montreal**

REMEMBER, when in doubt, that our Farmers Free Information Bureau will answer any questions on the use of concrete that you desire to ask. This service is free of charge.

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DISC DRILLS

SAGGING of a seeder allows the control discs to sow too deep, and delays crop growth and ripening. But in the Cockshutt, a strong I-beam across the entire machine prevents this. All crop grows at once, and ripens evenly.

Each disc has an oil well and dust-proof bearings. Oil runs a season only. You have tight draft and quick seeding. The close-set crop rows by the "Cockshutt" prevents the evaporation of moisture. You get better yield. The feed is made independent of wear and tear from jolting, and gives proper distribution. Write for full details.

THE "Cockshutt" Drill differs from others in having the discs set zig-zag, and only 6 inches apart instead of 7 inches. Experience has proven that this means 2 to 5 more bushels per acre. This means 500 extra bushels on each 160 acres of crop, if you use the Cockshutt Drill. This is pure profit, year after year. Just buying a "Cockshutt" gets it. Why not do it?

This drill does not clog with mud or trash. The boots are mud-proof. The discs have large scrapers to clean them. Besides, they "draw away" from the boot, and clinging trash falls off, instead of wedging. This feature means that you sow all your land. Also that stops are prevented. Seeding is done early. You save time and wages. Your crop gets an early start.

The "Cockshutt" is a perfect seeder, built to withstand wear for years. Get our drill booklet.

SEND for our "Drill" information. It is free. A post card brings it. All sizes in single disc, double disc or drag shoes from 13 to 22 discs.

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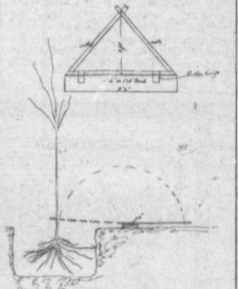
Useful Garden Implement

W. J. Justice, Simcoe Co., Ont.
An implement that I have found very useful in my garden is the little weeder here illustrated. It was made as follows: The blade was cut with a cold chisel from a cast away hoe blade, and the cutting face filed to an edge. The stem was rivetted on by a blacksmith. It could be put on by any one having a bread drill. This tool is exceedingly handy for close work about plants of any kind. With a little practice one could be used in each hand. It is especially good for weeding beans and Dutch set onions.



Convenient Planter

W. T. Ashbridge, Kelowna, B. C.
I enclose a sketch of my tree-setter. It is simple and easy to make and just as easy to operate. As may be seen, a triangular frame is made of three laths nailed together and hinged to a 1x6 board by leather hinges.



A Convenient Planting Board


In using this setter, the crotch of the frame is set up against the stake marking the tree, then the frame is swung back out of the way and the hole dug for the roots. When planting the tree to see if it is where the stake was all you have to do is to swing the frame back, as shown. The 1x6 board pressed on the soft ground with the foot will hold it in place without any trouble.

Having to plant a thousand trees a couple of years ago, the old planting device of a board with a central notch and two pegs, did not appeal to me, and the one here suggested was adopted. In practise I find it quite satisfactory and others near who have tried it say it is a labor saver.

Nursery Queries

Will you inform me where I can obtain apple seedling to graft this spring? What would be the best book or paper for a young beginner in nursery work?—Reader, Norfolk Co., Ont.

Most of the large nurseries will sell seedlings of imported stock such as they ordinarily use for propagation. Concerning nursery work, the best literature on the subject is contained in the Nursery Book, by L. H. Bailey, published by Macmillan Co., 70 Bond Street, Toronto.—Prof. J. W. Crow, O. A. C., Guelph.



Free Farrier Book Given Away

What would you give to know how to cure anyone of your horses, or cows, when it is sick without having to call in the Horse Doctor?
It would save you many dollars. It would sometime mean saving the life of one of your valuable horses or cows, which might otherwise die while you are driving for the farrier.
You can learn how to treat and cure all the diseases of Horses, Cattle, Sheep, Swine and Poultry from
Gleasons' Veterinary and Horse Taming Book
It contains 530 pages, illustrated, gives all the medicines, doses and remedies—just what you want to know even if you do call in your Horse Doctor.
Paper bound edition given free for one New subscription that you will send us for Farm and Dairy; and 10 cents extra to cover cost of mailing. So Handsome cloth bound edition, in fine quality paper, 50 cents additional. Get the New subscriber and send promptly. Only a limited number of these valuable books are available.
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Maxwell's "Favorite" is said to be the world—in Denmark, the butter country of the world—in the United States, in spite of high tariffs—and in every Section of Canada. Our Agricultural Colleges and Court Inspectors recommend it, because it is the finest butter-maker in the world.
Write for catalogue if your dealer does not handle it.
DAVID MAXWELL & SONS,
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The Washer of the Present and the Future

Estimated full size that some day we begin to use, had several years ago. It is all the first great step has already been completed, or far on towards it. The New Century Washer, not only the best machine, but it washes clothes better than any wash tub has ever been made. The water agitator is the same, as the New Century does nearly all the rest.
"Nothing makes an agitator like the New Century." The other kind have of the work, and New Century does nearly all the work.
The plans are in the New Century new book, "The New Century Washer," and also in the literature of the New Century, and in the dealer's book or send to us for literature.
CUMMER-DOWSWELL, LIMITED
HAMILTON, ONTARIO

The Most Profitable Peaches

Wm. Armstrong, Lincoln Co., Ont.
If I were planting a peach orchard today, I would have but three varieties, or four at the most. I would have them ripening at different times, so that the same set of pickers could handle the entire crop. From my 40 years of experience in peach growing I would select the following varieties:

(1) **Yellow St. John:** This peach is handsome in color and size, coming in just when people want it. It is a money-maker and a good bearer. Its weakest point is that it clusters too much, especially when about eight years old.

(2) **New Profic:** This is the best peach of all varieties. A twig 14 inches long will have from 50 to 60 buds. I would recommend cutting

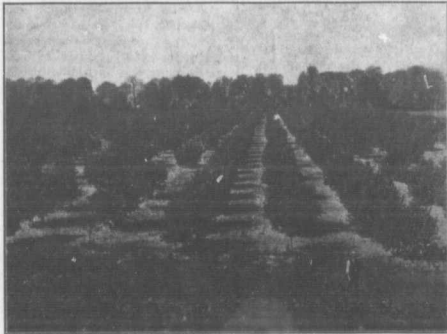
My third variety and one much liked in foreign markets is the Duches. It is a fairly heavy bearer.

Were I to select other varieties I would take the Anjou, Boss and Clapp's Favorite. The first is an annual cropper with a full crop every other year. It is of high quality and there is a good local demand for it. The latter blights badly but is the first pear on the market and a good price is always realized. It is a good cropper and of fine appearance.

Hints on Top Working

John Bremer, Brant Co., Ont.

Of late years I have come to prefer trees that have been grafted to the varieties desired before they leave the nursery. At least three years are lost when Talman Sweet or other



In One of the Newer Peach Growing Districts of Ontario

When we think of peach growing in Canada, we have also been accustomed to think also of the Niagara district; but the peach belt is extending as this photograph shows. The healthy three-year-old peach orchard here illustrated is in Lambton Co., Ont. near Forest. As hardier varieties are produced we see no reason why peaches should not be successfully grown in all of the older sections of Ontario as well as in the more favorably situated sections of the other Eastern provinces.

back to four or five buds.

(3) If I wanted to plant a variety that would mature between the two already mentioned, it would be the Fitzgerald, a heavy bearer, but one needing careful trimming.

(4) My choice for a late maturing peach would be the Elberta. The fact that this variety is so well known and well thought of, is the best proof I can offer on its merit.

Pears to Plant

M. C. Smith, Halton Co., Ont.

This year we had over 5,000 bushels of pears. I have handled pears for several growers, heard their experiences with various varieties and if I were planting an orchard myself I would reduce my selections from five or six varieties to three.

My first choice would be the Bartlett. This pear is unequalled for quality, appearance and yield. It is profitable for home and for foreign markets. As well as being a heavy cropper it is an annual cropper. It bears young and lives long.

My second choice would be the Kieffer. The longer we grow it the more we appreciate it. It is a heavy and early bearer and easier to take care of than most varieties. It is not very popular on local markets, but there is a growing demand in England for Kieffer pears. One of the best English dealers advised me to plant Kieffer and next to the Bartlett the canning factories prefer the Kieffer.

heavy varieties are set and top worked to the varieties desired by the orchardist. In one of my orchards set nine years Spy trees that were bridge grafted in the nursery have tops that are 60 per cent. larger than other trees set out at the same time and top worked on the same parent stock. Many of us, however, have young orchards set that have to be top worked. Others will have varieties that will turn out unsatisfactorily and the tree can be changed over by top working. Accordingly a few hints gained from my experience may be of value.

I never top work the tree in one season. This robs the tree of vitality and gives it a check in growth that it may never get over. At least three years should be taken in top working the young tree. We do not allow any buds to develop that are not at least three inches above the joint. Branches growing out very near the graft are very apt to split off. Two scions are inserted in each graft but only one is permitted to grow.

Don't forget to save some seeds to give to your friends.

Many insects can be killed on gold-on-gold, sweet pear, rose, buckthorn, plum, or any plant, by applications of soap solution. This is perfectly safe to use, and leaves no bad odor, and a few applications apparently are sufficient to rid a plant of its unpleasant parasite.



Is this Trademark on all your Farm Implements?

IT STANDS FOR THE VERY BEST THAT SKILL AND EXPERIENCE CAN PRODUCE.

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|----------------------|--------------------|-------------------|
| Grain Binders. | Hoe Drills. | Manure Spreaders. |
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| Rakes. | Fertilizer Sowers. | Land Rollers. |
| Side Delivery Rakes. | Disc Harrows. | Packers. |
| Tedders. | Drum Harrows. | Wagons. |
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| Seeders. | Pulpers. | Etc.] |
| | Ensilage Cutters. | |

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CALVES RAISE THEM WITHOUT MILK Booklet Free. Steele, Briggs Seed Co., Ltd., Toronto, Ont.

Write us to-day for our favorable terms to readers of Farm and Dairy, who will bustle for new subscriptions. Application blanks and sample copies sent free on request.

FLOWERING BULBS GLADIOLUS

These are most effective in the garden, the colors are magnificent and they are easily grown. We offer: Choice Mixed—10 for 30c.; 25 for 65c.; \$2.25 per 100—postpaid. Groff's Hybrid Seedling, Mixed—10 for 40c.; 25 for 75c.; \$2.50 per 100—postpaid. Bruce's Whites and Light Shades—10 for 50c.; 25 for \$1.00; \$3.50 per 100—postpaid. Childs Mixed—10 for 60c.; 25 for \$1.25; \$4.25 per 100—postpaid. Bruce's Superior Mixed, made up by ourselves from all varieties—the best—10 for 60c.; 25 for \$1.35; \$5.00 per 100—postpaid. Named Varieties, any color (see catalogue) 10c. to 50c. each—postpaid.

DAHLIAS

Splendid named sorts, all colors, 22c. each; \$2.20 per doz.—postpaid. Ordinary varieties, mixed, 12c. each; \$1.20 per doz.—postpaid.

FREE—Our handsomely illustrated 12-page Catalogue of Vegetable, Flower and Farm Seeds, Bulbs, Plants, Poultry Supplies, Garden Implements, etc. Write for it.



John A. Bruce & Co. Ltd., Hamilton, Ontario
Seed Merchants Established 1880

FARM AND DAIRY

AND RURAL HOME

Published by the Rural Publishing Company, Limited.



1. FARM AND DAIRY is published every Thursday. It is the official organ of the British Columbia, Eastern and Western Ontario and Red River District, Quebec, Dairywomen's Association, and of the Canada.

2. SUBSCRIPTION PRICE, \$1.00 a year. Great Britain, \$1.20 a year. For all countries, except Canada and Great Britain, add 50c for postage. Notices of the expiration of subscription are sent to all subscribers, who then continue to receive the paper until they send notice of discontinuation. No subscription is continued for more than one year after date of expiration. A year's subscription free for each of two new subscribers.

3. REMITTANCES should be made by Post Office Order or Money Order, or Registered Letter. Postage is included for amounts less than \$1.00. On all cheques add 3c cents for exchange fee required at the banks.

4. CHANGE OF ADDRESS.—When a change of address is ordered, both the old and new addresses must be given.

5. ADVERTISING RATES quoted on application. Copy received up to the Friday preceding the following week's issue.

6. WHITE LETTERS.—We are always pleased to receive practical articles on any agricultural topic.

CIRCULATION STATEMENT

The paid subscriptions to Farm and Dairy exceed 14,000. The actual circulation of each issue, including copies of the paper sent subscribers who are but slightly in arrears, and sample copies, varies from 15,625 to 17,000 copies. No subscriptions are accepted at less than the full subscription rates.

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

OUR GUARANTEE

We guarantee that every advertiser in this issue is reliable. We are able to do this because the advertising columns of Farm and Dairy are carefully edited as the reading columns, and because to protect our readers, we turn away all advertisers who do not advise us of any advertiser herein dealt dishonestly with you as one of our paid-in-advance subscribers, we will make good the amount of your loss, provided such transaction occurs within one month of the date of this issue, that it is reported to us within a week of its occurrence, and that we find the facts to be as stated. It is a condition of this contract that in writing to advertisers you state: "I saw your advertisement in Farm and Dairy."

Rogues shall not pity their trade at the expense of our readers, who are our friends, through the medium of these columns; but we shall not attempt to adjust trifling disputes between subscribers and honorable business men who advertise, nor pay the debts of honest bankrupts.

FARM AND DAIRY

PETERBORO, ONT.

THE APPLE SITUATION

There was more spray material and spray outfits sold in 1912 than in any previous year in the history of the apple growing industry in Ontario. And probably there were more apples that failed to reach the market or that were sold for less than cost of production in 1912 than for many years past. These apparently contradictory conditions are a sore puzzle to many growers who last year went to considerable expense to spray their orchards and even then did not find a market. An Oxford county grower recently said to us, "What is the use of spraying anyway? Last year I spent \$75 spraying my orchard, and didn't sell enough apples to pay for the spraying material."

This grower, like many others, had been accustomed to sell his orchard to the buyer making the highest bid.

During the last couple of years, however, the small buyers have been having a hard time to make both ends meet. They lost heavily on the crop of 1911, and in 1912 were not able to obtain credit to carry on their business. Consequently, in many districts there were not enough buyers to handle the crop of last year. In fact, changing conditions in the apple trade are making the small buyer a thing of the past.

It is through the cooperative association that our apples will be marketed in future. Speaking in Toronto last fall the Hon. W. J. Hanna stated that Lambton county produced fifty thousand barrels of apples in 1912. Thirty-five thousand barrels went to market; fifteen thousand barrels went to waste. The first were marketed through cooperative associations. The second the growers attempted to market themselves. One small association, mentioned by Mr. Hanna, did not sell a barrel of apples for less than three dollars; and this in a year when so many apples were not sold at all.

The same story might be told of many other counties in Ontario. Fruit growers will be wise to organize for the packing and distributing of their products without further delay. The conditions that are making cooperation necessary may for a time be a cause of hardship to some, but in the long run they will prove of benefit to the fruit growing industry.

A DANGER IN ENSILAGE

Those of us who have been in the habit of feeding ensilage to our work horses were startled a short time ago to read in the daily press that Dr. W. F. Harrison, Ingersoll, Ont., had attributed the death of five valuable horses in the neighborhood of Ingersoll to the feeding of ensilage. Realizing that this is a subject about which Farm and Dairy readers would like to be more fully informed, we immediately wrote to Dr. Harrison for fuller information. Dr. Harrison replied as follows:

"I met five cases in two weeks. All proved fatal. I have no doubt but that my diagnosis that the deaths were due to ensilage was correct. I do not think that good ensilage is detrimental to horses, although I would not care to advise feeding it to that class of stock. Some of the silage fed in the cases that proved fatal, however, was indeed bad. Two horses died the fourth day and the other three cases lasted nearly a week."

Those of us who through lack of feed are almost forced to feed horses ensilage, should take warning and exercise every precaution to see that they get nothing but sound feed. In any case, we should remember that ensilage is bulky and contains comparatively little nutriment, and that the stomach of the horse is small, requiring more concentrated feeds. If ensilage is to be fed at all it should comprise a very small part of the ration. Bad ensilage should not be fed to any class of stock.

COMPULSORY SPRAYING

The statement, "You have to spray," means more in British Columbia and in the great fruit growing districts of the Western States than it does in the Eastern provinces of Canada. In the West, "You have to spray" is a legal expression. The law is behind it. Spraying is compulsory. In the East, "You have to spray" is commonly heard, but the speaker usually adds "if you would have good fruit," "if you would market to advantage," or some similar phrase. It may be, however, that before long this expression will take on the additional legal meaning even in the East.

To many it may seem radical, almost socialistic, to make a man perform certain operations in his own orchard. But it is not only common justice that when the majority of fruit growers in a section are doing their best to control insect and fungus pests, that the man who will not spray and whose orchard is a breeding and distributing ground of disease for all the rest of the community, should be forced either to cut down his trees or to spray them? Our idea of what constitutes a man's rights are changing. We now believe that a man is only within his rights when the exercise of those "rights" does not interfere with the wellbeing of the rest of the community. And the man who will not spray when his neighbors do, is interfering with the wellbeing of the community. The law should take care of him.

AND PRUNE TOO

Spray, spray, spray. Yes, and we might add, prune, prune, prune. We know of many orchards where a part of the time now devoted to spraying could be spent to much better advantage with a pruning hook and saw. We have seen orchards that were, so their owner thought, well pruned, with tops so thick that even a power sprayer could not be expected to do first-class work. We have seen orchards with the tops grown so high as to be absolutely out of reach of the spray mist and these tree tops afforded a fine breeding ground for the codling moth. There are other reasons why we should prune as well as spray besides the fact that pruning admits of more effective spraying. It takes less spray material to cover a well pruned orchard. We get better fruit from a well pruned orchard as pruning to a certain extent has the same effect in producing a quality product as thinning. And last, but not least, the best colored fruit will be found in the orchards in which the tree heads have been thinned by pruning. This is of particular advantage in a damp season such as was that of 1912. And this is the month in which most growers are pruning their orchards. Let us make a special effort within the next three weeks to get rid of some of the surplus wood in our old orchard; and what we do not get rid of this month, let us finish up in June.

THE 87 state universities of the United States and other state-aided educational institutions of that country last year received a working income of \$35,000,000. The national appropriations for army and navy amounted to \$111,000,000. That is, for every dollar spent to put brains in, three dollars were spent to blow them out! Doesn't it sound like barbarism? But are we doing much better in Canada?

The Hon. Martin Burrell, Dominion Minister of Agriculture, has recently made himself deserving of congratulation on two

A Wise scores. In the first

selection. place he has recognized the growing importance of the poultry industry in Canada by appointing an additional official to the federal department of agriculture, a Dominion Poultry Husbandman, who will make the poultry industry of the country his chief care. But the point on which we especially desire to congratulate the Minister is his selection of a man to fill the new appointment. Not in this country or any other could Mr. Burrell have found a man more capable of filling the new position than Mr. F. C. Elford, who will assume his new duties on March 1st. Mr. Elford is well and favorably known among poultry men from one end of Canada to the other. As Professor of Poultry Husbandry at Macdonald College, he rapidly established a reputation for himself as one of the greatest poultry educationists in Canada. It is as founder, however, of the Poultry Producers' Association of Canada, an organization having for its object the standardization of Canadian poultry products, that Prof. Elford has rendered the greatest service to the Canadian poultry industry. Similar work for the promotion of our poultry industry may now be expected to flourish under Mr. Elford's guidance. We wish Mr. Elford all success in his new capacity.

"Sure, I would plant an orchard if I were a young fellow like you," a middle-aged farmer was heard to remark to one of his

How Long Must young neighbors at a recent Farmers' Institute meeting.

This farmer seemed to have the very common idea that it takes an orchard eighteen or twenty years to reach a profitable bearing age, and, therefore, orchard planting is a proposition for young men only. We admit that it does take Spies, Baldwins, and other winter varieties a good many years to reach an age where profitable crops are produced. But the up-to-date apple grower does not depend on these late varieties for all his profit. Practically all growers nowadays are practising the "filler" system, whereby early maturing varieties are planted alternately with the standard sorts and profitable crops harvested in a comparatively

few years. Mr. Elford informs bears in Mr. Lich years-for one-half twelve y Lewis, B Spies w eight u ally ability u Bremer, county f to pro ten to w

Hubba who sho one who he is a knows it "Adve you are, you have way of c

This is it gives new angl yourself mens.

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Little buying purchase t To them i tee.

This often disc with Farm question a tion never

Take th in this pap these poin D. Derby Renfrew M Co., Sherw men, the firms, Coc Massey-Ha Five Roses Lawrence Infinitum.

True, th And so That's som ro count on verise. Y decidedly v an absolut paper like "A Paper

few years. Following this system, Mr. Elmer Lick of Oshawa, Ont., informs us that he has had Ontario's bear in the fourth year. Nor does Mr. Lick wait eighteen or twenty years for Spies. His Spies will bear one-half a barrel a tree eleven to twelve years after planting. F. M. Lewis, Burford, Ont., writes that his Spies will start bearing seven or eight years from planting and gradually increase in crop producing ability until 25 years old. Mr. John Bremer, another successful Brant county fruit grower, tells us that, with proper pruning, Spies bear at ten to twelve years old, Ontario at

five to six years, and Hubbards at six to seven years. Of course, trees bearing at such an early age must have good care from the day they are planted. Summer pruning also aids in early fruiting. Moral: Even old men may hope to profit from the orchard that they set now.

Pointers on Cooperation

Jas. E. Johnson, Norfolk Co., Ont.

Educational work should be the first consideration in arranging a co-operative fruit growers' association. Our association, which was started with 17 members, now numbers 535. Our work has grown faster than the educational work. I believe that many of our associations are in need of reorganization. What should constitute a first class working member for a cooperative society? The first year of our association we went around and coaxed growers to join in with us. We have not done so since. Then any man who would hand in a card to join the association. Many of the members so secured were of no benefit to the society. Educational work had not been carried on among them and they were lacking in loyalty.

It is essential to the best success of the society that it and every member should loyally support it. We have found members who showed their lack of loyalty by going to the apple buyers when the apple buyers were striving to ruin our cooperative enterprise. Now, however, the apple buyers themselves would rather buy from the associations.

CRIM CONVEYS A MESSAGE

Another source of danger to our cooperative societies are the growers who have orchards but are not in the association. I have known these growers to do all their power to harm our association while at the same time the association was of great benefit to them.

There is a certain type of merchant who is a menace to cooperative enterprise. They think that all spraying materials should be bought from them. This trade they had prior to the formation of our society in Norfolk county. But what did it amount to? In 1906 there was one barrel of bluestone used in Simcoe; now we order it wholesale in car lots. The benefit that the merchants will receive by greater trade more than outweighs the value of the trade that we have taken from them.

