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FARM AND DAIRY

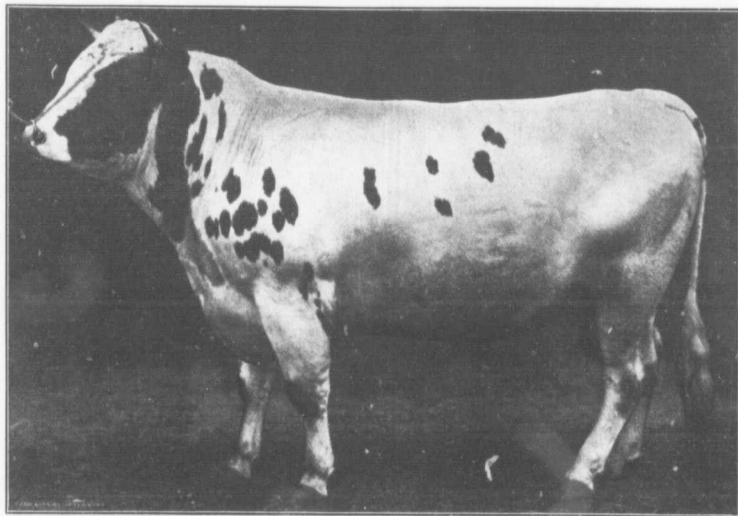
RURAL HOME

PETERBORO, ONT.

DECEMBER 16,

1909

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C.E.F.



WHEN SELECTING A DAIRY BULL LET NOT PRICE BE THE MAIN CONSIDERATION

In so far as is consistent one should make price the last consideration when selecting a dairy bull. The individual and his breeding—his ancestry—is what counts. If bred from a high producing dam got from heavy milking stock a bull is reasonably certain to pass on such characteristics to his progeny. The difference between a good cow and a poor cow is so great that heifers from a richly bred bull will soon return their sire's purchase price.

Lord Cornelius Teusen, 6745, illustrated above, and owned by The Trethewey Model Farm, is a grand individual and meets the requirements looked for.

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CANADIAN COUNTRY LIFE

IT DOES MORE WORK



If you were going to hire a man, and had two applicants, each asking the same wages, but one of whom could do nearly twice as much work as the other, which one would you hire?

There is the same principle to be taken into consideration when buying a cream separator. You want a machine that will do good work and do it quickly. Your time is worth money, whether you are turning a cream separator or doing some other work. The way to save time is to buy a machine that has the highest efficiency.

Experience has shown that the most efficient separating device is the **LINK BLADE DEVICE**, as used in the **"SIMPLEX"** cream separator. This explains why the **"SIMPLEX"** separator is such a favorite with the large dairymen. They realize the value of having a machine that will do the work quickly, and at the same time do it well. Is **YOUR** time worth anything?

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It is made in five sizes and of heavy "U" bar. The lock and trip are made of heavy iron. It can be easily opened with one hand and is the only stanchion that can be opened no matter what pressure the animal is putting against it. It is supplied for use with wood or steel construction. It will stay up to tell you about "BT" Steel Stanchions and Stanchions and what we can do for you. Write us today.

We also build Litter Carrier and Hay Carrier Goods

BEATTY BROS., FERGUS ONT. FIG 01

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

The Maritime Winter Fair

Owing to the large number of extended reports to be featured this week it has been found necessary to hold our special report at the Maritime Winter Fair, at Amherst, N.S., during the second week in December, until next week.

Farm and Dairy's special representative, Mr. W. F. Stephen of Huntington, who was at the Fair, reports it to have been the most successful yet held. There was a larger number of entries of live stock of higher quality than ever before and this together with the large crowds in attendance, taxed the limit of the Fair Building, with its new annex, to the utmost.

Earl Grey officially opened the Fair. Logan Bros. cow, Maple Grove Louise De Kol won the silver cup valued at \$100, donated by Henry Birks & Co., Montreal. Cecil T. Coates won the champion steer prize for shorthorns and Amos Fowler, the Pugsley cup for the best grade steer.

To Change Date of Meeting

It was decided at the annual meeting of the Ontario Agricultural and Experimental Union held at the O.A.C., Guelph, last week, and which is reported fully on page 16, that whereas it is now difficult for many to attend the early sessions of the Union, which for a number of years has opened on Monday, and owing to the many other attractions at Guelph during the Winter Fair week, it would be advisable to change the date of the annual meeting in forthcoming years, to some date in January, either at the beginning or at the close of the short course.

The motion which was moved by J. C. A. Zavitz and seconded by Prof. C. A. Laird, the president of the Union for the year just closed was submitted to the members and carried unanimously.

To Reforest Waste Areas

Although it was made on a most conservative basis, a plan of reforestation, whereby the counties of Durham and Northumberland would be able in from 40 to 75 years to pay all their municipal expenditures with the revenue derived from their waste lands was laid down by Dr. Fernow, Dean of the Faculty of Forestry, Toronto University, at a special forestry meeting held in Cobourg, Ont., on Thursday last. The united counties' council of Durham and Northumberland is the first, and as yet the only council that has taken up in a serious manner, the matter of dealing with its non-agricultural land. Preparation is being made to act upon the suggestions made by Farm and Dairy that the county council should approach the Government to have these waste areas reforested.

Warden A. A. Powers to whom much credit is due for the intelligent and effective manner in which he has pushed this question, said that he had received a letter from the Minister of Agriculture, the Honorable James Duff, in which the Minister had assured him that since the united counties of Durham and Northumberland had been the first to take the matter up they would be the first to get consideration. He stated that the Government would begin the taking of a census starting the third week in December of the lands within the counties to be reforested.

Meetings had been arranged for at Pontypool, Orono and at Castleton to be addressed by Prof. E. J. Zavitz of the O.A.C. His address is illustrated with lantern slides. "The Minister," said Warden Powers "assures us that he is prepared to act in this matter of reforestation if we are prepared to ask him to take action."

In order to emphasize the value of timbered land as against land without timber lying in close proximity to the

waste areas in question. Warden Powers told of a statement made recently by Mr. Thos. Smith who lives two and a half miles north of Leeward, that he had been offered for \$12 acres of second growth timber, which 20 years ago consisted of merely poles, more money than an amount at which he valued the remaining 188 acres of his farm. Mayor Field of Cobourg who occupied the chair, laid particular emphasis upon the fact that anything seeking to improve the condition of the neighboring country and waste lands within the counties would up to up-build the business of the town as well as bring benefit to those directly interested in these lands.

PUTS THE WORST REVENUE Dr. Fernow in his address referred to his statements made before the convention in Cobourg, last June (which address was published in Farm and Dairy, November 4), and emphasized the fact that France and Germany have secured returns upon their investment in reforesting equal to eight or nine times the original expenditure. He told of how private individuals had started the work of reforesting in these countries and how the Government had been impressed with the practicality and the wisdom of the scheme and had later taken up the matter itself with such beneficial results. He stated that the 15,000 acres of land under discussion would be equal only to one year's planting in Prussia. Dr. Fernow presented before the meeting a formulated plan for the reforestation of the non-agricultural areas in the united counties. In making his calculations, he had taken the stand of the financier, i.e., putting the worst side forward so that if it then figured out to be a profitable scheme, the venture would be sure to be a success.

THE REVENUE FORECASTED

His estimate was that, did the counties adopt the plan as he suggested, they would in from 40 to 75 years secure a revenue from these now waste areas, sufficient to meet the total expenditures of the Counties. The Doctor urged that the council grapple with the problem before them in a large way and adopt the whole plan, not merely a piece of it. From the interest already aroused through a profitable connection with this problem, a German corporation had approached him seeking his advice as to the advisability of buying up this land and reforesting it as a private enterprise.

That the council in view of the facts as presented by Dr. Fernow, should adopt a comprehensive scheme of dealing with these waste areas and placing them under better management was urged by Mr. Chas. C. Nixon of Farm and Dairy. The proposition, he said, appeared to be a most practicable one and if from these waste lands, the united counties of Durham and Northumberland could derive a revenue sufficient to cover their total expenditures, such a goal was well worth striving for.

Prepare Sap Roads.—This is the month to prepare the sap roads in the woods. Make the roads about eight rods apart so that the sap gatherer will not have to travel more than four rods to any tree that is tapped and at the same time come as close as possible to every tree. With axe and shovel cut out all broken old logs and saplings and shovel down the knolls and fill up the hollows before the severe frost and deep snow comes. —R. F. Whiteside, Victoria Co., Ont.

I have just received the pure bred Berkshire pig sent me by Farm and Dairy, from Mr. Joshua Lawrence, Oxford Centre, Ont. It is a good pig and I am much pleased with it. I thank Farm and Dairy for sending me such a good premium.—A. J. Ferguson, Glangery Co., Ont.

ISSUE

EACH V

Vol. X

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SUMMED UP

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* The substance at the Guelph W

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Each Week

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Only \$1.00
A Year

Vol. XXVIII.

FOR WEEK ENDING DECEMBER 16, 1909.

No. 50.

THE ECONOMICAL FEEDING OF DAIRY COWS*

Prof. H. H. Dean, O.A.C., Guelph, Ont.

Definite Data as to the Cost of Producing Milk is lacking. Points of some curious Experiments. Some Advice of Interest to all Cow Owners.

It is to be regretted that we know so little about the actual cost of producing milk. At the College for three years, 1896, 1897 and 1898, in round figures, it cost practically one cent to produce a quart of milk. Since then, food and labor have all increased so that it probably costs from 25 to 50 per cent., or more to produce a quart of milk to-day, than it did when these results were secured. New Jersey found in the seven years up to 1902 that it cost 2.37 cents to produce a quart of milk when charging up everything that could reasonably be attached to the cost of producing milk. It probably costs somewhere from two to two and one half cents a quart to produce milk in Canada to-day. It is unfortunate that we have not more definite data. Our people are wakening up to the need of knowledge on this point, for as we lessen the cost of milk production we increase the profits of the dairy business.

SUMMED UP IN SIX WORDS

The whole question of economical milk production can be summed up in six words, the man, cow, feed, stable, water, exercise, and we might add a seventh, cleanliness.