But first of all what we want in our association is members who will back us up at all times. With such members as these we would have no difficulties. But there are always parasites in the society to be dealt with. I believe that every association should have an investigating committee to look into the cases where members are not satisfied with results. After investigating and making public the results of a few cases they would have little work to do.

It is far easier to tear down the good work of an association than to build it up. There are investigating committees would prevent destruction of work already accomplished.

Thinning should be done soon after the June drop. Remove first these fruits that are imperfect and then the smaller ones. Leave the fruit evenly distributed over the tree.—W. H. French, Durham Co., Ont.

Inky Spot on fruit was quite serious last year. It is particularly bad in dull weather. It is largely controlled by properly thinning the tree.—J. W. Clark, Brant Co., Ont.

AD. TALK

LXVIII.

Hubbard says: "The only man who should not advertise is the one who has nothing to offer, and he is a dead one—whether he knows it or not."

"Advertising is stating who you are, where you are, and what you have to offer the world in the way of commodity or service."

"This is putting it pretty broad; it gives you as an advertiser a new angle from which to view yourself and your advertisements."

The buying public will size you up pretty well. You can trust the public. They do like the goods that are advertised.

Fact of the matter is the goods to be successfully advertised must be O.K., and of a quality superior; otherwise they will not pay long for the advertising. First orders cost much. They represent no profit,—advertising cost is great. The goods must therefore be good enough to repeat; good enough so that people will want them again, and yet again. It is on such goods that advertising successes are made.

Little wonder then that the buying public prefer the merchandise that is to be advertised! To them it is as a great guarantee.

This phase of advertising is not often discussed in connection with Farm papers. It is a big question and worthy of recognition nevertheless.

Take the ads. of long standing in this paper. Size them up on these points and see: De Laval, D. Derbyshire & Co., Sharples, Renfrew Machinery, Grimm Mfg. Co., Sherwin-Williams, the seedsmen, the feedmen, the Roofing firms, Cockshut Plow, I. H. C., Massey-Harris, Frost & Wood, Five Roses, Windsor Salt, St. Lawrence Sugar, etc., etc., ad infinitum.

True, they answer up O.K. And so it will always be! That's something extra you want to count on getting when you advertise. You'll get it even more decidedly when you advertise in an absolutely clean, unvarnished paper like Farm and Dairy.—

"A Paper Farmers Swear By"

DE LAVAL
CREAM SEPARATORS
TIME TESTED

If a member of your family were dangerously ill you wouldn't think of calling in an inexperienced doctor?

Certainly not! You would call a physician, who had built up a reputation, a man with experience and a successful practice.

"Why not use the same care and common sense in your selection of a cream separator?"

Every little while you hear of some new cream separator, claiming to be a "world beater" and just as good as the De Laval but a little cheaper.

These "mushroom" machines stay in the limelight only until they are "found wanting" by the users and in a short time drop out of sight.

It takes years of experience to build a "good" cream separator. More than 30 years of experiments and experience have made the De Laval pre-eminently the best machine on the market for the separation of cream from milk.

Even were other concerns not prevented by the De Laval patents from making a machine exactly like the De Laval they could not build as good a machine as the De Laval, because they all lack the De Laval manufacturing experience and organization.

If you buy a De Laval you run no risk of dissatisfaction or loss. It's time tested and time proved. Why experiment? Why take chances with an inferior machine when you KNOW that the De Laval is the BEST MACHINE FOR YOU TO BUY?

DE LAVAL DAIRY SUPPLY CO., Ltd.
MONTREAL WII-NIPEG VANCOUVER

MAPLE SYRUP MAKERS



ENTER THIS CONTEST

CUT OUT THIS COUPON

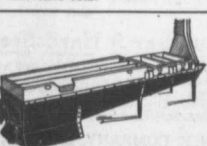
The demand for genuine and high-grade goods so enhances the market price of Maple Sugar and Syrup that we have decided to open a competition to educate the consumer who is more familiar with the second or third grade article. To obtain this result, we offer \$50 in gold for the best made syrup and sugar.

Syrup and Sugar on Exhibition in Montreal

The object of making a display of this kind is to show the public the products of the very best Maple Syrup and Sugar Makers in Canada, and to permit to educate the consumer who is more familiar with the second or third grade article. To obtain this result, we offer \$50 in gold for the best made syrup and sugar.

The entries will be exhibited in the magnificent Show Window of the "Montreal Star".

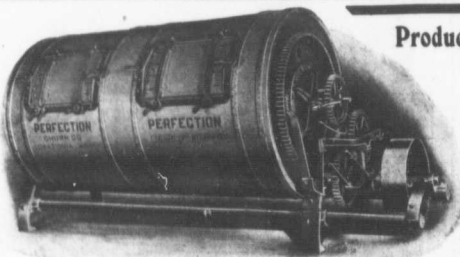
Why not properly equip yourself to be a Winner in this contest? State number of trees you tap and we will give you price on a suitable sized outfit.



For all conditions and particulars, address:

PRIZE CONTEST:
(Don't Forget Coupon)

GRIMM MFG. CO., LIMITED
58-58 Wellington Street
MONTREAL.



**Produce "Quality" Butter
At a Profit
The "Beaver" Churn
Will Aid You**

The Beaver Combined-Churn and Butter Worker produces the very best of butter,—butter that sells readily until the last pound has left your Creamery.

It keeps production cost down to a minimum, because it does away with all unnecessary expenses, such as continual overhauling and repairing. The gear-union. There is no possibility

ing and the mechanism is so arranged that very little power is required for operation. In case of loss or waste, because the churn is provided with peep windows at each end, enabling the operator to see just when to remove the batch.

The "Beaver" Churn is so carefully constructed and inspected before leaving the factory that it will last infinitely without repairs. All parts accidentally damaged or destroyed can be replaced easily and inexpensively.

You will be well satisfied with a "Beaver" Perfection Churn. Write to-day for full particulars and prices. Address Dept. "B"

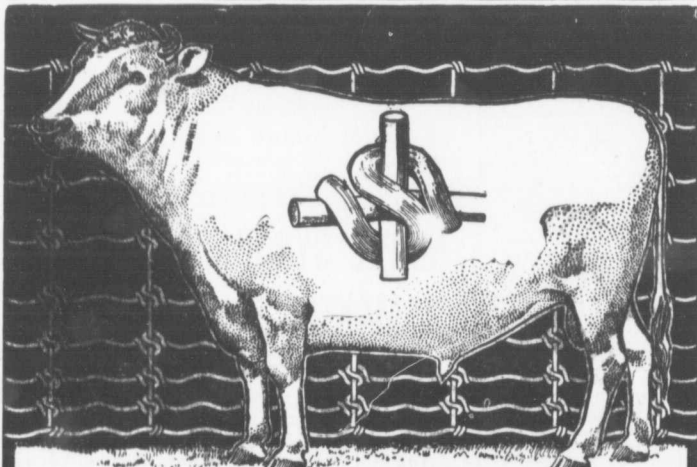
W. A. DRUMMOND & CO., King St. East, TORONTO, Ont.
(Creamery and Dairy Supplies)

CREAM WANTED Highest City prices paid for cream. We furnish cans, pay all charges, remit promptly. Haven't paid less than \$60 for two months. Write
TORONTO CREAMERY CO., LTD., Toronto

CREAMERY TO RENT
In a good dairy locality, two hours distance from Toronto, on main line of C. P. R. Pure spring water on premises. Address, Box 350, Farm and Dairy, Peterboro

WORK WANTED

A young German butter and cheese maker, 8 years' experience, wants situation. Address
NAPP, 2242 WAVERLY ST., MONTREAL, QUE.



Is Anything On Your Farm Stronger Than A Bull ?

YES! If your fences are "IDEAL" Woven Wire, made of large gauge No. 9 HARD STEEL wire, heavily galvanized and with the verticals and horizontals clamped together with the Ideal Lock—THAT CANNOT SLIP. Bull-strong; hog-tight; horse high—A REAL fence.

NO! If you have wire fences of the ordinary kind—fairly good for a few years, but with no reserve strength to stand hard usage—because poorer wire makes them, and stretching them taut takes the utmost of their little strength to start with.

All Large Gauge Number 9 Hard Steel Galvanized Wire

From top to bottom Ideal Fence is all the same—large gauge No. 9 hard steel wire, heavily galvanized and therefore rust-proof. Note to look in its uniform smooth curve—no sharp turns to weaken the strength of the lock and yet a most positive grip—in FIVE different places. This is the fence that has ample springiness, immense strength, and the ONE LOCK THAT'S GOOD. Drop us a card and get our catalog telling all about the many styles and merits of IDEAL FENCE. Sample lock comes with it. Write us today.

McGREGOR BANWELL FENCE COMPANY, LIMITED, WALKERVILLE, ONTARIO

Cheese Department

Makers are invited to send contributions to this department, to ask questions on matters relating to cheese making and to suggest subjects for discussion. Address letters to The Cheese Maker's Department.

Mould on Cheese

Many patrons, not only of my own, but of other factories, are complaining of their cheese getting very moldy this year. Is this a defect in making of cheese?—J. L. D. Hastings Co., Ont.

In reply to your letter re "mold on cheese," I would say that probably the reason why cheese has been more subject to mold this year than usual, is on account of the favorable conditions which existed for the growth of mold, namely, mild, damp weather. Mold being a fungus grows quickly under these conditions and cheese is a very suitable medium for it to grow on. The defect is not due to the make of the cheese.—G. G. Publow.

Canadian Cheese at Manchester

W. J. Egan, Trade Commissioner, Manchester, E. C.

During the past season, for a short while, many importers here were afraid that Canadian cheese would not average up as well in quality as during 1911. Now that the season is practically over, the verdict, as rendered by the trade, is that during 1912 Canadian cheese has reached a very high standard, and the quality is highly commended.

From an importer's point of view the present season has been very disappointing. In spite of the fact that there has been a decrease in shipments to Liverpool of 229,702 boxes, prices are, at the present moment \$6. to 7s. lower than they were last year, and all the season it has not been pretty much the same, very unprofitable. Our shortage in shipments has certainly had the effect of holding up prices, for had our shipments been up to former years, prices would have been much lower. The trade here attributes weakness in cheese prices to the low prices at which New Zealand cheese has been offering for the winter delivery. New Zealand's output will greatly exceed last year, and of course their free selling weakens the market for Canadian cheese.

New Cheese Package Proposed

Jno. A. Gunn, Exporter, Montreal.

A question which will require to be decided in the near future will be that of the style of package which the Canadian cheese trade will adopt. The supply of wood available for cheese boxes used at present is getting dangerously near the vanishing point, and while a substitute in the way of a paper box has been tried, it has not proven satisfactory.

To my mind, a package similar to what the New Zealand cheese trade uses at the present time would be the most satisfactory for the Canadian trade. It might be advisable to have this package made a little different to the New Zealand box by having the middle heading consist of two thin tops, so that the package could be seen in two. Similar cases are in vogue in connection with the Irish and Danish egg trade. This style of package will cost very much less than the box as present in use, and will mean a great saving in co-opering to the exporter.

To adopt this package successfully, all that will be required will be the use of refrigerator cars from the country points and cool air on the steamers, the exclusive use of which will be a step in the right direction.

J. Prosdlow
I have won ordinary curi-son for the f- same I made equipped with have come to cool curing r- to the patron a decided satis- If a hot r- gress out an- is that the co- to both make help to the ch- cesses will r- in a cool ro- to the patron loss is not a quality making after by buy- Here is the factories side

the Red Deer are springing u- will be number- curing facilit- Both receive bad and part- along with pronounces go- has to stand

Yes
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Yeastie che- to an infectio- preventative- in all things- and productio- the milk to be- diately after m- tory is having- mentation, an- turned in the- was delivered- pasteurized be- as to prevent- infection. It- whether the r- responsible o- due to this def- ing an inspect- conditions rela- ture.—G. G. Instr., E. Ont.

Dairying pay- in most instan- than any other- This is half- to take it up

Cool Curing or Not

J. Proudlove, Peterboro Co., Ont.
I have worked for 19 years with ordinary curing rooms and last season for the first time in my experience I made cheese in a factory equipped with a cool curing room. I have come to the conclusion that a cool curing room is of great benefit to the patrons and I know that it is a decided satisfaction to the maker. In a hot room cheese is bound to grease out and run away. Hence it is that the cool room is an advantage to both maker and patron. It is a help to the maker in that a poor cheese will not develop a bad flavor in a cool room. It is an advantage to the patron in that the shrinkage loss is not so great and the extra quality makes the cheese more sought after by buyers. Here is the way I see it. Take two factories side by side, one with cool

Creamery Department

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

Boom the Silo

We are pleased to note the interest that is being taken everywhere in the matter of silo building. One can scarcely strike a single county or even township in the best dairy districts where someone is not putting up a silo, and this means that others will get the fever soon. It seems that the years of educational work which have preceded the present condition are beginning to bear fruit, and that our people are now thoroughly aroused to the economic value

Calves Without Milk
BLATCHFORD'S CALF MEAL
The Complete Milk Substitute
The result of over 10 years experience with calf raisers. As rich as new milk at less than half the cost. Stops scouring. Three calves can be raised on the cost of one. Get Bulletin "How To Raise Calves Cheaply and Successfully Without Milk" by sending a postcard to:
STEELE, BRIGGS & SEED CO., Ltd.
Toronto, Ont.



WINDSOR DAIRY SALT
Is The Cheapest You Can Use
not alone, because it is the purest and best salt for salting butter. But because it will salt more butter, pound for pound, than any other salt you can use.
The big creameries will tell you this—and show you tests to prove it.
The Agricultural Colleges demonstrate this every day.
Every farmer and dairyman—who is getting good prices for butter—is using Windsor Dairy Salt.
It is pure—it makes beautiful butter—it works in quickly—and it is the cheapest in the end. Just try it yourself.

Creamery For Sale
Creamery, running summer and winter. Very large make. Everything in first-class order. Large houses, good ice house and refrigerator. Large stable with sheds and other buildings. 2 acres good land. Close to town and railroad. This is one of the best dairy districts in Ontario. Write:
NELSON SCHWELZ - BADEN, ONT.

AN EXPERIENCED BUTTER MAKER WANTED
Must understand business from A to Z. Also one with one or two years' experience. State wages, with or without board. Year round position to right man. Apply at One No 133.
J. J. S. - VIKING, ALTA

WANTED
Competent Cheese Maker to make by cut and furnish supplies for season of '13. Maker to guarantee his make. Apply Box 1, FARM AND DAIRY, PETERBORO, ONT.

MODERN UP-TO-DATE CREAMERY FOR SALE
Situated in the Banner Dairy District of Central Alberta.
For quick sale, cheap
P. C. HEPBURN, Lakeview, Alta.

Sweet Cream Wanted
Full particulars on application to
The Farmers' Dairy Co.
367 Queen St. W.
TORONTO - ONT.



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not alone, because it is the purest and best salt for salting butter. But because it will salt more butter, pound for pound, than any other salt you can use.
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It is pure—it makes beautiful butter—it works in quickly—and it is the cheapest in the end. Just try it yourself.



Lump Rock Salt, \$10 for ton less, Cash, Toronto
Toronto Salt Works, 126 Adelaide St. E
G. J. CLIFF, Manager Toronto, Ont.

FOR SALE
The Salem Brewery
Property, situated at Salem, Ont., Wellington county, 1 mile from Elora. Property consists of about 50 acres land, on which is a large stone building, containing two cold storage rooms, etc. 60 H.P. boiler, 22 H.P. engine, shafting, pulleys, etc. Building has three floors, running water on each floor, fed by springs on the property. Large barn, to stable 12 horses, two large ice houses, driving shed, etc. Less than two years this property was used as a creamery, and is most suitable for the purpose. Must be sold at once. For price and further particulars, write to
W. E. ANDRICH
PALMERSTON - ONTARIO

We Give a Free Trial
of the Domo Cream Separator. Think of it. We send this high grade, easy-turning machine on approval, freight prepaid, to test at our expense. We take all the risk. Prices, from \$15.00 and upwards, about half what you pay for others, and you can be the judge of its merit.
Write to-day for Circular "D," which gives full particulars of our trial offer, with Prices, and easy terms of payment. It's FREE.
DOMO SEPARATOR CO.
BRIGHTON, Ont. ST. HYACINTHE, Que.




A Fine Creamery in a Coming Dairy Province

The Red Deer Creamery, here illustrated, are springing up in Central Alberta. We will be numbered as one of the greatest ready made in the

of cows and their product by way of the silo and cream can. We also note with pleasure the extensive use of concrete as a building material for silos. The value of concrete as such is just beginning to be recognized and it will no doubt be a matter of only a few years before it will be used almost universally in the erection of silos. And there is a reason for its popularity. Permanence and efficiency combined with moderate cost and simplicity of construction are the qualities it possesses which make it the desirable material that it is.
Attention is also being given to more scientific construction of barns and dry fodder storage, all tending to the more economical and scientific feeding of such cows and a more hygienic care of their product.
Let the good work go on, and whenever you have a chance to give it a boost, Mr. Buttermaker or Cheese-maker, don't fail to do so.—Butter, Cheese and Egg Journal.

Yeasty Cheese

At our annual cheese meeting there was a discussion about yeasty cheese. Is it an infection of the milk or is it the fault of the cheese maker? If it is in the milk is there any method to prevent the milk from being infected? Should the patron or the cheese maker be liable if there is a cut in the price for that reason?
—J. E. R.

"Yeasty cheese" is invariably due to an infection of the milk and the preventative is absolute cleanliness in all things pertaining to the care and production, and the cooling of the milk to below 65 degrees immediately after milking. Where a factory is having trouble with yeast fermentation, and the whey is being returned in the can in which the milk was delivered, the whey should be pasteurized before being returned so as to prevent the spreading of the infection. It would be difficult to say whether the maker should be held responsible or not for cuts in price, due to this defect, without first making an inspection of the factory and conditions relating to the manufacture.—G. G. Publow, Chief Dairy Inspr., E. Ont.

Dairying pays as good profits, and in most instances even better profits than any other branch of farming. This in itself should induce farmers to take it up more extensively.

Setting pails of milk on the stable floor is a dirty practice. Have an elevated shelf for them and do not let them stand even there too long.

Scotch pine is giving the best results of any of the trees we have sent out from the Forestry Department. Eighty to 90 per cent prove healthy on very poor sandy soil. Many are used for planting along roads to prevent sand encroachment.—Prof. E. J. Zavits, O. A. C., Guelph.

Now is the time to renew your subscription to Farm and Dairy.

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THE faith that inspires is the trust which comes from
four time-trusted friends—W. S. Royston.

Rose of Old Harpeth

By MARIA THOMPSON DAVIES

"Copyright, 1912, The Bobbs-Merrill Company"

(Continued from last week)

AND in his wake came Tobe with a pan in one hand and a cup in the other. "It's two calves, Tobe says, with just Mrs. Butler for the mother and Sniffie beat her with three more puppies than two calves. It's sixteen chickens and a parcel of turkeys and we waked up Mr. Mark to tell him and he said—"Stone paused in the rapid fire of his announcement of the morning news and then added in judicial tone of voice, as if giving the aroused sleeper his modicum of fair play: "Well, he didn't quite say it before he swallowed, but he threw a pillow at Tobe and pulled the sheet over his head and groaned awful. Aunt Viney was saving her prayers when I went to tell her, and Aunt Nancy was taking down her fringes, but she stopped and gave Tobe some corn-bread for the chickens and some pollicker with meat in it for Sniffie. Can't you make with me to see 'em now, Rose Mary? It won't be long until you see 'em!" The General had by this time lined up in the doorway with Uncle Tucker, and Tobe's back head and lean face peered over his shoulder. The expression in all three pairs of eyes fixed on hers was the same—the wild desire to make her presentation at the interesting court Dame Nature was holding in the barn. A most natural masculine instinct for feminine interest or companionship when face to face with the miracle of maternity.

"Just one more crock of milk to skim and I can go," answered Rose Mary as she poised the skimmer over the last yellow surface down the line of huge, brown, earthen bowls that in Harpeth Valley were known as crocks. The milk-house was cool and clean and smelled of the fresh cream lifted from the milk into the stone jars to be churning for the tomorrow. And Rose Mary herself was a fresh, fragrant incarnation of the spirit of a spring sun-down that had come over the Ridge from Old Harpeth. Her merry voice floated out over the hillside as she followed in the wake of Uncle Tucker, Stone and Tobe, with the provender for the new arrivals, and it made its way as a faint echo of a dream through one of the vine-covered, stable windows of the Briars and the effect thereof was well-nigh instantaneous.

Everett, after a hasty and almost as incomplete toilet as the one made by the General in his excitement, arrived on the scene of action just in time to witness the congratulatory interview between Mrs. Sniffie and the mistress of her undying affections. The long-eared, plumpy, young set-older mother stood licking the back of Rose Mary's neck as she sat on the barn floor with all five of the young tumblers in her lap, with Tobe and Stone

hanging rapturously over her and then, while Uncle Tucker was expatiating at some points that had made themselves evident at his very early stage of the existence of the little dog babies.

"They ain't not a single stub nose in the bunch, Uncle Tuck, not a one and everybody's of 'em, too stick way apart," exclaimed the General, his cheeks red with joyous pride.

"Watch 'em, Miss Ro' Mary; watch



Pleasure and Work Combined, But Mostly Pleasure

These merry young ladies were photographed by a Farm and Dairy representative when visiting at his home in Victoria Co., Ont. Who says life in the country is not O. K.—especially when there is a sugar-buff in sight?

"em smell Sniffie when I call her over here," exclaimed Tobe as he held out the pan to Mrs. Sniffie and thus coaxed her from the side of Rose Mary and the small family. And, sure enough, he and squirmed every little white and yellow bunch and up went every little new-born nose as it sniffed at the recession of the maternal fount. One little precocious even went so far as to attempt to set his fore paws against Rose Mary's knee and to stiffen a tiny plume of a tail, with a plain instinct to point the direction of the shifting base of supplies. Rose Mary gave a cry of delight and hugged the whole talented family to her breast, while Stone and Tobe yelled and danced as Uncle Tucker turned with evident emotion to Everett to claim his congratulations.

"Never saw anything like it in my life," Everett assured him with the greatest enthusiasm, and, as he spoke, he laughed down into Rose Mary's lifted blue eyes that were positively tender with pride over the puppies in her arms. "It's a sight worth losing the tail of a dream for—taken all together."

"And all the others—I'll show you," and, gathering h r skirts backwise, Rose Mary rose to her feet and led

the way across the barn, with Sniffie snuffling along at the squirming bundle in her skirts, that swung against the white petticoat ruffling around her slim ankles. With the utmost care she deposited the puppies in an overturned barrel, nicely lined with hay, that Stone and Tobe had been preparing. "They are lovely, Sniffie," she said softly to the young mother, who jumped in and huddled down beside the barrel, as her mistress turned to leave them with the greatest reluctance.

And it was well that the strata of Everett's enthusiasm lay near the surface and was easily workable, for in the next half-hour there was a great demand of continuous output. Mrs. Butler stood switching her tail and chewing at a wisp of hay with an air of triumphant pride tinged with surprise as she turned occasionally to glance at the offspring huddled against her side and found eight wobbly legs instead of the four her former experiences had led her to expect, and felt two little nozzling noses instead of one.

"Which one do you guess was the surprise calf to her, Rose Mamie?" demanded the General.

"Shoo!" said Tobe in answer to the General's question. "Old Butler have had them two calls to purr, the boy and girl, one to keep and one to kill. She got mixed about whether Mr. Tuck keeps heifers or bulls and

"No, not my summons—old lame S'nuffie's. I believe his is of French extraction from his elaborate manner with the hens," answered Rose Mary, quickly applying his plagiarized compliment. "Let's hurry or I'll be late for prayers. Would you like to see your come in today, as you are already up?" The color rose in Rose Mary's cheeks up under her long lashes and she gave him just one shy glance that had a tinge of roguishness in it. "Thank you, I would like to. That is, if I may—if I won't be in the way or—or—won't you hold my hand so I won't go wrong?" He finished in laughing confusion as the color came up under the tax on his cheeks to match that in hers and the young look lay for a moment in his eyes. "I'll be my debut at family worship," he added quickly to cover his confusion.

"Don't worry, Uncle Tucker leads it," answered Rose Mary as they ascended the front steps and came across the front porch to the doorway of the wide hall, which was the entrance, as well as the artery of the Briars.

And a decorous and seemly scene they stepped in upon. Uncle Tucker sat back of a small table, which was placed at one side of the wide open fireplace, in which crackled a bit of fragrant, spring fire. His Bible and a couple of hymn-books rested in front of him, his gray forelock had been meekly plastered down and a broad lavender scarf had been laid aside to display a straight white collar and clerical black bow tie. His eyes were bent on the book before him as he sought for the text for the morning lesson. Aunt Viney sat close beside him as if anxious to be as near to the source of worship as possible, though the strain of refraining from directing Uncle Tucker in the conducting General was very great. The tradition which forced silence upon women in places of public worship had held with Miss Lavinia only by the exercising of the sternest and most rigorous self-suppression, which at any time might have been broken except for the curbing of her iron will.

But even though silent she was still dominant, and over her glasses her eyes shot glances of stern rebuke at two offenders in a distant corner, while Uncle Tucker flattered the leaves of his hymn-book, oblivious to the unseemly contention. The General and Tobe, who come as near to living and having his being at the Briars as was possible in consideration of the fact that he was supposed to have his bed and board under his own paternal roof, were kneeling demurely before a small rocking chair, but a battle royal was going on as to who would possess the low seat on which to bow the head of reverence.

Little Miss Amanda from across the room, in terror of what might befall her hands if the hands of Miss Lavinia in a later hour of reckoning, was making beseeching gestures of alarm, warning and reproof that were entirely inadequate to the situation, which was fast becoming acute, when the two tardy members arrived on the scene of action. It took Rose Mary one second to grasp the situation, and, motioning Everett to a chair beside the rocker, she seated herself quickly in the very heart of the affluence. In a half-second Tobe's head was bowed in triumph on the arm of her chair, while the General's was ducked with equal triumph upon her knee as Uncle Tucker's first voice rose in the first words of his prayer.

(Continued next week)

Two or three slices of lemon eaten after onions will entirely destroy the odor.

The Upward Look

The Supreme Lesson

We then that are strong ought to bear the infirmities of the weak and not to please ourselves.—Rom. 15:1.

In the chapter preceding this verse Paul impresses on us the fact that we are not on earth to live to ourselves, nor are our lives our own for he says "whether we live or die we are the Lord's." The great lesson in these words is that we are here to live for others and help to make their burdens lighter. We are told that if by eating meat we cause our brother to offend, then we should refrain from eating meat. Of course we know this does not mean eating meat for sustenance in the general sense of the term, but rather that we should govern ourselves that we may not do anything that might cause our brother to fall.

We are all aware that many of us may be able to indulge in certain things that for ourselves would not harm us in the least, but yet others who may be watching our every move and consider that whatever we may do is perfectly permissible for them, might follow in our footsteps with a disastrous result. Thus looking at the question from this standpoint,

should we not be willing to do only those things which will not cause our brother to offend, nor put a stumbling block in his way? This is surely one way that we who are strong can bear the infirmities of the weak.

Another way in which we can help our weaker brother is by showing our colors at all times and so let him know that we are on the right side. In this way those who might be easily led astray will see that our religion is a noble one. And we are continually showing what side we are on day by day, although it may be unconsciously. One writer says: "The spirit of Christ in the heart is like a spring in a desert, flowing to give fresh air and making those who are ready to perish eager to drink of the water of life."

In connection with the verse we have chosen for discussion Dr. Grenfell says: "The supreme lesson which Christ came to teach was that no man liveth to himself; that we who are strong ought to bear the burdens of the weak. If there is yet one higher joy than that of paying the debt we owe, surely it is that of paying for others their debt which we do not owe. Alone of all great teachers, He came to add this to the beauty, dignity and joy which this brief life affords us. Christ offers this supreme possibility to us—even so far we may have the joy of walking in His footsteps. Honor and lasting joy will

come to us only as we pay and in proportion to the amount the payment costs us."—R. M. M.

New Ideas for the Window-Garden

By John T. Timmons

Those who are always looking for something out of the ordinary in plants for home-decoration find a very interesting plant grown from the discarded top of the ordinary pineapple.

After the top is cut from the fruit, it should be placed in a jar of water with the leaves above the surface, and in a few days fine roots will appear, and in a short time a mass of root growth will have formed, and the foliage will then grow rapidly, forming a graceful plant that resembles some of the palms.

It is one of those old things people like to watch and study carefully as it is developing. Young students in botany will find in this experiment something well worth the time required to care for it. A little moss and pebbles might be placed in the jar after the roots form, but it is best to start the roots in clear water. The water can be renewed as evaporation takes place, but entirely fresh water is not essential, although it does not harm the plant in its growth.

Most lovers of beautiful and at-

tractive house-plants admire the palm. There is a great difference in these popular plants, and some of them are rather expensive, owing to rarity or some particular form of foliage, while others that are more common are very reasonable in price.

PALMS FROM DATE SEED

A very pretty palm can be grown from the seed of the date. Date-palms are not all alike, and some of the larger dates produce plants with finer foliage than others. It is very interesting to watch the development of a date-palm. They are slow in growing, and it takes months to grow a large-spreading palm.

Plant the seed of dates in clean sand, about an inch deep, and keep the sand moist, and in the course of time a sprout will burst from the side of the seed opposite the groove, and about half-way between the ends of the seed.

The first growth is the root, and later the top growth will start from one side of the root growth. It is a single sharp pointed blade, that makes its appearance through the surface. In a short time the plant should be transplanted into rich sandy soil, in a small pot, and still later, when the plant has made a good growth, it should be given a larger pot, and finally it should have a five or six inch pot after the leaves have grown enough to begin to split nicely.—Farm and Freesia.

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"Uniformity is a big word, Bud."
"I 'spect it's because it means a lot, Rose."
Steady—Regular—Dependable Quality, there's the FIVE ROSES idea.
No bad dreams bakeday eves — the morning batch "flat" instead of "up."
So very exasperating, you know, to get less leaves this week than last from the same quantities.
FIVE ROSES is the sure flour — reliable, you see.
No wrinkling worries over bread, or cakes, or pies, or anything.
Bake things always up to the mark of your happy expectations.
Disappointment—never.
Four times Uniform—Strength, Color, Flavor, too, and Yield.
FIVE ROSES—trouble-proof flour.
Use FIVE ROSES always.

Five Roses Flour

Not Bleached



Not Blended

Almost Runs Itself

A SLIGHT push starts the tub moving. That's because the Connor Ball Bearing Washer swings on ball bearings. The ball bearings carry the weight of the tubful of clothes. You have nothing heavy to push. You simply give the tub a little swing. It strikes a set of powerful coil springs. They swing it back swiftly until it strikes another set, then return the tub to the first set. These springs do nearly all the work.

Connor Ball Bearing Washer

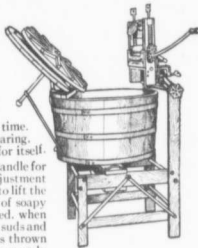
is almost automatic—almost runs itself. Just think of the comfort and satisfaction of owning a machine that would save you your present wash-tub drudgery, and do the washing better than you can do it yourself.

Yes! Better than you can do it yourself. The swift action of the powerful coil springs sends a perfect catract of soapy water swirling and surging through every thread and mesh of the clothes, removing the dirt without any wash-board wear. And in one-third the time. Your time is worth money. The Connor Ball Bearing Washer will soon save enough hours to pay for itself.

It's the most convenient washer, too. The handle for swinging the tub, the wringer and the stand adjustment are all operated from one side. You don't have to lift the cover and put it on the floor to leave a puddle of soapy water. The hinged cover, with slusher attached, when raised rests against the handle of the tub. The suds and water drain back into the tub. The wringer is shown in forward out of the way, with raising cover, or securely locked into upright position over tub for wringing, by a simple wheel-screw adjustment.

WRITE FOR BOOKLET Drop a postcard for the Connor Ball Bearing Washer booklet. Learn all about this newest, most improved Washer. Sold by hardware dealers almost everywhere in Canada. Money Back if not Satisfactory. Guarantee Tag attached to every Connor Ball Bearing Washer.

J. H. Connor & Son, Limited, Ottawa, Ont.



Big Ben

The Men Who Make Big Ben

About 26 years ago a German clock-maker came from the East to La Salle, Illinois.

His only baggage was an idea—the plan of an automatic process he had invented, and which would make more alarm clocks and better alarm clocks than hand labor could ever hope to turn out.

With the backing of some local merchants and with a handful of clockmakers, a small factory was started on the edge of the town.

—Beginnings were hard, competition intense. They weathered storms that would have knocked the fight out of weaker hearted men.

But when success at last came in sight they had built one of the best equipped clock plants in the world and one of the greatest names in the

American clock industry—Westclox, La Salle, Illinois.

Today, the Westclox people number 1,200. Every week day of the year they turn out 10,000 alarm clocks—alarm clocks of every description and style—their name "Westclox" is on every one of them and Big Ben is the king of them all.

Big Ben is the ideal of the Westclox people. He is their conception of what a perfect alarm clock should be. He is only two years old, but in that time 6,000 Canadian dealers have already adopted him.

Only the finest materials are used in his making—he is strong, sensitive and accurate. His face is brass, open, easy to read. His legs, hands, case, are wood. He rings steadily but few minutes intermittently but ten. He calls you every day at any time you say. If you have him sold every other year, there is something how long he will last.

Big Ben's price is \$1.00 on any dealer's. If you cannot find him at your dealer's, a money order sent to Westclox, La Salle, Illinois, will bring him to you, carefully packed and express charges paid.

My Flower Garden

Louise Davis Mitchell, *Elgin Co., Ont.*
Many women living on the farm, where space is plentiful and fertilizers the very best and the cheapest, are literally starving for flowers. It seems paradoxical, yet it is entirely true.

There are many reasons of course for this state of affairs, but after everything is all summed up, the chief reason is that every seed and the flower bulbs, flowers and shrubs cost money and that on every farm there are chickens and little pigs which are ruthless destroyers of both flower seeds and vegetable gardens. Certainly, there is wire netting, but pigs have little respect for this obstruction, unless it is perfectly stretched, and wire netting costs even more money than the flowers would cost.

At first glance it would seem absurd that any woman in this prosperous country could not afford to buy a few seeds and flowering bulbs, but the majority of country women consider flowers a luxury which can be dispensed with in the face of more serious claims, not to speak of the chickens and little pigs. There is the minister's salary, the Ladies' Aid, the mission fund, both general and auxiliary, the Sunday School, the educational, moral reform, superannuation and various other funds to keep up, besides incidental expenses, and with all these different organizations calling for support, few farmers' wives have anything to spend on flowers, notwithstanding the fact that some of them are starving for the sight of them.

WILD FLOWERS NOT ENOUGH

Truly, our woods and fields are ablaze with wild flowers that may be ours for the gathering, but it is for the more gorgeous, cultivated sorts, whose beautiful faces seem almost human, that the country woman hungers, down in her heart of hearts. These speak to her of the culture and refinement of another world than hers. What a pity that any woman should go hungry for the pleasure that a few growing plants could give.

I know one woman who is starving for a canna bed; a tropical blazo of color that will carry her away from the cold, blue morning glories and the pale hollyhocks that have struggled and bloomed for many years in the sod by the garden fence. Another is hungry for pansies and another for roses.

It seems pitiful that any should starve for pansies, which are as easily grown as turnips. We have had for several years a beautiful pansy bed under the partial shade of an apple tree some little distance from the house, but two years ago I felt as if I would like to start another nearer by. So I hunted, from a heap of refuse lumber, a couple of boards about six feet long by six inches in width and a couple of shorter ones of the same width. With these I made a kind of box by staking the ends together in an oblong shape.

MY FIRST ATTEMPT, PANASIES
Into this box I shoveled dirt from the chip yard, mixed with a barrowful of soil taken from beside the chicken house, where the refuse from the house had lain during the winter. I filled the box level flat, patted it down and sowed some seeds, gathered from the original bed under the apple tree. The earth was a soft, dark, sandy loam, and the seeds fairly scrambled over each other in their mad race to get out of the ground. All the latter part of the summer and late into the fall until the snow covered it up, my pansy bed was a mass of bloom. When the legs to me of the pansies were so large that they almost attained the size of "giants." Having looked at other people's

flower beds and borders for so long without owning one myself, I determined, when I went "back to the land" to have some flowers, no matter whatever else I did or didn't do. The first season I contented myself with a few annuals, but the next spring I invested something like a dollar in some choice bulb and seeds. I was entirely new to the business of floriculture, and I invested unwisely, in some ways, but my experience was worth a good deal. My purchase represented three lily bulbs, an anemone, a rubrum, and a melpomene, one dozen mixed gladioli, three packets of Hohenzollern asters and one of portulaca. The portulaca, the asters and the gladioli rewarded me with a wealth of bloom, and, together with nasturtiums and my bed of pansies, made a fine showing all summer, but my choice lily bulbs did not put in an appearance.

MY SECOND ATTEMPT, LILIES
I was nearly desperate about my lilies, but received comfort from "Elizabeth and her German Garden." When the author tells of a like experience to mine and of having to wait until the next spring to see them come up. In the spring I looked eagerly and early for my lilies but alas, only one of them showed itself late in May. I was delighted with that one, even though it looked delicate and sickly, but my happiness was short lived, for the little pig stole into an unguarded moment and made short work of my precious lily. I have reason to believe since my sad experience with the lilies that I planted them too deeply. In my zeal in following out the instructions given



Effective Planting

The possibilities of a few shrubs and trees in the beautifying of the home are well illustrated in the planting around the home of Mr. Hisey, Simcoe Co., Ont. Here illustrated.

—Photo by an editor of Farm and Dairy.

in the bulb catalogue I guess I buried the lilies instead of planting them.

In the fall I determined to start a perennial border. To this end I spaded up a strip of ground about four feet wide and 40 feet in length along the wire fence enclosing the lawn. The ordinary wire fence is always an eyesore to me, and I reasoned that a few vines and flowering shrubs here would relieve the unsightliness to some extent.

I know that the vast majority of women, either country or town bred, would go into spasms of horror at the thought of actually spading up with their own hands 160 square feet of soft soil, but I did it and enjoyed it. Not only that, but I wheeled well rotted manure from the cow stable and also droppings from the hen-house, giving the whole ribbon of ground a generous covering.

IT DID NOT GO INTO MY EXPERIENCE
I did not go into a study of fertilizers from a scientific standpoint

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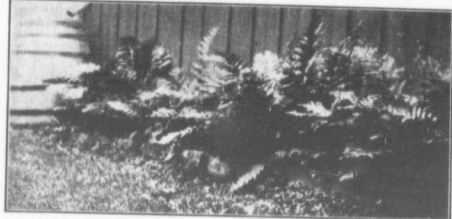
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though this is a good thing to do if the best results are to be obtained. I did not know the relative values of those I used, but I do know that as a result of my soil, I had a beautiful, rich bed of soil. Neither did I know anything about deep trenching, but my bed was loose and friable to the depth of about a foot, and the soil was sandy, it drained itself nicely.

When my ground was all ready I transplanted, as a starter, eight small clumps of German iris taken from an older border of iris. These were in two shades, a delicate creamy yellow and a rich purple. Also, a neighbor

or two, began to bloom, and the asters, with which I had filled up the vacant spots, began to open their crowns of white and rose and purple, the whole ribbon of ground was a mass of flowers and a thing of beauty from August to October.

My failures have far outnumbered my successes, and last summer I had the misfortune to lose in the mails the price which represented a dozen daffodils, two dozen tulips, three Japan iris and another packet of delphinium seed. I did not feel like duplicating the order, so have lost that much that should have been



In a Shaded Place there is Nothing Like Ferns

There is nothing particularly pleasing about a bare red fern. Our illustration shows how Mr. Chris Howson, Peterboro Co., Ont., has relieved the bareness of one side of his backyard by planting ferns against the house.

Photo by an editor of Farm and Dairy.

gave me some dwarf blue iris, which I divided into a half dozen small bunches. A small root of the old-fashioned rose peony, which had never done well where it stood was also added to my border along with a couple of small gardenia plants which a friend had donated. This was my stock-in-trade from the older garden. To supplement this, I sent to a reliable seed and bulb house for two more peony roots, a "Baron Rothschild" and a "Duchess de Orleans," at 25 cents each; three hardy phlox, a "Cupidet," a "Pantheon" and a "Van Heesburg," getting the three for 50 cents.

Having read about planting seeds of hardy plants in the fall and allowing them to lie dormant all winter, I bought a packet of giant pansies at 15 cents, a packet of hibiscus (crimson eye) at 10 cents, a packet of Iceland poppies and one of perennial delphiniums at 10 cents each per packet. I got a dozen snowdrop bulbs at a local drug store at 15 cents more. Though I wanted my border to blossom like the rose, I decided to go slowly and not to spend too great a sum until I found out what success I would be likely to have, therefore I considered the \$1.00 which I had expended enough for that fall.

TRIALS ALONG THE WAY

That winter was a very hard one, and the next spring my border proved to be something of a disappointment. The snowdrops never came up at all. Neither did the pansy seed. Several hibiscus showed themselves, and I succeeded in growing two of them, while only one delicate little delphinium came up and two of the Iceland poppies. The delphinium soon died, and later in the season white grubs made an end of the poppies, though they had grown nicely and were in full bloom. The peonies and phlox, however, made a good start, and one of the tiny gardenia plants grew beautifully, and was a mass of bloom from early summer until the frost cut it down in the fall.

My border was a sorry looking spectacle all the forepart of the summer, but later when the gladiolus of which I had a couple of dozen from the last summer season and a dahlia

added to my border. But what I have lost has in a measure been made up to me by the kindness of friends. I have now nine fine peony roots, a half dozen healthy clumps of dwarf blue iris, 10 clumps of German iris, five hardy phlox, two thrifty bunches of gardenias, with little gardenia seedlings literally swarming about the parent plants, a nice clump of the old-fashioned favorite, widow's tear, some strong young plants of the Canterbury bell, two hibiscus and four rose bushes.

PLEASED WITH START

I am well pleased at the start I have made for the little bit of money laid out. Another year I will add daffodils and tulips, some hyacinths and the Japan iris which I should have had this year only for the loss of my money last August. I have also in mind another ramble rose to keep the one under my window company, and some choice Childs gladiolus and some cactus dahlias.

I consider that I have largely made a start and shall keep adding to my collection year after year. I have not attempted anything that any other country woman could not do if she tried, and I have already been paid many times over for my labor and disappointments by the pleasure I have experienced in caring for my flowers. It is a passionate delight to me to make things grow, and the discouragements that arise from time to time only add zest to the work.

I grew other flowers besides those in my border, but it is to those that I look for pleasure in the years to come.

When curtain pins have been in use for some time they are apt to become rusty. To remedy this, let them stand for a few minutes in a cup of water to which a little ammonia has been added. Then take out and rub well, and they will look almost like new again.

Coffee or cream stains may be removed from delicate silk or woollen fabrics by first of all brushing the stains with glycerine, and then well rinsing them in lukewarm water. But the stain should not be allowed to dry in. Later, press the material on the wrong side with a warm iron.

NO MORE WET OR COLD FEET!!

With Health Brand Clogs on, the man or woman who works in the wettest, coldest places always has warm, dry and comfortable feet. Try a pair yourself this winter.



Felt-lined CLOGS
(As illustrated)
Fine leather tops, hardwood sole and heel, coarsely lined with warm felt. All sizes for men and women, delivered, all charges paid, **\$1.75**

Higher 3 buckles \$2.55
High-legged Wellingtons \$2.75 and 3.25
Children's lace, 7 1/2 to 2 1/2 1.25
Or if you wish to learn more about these wonderful Clogs before ordering, write to me for catalogue booklet, telling how Health Brand Clogs are made, etc., etc. Dealer to write for proposition.

CANADIAN FELT-LINED CLOG CO.,
Dept. D, 363 Spadina Ave., Toronto, Canada

MAIL CONTRACT

SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa until Noon, on Friday, the 15th April, 1913, for the procurement of His Majesty's Mail, on a proposed Contract for four years, six times per week, over Rural Mail Route No. 2, from Peterboro, Ontario, to commence at the pleasure of the Postmaster General.

Printed notices containing further information as to conditions of proposed Contract may be seen and blank forms of Tender may be obtained at the Post Office of Peterboro and at the office of the Post Office Inspector, Kingston.

H. MERRICK,
Post Office Inspector.
Post Office Inspector's Office,
15th February, 1913.

Try **ME** on your **BATH ROOM WALL**

One rub will make it as white as snow

Old Dutch Cleanser

Many uses and full directions on large Sizer - Can 50¢

YOUNG MEN FOR ONTARIO FARMS

Arriving February, March, April
Apply: **BOYS FARMER LEAGUE**
DRAWER 126 - WINONA, ONT.

HARTSHORN SHADE ROLLERS

See the great name of Hartshorn on label. Get "Hartshorn," no tags required.
Wood Rollers Tin Rollers

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THE FURNACE WITH A REAL WATER PAN

WARM AIR

FURNACES

STAND FOR QUALITY & SATISFACTION

Winter Warmth in the home like the breath of a day in June, compared to the July-like dryness and intensity of the furnace heat with which you are familiar. It's all in the big **CIRCLE WATER PAN** with its adequate provision for humidifying the heated air, and a furnace construction absolutely gas and dust tight.

THE FURNACE WITH A REAL WATER PAN

W. H. GIBBES & CO., Limited
WOODSTOCK ONT.
WINNIPEG, MAN.

FURNACE CATALOGUE MAILED ON REQUEST

ORNAMENTAL WIRE FENCE

8¢ PER RUNNING FOOT
FRIEGHT PREPAID



We want you to investigate this statement—we guarantee a better ornamental wire fence than can be obtained elsewhere for the money. We guarantee absolutely every foot of fencing we manufacture, and the fact of its being made by the original and only manufacturers of the **BRITISH PATENT GALVANIZED ORNAMENTAL WIRE FENCE**, and we will deliver and install it all over Canada for farms, dairies, orchards, cottages, farm houses, institutions, schools, etc., etc.

Kernal

Remember, we are the largest buyers on the market, our agents are in every part of the Dominion, and we sell direct to the consumer for cash, saving you the dealer's commission, and heavy expenses incident to a credit business. We have just published a catalogue. It tells of the greatest fence offer ever made. You owe it to yourself to read this great KERNAL offer. Use the blank form herewith and mail to us today and we will forward to you our special offer at once.

The Kernal Fence Co. Ltd., Sarnia, Ont.

(Incorporated in Ontario) High Quality Galvanized Wire Fencing
Sole Agents for the Dominion
No. 10 of St. Nicholas Street, Toronto, Ont.

For the City Residence For the Country Home

OUR HOME CLUB

"Big Business" on the Farm

What a fine thing it would be if we could cut our cake and still have it! How it would appeal to some Daddies I have known who always meant to do well by their sons,—but! when it came to giving them a start—well you know it does hurt to part with that which one has made—even to give it to a son!

The trouble is that too many of our farmers do not take enough. They really have not the wherewithal to divide with sons.

We need to plan for bigger things and large businesses, and as "Your Uncle Henry" wrote some time ago in Farm and Dairy, have the farms and all they represent big enough to enable sons and father to each and

BOY SAVED FROM BEING A CRIPPLE

By Douglas' Egyptian Liniment

Mr. W. B. Perry, Thornworth, Ont., has a son who owes a good deal to Douglas' Egyptian Liniment, for without it he would certainly have been partially crippled for life. His father writes:

"My son Marshall had his foot so badly frozen that the doctor said he would have to amputate the toe. The boy cried so much that we decided to allow the doctor to amputate."

"A friend hearing of the case sent to a bottle of Egyptian Liniment and strongly advised us to try it before consenting to amputation. We wished if possible to save our son from being a cripple and used the Liniment."

"Three days after the first application the frozen flesh dropped off and the boy's foot began to improve and was saved."

The way Egyptian Liniment removes unhealthily matter from frost bites, scalds, burns and festering wounds, and restores sound, healthy flesh, is simply wonderful. See at all drug stores. Free sample on request. Douglas & Co., Niagara, Ont.



This Engine Runs on Coal Oil

Every farmer can afford an Ellis Coal Oil Engine. They give far more power from coal oil than other engines do from gasoline. They are safe, as well as cheap, no danger of explosion or fire.

The strongest and simplest farm engine made; only three moving parts; nothing to get out of repair. Anyone can run it without experience. Thousands of satisfied customers use these engines to grind feed, fill silos, saw wood, pump, thresh, run cream separators, and do men. Fill up the tanks and start it running, and no further attention is necessary; it will run till you stop it.

FREE TRIAL FOR 30 DAYS. You do not have to take our word for it. We'll send an engine anywhere in Canada on Thirty Days' Free Trial. We furnish full instructions for testing on your work. If it does not suit you send it back at our expense. We pay freight and duty to get it to you and we'll pay to get it back if you don't want it.

Absolutely guaranteed for 18 years. Write for free catalog and opinions of satisfied users. Special offer in new territory.

Ellis Engine Co., 90 Mullett Street, DETROIT, MICH.

3 to 15 horse-power
We pay Duty and Freight



Not so Friendly as They Look

Miss Mary Hales, Peterboro Co., Ont., in sending us this photo of her uncle and the wild cat that he has just trapped, tells us that last winter her uncle trapped no less than seven wild cats. We would consider that about a record.

all have a big interest right at home. This idea comes about as near, as to me seems possible, to how Daddy "can eat his cake and still keep it,"—give sons a part of his farm and no living, and still keep it!—"The Son."

Situations Wanted

Experienced Farm Hands and Married Couples require positions. Send full particulars to a named address envelope for quick reply:

FARM EMPLOYMENT AGENCY
140 Victoria Street, TORONTO

GASOLINE ENGINES

11 to 50 H.P.
Stationary Mounted and Traction



WINDMILLS

Grain Grinders, Water Boxes, Steel Saw Frames, Pumps, Tanks, Etc.

GOOLD, SHAPLEY & MUIR CO., LTD.
Brantford Windmill Category

RECOGNIZED BY HIGHEST AUTHORITIES AS THE BEST GROWN IN CANADA

WRITE TO DAY FOR CATALOGUE STORES IN TORONTO, MONTREAL WINNIPEG-VANCOUVER

Know Your Neighbors

Is it true that the average Canadian farmer is unsocial? After milking the other night I strolled down the road about a half a mile to see a young bull that one of the "bosses" neighbors had recently purchased and paid a long figure for. This neighbor was surprised to see me strolling in and said that I was the first human being of the neighborhood that had been on his property in the last three months. This man had recently moved in from another section where it seems neighbors called on one another and he was lonely for sociability and his wife was even more lonely than he.

I remember when reading a synopsis of the report of Roosevelt's Country Life Commission, that the statement was made that one great thing that was hindering the average American farmer was his isolation and that this isolation was due in part to his lack of sociability; in short, he stayed at home so steadily that he hardly knew what the rest of the world was doing; and as good rules

Government Standard SEEDS

We buy most of our seeds directly from farmers here who grow them. Because they are true. Our guarantee is that if seeds do not satisfy on arrival you may ship them back at our expense.

SILVER MINE OATS, 60¢ bushel
SIBERIAN OATS, 60¢ bushel
BANNER OATS, 60¢ bushel
O. A. C. No. 21 BARLEY, 90¢ bushel
GOLDEN WINE PEAS, \$1.20 bushel
ALFALFA, imported, \$12.00 bushel
RED CLOVER, \$15.00
ALSIKE, \$15.00
TIMOTHY, \$15.00

Bags, extra cotton 50¢, jute 10¢. Ask for samples. Cash to accompany order.

The Caledonia Milling Co. LTD.

CALEDONIA, ONT.

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MAIL CONTRACT

SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa until Noon, on Friday, the 25th March, 1913, for the conveyance of His Majesty's Mails, on a proposed Contract for four years, six times per week, over Rural Mail Route No. 1, from Springbrook, Ontario, to commence at the pleasure of the Postmaster.

Printed notices containing further information as to conditions of proposed Contract may be seen and blank forms of Tender may be obtained at the Post Office of Springbrook, and at the office of the Post Office Inspector, Kingston.

H. MERRICK, Post Office Inspector.

Post Office Inspector's Office, 12th February, 1913

Capable Old Country Domestic

Parties arriving about February 18th and 28th

APPLY NOW

The Guild, 71 Drummond St., Montreal and 47 Pembroke St., Toronto

THIS WASHER MUST PAY FOR ITSELF.

A MAN tried to sell me a horse once. He said it was a fine horse and had nothing the matter with it. I wanted a fine horse, but I didn't know a thing in the world about horses, much less about the man who was selling them.

So I told him I wanted to try the horse for a month. He said "All right," but he said "I'll give you \$100 for the horse, but you must pay me first, and I'll give you the horse back your money if I don't want the horse in 10 days." Well, I didn't like that. I was afraid the horse was not all right. I was afraid the horse was not "all right" because I might have to whistle for my money if I once backed with it. So I didn't buy the horse, although I wanted it badly. Now this is the thinking.

You see I make Washing Machines—the "1000 Gravitry" Washer.

And I said to myself, "I don't want my tank about the horse, and about the man who owned it. But I'd never know, because they wouldn't write and tell me. You see I sell my Washing Machines by mail. I have sold over half a million of them. I let people try my Washing Machines for a month, before they pay for them just as I wanted to try the horse for a month.

Now, I know what your "1000 Gravitry" Washer will do. I know it will wash your clothes without wearing or tearing them, in less than half the time they can be washed by hand or by any other machine. I know it will wash a tub full of very dirty clothes in six minutes, and I know no other machine ever invented can do that, without wearing the clothes. Our "1000 Gravitry" Washer does the work so easy that a child can run it almost as well as a strong woman, and it doesn't break bottoms, the way all other machines do.

It just drives away dirt clear through the fibres of the clothes like a force pump might. So, I said, I will try to myself, and I will try my "1000 Gravitry" Washer what I wanted the man to do with the horse. Only I won't pay for people to try my machine. I'll offer you a trial. I'll make good the offer every time.

Let me send you a "1000 Gravitry" Washer on a month's free trial. I'll pay the freight out of my own pocket, and you don't want the machine after you've used it a month, I'll take it back and pay the freight, too. Surely that is fair enough, isn't it?

Doesn't it prove that the "1000 Gravitry" Washer must be sold the way I sell it? And you can pay me out of what it saves for you. It will save you \$100 a month in money in wear and tear on the clothes alone. And then it will save 50 to 75 cents a week over that in wash-water's wages. So you keep the machine after the month's trial, I'll let you pay for it out of what it saves you. I'll give you 50 cents week, send me 50 cents a week till paid for. I'll take that cheerfully, and I'll give you money until the machine has earned the balance.

Drop me a line to-day, and let me send you a book about the "1000 Gravitry" Washer. It washes clothes in six minutes.

Address me personally: F. S. MORRIS, Manager, 1560 Washier Co., 567 Yonge St., Toronto, Can.

work both ways, the world and even his neighbors did not know what he was doing. This finding I believe has never been successfully controverted. Really I can't see that there is much use in living without sociability and it is up to the farmers, hired men and all, to remove this bur on their otherwise fair reputation.

I was much interested in "The Philosopher's" letter on "The Union Church for the Country District." His suggestion is excellent, but I fear that in some sections at least, the country people see so little of each other that they would never be able to get together and discuss the question. Many reforms will have to be delayed until country people get more sociable. Of course the condition I have described may not be a common one.

GRANGE NOTES

Apple Grove Grange, Middlemarch, held its regular meeting on Friday night, Feb. 21st, with a large turnout and a good program of songs and instrumental music by the



Two Staunch Grangers

Mr. Dugal McBane to the left and Rev. Mr. Currie to the right are Elgin Co. Ont., Grange enthusiasts.

Grange orchestra under the leadership of Miss Rhea Gooding. Messrs. Neil Barron, James N. Fletcher and Selathiel Curtis were elected delegates with the Master and Secretary, to the Elgin County Grange which meets in St. Thomas in March.

As the Farmers' Institute meets in the hall March 6th with lantern slides and a good array of speakers, the pianist, Trevor Stinchcombe, and assistant, Miss Hazel Gooding, were appointed to prepare the musical part for the occasion.

Dr. J. D. Robinson of Washington, D. U., a past master of this Grange and son of the late Jabel Robinson, ex-M. P., has presented a very valuable addition to the library, consisting of 12 illustrated volumes of Spafford's historical and literary works. The Grange library is open to all members and is first class in every respect, there being about 900 books, all standard works, on its catalogue.

After the initiation of four young men, oysters were served in true Grange style under the direction of Messrs. Roy Gilbert, Edgar Miller and Arthur Carrol, assisted by Mesdames Wardell and Stinchcombe.

Forest Rose Grange has been called upon to suffer a severe loss in the death of Mr. Dugal McBane, the residence of his son, Dr. D. McBane,

Rainy River, whom he had been visiting. Mr. McBane with his wife, also deceased, were charter members of this Grange, the second in Elgin county, organized in 1875. The Grange hall was built on the McBane homestead and thus for nearly 40 years he and his family have been active in the work, upholding the principles and never falling in Grange duties in the life of his daughter, Miss Mary Bell, elected Pomona of Elgin County Grange, assisted at its reorganization a year ago from the Division Grange in which he too had been active in the days of its prosperity and adversity. He was a kind father, good neighbor, and staunch Presbyterian. It can be well said of him "the hath done what he could and hath gone to his reward."

Elgin County Grange will meet in the Court House, St. Thomas, the second week in March. Delegates and members meet at three. Any interested in agriculture are invited to be present at four to hear the addresses. The delegates to the Dominion Grange will give reports.

Mr. J. J. Morrison, Secretary of the Dominion Grange, on returning from a trip to Essex county, writes us that his efforts at organization there have met with great success. Four dormant Granges have started energetically again and in addition an active committee has been formed with the following officers: President, Walter C. Anderson, Malden Centre; 1st vice-president, Thos. Taylor, Auld; 2nd vice-president, John Pollard, Harrow, and secretary-treasurer, Thos. H. Adams, Essex.

Mr. W. McCrae, a Granger of Guelph, Ont., writes Farm and Dairy calling attention to an accident that occurred in Toronto recently when a boy was run over by an automobile and killed and the driver entirely absolved from blame. Mr. McCrae says: "I venture to say that if a farmer had killed that boy there would have been no noise then there is. One of my neighbors lost the bell of his sleigh and the police caught him and fined him for not having them on, yet he was going to fly the bells. I intend that automobiles should have an alarm continually going as our sleigh bells, and when life is taken the slayer should be made to feel the responsibility."

What is Home Without a Garden?

Ed. Lane, Waterloo Co., Ont. Much has been written in past numbers of Farm and Dairy about the "Farmers' Orchard" but very little about the "Farmers' Garden." This one is as necessary as the other, only in a different sense.

We have heard a great deal about the young people leaving the country for the cities and cities. Is it not because they, when they go to town, see so many things which are more attractive to them than what they have at home; for instance, when they go to a friend's house, or if it may be stop at an hotel for a dinner, they find delicacies on the table which they never get at home and they find that townspeople have them every day. It makes them feel tired of the farm. Their desire to leave the farm would not reach them if they were accustomed to get these delicacies at home. And those they might have if farmers knew how to run their gardens to advantage. Gardening is a branch of agriculture as educative as well as remunerative, and should be studied by every one; especially when they have the two first desiderata, land and manure, in abundance. The town man is often short of both.

The Sewing Room

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

GIRL'S PANIER DRESS, 7613



When paniers are in vogue for the younger generation, frocks for the younger one are apt to show a little too. The model illustrated includes them both in a simple, girlish form. The blouse is made with set-in sleeves in elbow length and a most attractive and unusual collar. The skirt is closed at the right under the panier. The pattern is cut in two pieces and the panier of two.

For the same size, the blouse and panier will require 4 yards of material 27, 3-1/2 yards 36, 2 1/2 yards 44 inches wide with 1-1/4 yard 18 inches wide for the back of the collar, 1-1/4 yard 18 inches wide for the bill of the collar; for the skirt will be needed 2 yards 27, 1-7/8 yards 36 or 44 inches wide, 1-1/4 yards 2 inches wide for the puffing.

The pattern is cut in sizes for girls of 12, 14 and 16 years of age.

CUTAWAY OR STRAIGHT COAT FOR MISSES AND SMALL WOMEN, 7631



Both young girls and the small women who find youthful styles becoming will be sure to welcome this coat. There are fronts and side-fronts, backs and side-backs, and the seams provide both easy fit and becoming lines.

The pattern is cut in two pieces each.

For the 16 year size the coat will require 4 1/4 yards of material 27, 3 1/4 yards 36, 2 1/2 yards 44 inches wide with 1 1/2 yard 27 inches wide for the collar and 4 cuffs.

This pattern is cut in sizes for misses of 16 and 18 years.

TWO-PIECE SKIRT WITH DRAPERY, 7622



Draped skirts are also graceful and attractive. The new-cut ones are exceptionally low, and this one is among the best. The foundation skirt is a single one in two pieces and the drapery is made in two pieces and beaded ends are greatly in vogue and would make exceedingly handsome drapery over satin.

For the skirt with the long drapery will be needed 4 1/2 yards of material 27, for skirting 3 1/4 yards 36 or 44 inches wide; for the length 3 1/4 yards 27, 2 5/8 yards 36 or 44 inches wide; for the drapery 2 1/4 yards 27 or 36 inches wide. The width of the skirt in walking length is 2 yards at the lower edge.

This pattern is cut in sizes from 22 to 30 inch waist measure.

Farm and Dairy is a most interesting and instructive farm journal, and I shall do my utmost to secure new subscribers in this vicinity.—Lillian G. Crummy, Leeds Co., Ont.

The Gospel of Efficiency

HOW IT IS PREACHED TO AND PRACTICED BY CANADIANS

FIFTEEN years ago the word "efficiency" held the same place in the Dictionary that it does today, but in the popular mind it was a somewhat ordinary word used for describing the attributes of a certain engine, tool or perhaps a remedy of some kind—all inanimate things.

At that time the watchwords of the ambitious Canadian were "Initiative" and "Hustle," and with these he whipped himself into superlative effort, until he found that he was fast losing the ability to keep himself up to "concert pitch"—he no longer responded to the whip—something serious had happened—

Truth was he had lost his efficiency.

Thus did the word Efficiency assume a new and great import among men and women alike, for without it we can have neither initiative, hustle or ability to keep pace with the business and social requirements of the twentieth century.

How to obtain and maintain the highest degree of Efficiency is partly the purpose of this article.

The great study with us now should be how to keep well and efficient while we are about, rather than how to get well and efficient after we are ill—as a matter of fact, in this connection, those of us who consider ourselves well and strong are not consistently more than fifty per cent. efficient.

We may be able to get about and do our daily tasks with more or less satisfaction to ourselves, and that is not by any means one hundred per cent. of efficiency.

If our brains are clear, our intellects bright, and our condition such as to put enthusiasm and "ginger" as well as clear judgment into our work, we have a tremendous advantage over those who are half the time depressed, linc, and all the time nervously fearful that their judgment may be wrong—who lack the confidence that comes with perfect efficiency, and makes so much for success.

But most of us are in the latter class, if we analyze our feeling, and for a very good reason.

Nature is constantly demanding one thing of us which, under our present mode of living and eating, it is impossible for us to give—that is, a constant care of our diet, and enough consistent physical work or exercise to eliminate all waste from the system.

Nature has constructed us for a certain physical "speed" as it were. If you construct an engine for a certain speed, and then attempt to run it at a quarter of that speed, it clogs up and gets "wheezy at the joints" and needs frequent attention and assistance to operate satisfactorily—just so with the human body.

If our work is mostly mental, or confining, as it is in almost every instance, and our physical body runs at quarter speed or less, our systems cannot throw off the waste except according to our activity, and the clogging process immediately sets in.

This waste accumulates in the colon (lower intestine), and is more serious in its effect than is immediately apparent, because it is intensely poisonous, and the blood, circulating through the colon, absorbs these poisons, circulating them through the system and lowering our vitality generally.

That's the reason that biliousness and its kindred complaints make us ill "all over." It is also the reason that this waste, if permitted to remain a little too long, gives us the destructive germs, which are always present in the blood, a chance to gain the upperhand, and we are not alone inefficient, but really ill—seriously sometimes if there is a local weakness.

Accumulated waste, for instance, is the direct, immediate and specific cause of Appendicitis.

Now, there have been many preachers of the Gospel of Efficiency, among them men high up in the literary, commercial and professional world, who have tried to teach us to conserve our energies by relaxation, avoidance of worry, habitual cheerfulness, etc., but this is useless advice when the seat of the trouble is physical first, and mental afterwards.

There have also been many practical men, such as physicians, physical culturists, dietitians, osteopaths, etc., who have done something towards actually removing this waste from the colon, at least for a time.

It remained for a new, rational and perfectly natural process, however, to finally and satisfactorily solve the problem of how to thoroughly eliminate this waste from the colon without strain or unnatural forcing—to keep it sweet and clean and healthy and keep us correspondingly bright and efficient—clearing the blood of the poisons which made it, and us, sluggish and dull-spirited, and making our entire organism work and act as nature intended it should.

That process is internal bathing with warm water—and it, by the way, now has the unqualified and enthusiastic endorsements of the most enlightened physicians, physical culturists, osteopaths, etc., who have tried it and seen its results.

Heretofore it has been our habit, when we have found, through disagreeable, and sometimes alarming symptoms, that this waste was getting much the better of us, to repair to the drug-shop, and obtain relief through drugging.

This is partly effectual, but there

are several vital reasons why it should not be our practice as compared with internal bathing.

Drugs force nature instead of assisting her—internal bathing assists nature and is just as simple and natural as washing one's hands.

Drugs, being taken through the stomach, sap the vitality of other functions before they reach the colon, which is not called for—internal bathing washes out the colon and reaches nothing else.

To keep the colon consistently clean, drugs must be persisted in, and to be effective the doses must be increased—internal bathing is a consistent treatment, and need never be altered in any way to be continuously effective.

No less an authority than Professor Clark, M.D., of the New York College of Physicians and Surgeons, says: All of our curative agents are poisons, and as a consequence every dose diminishes the patient's vitality.

It is rather remarkable to find, at what would seem so comparatively late a day, so great improvement on the old methods of internal bathing, for in a crude way it has, of course, been practiced for years.

It is probably no more surprising, however, that the tendency on the part of the Medical Profession to depart further and further from the custom of using drugs, and accomplish the same and better results by more natural means; causing less strain on the system and leaving no evil after effects.

Doubtless you, as well as all Canadian men and women, are interested in knowing all that may be learned about Efficiency—about keeping up to "concert pitch," and always feeling bright and confident.

This improved system of internal bathing is naturally a rather difficult subject to write about in detail, but there is a Physician who has made this his life's study and work. He has written an extremely interesting book on the subject, called, "Why Man of Today Is Only Fifty Per Cent. Efficient," which he will send without cost to anyone addressing Charles A. Tyrrell, M.D., at Room 672, 280 College street, Toronto, Ontario, and mentioning that they have read this article in The Peterboro Farm and Dairy.

It is surprising how little is known by the average person about this subject, which has so great a bearing on the general health and efficiency.

My personal experience, and my observation makes me very enthusiastic on internal bathing, for I have seen its results in sickness as well as in health, and I firmly believe that everybody owes it to themselves, if only for the information available, to read this little book by an authority on the subject.

\$2.00 WORTH FOR \$1.00

The 2 in 1 Automatic Awl is a combination of the two best known dolly rods in the world, the Awl being a wood thread and the Awl being a copper wire.

From cutting, a hole in a board, to driving a nail, the Awl is a complete set of tools. It is a small matter then to determine how many fruits there should be on the tree.

FISHER-FORD MANUFACTURING CO.
Depts. 22, 31 Queen St. West, Toronto, Ont.
AGENTS WANTED

The Question of Thinning

(Continued from page 7)

great a load as those in perfect health, while trees making excessive growth may very well be allowed to carry much more than average trees under the same conditions.

By one rule which is practised to some extent, the grower sizes up all the conditions and determines how many boxes of fruit the tree should carry. It is a small matter then to determine how many fruits there should be on the tree.

HOW MUCH TO LEAVE

Another rule which might be taken in connection with the previous one is to thin plums to about two, two and one-half or three inches; peaches, four to eight, depending on the earliness of the variety; pears and apples, five to seven inches apart. On the outside twigs and on shoots of all varieties bear heavily in British Columbia it is well to thin a greater distance than on strong fruit-spurs in the side twigs of the tree.

A very important point, well illustrated by the Yellow Newtown apple, is that the centre apple of the cluster, and not one of the side apples, should remain. The centre blossom of the cluster comes out first; its stem is usually shorter and stouter than those of the outside blossoms, and at the time of thinning the apple is usually much larger than the others and on a shorter stem.

A very important point, well illustrated by the Yellow Newtown apple, is that the centre apple of the cluster, and not one of the side apples, should remain. The centre blossom of the cluster comes out first; its stem is usually shorter and stouter than those of the outside blossoms, and at the time of thinning the apple is usually much larger than the others and on a shorter stem.

THINNING PLUMS

In the production of fancy fruit, thinning pears, and apples well. It means much in the assurance of crops of only high-class fruit. It is not likely to be of value unless the orchard is right in the matters of variety, fertility, cultivation, pruning and spraying; it is not likely to give good returns unless the high-class article produced is properly packed and marketed by business-like methods.

It is unlikely that any fruit-grower will thin too much; it is quite certain that most growers will not thin enough. While the average man may know about thinning, he is short the nerve necessary to carry it out. Most of the growers in British Columbia and also in Eastern Canada, have not yet had enough experience to realize the difference in profits on large and small sizes.

We have never fed flax seed meal to horses. We do feed a little flax and mixed with oats it is real good.—John Gardhouse, York Co., Ont.

BREEDERS' DIRECTORY

Cards under this head inserted at the rate of \$4.00 a line per year. No card accepted under two lines nor for less than six months, or 36 insertions during twelve months.

VORSHIRE PIGS, all ages, either sex. Choice young Boars, \$5 for service. Also Sows of all ages, bred and heavy with pig—H. C. Benfield, Woodstock, Ontario.

FOR SALE—3 Sons of King Farms Seals Clothing, from R. O. P. cows. Also three Clyde Pilles and J. P. Stallions, Yearlings.—R. M. Holby, Manchester, Ont.

FOR TANKWORTH SWINE—Write John W. Todd, Carleton, Ont., E. F. D. No. 1.

HOLSTEINS—Young stock for sale. Bred by Imperial Pauline De Kool, whose 15 nearest dams average 26.30 lbs. butter in 7 days.—R. W. Walker, Utica, Ont.

CLYDESDALES, Imp. Stallions and Fillies. Fresh importations always on hand. Every mare guaranteed in foal.—J. J. Sample, Milverton, Ont., and Laverne, Minn., U.S.A.

SPECIAL PRICES ON QUANTITIES

O. A. C. No. 21 BARLEY, choice threshed and not scored. Ten bushel lots, 85 cents. Best cotton bags 25 cents extra. Write early and be sure of satisfaction.

H. R. NIXON, - ST. GEORGE, ONT.

Seed, Grain and Potatoes

Siberian Oats, clean and pure. 70¢ per bus. No. 21 barley, from hand selected seed, absolutely pure, 81.25 per bus. Empire State, Delaware and Satisfaction Potatoes, all from selected registered seed, 25¢ per bushel. Write for catalogue free. A. HUTCHINSON, MOUNT ROBERT, ONT.



I KNOW of farm lands in Ontario, and in the West, too, that are now yielding only 10 to 15 bushels of wheat to the acre. They used to yield 30 to 40. What a loss to their owners!

I wonder if you have any wheat land that is not doing its duty by you. If so, I strongly advise you to make an application of Harab No. 6 (cereal) Fertilizer, putting it on at the rate of about 300 pounds to the acre.

Progressive Jones Says: "Get More Bushels Per Acre"

Harab FERTILIZERS

will put back into your soil the plant food that continual cropping has taken out. Your worn-out land will become the rich, profit-making soil of former years. And all at a small cost.

Harab Fertilizers are natural Fertilizers. They are manufactured from blood, bones, etc., from the big Harris Slaughter Houses, with the addition of Potash and just enough quick-acting Nitrates and Superphosphates to produce well-balanced Fertilizers, which feed the plant as required and develop it to early maturity in a natural way.

But what you want first is the Fertilizer Booklet issued by the Harris Abattoir Co. It gives complete information about choosing the correct Fertilizers for barley, oats, rye and other crops, and the quantities to use. It's a mighty interesting booklet. I know for I've read it myself. The Harris people assure me they'll gladly mail you a copy free. It's up to you to show you're "A Progressive."



Years for bigger grain crops Progressive Jones

The Harris Abattoir Co., Limited TORONTO, CANADA

Edward Charles Ryott

AUCTIONEER AND VALUATOR
Pedigree Stock Bred are my specialty. Many years successful experience out from Woodstock, Oxford Co., Ont., qualify me to get you satisfaction. Correspondence solicited.—178 Carlaw Avenue, Toronto, Ont.

Maple Evaporators

To the live farmer our Perfect Maple Evaporator and Sugar Bush can be made to produce a revenue when it is most needed. With our Maple Evaporator, sap is easily taken in a uniquely convenient manner to the finest quality maple syrup. The body of the Evaporator is made of heavy sheet-iron, thoroughly riveted and braced with steel angles and fitted with cast iron door and frame. The working of the evaporator is very simple—put the sap in at one end and it comes out syrup at the other. Send for Illustrated Leaflet.



Steel Trough & Machine Co., Ltd., 6 James Street, Tweed, Ont.

\$3 a Day Sure

Send your address and we will show you how to make \$3 a day sure. Write to the Galt Art Metal Co., 253 Stone Road, Galt, Ontario.

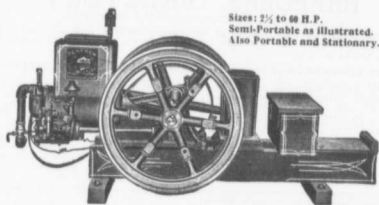
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Valuable information about roofing of the kind entailed for the building you have in mind, will be sent to you free of charge.

Just write on a post card the word "Roofing," give your name and address, and full particulars will be sent by return mail.

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Size: 2; to 40 H.P. Semi-Portable as Illustrated. Also Portable and Stationary.

Factory Methods On The Farm

THE modern manufacturer and the modern farmer use strikingly similar business methods. The modern manufacturer is always on the look-out for labor-saving machinery for his factory—machinery that will do the work in less time and at less expense. The modern farmer is also on the watch for labor-saving machinery for his farm.

And of all the labor-saving machinery what can excel the gasoline engine? It sawed wood faster than a hired man can saw it. It pumps water for the cattle quicker than he can pump it. It shells the corn faster, grinds the feed quicker. It will run the fanning mill and emery wheel for you. It will run the cream separator, the churn, and the washing machine for your wife. If desired, it will furnish the power to light your home or barn with electricity.

Renfrew-Standard

A good engine will produce gasoline-power at a fraction of the cost per hour you would pay for man-power. Therefore it is good business to use gasoline-power wherever it is possible to substitute it for man-power. That's what the modern manufacturer would do if he brought his factory methods to the farm.

A good gasoline engine, such as the Renfrew Standard, will soon pay for itself. And it will last for years. It's built to last. It is so perfectly balanced and runs so steadily that it requires no anchoring.

Main bearings are of anti-friction metal. Cylinders are of close-grained semi-steel, like those used in high-grade auto engines.

The carburetor consists of but three parts. Nothing about it to confuse the operator or get out of order. The governor, which is the fly-ball type, like that of a steam engine, permits the speed to be varied while engine is running. And you can start the engine easily without cranking in cold or warm weather.

The Renfrew Standard is the latest and best type of gasoline engine sold in Canada today. A booklet giving complete description will be mailed promptly on receipt of your name and address. Just drop us a card by next mail. Also ask us about the Gifford 15 1/2 h.p. engine—truly a wonderful little engine.

The Renfrew Machinery Company, Limited

Head Office and Works: Renfrew, Ontario

Agencies Everywhere in Canada

Fertilizers Lowest prices given on best grades of commercial fertilizers. Complete fertilizers, Nitrate of Soda, Potash, Superphosphate, etc. Write us for your needs and ask for prices. CRAMPEY & KELLY, DUNDAS ST. RD., TORONTO, ONT.

THE BIRDER'S BOOK ON POULTRY

and also the best book on the subject of raising poultry. It tells you all about the different breeds of chickens, their habits, their diseases, and how to keep them. It is a complete guide to the poultry raiser. You can get it for 25c. Write to G. G. BROWNE, Box 1122, Fredericton, N.B.

"FARM DAVIES' WAY"

Learn how to grow as for this special booklet

THE WILLIAM DAVIES CO., LTD.
West Toronto, Ontario

To Retain Western Market

(Continued from page 2)

their perishable produce as they use with their stock they would reap hand-some profits. They must realize that cooperation in building storage plants for their fruit is by far a cheaper way than holding privately and a much better way. One has to haul his fruit anyway, and it is little more trouble to take all one has for sale to some central point on the railway where one can have laborers to pack it schooled in grading of fruit. At such a point one knows that the inferior fruit will bring for the canning, evaporating or cider companies to manufacture. One knows that at such a cooperative station the superior brand is not disgraced by some unprincipled, selfish person who seeks to gain a few dollars at the expense of losing thousands of dollars to the many in the business. Some may say that holding the apples or fruit might not be convenient to many. The writer has also considered that point and knows that the man who may be cramped for money could be satisfied better by borrowing the money from the bank, upon his warehouse receipts, than he would by taking all the cash he could get when the goods have been sold on a slaughter market.

The only thing necessary for the producer in Ontario to do to hold his western trade is to compel honesty in grading; adopt a crate enclosing a number of shallow boxes for the smaller fruits, which will admit of their being piled up high in the car without crushing; cooperate in packing at central points with storage buildings to let crop go gradually onto the market in order to keep a market from being overloaded; pack the fruit of keeping varieties in boxes which suit the convenience of the customer, as he can buy to the limit of his money only and no more; and lastly, endeavor to get the fruit onto the market at the consumers door in as good condition as possible as the better the condition of the fruit and the better he is satisfied with his purchase the oftener he will buy your goods.

For Next Week.—Reports of the Dairyman's Convention held at Ormstown and Cowansville last week have been received, but owing to lack of space these reports will have to be held over till the next issue of Farm and Dairy. A report of the Munroe & Lawless Holstein sale has also been held over for next week.

Compare the "BISSELL" with other disks

Thousands of Farmers have tested the "Bissell" Disk Harrow in the same field with other makes and found that the "Bissell" HAS THE GREATEST CAPACITY.

The plates are the correct shape. They cut, turn and pulverize the soil where others

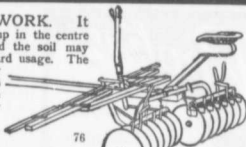
only scrape the ground and set it on edge.

The "Bissell" Scrapers meet the plates chisel fashion and keep the plates clean. Movable Clod Irons—an exclusive feature—keep the space between the plates clear.

The "Bissell" stays RIGHT

DOWN TO ITS WORK. It won't bind, buckle or hump in the centre no matter how stiff or hard the soil may be. It is built to stand hard usage. The simple method of balancing the driver's weight removes neck weight. It is the Harrow you should know more about.

Write to Dept. R for catalogue with description.



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TRANSIT Insurance

HORSES and cattle shipped to the Western Provinces or elsewhere can be insured under short term Policies of 5, 10, 15, 20, 25, 30 days to cover the Railroad transit and a few days after arrival. These policies cover the Owner against loss by Accident or Disease and only cost a few dollars per carload.

Losses are heavy on Live Stock shipments on account of injuries sustained in cars through rough shunting, trampling, car fever, etc. not to mention numerous other causes resulting fatally a day or two after landing at destination. We cover both on board car and after arrival, some other companies do not cover after arrival. Insure with us and get the most for an equal premium. Do not take any chances with others.

All kinds of live stock insurance transacted. Write us for particulars and name and address of nearest agent.

THE GENERAL ANIMALS INSURANCE CO. OF CANADA, Head Office: 714 ST. JAMES STREET, MONTREAL, Que.

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FARM MANAGEMENT

Fertilizers on Mangels

G. W. Proceck, Hattota Co., Ont.

I have been using considerable quantities of commercial fertilizers during the last four years. My experience may interest other farmers.

In the year 1909 I first used fertilizers and, wishing to see just what they would do on my mangels I left part of the field without any fertilizer. The season was dry, but the fertilized land did not seem to suffer at all from the drought, while the unfertilized plot was severely affected. The result was that I had almost double the crop from the fertilized land.

In 1910 I sowed barley on the same

For mangels I have always used 400 lbs. Acid Phosphate and 130 lbs. Muriate of Potash an acre, and for potatoes about 350 lbs. of the Phosphate with 150 lbs. Sulphate of Potash. I have never used any Nitrate of Soda, as I always manure heavily and consider that the latter supplies sufficient nitrogen. In applying the fertilizers I scatter them broadcast on the land in early April, or just as soon as it is possible to do so.

Management of a Farmer's Orchard

(Continued from page 5)

The fertilizer problem is at present much discussed. A farmer may fertilize his orchard by plowing down green crops such as peas, raps, buckwheat and so forth, supplemented by commercial fertilizers of the proper constituents for or-



Substantial Proof of the Adaptability of South Western Ontario to Corn Growing

There were 4,000 exhibits and 650 exhibitors represented at the Fifth Annual Corn Show, held at Windsor two weeks ago. The general view of the exhibits here shown will give one an idea of the interest that the farmers of the three counties, Kent, Essex and Lambton, are taking in this crop.

land, a sowing down with clover and timothy. The effect of the fertilizers applied in the previous year could be plainly seen on the barley, but on account of shortness of help at harvest time it was found impossible to handle the crop from both plots separately. The effect of the fertilizers on the clover was even more noticeable and one could see the difference to the very line between the plots.

A GOOD STRIP CONTRAST

Since the first trial I have used fertilizers every year on my roots and potatoes, always leaving a small strip without any fertilizer to note the difference, which has every season been very noticeable. In the year 1911 the mangels were on the same land as the former year, only I ran the plots of 1911 at right angles to those of the year before, leaving a strip unfertilized, so that I had one piece that had never received any fertilizer, another plot, which had received fertilizers in 1910 but not in 1911, another which had fertilizers in 1911 but not in 1910, a good third and the plot, which had never been fertilized, was a very poor fourth. The yield from the main plot, which was fertilized both years, was at the rate of 1,380 bushels per acre, whereas the unfertilized plot only gave 650 bushels. The mangels from the fertilized plot in 1911 were the largest I have ever grown and of the best keeping and feeding quality. My soil is a good medium loam in high condition.

chard use. We have not used much of the commercial article as yet. We spread an application of barnyard manure every other year in conjunction with plowing down the cover crops. We apply the manure in the winter months unless the land is very rolling. We regard wood ashes as the best fertilizer that can be secured.

Spraying must be done with great care and thoroughness and at the proper times. We make the first application as late as possible in spring before the leaf buds open and while the trees are still dormant. At this application we use a solution of lime-sulphur one to nine or 10. Some growers use it as strong as one to seven. The second application we apply after the leaf buds open and just before the bloom opens, using a solution of lime-sulphur, one to 35, with two pounds of arsenate of lead added to every 40 gallons of water. The third spray is applied just after the blossoms fall, using the same solution as for the second spray. We would emphasize the necessity of getting this spray on in time, as there is only from one to six days in which to do the work before the calyx begins to close up. After that the work will not have the desired effect. We apply subsequent sprayings in 10 days or two weeks if found necessary. Bad weather conditions may cause scale to develop in this last spraying is neglected. Much of the scale occurring during the past season could have been avoided by a late spraying.

These principles of orcharding, if put into practice in an intelligent manner, will surely give results.

IMPROVE YOUR STOCK

It Pays to Clip

Horses, Blain and Cows. They are healthiest and render better service. When the heavy coat that holds the wet mud and dirt is removed, they are more easily kept clean and more comfortable from their feed and are better in every way. The best and most generally used clipper is

The Stewart
Sail Bearing
Clipping Machine

It is simple, strong and stays sharp longer than any other. You are not required to cut from solid steel bar. It is easy to adjust. Price \$975

Write for complete new catalog showing world's largest and latest line of horse clipping and shearing machines.

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TWO CENTS A WORD, CASH WITH ORDER

FOR SALE—Iron Pipe, Pulleys, Belting, Hoops, Chains, Iron Pumps, etc., all sizes, very cheap. Send for list, stating what you want.—The Imperial Waste and Metal Co., Dept. F.D., Queen Street, Montreal.

SAMPLE ENGINES AT SPECIAL PRICES.

1½, 2½, and 6 H.P. sizes. They have been only slightly used. They will be adjusted and in perfect condition and just like new before leaving our factory. Prices and further particulars on request.—The Page Wire Fence Company, Limited, Walkerville, Ont.

"LONDON"

Cement Drain Tile Machines
Makes all sizes of the from 3 to 24 in. Cement Drain Tile are here to stay. Leave Profits to the business. If interested, the owner having spent over \$500 in the business. If interested, London Concrete Machinery Co., Dept. B., London, Ont., largest manufacturers of Concrete Machinery in Canada.

WOULD YOU LIKE TO HAVE A SPECIAL WRITE-UP

Of your herd in our GREAT DAIRY No. 60 out April 19? F. R. Mallory, of Frankford, had one in December 5th special: it made him sales over \$2,000 for his Holsteins. Write Farm and Dairy at once for reservation April 10 and complete arrangement.

60 REGISTERED AND HIGH GRADE HOLSTEINS

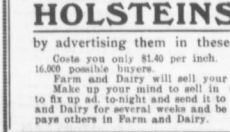
At Auction
Wednesday, March 12th, at 10 a.m.

14 Head Registered; 3 Cows fresh and 7 young Cows to freshen in March and April; 3 young Heifers; 8 Stock Bull, Hillview Sir Corporation (22) whose sire is the best sire of the breed in 7 days. 5 of the females are sired by Brookbank Butter Baron, 201, who has 30 A.R.O. daughters.

40 Grade Cows and Heifers to calve in early spring. 7 Yearling Heifers. Photographs printed on bills.
Sale at farm, 6 miles from Woodstock of James Eastwood G.T.R.

TERMS: 6 months' credit or 6% for cash.
CHAS. CANFIELD, Prop., Lot 6, Con. 4, E. Oxford Centre P.O.
Auctioneers: Welby Alma, Brantford; A. Siple, Woodstock
Wm. Fletcher, Clerk

Will meet morning trains at Eastwood



Free Barn Plans

to any Farmer of good standing by the "LOUDEN" Barn Architect

If you are going to build a new barn or remodel an old one—tell us your needs. Our special barn architectural department will send you plans FREE.

Not far away in the barn building business with the farmers needs and requirements and helping farmers to lay out their barns, we have secured a wide experience, which in the interests of good farming, we will gladly pass on to any Canadian farmer of good standing. Write us regarding your building requirements.

LOUDEN

has been connected with Barn Equipments and Barn planning for over 47 years. We make a special study of means to save time, save labour, and save money for the farmer.

Every up-to-date Farmer should have this Book

It describes and illustrates the full line of Louden Hardware. Specialists for the farm. You will find it a handy book of reference.

Write for free copy to-day.

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OXFORD COUNTY, ONT., FARM FOR SALE

90 Acres in heart of the best dairy district in County of Oxford, Ont., located 1 mile from bustling village, school, church, post office and general store, blacksmith, grist and saw mill and station. One and one-half miles from 2 cheese and butter-making plants, 2½ miles from condenser; 4 miles from good town, 12 miles from city.

Good orchard and splendid young fruit orchard, splendid barns and outbuildings, and good house. Farm is well fenced and tiled, the owner having spent over \$500 in tile drain and fencing in the last 2 years. PRICE, \$6,000. Located on good country road. For further particulars apply BOX 78.

FARM AND DAIRY, PETERBORO, ONT.

50 BULBS
25 Cents. PER DOZEN GUARANTEED

Will send you the only quantity from the only grower of 1 flower bulb with bulb.

MEDFORD NURSERY
MEDFORD, MASS.

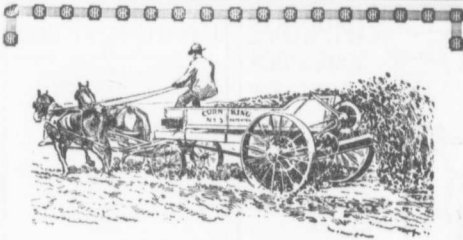
HOLSTEINS--SELL Your Surplus Pure Bred Holsteins

by advertising them in these columns of Farm and Dairy.

Costs you only \$1.40 per inch. Takes your message to upwards of 16,000 possible buyers.

Farm and Dairy will sell your other pure bred stock also.

Make up your mind to sell in this progressive way. It will pay you to fit up ad-to-night and send it to us for next issue. Have it in Farm and Dairy for several weeks and be convinced that it will pay you as it pays others in Farm and Dairy.



Your Soil Is Alive

TO all intents and purposes, soil is alive. It breathes, works, rests; it drinks, and, most important of all, it feeds. It responds to good or bad treatment. It pays its debts, and pays with interest many times compounded. Being alive, to work it must be fed. During the non-growing seasons certain chemical changes take place which make the fertility in the soil available for the next season's crop. But this process adds no plant food to the soil. Unless plant food is added to soil on which crops are grown, unless the soil is fed, in time it starves. There is one best way to feed your soil. Stable manure, which contains all the essentials of plant life, should be spread evenly and in the proper quantity with an

I H C Manure Spreader

I H C manure spreaders—*Corn King* or *Cloverleaf*—are made in all styles and sizes. Sizes run from small, narrow machines for orchard and vineyard spreading, to machines of capacity for large farms. The rear axle is placed well under the box, where it carries over 70 per cent of the load, insuring plenty of tractive power at all times. Beaters are of large diameter to prevent winding. The teeth that cut and pulverize the manure are square and chisel pointed. The apron drive controls the load, insuring even spreading whether the machine is working up or down hill, or on the level. I H C spreaders have a rear axle differential, enabling them to spread evenly when turning corners.

The I H C local agent will show you all their good points, and will help you decide on the one that will do your work best. Get literature and full information from him, or, write the nearest branch house.

International Harvester Company of Canada, Ltd
BRANCH HOUSES

At Brandon, Calgary, Edmonton, Estevan, Hamilton, Lethbridge, London, Moosehead, R. Bouchard, Ottawa, Quebec, Regina, Saskatchewan, St. John, Winnipeg, Toronto.



Central Nurseries Quality Stock

Apple, Pear, Plum, Cherry, Peach, Nut and Ornamental Tree in variety. Grape Vines, Berry Plants, Herbster, St. Regis, Haskaysa and Oshbert. Think of berries from July till October, shades Tree, Evergreen, Cal. Privet, Hedge Shrubs and Roses. Just the kinds wanted. Send for our Priced Catalogue, and order quick for variety.

A. G. HULL & SON, ST. CATHARINES, ONT.

GRAND TRUNK RAILWAY SYSTEM

Colonist Rates

Homeseeekers' Excursions

ON SALE DAILY
March 15th to April 15th, inclusive
TO
VANCOUVER, B.C.
VICTORIA, B.C.
PRINCE RUPERT, B.C.
SEATTLE, WASH.
SPOKANE, WASH.
SAN FRANCISCO, CAL.
LOS ANGELES, CAL.
SAN DIEGO, CAL.
MEXICO CITY, MEX.

TO MANITOBA, SASKATCHEWAN AND ALBERTA
Each Tuesday March to October inclusive via Chicago and St. Paul
Through coaches and Pullman Tourist Sleeping Cars will leave Toronto 11 p.m. on above dates for WINNIPEG.
No change of Cars
WINNIPEG AND RETURN \$35.00
EDMONTON AND RETURN \$40.00
Tickets good for 60 days. Proportionate low rates to other points.

Proportionate low rates to other points in Arizona, British Columbia, California, Idaho, Montana, Nevada, Oregon, Utah, Washington, etc. From all stations in Ontario. Ask Grand Trunk Agents for full particulars.

Settlers' Excursions
TO ALBERTA AND SASKATCHEWAN
and every TUESDAY thereafter until APRIL 26th inclusive, from stations in Ontario, Peterboro, Port Hope and West.
LOW RATES
Through Coaches and Tourist Sleeping Cars to WINNIPEG without change, leaving Toronto 11 p.m. on above dates.

The Grand Trunk Pacific Railway is the shortest and quickest route between Winnipeg-Saskatoon-Edmonton.
Berth Reservations, Literature and Full Information From Any Grand-Trunk Agent

OXFORD BREEDERS GREAT SALE AT WOODSTOCK

Never before have Holstein breeders of such note gotten together in Canada and completed arrangements for a consignment sale of such excellent Holsteins as will be in the great Oxford Breeders Sale at Woodstock, Ont. on Tuesday, March 5. Last week it was the privilege of one of the editors of Farm and Dairy to inspect practically all of the stock that has been catalogued for this great sale. With out exception we have never before seen such excellent cattle on this side going into a consignment sale to go at the bidder's own price absolutely without reserve. We were greatly impressed with the spirit which seems to pervade the Oxford breeders in coming out this time to break all records and to offer stock in their sale, which will be a creditable advertisement for them here to come. When it is considered that such breeders of note as exhibitors and records makers as Jas. Bettie, of Norwich; A. E. Hulet, of Norwich; Edw. and Booth, Oxford Centre; H. Bolter, of Tavistock, and others who are consigning to the sale, are putting in stock from among the best, and are determined that it shall do them credit, you have some idea of the kind of Holsteins that you can buy at your own price at this sale on Tuesday, March 5. Some 65 or more Holsteins will be in the sale. The contributors are: H. Bolter, of Tavistock, one of the oldest breeders of real top-notch Holsteins that we have in Canada; A. E. Hulet, of Norwich, well known as a leading successful exhibitor at Toronto and other big shows, and also as one of the best feeders and record makers we have amongst our Holstein breeders; Edw. & Booth, owners of the Centre and Hilltop farms at Oxford Centre, where about 300 A 1 Holsteins of richest breeding are to be found at all times and who also have been very successful at record making; Jas. Bettie, of Norwich, than whom there is perhaps not another breeder of so long standing or success with Holstein cattle as a big exhibitor and a record maker; Bollart & Leussler, of Tavistock, who some few years ago started their Holstein breeding with a big consignment of most richly bred cattle, which they imported from the State of Michigan; Elias Ruby, of Tavistock, a young breeder who has been coming rapidly to the front, and who has in view his ultimate success and best future to be helped along by the grand good stock he is consigning; T. L. Dunkin, of Norwich, well known in his home district as having A 1 stock; Martin McDowell, another young breeder of very excellent stock, he having cleaned up some of the best things in the first prize at the Guelph Winter Fair Dairy Test; H. G. Beufield, of Woodstock, the secretary of the Club, and who also has his reputation at stake on the stock he is consigning; then there are several others, whom we did not have time to call on and inspect their stock, and hence cannot write of them this week.

As may be noted from reading their advertisements on page 5 of Farm and Dairy this week, the Oxford breeders at their sale are out to do themselves particular credit. Many of the consigners are putting in stock for which we believe they can hardly expect to get its full value either than at a private sale to a buyer who knows and fully appreciates its full value. The rules under which the sale is being conducted are strict. Everything will be inspected and guaranteed to be good specimens of the breed, and with orders right. Practically all of the offering are females. Most of them are tested stock with attractive records. Many of them are show animals, some of them being prize winners. The arrangements are such that you can see near portions as well as the stock, and so it is possible to get them by profiting from their own experience and that of others at previous sales. Transfers duly filled out and signed for all articles consigned will be in the hands of the secretary before the day of the sale. You will want to attend and buy at this sale. Write now to Mr. H. G. Beufield, of Woodstock, secretary of the sale, for a catalogue. Watch Farm and Dairy next week for the next report for Holstein reading notes about individual consignments; also watch for and read the advertisements of the various contributors in addition to the additional advertisements which will convince you of the confidence those breeders have as to the high merit of the cattle they are consigning.

Are you ready for spring seeding? It's important.

FOOD THAT FEEDS THE WORLD
DAVIS
TRADE MARK
SOOTS FERTILIZERS
The mark of quality. Write for booklet on line of interest to you.
THE WILLIAM DAVIS CO., LTD.
Connecticut, U.S.A.
West Toronto Ontario

Seed Corn For Sale
High germination test. White Cap. Yellow Dent. Grown on our own farm.
Write
TISDELLE BROS.
TILBURY, ONT. ESSEX CO.

Farm and Garden SEEDS

Did you ever buy seeds that would not grow? or that would not grow a perfect stand? It will be your own fault this year if you get anything but the best!

Our Seeds Will Grow. We know that they will grow 80 per cent, and better. We can take this stand because our seeds are

ALL TESTED

Don't take any chances this year on your seeds. Send for our Catalogue.

- KEITH'S BANNER 35c COLLECTION**
One Packet each of the following:
Egyptian Beet
Early Jersey Wakefield Cabbage.
Flat Dutch Cabbage.
Long Green Cucumber.
White Tippled Radish.
Big Boston Lettuce.
Improved Hubbard Squash.
Chaika Jewel Tomato.
Chatenay Carrot.
Union Prize Carrot.
Mixed Nasturtium.
Mixed Sweet Peas.
- All for 35c Post Paid**
We use only the best seeds in this collection.

- KEITH'S BANNER 51c COLLECTION**
- 1 c. Each Early Egyptian Beet, Chateau Yarrow, Big Boston Lettuce, Prizekator Onion, White Tippled Radish, Keith's Best Firm Butter, 3 lb. Farm Butter, 5 lb. Farm Butter, 5 lb. Farm Butter, 5 lb. Farm Butter, 5 lb. Farm Butter.
 - 2 c. Each Butter Beans, Golden Bantam Early Corn.
 - 1 Pk. Each Early Cabbage, Late Cabbage, Citron for preserving, Early Musk Melon, Chaika Jewel Tomato, Long Green Cucumber, Hubbard Squash, Hollow Crown Parsnip.
- All for \$1.00 Post Paid**
We use only the best seeds in this collection.

Our catalogue offers many practical suggestions, which will be of value to you in your garden and on your farm. Should you not yet have our catalogue, write to-night for your copy.

We specialize in farm seeds, Alfalfa, Clover seed, Timothy seed, Mangal seed, Field Roots, etc., etc., and also handle a wide range of Poultry Supplies.

George Keith & Sons
Seed Merchants since 1856
124 King Street East, Toronto, Ont.

OUR FARMERS' CLUB

Correspondence Invited

PRINCE EDWARD ISLAND

PRINCE OF, P. E. I.

KENSINGTON, Feb. 24.—We have had snow enough for sleighing. We have had very mild weather with the exception of one week, which was cold and blowing hard. Cold went into the stables worse than for years. Beef is 10c by carcass; pork, 11-14; butter, 25c; hay, loose, 81c; oats, 35c to 40c.—T. G.

QUEBEC

COMPTON CO., QUE.

COMPTON, Feb. 27.—We are having fine weather now, with not much snow to make good roads. A lot of teaming is being done, as we have not had a chance to do any until now. Hay is holding out well—\$10 Mill feed is a little lower in price than it has been for some time. Eggs are selling for 25c.—H. G. C.

ONTARIO

NORTHUMBERLAND CO., ONT.

WICKLOW, Feb. 24.—Stock appears to be wintering well. Food is plentiful. Hay selling at \$11. The prices of all kinds of stock are uncommonly high. The milks are full. The health of the people is generally good. Rural mail delivery has started on the principal roads. A few have threshed clover seed. It is not turning out very good.—E. B. H.

WATERLOO CO., ONT.

ELMIRA, Feb. 24.—The winter has been very good so far for teaming and working in the bush. Sleighting is very good again, and people are busy logging and teaming firewood and hauling out manure and spreading it on fields intended for roots and corn. The stock judging contest carried on by the Department of Agriculture was well attended and a very keen interest taken. There were about 150 persons present the second day. We had good judging in the forenoon of the first day, and the dual purpose cow in the afternoon with a lecture in the evening. The second day we had the dairy cows and the bacon hog demonstrated on, and in the afternoon draft horses, both Oldysdale and Percheron. The interest shown was immense. People were free to discuss the different points. Horses are selling for good prices. Fat cattle, 7c for Easter trade. Hogs are high, about 81c. Turkeys are very cheap, about 71c a bus. The Farmers' Club are holding their monthly meeting on Friday evening, 28th inst., when the Elmira Poultry Association will take part to discuss the poultry question.—A. B. S.

WENTWORTH CO., ONT.

KIRKWALL, Feb. 24.—The past month has been very frosty, but we have practically no snow. Farmers are busy cutting and wood, storing ice, hanking manure, etc. Stock is wintering well, and prices keep fairly high. Milch cows especially are selling very high, from \$70 to \$80 each, being quite a common price at auction sales. A large number of sales are being held, some auctioneers having one every day, excepting Sundays, for weeks. There is apparently a great deal of discontent among farmers. Large numbers are going to the Western provinces, others are moving to the towns and cities of Ontario. Hired help continues to be scarce. Prices for farm produce of all kinds are fair: Butter, 30c to 32c; eggs, 25c; potatoes are about \$1 a bag; wheat, 95c; corn, 55c; oats, 35c; barley, 55c; buckwheat, 50c; hman, \$2; shorts, 82c; hay, \$14; hogs, 85c; and lambs, 95c.—C. A. W.

GREY CO., ONT.

THORNBERY, Feb. 24.—Lent week we had a rather heavy snowfall, with very frosty weather. The roads in some places are drifted, which makes travelling very difficult. Prices have dropped in butter and eggs to 25c. A lot of butter and eggs are offering. A large number of cattle and hogs have been shipped during the last two weeks. Prices are ranging about the same, excepting hogs, which are a little lower, about 20c a ewt. Some farmers have been delivering lambs; prices are good. One man delivered a fine pair of Dorset lambs, aged two months and two lambs weighing 50 lbs each. Prices for grain are not high owing to the early season we had last summer. Everybody seems to have plenty, but not much grain is offered. Nearly every one seems to need to be home consumption.—C. P.

MIDDLESEX CO., ONT.

LAMBETH, Feb. 28.—During the early part of February the weather was very (Concluded on page 33)

Bull Calf—KING PONTIAC SYLVIA—For Sale

PEDIGREE, H. B. No. 15,010, Male, Born September 20th, 1912, son of Inka Sylvia De Kol and Prince Hengerveld of the Pontiacs who is the King of the Pontiacs, the greatest living sire of the breed, and Grandson of Pontiac Kornadyk, who has more 30-1b. daughters than any other two sires. His dam a 30-lb. cow with best days milking is 80 lbs. This record being made on three quarters only.



Prince Hengerveld of the Pontiacs

A son of King of the Pontiacs and Pieterje Hengerveld Fraulien, who is by the noted Pieterje Hengerveld of the Count De Kol and from a cow strongly bred in the blood of De Kol 2nd. King of the Pontiacs is proving himself to be one of the very best sires of the breed. His daughters have broken eleven world's records and one as a Junior 2-yr-old has produced over 1,000 lbs. of butter in semi-official test. Prince Hengerveld of the Pontiacs' first daughter to freshen so far made the following records: Lady Carmen Sylvia at 2 yrs: Butter 16.54 Milk 402.510

King of the Pontiacs

19 A.R.O. daughters.
K. P. Motie, 3 yrs., 31.
K. P. Aleartia, 2 yrs., 30.87.
K. P. Manor Kate, 21 mths., 23.10.
K. P. Koradyk, 27.71.
K. P. Lillith, 2 yrs., 27.56.
5 others with records of 20 to 26.68 lbs. 13 A.R.O. sons.

Pieterje Hengerveld Fraulien

Sister to the dam of Nadine Lyons De Kol, 30.77.
Sara Jewel Hengerveld 3rd, 30.40.
By a brother to the sire of Prince Hengerveld De Kol, 33.02.
Nivry De Kol, 33.20
15 others above 20 lbs.

Gem Pieterje Hengerveld Paul De Kol

13 A.R.O. daughters.
Inka Sylvia De Kol, 26.
Dutchess Ormaly 2nd Hengerveld De Kol, 21.40
15 A.R.O. sons who are the sires of 127 A.R.O. daughters.

Inka Sylvia, 3 yrs.

Butter 21.95
Dam of Inka Sylvia De Kol, 26.04 lbs. 15 A.R.O. sons who are the sires of 127 A.R.O. daughters.
Inka Sylvia 3th, 15.92.
A champion Toronto test winner.

Manor Farm

Holsteins

Gordon S. Gooderham

Bedford Park - Ont.

Inka Sylvia De Kol

Butter 25.04

Milk 606.10

Dam of Inka Sylvia De Kol Poesh, but-

ter at 3 yrs., 25.25.

She also has one son, who is the sire of

my baby Sylvia, butter at 1 yr., 11

mths., 21 lbs.

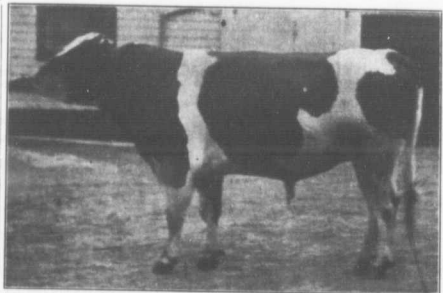
First Cheque for \$100 gets him!

Opportunity of a Life-Time

To Get

Sir
Lyons
Henger-
Veld
Segis

Bought
as a
Calf
for
\$1,500



His
Dam
Made
35.5 lbs.
Butter
in 7 days

(See
reading
matter
for full
particulars
of breeding.)

Holstein Heifers from this Great Bull

At my great Dispersion Sale

40 WEDNESDAY, MARCH 12th 40

When I will sell absolutely without reserve 40 Registered Holsteins, including

Nine of his Heifers and five of his Bull Calves

(All cows but 4 in calf to him!)

Two years ago four of my neighbors and I went over to New York State and bought, paying \$1,500, a bull calf, Sir Lyons Hengerveld Segis—the best that was available and which money could buy. This animal has since developed into the splendid individual as shown in the illustration above.

His dam, Blanch Lyons De Kol, and her full sister, each have records over 35.5 lbs. butter in 7 days; his dam, 154 lbs. butter in 30 days.

The stock from this great bull is turning out to be even much better than we had anticipated. It is of great quality, large size, deep and wonderfully thrifty as you will see it at the sale.

The nine heifers and the five of his bull calves (two months up to one year) in the sale are out of good dams. Any one of them will make most excellent buying for you.

Nearly 30 head of the Holsteins of producing age—all fine individuals—in my herd are

All in Calf to this great Imported Bull

Note the Holstein reading columns of Farm and Dairy this week for particulars of breeding, records, etc.

Tamworths My entire herd of Registered Tamworth swine, brood sows, young-bred sows, stock boars, etc., will also be sold on day of sale.

Send now for your catalogue giving full particulars of breeding, etc., and plan to be at my sale and secure what you want of this great stock.

Take the Metropolitan Electric Cars from North Toronto (16c fare) and have conductor put you off at Willowdale, stop 34.

John McKenzie - Willowdale, Ont.

HOLSTEINS

LAKEVIEW HOLSTEINS

We are now testing some of the daughters of Count Hengerveld, Fayre De Kol, and they are coming from 105 lbs. with first calf to 20 lbs. with second calf. There are still a few young bulls from these heifers that we are offering at half their value, in order to make room. They are bred by Dutchland Colastha Sir Mona. Come to the farm and see the dams of these bulls and their dams.

E. F. OSLER, BRONTE, ONT.

LAKEVIEW DAIRY AND STOCK FARM

Present offering, Bull Calves from Record of Performance dams; also a few females.

W. P. BELL, BRITANNIA HEIGHTS, ONT.
Ottawa Hill Phone.

FOR SALE

Choice Holstein Bull, 19 mos. old, sired by King Fayre Regis Gouthide, and from Prospect De Kol Hengerveld, whose dam tested 30.3. Two yr. olds are Hengerveld De Kol and Paul Beets De Kol. This bull is large for age, and a first class animal in every respect, and could be easily fitted for show purposes. Price, \$100.

J. S. CAMPBELL & SON, UNIONVILLE, ONT.

Avondale Stock Farm

A. C. HARDY, PROPRIETOR.

HERD BIRDS

Prince Hengerveld Pielie, 8730 (58.587).
Sire, Pielie 2nd Woodcrest Lad.
Dam, Princess Hengerveld De Kol.
R. O. 33.82.
Highest record daughter of Hengerveld De Kol.

King Pontiac Arlin Canada, 18.847 (72.794).
Sire, King of the Pontiacs.
Dam, Pontiac Arlin, 31.7 lbs. butter 7 days, 1.67 lbs. 385 days.

Daughters of Hengerveld De Kol.
We are offering bulls from those great sires and high record dams, and also a limited number of cows in calf to them. No heifer calf will be sold at any price. Address all correspondence to
H. HORNE LOGAN, MGR., BROCKVILLE

MARKET REVIEW AND FORECAST

Toronto, Monday, March 3.—Spring trade is fair to good. Dealers who were inclined to take a pessimistic view of conditions a few weeks ago, now find that orders are coming along more freely. On the whole a normal volume of trade is expected.

There have been few changes on the Farmers' Market. Eggs are a little lower and cattle about the same. The most noticeable strength is in small meats, both lambs and hogs being well over the \$9 mark. In fact, the price of hogs establishes a new high record.

WHEAT

Wheat quotations now hinge on the varying climatic conditions in the winter wheat regions. At present the situation is good, there being lots of moisture in southern regions and a good blanket of snow to protect the crop further north. The crop scare period, however, is just beginning, and there is no forecasting the developments of the next few weeks. Prices now are 10c to 12c lower than they were in this time last year, and any great crop scare might be followed by an immediate increase in foreign demand in satisfactory quantities. Quotations: No. 1 Northern, 97 1/2c; No. 2, 95c; No. 3, 93c; feed wheat, 65 1/2c; Ontario No. 2, 95c to 98c and down to 70c.

COARSE GRAINS

There has been a normal volume of trade moving on the grain exchange at steady prices. The only noticeable change is in peas, which are not in as good demand, and quotations have dropped 5c to 10c. We quote as follows: Oats, C. W. No. 2, 41 1/2c; No. 3, 40c; No. 4 feed, 40c; Ontario No. 2, 35c to 36c outside; 3c to 3c here; corn, 56c to 57c; peas, 41 1/2c to 41 3/4c; barley, malling, 56c to 60c; rye, 63c to 66c and buckwheat, 52c to 53c. Montreal quotations are: Oats, C. W. No. 2, 41 1/4c; extra No. 1 feed, 40 1/2c; peas, No. 2, 41 1/2c; No. 3, 39 1/2c to 41 1/2c; barley, malling, 73c to 75c; feed, 52c to 54c; buckwheat, 52c to 53 1/2c; rye, 63c to 66c.

EGGS AND POULTRY

Eggs continue to come down, and many cold storage men stand to lose as receipts of fresh eggs are over on the increase. Quotations on cold storage stock are held firm, but low laid eggs are in an ever increasing supply. Wholesale dealers quote as follows: Cold storage eggs, 50c to 52c; fresh eggs, 25c; strictly new laid, 30c. The retail price on the Farmers' Market is 30c to 35c. At Montreal there is a good supply for eggs. New laid is at 30c to 35c; straight receipts, 25c; select, 15c to 20c; No. 1 storage, 16c to 18c. Dressed poultry is a scarce commodity, and quotations are steady. Wholesale dealers quote: Live chickens, 12c to 15c; fowl, 10c to 11c; ducks, 13c to 14c; geese, 9c to 10c; live turkeys, 15c to 17c; dressed turkey, 2c to 3c higher excepting dressed turkeys at 20c to 25c.

DAIRY PRODUCE

Wholesale dealers are still asking relatively the same quotations on butter that have existed for several weeks. Our information is, however, that prices at country points have declined one cent in the last week, and our eastern market is expected here. Dairy prints, 25c to 27c; creamery prints, 10c to 12c; solids, 23c to 25c; inferior, 22c to 24c; cheese dairy butter retains at 30c to 32c. Cheese quotations are: Twins, now, 24 1/2c to 15c; large, 14 1/2c; old twin, 15c to 15 1/2c; large, 15c.

LIVE STOCK

The past week has seen a decline in top quotations for export steers. Butchers' cattle and cows were held firmly at the quotations of the previous week. Receipts were fairly good in the early part of the week, and packers were slow to lay in supplies, hence an easier market. Shipments were shorter during the latter part of the week, however, and the market again firm up, and cattle were disposed of more quickly. Some dealers are expressing a doubt as to the ability of drovers to lay in a sufficient quantity of choice steers for the Easter trade, but as

HOLSTEINS

Bichly Bull out of **SIR LYONS HENGERVELD REGIS** from dam and dam's full sister each made 33.3 lbs. butter 7 days.

Also 1-yr. old **Fayre** from De Kol, will sell right because many of his daughters are in herd.

R. F. HICKS, - Newtonbrook (York Co.) Ont. Phone

CLOVERLEA HOLSTEINS

Herd headed by Rag Apple Korndyke sib. a double grandson of Pontiac Korndyke. This is the blood that will increase the butter fat test of your herd. Last year's bulls all sold. Book orders for coming crop from high testing females. Write us.

John J. Tannahill, Whites Station, Que.

Purebred Registered
HOLSTEIN CATTLE
The Greatest Dairy Breed
See 702 FREE ILLUSTRATED BOOKLET
Holstein Friesian Assoc., Box 148, Baltimore, Md.

GLENDALE HOLSTEINS

Entire crop of Pure-bred Holstein Bull Calves and a limited number of Heifers, whose three nearest stews have stred May Echo Byria, born 2 1/2 lbs. butter 7 days, R. O. M. at 1 year 11 months (world's record), Lulu Koyak, 19.68 lbs. in R. O. P. as a senior two-year-old (world's record), and Jewel Pat Pouch De Kol, 38.88 lbs. butter at 4 years (world's record). Prices reasonable all correspondences promptly answered.

WM. A. SHAW, BOX 18, FOXBORO, ONT.

Concentrates

Lined Oil-cake Meal, Cotton Seed Meal, Gluten Feed, Corn Meal, "Good Luck" Calf Meal, Dairy Testing Feed, Bran, Shorts, etc. Carloaders' small lots. Prices, F. O. B. We handle the quality and are quite including prices. Write for price on quantity you want.

(RAMPSEY & KELLY, Devonport St., Toronto, Ont.)

Oxford County's Best Holsteins

AT PUBLIC AUCTION

Some of the Best Breeders of Holsteins in famed Oxford County, Ont., and Cattle from some of the best and most noted herds—(including H. Bollert, Bollert and Leuzler, A. E. Hulet, P. D. Ede, Jas. Rettie, and others), will combine to make probably the best sale ever held in Canada, for Holstein Cattle, the Sale to be under the auspices of

TUESDAY, MARCH 25th, 1913

Every man in this sale is laying out to do his best to boom our Club and make his stock known as exceedingly high class through this sale. They are contributing of their best. Many of the cattle are much better than most breeders would care to risk selling at auction.

PRACTICALLY ALL FEMALES—IN VALUE UP TO \$700 A HEAD

The breeding of this stock is of the choicest imported and Canadian-bred strains. Holstein females from great herds. They will go absolutely at your own price.

Mostly all tested stock. Our sale will afford you the opportunity of buying

Amongst the contributors are: H. G. Benfield, Woodstock; H. Bollert, Tavistock; Bollert & Leuzler, Tavistock; T. L. Dunkin, Norwich; P. D. Ede & W. Schell, Oxford Centre; A. E. Hulet, Norwich; Martin McDowell, Oxford Centre; Jas. Rettie, Norwich; Elsie Baby, Tavistock; A. Walker, Norwich, and others.

Signed Transfers for each animal will be in Secretary's hands before sale day. Everything must be sold to highest bidder. No reserve.

Catalogue gives full particulars and pedigrees

Write Now for your copy

An Editor of Farm and Dairy, who inspected most of this stock the last week in February, pronounced it to be superior to his most sanguine expectations of it. The stock will set a new mark higher up most difficult for succeeding sales to surpass. All stock must be choice specimens, with udders rigid. Cattle are guaranteed.

PLAN TO COME

SALE AT WOODSTOCK

CATALOGUES AND PARTICULARS FROM

H. G. BENFIELD, Woodstock, Ont.

Secretary of Sale

P. D. EDE, Oxford Centre

President of Association



EGGS
Write
from
Toronto

LAKEVIEW
We
Bulls
sell
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of

Published Registered
HOLSTEIN CATTLE
The Greatest Dairy Breed
See 702 FREE ILLUSTRATED BOOKLET
Holstein Friesian Assoc., Box 148, Baltimore, Md.

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 Col. will sell
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 Wintonbrook
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TEINS
 Korndyke
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CATTLE
 IRY BRED
 TRAY BOSKLEY
 Bantrose Vt

TEINS
 Holstein Bull
 or Heifer,
 we sired May
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 in E. O. P.,
 records), and
 100 lb butter
 Price reason-
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BERO, ONT.
 sent Oil-seed
 Cotton Seed
 Gluten Feed
 Meal, Dairy
 Caroboloid
 We handle the
 best prices.
 J. T. Lewis, Ont.

50 CUBITS
25 CENTS
 Five Cows
 Guaranteed

Witnessed by the Old
 Modified
 of Flower Seeds with
MEDFORD NURSERY
MEDFORD, MASS.

EGGS FROM EXHIBITION WHITE
 Wrandotte, Royal strain, \$1.50 per 15;
 (nine chicks guaranteed). \$1.75 per 15;
 20 each, 10 Colonial Italian, Free
 from disease, \$5 each.—W. B. Anderson,
 Rural Route No. 5, Peterboro, N. B.

AYRSHIRES

LAKESIDE AYRSHIRES

We are offering a number of fine Young
 Bulls of different ages, sired by "Bar-
 chies Cheerful Bull" (Imp.) No. 26,779. Two
 of them are from the sire already entered in
 the Advanced Register, while the dams of a
 number of the others are at present un-
 der test for the Record of Performance.

LAKESIDE FARM, PHILIPSBURG, QUE.
GEO. H. MONTGOMERY, Prop.
 166 St. James St., Montreal

AYRSHIRE BULLS

Of choicest individual merit, sired by Duke
 of 377, the particularly good son (one of
 the best bull livings) of the champion
 of P. cow (15.18 lbs milk and 730 lbs
 butter), and from the heavy milking
 strains. All ages. State about what age
 you want and all information as to breed-
 ing and records of the sire and dam. We
 spare a few heifers of all 1912 birth.
 W. W. BALLANTYNE, Prop.
 R. R. No. 1, STRATFORD, ONT.

Burnside Ayrshires

Winners in the show ring and dairy
 tests. Animals of both sexes. Imported
 or Canadian bred, for sale.
 Long distance "Phone" in house.

R. R. NISS, — HOWICK, QUE.

AYRSHIRE CATTLE AND YORKSHIRE PIGS

For Sale—Ayrshire Cattle and Bulls, fit
 for service. Yorkshire Pigs \$3.00 each,
 or, if registered, \$6.00. All the above
 are from first prize stock. Send
 in orders, with instructions and ship-
 ment later. Apply to
MR. W. OWEN, Prop.,
180N. W. GARDEN ST., SUTTON, Man.
 Riverside Farm, Meats Falls, Que.

TROUT RUN AYRSHIRE BULLS

Offer four parties of Ayrshire Bulls fit
 for service. All from high record performance
 dams, and sired by Holstein Pilot (Im.) Can
 also spare a number of choice females of the
 same, some now freshened others to freshen
 later. See considerable quality. Also one Ex-
 hibition pair of large Toulouse Geese \$5. B. P.
 Rock Cornish Hens for particulars. Write
WILLIAM THORN, Trout Run Stock Farm
L. D. House in house. LYNDKNOCH, ONT.

TANGLEWYLD AYRSHIRES

Special offering, Yearling Bull, dam,
 Primrose of Tanglewyld 2nd. R. of P. as a
 3-year-old, 1,650.75 lbs. milk, 312.25 lbs.
 fat, average test 44; grand-dam, Prime-
 rose of Tanglewyld, R. of P. 16,195.50 lbs.
 milk, 628.2 lbs. fat; sire, Royal Star of
 Bonnie Brie, son of Eileen, R. of P.
 1,327 lbs. milk, 68.4 lbs. fat.
WOODSIDE BROS., BOTHAY, ONT.

MISCELLANEOUS

JERSEYS GOLDEN FERN LAD STRAIN
OF HEAVY PRODUCERS

We have for sale 4 Yearling Bulls ready
 for service; 4 Yearling Heifers; Calves,
 both male and female; and females of all
 ages.

Visit our herd (40 cows now milking).
 Write us about Jerseys you want.
D. BIRKMAN, Prop., P.O., ONT.

CATTLE AND SHEEP LAMB

Rapo Price 40 \$9 Page
 Cattle 75c \$2.00
 Light Cattle Hog \$1.50
 Sheep or Hog \$1.50
 No postage or duty to pay
 Cattle and sheep of all ages and
 address and numbers; Sheep or hog size
 with name and numbers. Get your neigh-
 bors to order with you and get better
 price. Circular and sample free.
F. G. JAMES, — BOWMANVILLE, ONT.

MAXWELTON FARM

Has some of the BEST JERSEY CATTLE
 and SHEEP BREEDING STRAIN.
 Make your wants known to the Manager,
MAXWELTON FARM
STE. ANNE DE BELLEVUE, QUE.

yet we have no definite information on
 this question.
 The top price realized on export steers
 this past week was \$7.75, as compared
 with \$7 the week previous. Medium
 grades brought the same figure, \$6 to
 \$6.50. Choice butchers' cows were firm at
 \$6.25 to \$6.50; common to good, \$4 to \$5;
 \$5 to \$5.65; common to good, \$3.50 to \$5;
 \$5 to \$5.75; feeders, \$2.50 to \$5.10;
 \$3.75 and canners, \$2.25 to \$3.75.

Milk cows are in increasingly keen de-
 mand, and it is predicted that the inferior
 kind are not wanted. Choice, \$90 to \$80;
 common to medium, \$75 to \$60; strings,
 \$50 to \$30.
 Lambs are in exceptionally strong de-
 mand, and as high as \$9.75 a ewe has
 been realized, but the bulk of the trade
 done during the week, \$4.50 to \$5.50.
 Hogs are in exceptionally keen demand
 at record high prices. Packers are quot-
 ing \$9.50 on the market and \$9.15 to \$9.20
 f.o.b. Heavy hogs bring \$8.50 to \$8.60.
MONTEALE AYRSHIRE CATTLE
 Montreal, Saturday, March 1.—The mar-
 ket for cheese is practically unchang-
 ed from conditions which prevailed last week.
 There is a small quantity going forward
 every week, but it almost entirely con-
 sists of cheese which have been held in
 storage for some account. Prices are
 steady at 13c to 12 1/2c for fancy Sep-
 tembers, which now represents the bulk
 of the cheese in the market. Stocks
 in England are still here uncool. The stocks
 are still heavier than were they were at this
 time last year to the extent of 50,000
 tons. There is very much cheese here in
 Canada and there is probably altogether
 100,000 more Canadian cheese than there
 were at this time last year.
 The market for butter is stronger and
 prices generally 1/2c higher. Fancy New
 Zealand is quoted at 20 1/2c, fall made
 made, 23 1/2c to 30c and fresh receipts, 28c.

AN ERROR IN MANOR FARM ADV.

A serious error was made in our
 proof reader in the Manor Farm adver-
 tisement in Farm and Dairy last week.
 The record of the dam of the calf was
 given as 2100. It should have been 2101,
 the butter in 7 days. The age of May
 Echo Sylvia was given as four years 11
 months, instead of, as it should read, one
 year 11 months.

This bull calf, born Sept. 20th, 1912,
 Mr. Gooderman is offering, in a
 straight at \$100.00. He is a heavy
 straight as any man who is in the mar-
 ket for a high quality bull should send
 enquiries immediately to secure him.
 Read his pedigree again as given cor-
 rectly in Mr. Gooderman's advertisement
 this week.

WILBER PROUSE'S HOLSTEINS AT AUCTION

As fine a herd of Holsteins as any
 breeder could want will come into the
 market on Good Friday, March 5,
 when Mr. Wilbur Prouse, of Tillsonburg,
 Ont., will dispose of his entire herd at
 auction, as well as sell his horses and
 other farm stock and complete set of im-
 plements; he will also sell his farm of
 something over 100 acres of most desirable
 fertile land with 30 or 40 new houses
 of Holsteins to sell, these including some of
 the very richest breeding in the country.
 Owing to the short hour which we
 have received the information about Mr.
 Prouse's sale, space is not available to
 say much about his stock in this issue.
 Note his ad. in this issue. We will issue a
 full account will be given and several
 photographs of his stock taken by
 an editor of Farm and Dairy last week will
 be published.

Included in the offering will be
 Mr. Prouse's new herd bull, Canada's Pontiac
 Korndyke, 16-months aged, having 67%
 per cent of the blood of that greatest
 and most popular of Holstein sires, now
 done in Canada's Korndyke. Mr. Prouse has
 such an excellent herd and everything in
 such fine shape, and he enjoys to such
 a market extent the confidence of all
 his community that it is too large for
 the community and for this country that he
 has decided to sell. We have the satisfac-
 tion, however, of knowing that Mr. Prouse
 is taking very good care to be a greater
 opportunity in New York State where he
 will continue to work with Holstein cat-
 tle.

Write to Mr. Prouse for a copy of his
 catalogue. Watch Farm and Dairy next
 week for pictures of his stock and full
 particulars and plan to attend his sale on
 Good Friday.

HOLSTEINS

Lilac Holstein Farm

Offers young Cows and Yearlings
 at moderate prices.

W. F. STURGEON
 Bellamy St., C.P.R.
 Belleville, G. T. R.

SUNNYSIDE AYRSHIRES

Imported and Home-bred, are of the
 choicest breeding of good type and have
 been selected for production. THREE
 Young Bulls dropped this fall, sired by
 "Near King of the West" (Imp.),
 as well as a few females of various ages,
 for sale. Write for names and sex.
J. W. LOGAN, Newwick Station
 ('Phone in house.) 1-61

Lyndale Holsteins

Offers 1 Young Bull, fit for service, sired
 by "Prince Hengerveld, Pietie" and "King
 Pontiac Aris, Canada," good individuals,
 nicely colored, and young.
 Also Bull and Heifer Calves. Furnish-
 ing in pairs not alike. Write
 "phone or come and inspect."
WM. HIGGINSON, INKERMAN, ONT.

INKERMAN DAIRY FARM

Offers 10 HEIFERS, raising 1 yr. old,
 16 HEIFERS, raising 2 yrs. 6 bulls,
 raising 1 yr. old, 30 CALVES,
PONTIAC KORNDYKE
 Also Bull and Heifer Calves. Furnish-
 ing in pairs not alike. Write
 "phone or come and inspect."
WM. HIGGINSON, INKERMAN, ONT.

Holstein Dispersion Sale

Watch Farm and Dairy for big announcement
 of my dispersion sale.—Horses and Implements,
 Feb. 20th; Holstein Cattle and Townships on
 the 12th of March.

J. McKenzie, — Willowdale, Ont.

Alfalfadale Holsteins

We offer Male Calf, born Dec. 1912.
 Dam has a record of 327 lbs. milk and
 14.05 lbs. butter at 1 yr 8 mos. old. Her
 dam was born giving over 60 lbs. a day
 and 23 lbs. the butter. She has R. of M.
 of Merit also. All our cows in R. of M. will
 sell anything! Write.
WILBER C. PROUSE, TILLSONBURG, ONT.

The Graeceland Farm Holsteins

Grand dams of King Lyons Hengerveld.
 Average nearly 34 lbs. Their best daugh-
 ters average the Y. B. R. (16) at the
 head 1911 and 1912. His 2 grand sires have
 30-lb. daughters. R. O. P. cows a specialty.
ELIAS RUBY, Tavistock, Ont.

CAMPBELLTOWN HOLSTEINS

A few sons of Korndyke Verman Pontiac
 for sale. Also a number of Cows and
 Heifers bred to him. Come to Tillsonburg
 and see what my Holsteins and I will do
 that you get them. Farm, North Broad-
 way, Tillsonburg.
R. J. KELLY, — TILLSONBURG, ONT.

YOUNG COWS AND HEIFERS

HOLSTEINS

of different ages
 Sale in calf to a son of the great bull De
 Kol the End of the Road and I will do
 Also Yearling Heifers, and Heifer and
 Bull Calves for spring delivery. Write for
 prices.
W. W. GEORGE, — CRAMPTON, ONT.

FAIRVIEW HOLSTEINS

Offers a splendid son of Rag Apple Korndyke, the young bull recently sold for
 \$40,000, and out of a 16-month daughter of Pontiac Korndyke record made at
 4 years).

Calf is five months old, nicely marked and straight as
 a string, and I will sell him. Well worth the money.
 Write for particulars.
W. H. HENNING, 418 FOR PRIGER, STC.

E. H. DOLLAR, Heuvelton, New York (Near Prescott)

HOLSTEINS

Who will be the lucky one to own son of 204-lb. Junior 3-year-old
 Corning blood of King Siga Bull Boets, King of Pontiacs and Pietrie
 Hengerveld Count De Kol. First check for \$125 takes him.
HET LOD STOCK FARM, VAUDREUIL, QUE.
Dr. L. de L. HARWOOD, Proprietor

HOLSTEINS

LYNDEN HERD

High Testing HOLSTEINS For Sale
 Bulls, fit for service, one a son of Spot-
 ted Lady De Kol, 27.36, and all sired by
 a son of Little Flower 28.52. Also Bull
 Calves.
 Also any female of a milking age has a
 price. Write or come and see them.
S. LEMON, — LYNDEN, ONT.

RIVERVIEW HERD

9 Young Bulls, from 3 to 12 months,
 sired by King Isabella Walker, whose
 sire, King Isabella, was a son of a
 sister of his dam, and two sisters of his
 dam average for the eight 30.34 lbs. from
 R. O. M. and R. O. P. dams.
F. J. SALLEY, — LACHINE RIVIER, QUE.

Ourvilla Holstein Herd

Only one son of Dutchland Colantha
 Sir Abbecker left. Speak quick if you
 want him. A dandy from a 34.60-lb 4-
 year-old. Write for pedigree and price.
LALIDAY BROS., ATYMER WEST, ONT.

HIGH QUALITY RECORD BULL

Priced Right for Quick Sale
 Out of the dam of Lulu Keyes. He has
 a full sister, untested, and her
 owner will not accept less than \$500
 for her. This is a suitable hard breed-
 er, it most old, sired by a son of
 De Kol 2nd. Butler Heifer; dam is
 Dione's 2nd Lulu, also being the
 the great Lulu Keyes. He is light in
 color and a fine straight calf. Should
 be worth, easily, \$300. First check for
 \$150 gets him!
E. B. MALLORY, BELLEVILLE, ONT.
 'Phone. BOX 66, R. F. D.

Registered Holsteins FOR SALE!

To make room 1 offer for sale 15 Heifers,
 due to freshen in March and April. They
 are coming 3 years old and are carrying
 their 2nd calf, after a son of a 39-lb. 5-
 year-old.
**R. CONNELL, R. R. NO. 2, SPENCERVILLE
 Grenville Co., Ont.**

GOOD ONES FOR SALE

1 A Young Bull, fit for service,
 sired by Sara Jewel Hengerveld's
 2nd son, and out of dam. Litter
 10 lbs. milk, 19.25 lbs. butter.
**2 A Young Bull, 10 months old, sired by
 Sara Jewel Hengerveld's son, and out of
 dam, Flora Korndyke Pietrie, 15.36 lbs.
 butter in 7 days, at 1 year 9 months 15
 lbs. of age.
 Sara Jewel Hengerveld's son's dam, Sara
 Jewel Hengerveld, was first cow in official
 over 100 lbs. milk in one day; to make
 it still more so, she has produced 31.12
 lbs. of butter in 7 days. Her mother, Sara
 Jewel Hengerveld 3rd, 30.39 lbs. butter in 7 days.
 Both of her daughters of this bull and
 young cows for sale, particulars, write
 to—
E. HAGERMAN, R. M. D., HAROLD, ONT.**

ELMDALE DAIRY HOLSTEINS

A few females for sale. Calves, Year-
 lings or Cows. 50 head to select. From
 most of young sired by Paladin
 Ormsby (70 lbs. milk), Paladin
 Ormsby and Highland Calamity Colantha
 11.42.
FRED CARR, BOX III, ST. THOMAS, ONT.

FAIRVIEW HOLSTEINS

Offers a splendid son of Rag Apple Korndyke, the young bull recently sold for
 \$40,000, and out of a 16-month daughter of Pontiac Korndyke record made at
 4 years).

Calf is five months old, nicely marked and straight as
 a string, and I will sell him. Well worth the money.
 Write for particulars.
W. H. HENNING, 418 FOR PRIGER, STC.

E. H. DOLLAR, Heuvelton, New York (Near Prescott)

HOLSTEINS

Who will be the lucky one to own son of 204-lb. Junior 3-year-old
 Corning blood of King Siga Bull Boets, King of Pontiacs and Pietrie
 Hengerveld Count De Kol. First check for \$125 takes him.
HET LOD STOCK FARM, VAUDREUIL, QUE.
GORDON H. MANHARD, Manager



Holsteins



to be sold at
Unreserved Dispersion

Having been offered a good thing to go to N. Y. State, I have decided to sell my Holsteins of richest breeding, also my 100 acre Farm, Horses and other stock, Farm Implements, etc.

"Good Friday," March 21st, 1913

Every Holstein female in my barn, of age possible to be tested, has been given an official record—good substantial one. (See Farm and Dairy Holstein reading columns). My stock is widely known for being of the correct type, big, straight, quality individuals of great capacity and strong constitutions.

Their breeding is unusually rich, including a granddaughter of King Regis, 3 daughters of imported bull Sir Corinne Howells, 3 granddaughters of the Pan-American Sweepstakes cow, 2 Tristie Belles, granddaughters of champion cow at Chicago, 3 out of the R. O. M. bull Sir Mercena Abbebrook, etc., etc.

To properly make these excellent individuals and still further advance the high quality of my herd, I recently purchased

A Son of Pontiac Korndyke

He is 75% of the blood of this greatest of Holstein sires, well known to Farm and Dairy readers. He is barely 10 mos. old, a great growthy, masculine individual, and will be a great prize for someone, no matter what the price.

All of this stock I must now let you have AT YOUR OWN PRICE; 30 head in all, which includes 14 bull calves out of my best cows and the R. O. M. bull Sir Mercena Abbebrook.

Farm also will be sold, includes over 100 acres of best, fertile land, near to condenser (big prices for milk), has modern equipped, steel stanchions, cement mangers, etc. Also Horses, Poultry, Pigs, Implements, etc., etc.

Holsteins will be sold at 1.30 p.m. Particulars, Breeding, Records, etc. given in Catalogue. Write now for your copy. You'll profit well to attend my sale. Watch for illustrations in Farm and Dairy next week.

WILBUR PROUSE, Tilsonburg, Ont.

To the Big Consignment Sale of

PURE BRED HOLSTEINS

March 25th, 1913

By the Oxford District Holstein Breeders' Club

Evergreen Stock Farm

Will contribute 10 Head (9 females and 1 male) of its best young stuff

- Six 3-year-old Cows, milking and in calf.
- One 2-year-old Cow, milking and in calf.
- One Yearling, fourteen months old.
- One Heifer calf, six months old.
- One 2-year-old Bull.



These are all Record of Merit Cattle, two of them daughters of "Madam Pouch Pasture," champion milking 4-year-old of Canada. Milk 7 d., 690 lbs., butter, 26.73 lbs.; milk, 30 d., 2,759 lbs., butter 108.45 lbs.; two of them 2nd and 3rd prize heifers in dairy test, Cuelph, 1912, two of them 2nd and 3rd prize heifers in dairy test, Ottawa, 1912.

Also the 1st prize three-year-old cow at London, 1912, and winner of milk test at Woodstock in heifer class, 1912, and her heifer calf by a splendid sire from the famous Arfmann, N. Y., herd.

We guarantee these cattle to be absolutely right every way.

We believe that no breeder of Holsteins has ever consigned 10 Head of more promising cattle than these.

We don't expect to receive what these cattle are actually worth, but know that a satisfied customer is the best "ad." any breeder can have.

Secure a catalogue from H. C. Benfield, Woodstock, Ont., and attend this sale, which promises to be the cleanest and best conducted Consignment Sale ever held in Canada.

A. E. HULET - NORWICH, ONT.

Our Farmers' Club

MIDDLESEX CO. ONT.

(Concluded from page 281) cold. This caused a splendid block of ice to form, which has been stored away for future use. It turned warmer on the 22nd and the next day we had a thunder-storm. Some think it a sign of cold and hail next summer to have these unusual storms in the winter season. Many farmers are drawing manure, in preparation for the coming corn crop, which is to be an extensive one. The taping of the maple groves is already being prepared for, and will soon be accomplished when the days grow a little longer. One maker of spruce beer has written me the product of 500 tons of the writer saw in a home lately a dandy centime table. The logs were made out of spoils, a stout wire ran through them to keep them in position. The table was home made and very beautiful.—J. E. O.

ESSEX CO. ONT.

HARROW, Feb. 24.—We are having very mild weather. Roads are often quite muddy; no snow. Horses are being shipped from here quite extensively at good prices. Hogs are very scarce, selling at \$9, despite the fact of the hog cholera scourge. Feed is plentiful, corn and oats selling at low figures compared with last season. A canning factory is likely to be built with some 500 acres of tomatoes under contract the first of next year. Prices of land still continue to advance rapidly.—W. A. B.

LAMBTON CO. ONT.

WYOMING, Feb. 22.—Weather is fine; feed very plentiful. Hogs are \$7.25. Cattle and horses are in good demand. Sheep are very high and scarce. Monday seems about one cent higher. There is not the volume of business this fine winter that was expected by our merchants. We have now almost every convenience on the farms, yet the population is decreasing.—D. N. A.

BRITISH COLUMBIA

RED BEER DIST. ALTA

RED BEER, Feb. 22.—Owing to continued mild weather the production of milk is increasing. Calgary dealers have dropped the price of milk 20c a cart, and Edmonton has dropped 30c a cart. The Laurentia Milk Co. are paying \$22.5 a cart for all the milk they get can deliver at their factories. Fresh eggs, 30c; butter, 30c live hogs, 75c. Dairy farmers are looking for a successful year. Michener Bros. are bringing from Ontario three car loads of Holsteins.—T. B. M.

MEETING OF DIRECTORS OF C. J. C. C.

The directors of the Canadian Jersey Cattle Club met in the board room of the Toronto Street Railway on Monday, Feb. 24th. The meeting was presided over by Mr. R. J. Fleming. Arrangements were completed for the publishing of the first volume of the Herd Book of Canada. The most important business of the meeting was to consider the appointment of a secretary, owing to the vacancy through the resignation of Mr. R. Heid, who has been appointed an agent-general of the British Isles for the Ontario government, with headquarters at London, Eng. Every member present expressed deep regret at losing so able and capable an official as Mr. Heid, but rejoiced in the fact that he is going a larger field of labor. Mr. Heid has been a very enthusiastic admirer of the Dairy Queen, and has done much to further the welfare of the breed in Canada. After some discussion, Mr. B. A. Bull, Brampton, was appointed secretary-treasurer for the remainder of the year.

LATE MR. HUNTER HONORED

The members of the Canadian Ayrshire Breeders' Association at their recent meeting in Montreal, honored the memory of the late Robert Hunter, a former President of the Association, by passing a resolution expressing their regret of the fact that he had sustained in the death of Mr. Hunter, and appreciation of his services to the Association and the Ayrshire cattle generally. It was decided to publish a notice concerning Mr. Hunter and his photograph in the next Annual Report of the Association.

A Royal Warrant has been issued to the manufacturers of "Molasses Meal," which entitles the Dominion Co. to call themselves Purveyors to the Royal Family and to use the Royal Arms.

Corn That Will Grow

Money back if not satisfied
Send for Price List
J. O. DUKE, RUTHVEN, Ont.

Seed Corn, Barley, Oats

FOR SALE
High Grade Seed of Improved Leaming Corn. Newmarket Oats from Pedigreed, hand-selected stock, and O. A. C. No. 1 Barley. Satisfaction Guaranteed. Write for samples and prices to
W. A. BARNES, Mgr., Gov. Exp. Farm, Harrow, Essex Co., Ont.

SEED CORN THAT WILL GROW

Send for Prices.
P. B. CAMPBELL,
AMHERSTBURG, ESSEX CO., ONT.

SEEK OATS

Be careful of the oats you use for seed this spring. Many of the oats were damaged by sprouting last year. These you will not want to sow; they may not grow.

The very best seed is none too good for you. We have made a specialty of farm seeds ever since 1866. Our stock this year is splendid—the best we have ever had.

It will pay you to get your seed oats from us. Write for our catalogue, and see what we offer to you in seed oats and all

FARM SEEDS

Also Garden Seeds, Flower Seeds, Field Roots, Alfalfa, Clover Seed, etc., etc.

Some of our Special Oats are:

- DAUBENEY.** Sample No. 1. Grown from hand-picked and selected seed. 3 v. 65c. per bush. 1c. extra in 6-bus. lots or over, at \$7.50 a bus. (bags free).
- Sample No. 2.** Not quite so fine from barley as sample No. 1. Tests 36 lbs. to the bus. in 6-bus. lots or over 55c a bus. (bags free).
- Sample No. 3.** Contains a little more barley, but is very suitable for growing mixed grain, oats and six-rowed barley in Ontario. Tests 42 lbs. per bus. We offer them in 6-bus. lots or over at \$1.30 a bus. (bags free).

Imported **REGENERATED BANNER OATS.** Test 42 lbs. per bus. We offer them in 6-bus. lots or over at \$1.30 a bus. (bags free).

AMERICAN BANNER OATS. Grown from Registered seed. This is a very fine quality of pure clean grain. Price in 6-bus. lots or over. 90c a bus. (bags free).

SIBERIAN OATS. This is a great Ontario oat. We have a great quantity of sorted seed, and offer it in 6-bus. lots at 75c a bus. (bags free).

ABUNDANCE. Grown in Ontario from Regenerated Imported Seed. This variety did well in Ontario in the "Standing Field Crop" Competition. We have a fine stock and offer sample 6-bus. lots or over, only 70c a bus. (bags free).

GARTON'S BLACK VICTOR. Splendid sample, tests 39 1/2 lbs. to bus. in 6-bus. lots at \$1.00 per 6-bus. bags.

VICTORY WHITE OATS. Grown in Svalof, Sweden, \$1.75 per bus. (bags free).

We offer **REGISTERED SIBERIAN** and **REGISTERED BANNER OATS** at \$1.50 per bus. Put up in 2 1/2-bus. bags. We do not break the bags.

Make your reservation early. Send now for samples and catalogue, which tells you all about our other farm seeds, garden seeds, etc.

George Keith & Sons

Seed Merchants since 1860

124 King Street E., Toronto, Ont.

HOLSTEIN OFFICIAL RECORDS FROM JAN. 1ST TO JAN. 31ST

Mature Class
 1. Leila Queen, 4391, at 9y. 11m. 5d.; milk, 5327 lbs.; fat, 22.62 lbs.; equal to 25.12 lbs. butter. Owner: A. C. Hardy, Brookville, Ont.
 2. Daisy Deene, 5192, at 9y. 10m. 21d.; milk, 4665 lbs.; fat, 16.88 lbs.; equal to 21.10 lbs. butter. Owner: F. R. Malory, Frankford, Ont.
 3. Calamity Pouch Wayne 2nd, 16572, at 5y. 1m. 15d.; milk, 6511 lbs.; fat, 16.19 lbs.; equal to 20.04 lbs. butter. Owner: Walburn Rivers, Falden's Corners, Ont.
 4. Centre View's Pearl, 2536, at 5y. 9m. 24d.; milk, 485.6 lbs.; fat, 15.10 lbs.; equal to 18.97 lbs. butter. Owner: Howden Nix, On. Ingersoll, Ont.
 5. Fairmont Wayne, 10571, at 5y. 8m. 17d.; milk, 4175 lbs.; fat, 15.54 lbs.; equal to 16.54 lbs. butter. Owner: Walburn Rivers, Falden's Corners, Ont.
 6. Jennie Mutual Butcher Girl, 7060, at 5y. 8m. 12d.; milk, 453 lbs.; fat, 13.53 lbs.; equal to 15.32 lbs. butter. Owner: A. O. Hardy, Brookville, Ont.
 7. Sunny Side Lass, 4853, at 5y. 7m. 10d.; milk, 426 lbs.; fat, 13.69 lbs.; equal to 16.98 lbs. butter. Owner: Fred Carr, St. Thomas, Ont.
 8. Helbon Spinks's Netherland Lass, 2771, at 5y. 7m. 22d.; milk, 3317 lbs.; fat, 13.11 lbs.; equal to 15.39 lbs. butter. Owner: Samuel Lemon, Lynden, Ont.
Senior Four-Year-Old Class
 1. Duchess Wayne Calamity, 16588, at 4y. 10m. 24d.; milk, 4073 lbs.; fat, 16.73 lbs.; equal to 20.91 lbs. butter. Owner: Walburn Rivers, Falden's Corners, Ont.
 2. Calamity Pouch Mercena, 9526, at 4y. 8m. 21d.; milk, 4384 lbs.; fat, 14.83 lbs.; equal to 18.54 lbs. butter.
Fourteen-day record at 4y. 8m. 21d.
 milk, 877.5 lbs.; fat, 22.98 lbs.; equal to 36.32 lbs. butter. Owner: A. E. Smith & Son, Millgrove, Ont.
Three-Year-Old Class
 1. Clothilde Maud's Canary, 12363, at 3y. 9m. 5d.; milk, 624 lbs.; fat, 16.69 lbs.; equal to 22.37 lbs. butter. Owner: Jos. Kilgour, Eglinton, Ont.
 2. Queen Anne Teale Lady, 12360, at 3y. 6m. 30d.; milk, 527 lbs.; fat, 16.18 lbs.; equal to 17.74 lbs. butter. Owner: Samuel Lemon, Lynden, Ont.
Junior Three-Year-Old Class
 1. Lawrence Lee De Kol, 15,025, at 3y. 1m. 1d.; milk, 3843 lbs.; fat, 16.62 lbs.; equal to 20.66 lbs. butter. Owner: F. R. Malory, Frankford, Ont.
Senior Two-Year-Old Class
 1. Duchess Wayne Calamity 2nd, 16584, at 2y. 10m. 24d.; milk, 4284 lbs.; fat, 16.63 lbs.; equal to 20.78 lbs. butter. Owner: Walburn Rivers, Falden's Corners, Ont.
 2. Florel, 14347, at 2y. 7m. 30d.; milk, 4049 lbs.; fat, 14.33 lbs.; equal to 17.81 lbs. butter.
Thirty-day record, at 2y. 7m. 30d.; milk, 1792.5 lbs.; fat, 26.71 lbs.; equal to 70.39 lbs. butter. Owner: Thos. S. Pearson, Port Hammond, B. C.
 3. Cloverleaf Ruth Tenson De Kol, 15,170, at 2y. 5m. 15d.; milk, 4127 lbs.; fat, 14.27 lbs.; equal to 17.04 lbs. butter. Owner: A. L. Smith & Son, Millgrove, Ont.
 4. Meadowbrook Prilly Pieterje, 17,062, at 2y. 5m. 15d.; milk, 4046 lbs.; fat, 13.36 lbs.; equal to 16.70 lbs. butter. Owner: A. O. Hardy, Brookville, Ont.
 5. Tidy Albion Ink, 12,398, at 2y. 5m. 17d.; milk, 3715 lbs.; fat, 12.94 lbs.; equal to 15.91 lbs. butter. Owner: A. L. Smith & Son, Millgrove, Ont.
 6. Patricia Johanna De Kol, 17,342, at 2y. 5m. 5d.; milk, 3877 lbs.; fat, 11.64 lbs.; equal to 14.85 lbs. butter. Owner: Jos. Kilgour, Eglinton, Ont.
 7. Mary Abbecker Mercena, 16,114, at 2y. 9m. 14d.; milk, 3357 lbs.; fat, 11.56 lbs.; equal to 14.45 lbs. butter. Owner: Thos. S. Pearson, Port Hammond, B. C.
 8. Nettie Abbecker, 15,130, at 2y. 6m. 28d.; milk, 2701 lbs.; fat, 8.47 lbs.; equal to 10.48 lbs. butter. Owner: A. H. Haley, Springfield, Ont.
Junior Two-Year-Old Class
 1. Homestead Colantha Pieterje, 15,295, at 2y. 1m. 5d.; milk, 3993 lbs.; fat, 11.69 lbs.; equal to 15.75 lbs. butter. Owner: E. Laidlaw & Sons, Aylmer, Ont.
 2. Homestead De Kol Colantha 2nd, 15,390, at 2y. 6m. 9d.; milk, 3564 lbs.; fat, 10.96 lbs.; equal to 13.70 lbs. butter. Owner: E. Laidlaw & Sons, Aylmer, Ont.
 3. Beattie Pouch De Beer 2nd, 15,332, at 2y. 3m. 15d.; milk, 2947 lbs.; fat, 10.46 lbs.; equal to 12.07 lbs. butter. Owner: Samuel Lemon, Lynden, Ont.
 4. Homewood Johanna Fayne, 18,875, at 1y. 10m. 25d.; milk, 292 lbs.; fat, 10.01 lbs.; equal to 12.51 lbs. butter. Owner: M. L. Haley, Springfield, Ont.
 5. Luella De Beer, 15,383, at 2y. 6m. 11d.;

milk, 3713 lbs.; fat, 8.92 lbs.; equal to 11.15 lbs. butter. Owner: Samuel Lemon, Lynden, Ont.
 6. Homestead Pauline Abbecker, 15,387, at 2y. 1m. 5d.; milk, 2573 lbs.; fat, 8.68 lbs.; equal to 10.96 lbs. butter. Owner: E. Laidlaw & Sons, Aylmer, Ont.
 7. Aaggie Totilla of Riverside, 16,202, at 2y. 6m. 5d.; milk, 2412 lbs.; fat, 8.43 lbs.; equal to 10.54 lbs. butter. Owner: M. H. Haley, Springfield, Ont.
 W. A. CLEMONS, Secretary.

A. R. TEEPLE'S HOLSTEINS

Fully one-half of the cows and as many of the heifers that Mr. A. R. Teeple, of Currie's Crossing, Ont., is offering for sale on March 11th, are advertised in the Journal of Farm and Dairy, are bred to Prince Abbecker Mercena, 6286. This great herd bull was bred by Jas. Reilly, and for a time was used in the well-known herd of A. E. Huels, at Norwich. He is a splendid animal individually, well developed, strongly constituted and a fine show bull, having won a first place at both Toronto and London. His sire was Prince Abbecker Payne with several high-testing daughters. Among these daughters were Princess Abbecker Pauline, 15,132 lbs. at two years old; Madam's Pouch Pauline, 16,57 lbs. at two years old; his dam, Tidy Abbecker, has an A. E. O. record of 57 lbs. of butter and 561 lbs. of milk. The dam of Mr. Teeple's bull was Mercena Schulling with 22.66 lbs. of butter in seven days. Three of this bull's calves were sold to Great British Columbia for \$1,000.
 Mr. Teeple has not been buying up cows for sale for anything of the dealer about him. He is a breeder through and through. All but five of the 50 animals offered in the sale are of his own breeding, and have been bred right and fed right for milk production. The majority of the females will calve in a comparatively short time, as Mr. Teeple says, to buy one animal is the equivalent to getting two.
 Write Mr. Teeple for his catalogue, which gives full information as to the production and breeding of all the animals offered in the sale. It will be worth the while of those looking for good Holsteins to visit Mr. Teeple's sale, which will be held at Shirks's Sale Pavilion, Woodstock, on March 11th.

A GREAT IMPROVED BULL

No one knows so well as does the progressive breeder of pure-bred the part I. H. Lipsett, of Stratfordville, Ont., believes that the sire is more than half of the herd, because the influence of one animal is extended over many.
 Working on his belief he has recently purchased a young herd sire that he believes will be hard to beat in Canada, either for breeding or individuality. An editor of Farm and Dairy who recently inspected Mr. Lipsett's herd at Stratfordville, got the following information about this grand young bull.
 Mr. Lipsett purchased this young sire from Mr. Bernard Meyer, of New Jersey, who has in his herd the champion milk cow of the world, Vandana, Scot 2nd. The dam of Mr. Lipsett's bull has an official record of 33.98 lbs. of butter in ten days as a junior four-year-old, this record being made 63 days after calving.
 His granddam, Grace Payne's 2nd, was bred in 30 days and 397 lbs. butter in 60 days. This latter is a world's record and, Mr. Lipsett believes, makes her the best bull in four-year-old sires.
 Mr. Lipsett's new young sire is a son of King Hongerwood Aaggie Payne, who in his turn is a son of King Payne Segis. Through this latter sire he traces to King Segis, Grace Payne 2nd Homestead, twin to Hongerwood De Kol, who has four 3-lb. daughters and eight 3-lb. daughters, and one to De Kol 2nd's Butter Boy 3rd.
 Mr. Lipsett's present stock bull is King Segis Pieterje, a son of King Segis and one of Beauty Pieterje's 30 lbs. butter in seven days. Beauty Pieterje was the first 30-lb. cow of the breed to produce a 30-lb. daughter, and was also the best daughter of Prilly, the greatest producing cow of the breed through her female offspring and a 30-lb. 30-pound daughter, a 30-lb. 30-pound daughter and one 30-pound grand-grand-daughter. Segis Beauty, with 25.35 lbs. butter as a three-year-old, is a full sister to King Segis bull.
 To sum up the merits of the breeding of these two grand sires it is only necessary to say that the average of their dam and of their sire's line is 32 lbs. of butter a week.

MAPLE LEAF CANADIAN LINSEED OIL CAKE BRAND



FEED THEM "MAPLE LEAF"

OIL CAKE MEAL

—then the cows will give more and richer milk—the beef cattle will fatten faster and make juicier beef of finer flavor.

"Maple Leaf" Oil Cake Meal will put quality into both beef and dairy products. And for quality the old world clamors more and more.

For indoor feeding "Maple Leaf" Oil Cake Meal fits every condition. It can be mixed with any other kind of feed on hand, and is very economical.

And its Fertilizing or Manurial Value must also be remembered. It enriches everything with which it comes in contact.

But when you go to buy it, be sure to ask for "MAPLE LEAF" Oil Cake Meal, the kind produced by the Canada Linseed Oil Mills, Ltd., at the big modern Mills in Montreal and Toronto.

Our book "Facts to Feeders" will be mailed free on request.

Get "MAPLE LEAF" Oil Cake Meal from your dealer or direct from our nearest Mill.

The Canada Linseed Oil Mills LIMITED

Notre Dame St., East, MONTREAL
 Mills at Sourthern, TORONTO

MY ENTIRE HERD OF

50 Richly Bred HOLSTEINS 50

Will be Sold Absolutely Without Reserve, at



Public Auction

at Shirks's Sale Pavilion WOODSTOCK Ontario's March 11th, 1913

For 14 years I have been breeding Pure Bred Holsteins of large production. I have recently sold my farm and therefore will sell absolutely without reserve my entire stock.

Including in the offering are 21 Cows with records ranging from 16,800 lbs. for mature cows, down to 6,200 lbs. of milk a year for two-year-old heifers. This stock is deep-bodied, strongly constituted—the very best kind of producers.

Also 9 two-year-old Heifers, yet to freshen 15 Yearling Heifers and Heifer Calves 9 Young Bulls, and my 2 Stock Bulls

The young stock is practically all sired by King Fayne Segis (Cloth- side, whose seven nearest dams have an average production in 7-day official records of 27.36 lbs. butter.
 His granddam, Grace Payne's 2nd Homestead, 35.55 lbs. butter in 7 days, was in her day champion butter cow of the world. About half of the cows to be sold are successfully bred to this bull. Balance of cows bred to Prince Abbecker Mercena, bred by Jas. Reilly; his dam, Tidy Abbecker. This bull was first prize animal at Toronto. Three of his calves went to British Columbia for \$1,000. This bull will also be in the sale.
 TERMS—Cash or time up to 9 mos. on approved notes, with interest at 6%.

Send for Catalogue giving full particulars of breeding, terms, etc.

A. H. TEEPLE, CURRIE, Ont.

AUCTIONEERS (Col. Welby Almas, Bradford, and Col. A. Sipe and Wm. Pullin, Woodstock.



"I Doubled My Crops"

"I raised 81 bushels of potatoes per acre on my farm with no fertilizer; with a low-grade fertilizer I increased this to 165 bushels, but with my high-grade Potash Fertilizer I brought this yield up to 204 bushels per acre."—G. E. Foster, Honeywood, Ont.

"With my ground not fertilized I ordinarily raised 54½ bushels of corn; with a low-grade fertilizer I increased this to 103 bushels per acre, but with a high-grade Potash Fertilizer I still further increased this to 135 bushels per acre."—D. M. Winter, Thamesville, Ont.

"On unfertilized ground I was able to raise only 16 bushels of onions per acre; with a low-grade fertilizer 225 bushels, but with a high-grade Potash Fertilizer I succeeded in raising 366 bushels."—Geo. S. Chapman, Lorne Park, Ont.

"On unfertilized ground I raised a crop of 80 lbs. of tobacco per acre; with a low-grade fertilizer, in which no potash was used, 1,000 lbs. per acre, but with a high-grade fertilizer 1,600 lbs. of tobacco per acre. The increase directly due to the use of Potash in the fertilizer was 60 lbs."—Russell Wigle, Leamington, Ont.

This is a story that can be told by hundreds of happy farmers in Canada who have used a 10 per cent. **POTASH** fertilizer. One man in New Brunswick, who ordinarily raised a crop of about 200 bushels of potatoes with a low-grade fertilizer containing less than 10 per cent. **POTASH**, raised on the same land a crop of 500 bushels of potatoes by using a 10 per cent. **POTASH** fertilizer.

If you want to do likewise on your farm, you must learn quickly that

"Potash Pays"

Every crop you raise takes from your land just so much Nitrogen, Phosphoric Acid, and **POTASH**. This is the food the plants eat. You must help Nature put back this plant food into your soil if you wish to raise good crops each year. You probably understand this, and it is likely you use some sort of fertilizer, but **if you are not using a 10% POTASH fertilizer you are not getting the best crops from your land.** This is because every plant eats three times as much **POTASH** as it does Phosphoric Acid. Ordinary low-grade fertilizers contain from 6 to 8% Phosphoric Acid and but 2% **POTASH**. Certainly this is not three times as much **POTASH**. Therefore, you want to raise this percentage to 10% of **POTASH**.

If **YOU** want to raise a bumper crop this year, do this: Insist that your dealer provide you with a 10% **POTASH** fertilizer. If he cannot do this, and you have to buy a low-grade fertilizer, add enough **POTASH** to it to raise it to 10% **POTASH**. We will tell you exactly how to do this, free. You can mix your own fertilizer at home if you want to, and our experts will tell you how to do this, too, without charge.

Get in touch with your fertilizer dealer **NOW**, so that he will be sure to have **POTASH** on hand for you when you need it. Send us your dealer's name and we will send you a free booklet telling how to properly raise the kind of crops you deal in. It is written by some of the very best Agricultural Experts in the world, and will surely be of great interest to you. Simply write us stating your dealer's name, and telling us the kind of crops you raise.

If you want your **POTASH** now and your dealer has not got it, we will sell it to you direct. Simply let us know your requirements. The main thing to do is to **act now**. Write us to-day.

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We have Muriate and Sulphate of **POTASH** stored ready for immediate shipment at St. John, N.B., Montreal and Toronto