The man's part is to make an environment for the cow suitable for milk production. Some

curious experiments have been made within the last few years relative to this point. Mrs. Howie, an American lady has tried the plan of providing music for the cow at milking time. She found that music playing at the time of milking increased the flow of milk. A Chicago man purchased a set of chimes, which he attached to the cows while in the pasture. It is said that the music from these chimes was really entrancing and its effect was to increase the milk production of these cows. Another man provided cream-colored suits for his cows in summer time and resorted to the practice of cleaning their teeth daily. The result of his attentions were, it is said, two gallons increase a cow per day.

While we may question the merits of such means of increasing the milk flow, they point to the fact that we must make a study of cows in a way that we have never done before in this country. For

* The substance of an address delivered in the lecture room at the Guelph Winter Fair last week.

years we have preached that cows should not go dry for more than from two to six weeks. It has been noted that the best results are often secured from a cow when she is given a rest of two months. Have we given this point study enough? In her period of rest, the cow is enabled to build up flesh and vitality. When "worked" for 11-12 months of each year, she has little opportunity to lay up such stores.

REPLACING PART OF MEAL RATION
Experiments in Denmark have revealed the fact



The Champion Steer of the Guelph Winter Fair and his owner, Mr. James Leask

This is the magnificent Shorthorn steer that last year at Guelph won first prize in his class as a calf. Mr. Leask has disposed of him for \$225.

that a large percentage of the meal ration may be replaced with mangels and sugar beets. In some instances, I believe too much meal is fed to produce milk economically. The growing of mangels in this country has not been carried to the point it should be. Turnips have been grown to too large an extent.

When substituting a part of a meal ration with roots, the change should be made gradually and results in milk production noted. A cow being fed on large amounts of dry feed and meal is doing a lot of work. Roots tend to cool her blood and in this way give beneficial results besides being readily digested.

THE CHEAPEST THINGS AVAILABLE

A recent writer said that fresh air never killed anybody. If dairymen would keep their cows as they ought to keep them, they would increase their milk production. The majority of stables, and it might be mentioned houses, also, are not

provided with sufficient light and fresh air,—two of the cheapest things we can furnish.

I do not think that it will pay to put in expensive watering devices. Cows are better to go out to a trough to water, if the water be not too cold. It will be better for their health in the long run.

IT PAYS TO GIVE EXERCISE

There are cows that are confined too closely for a long time. Some of our dairymen have followed the "no exercise" theory and practice to the extreme. This has had an ill effect upon their herds.

We should study and work to produce milk economically and to get it cleanly; get more milk, cleaner milk, such as is more fitted for the average consumer.

Q.—Which would you prefer sugar beets or mangels?

A.—In feeding experiments, carried on at the College and elsewhere, mangels have been found to be quite equal to sugar beets.

Q.—Do you not think that warm water is better for the cow and that she will take more of it than she will of cold water?

A.—I don't believe that a cow relishes half warm water. We cannot ask a cow and find out her likes in this particular but I know that people when they want to quench their thirst prefer cool, fresh water. Water is needed to cool the body. There are special cases however, where warm water is advisable. As a general principle, however, it would appear that a cow prefers cold water.

Q.—Can you increase the fat in the milk of any particular cow?

A.—No. Feeds have little or no influence on the fat content of the milk although the milk fat will vary in percentage.

Q.—How much meal should be fed to a cow?

A.—This is a question that each man must determine for himself. A feeder should experiment and find out how much meal and how much roots and other feed a cow can profitably make use of.

Q.—What is your opinion about silage?

A.—It is the cheapest bulky food that a farmer can produce for milk production. More corn can be grown on an acre than is possible with any other fodder crop and the silo is the best place to keep it.

Q.—Which would you prefer, mangels or silage?

A.—Pound for pound I would take the mangels. Corn silage however is more economical from the standpoint of production. The best results are obtained from combining the two.

Reminiscence of Silage Feeding

T. R. James, Middlesex Co., Ont.

Since silage is growing in favor with stockmen generally and more and more of it is being fed each year, it is interesting to review a somewhat extended experience with this fodder of foders for the dairy cow. Years ago, when we first started to feed it, it was measured out to the cows by the bushel basketful. It was eaten with a relish. Other foders, mainly straw, were fed along with the silage ration. Interested people for miles around called to see this feed, asked all manner of questions concerning it and did actually examine all the catties' mouths to ascertain if the silage was causing their teeth to drop out.

Many through information gained in this and in other ways became convinced that the silo was a good thing and forthwith they built silos. As years went by it was discovered that the silage did not give the results that were hoped for. This was particularly true of those years in which the corn failed to reach maturity. Some began to think that the silo was no good and they abandoned the use of it for a year or two.

It soon began to dawn upon those who were feeding silage however, that the mistake was not with the feed, but with the feeder. They were depending solely upon silage, and as they learned that it was a one-sided ration and that it lacked in that constituent protein, without which we cannot secure a high milk production, they found that it was both advisable and necessary to balance up this food with foders of a highly nitrogenous, or protein nature. This they did by means of clover hay, bran, oilcake and such grains as were available.

Instead of allotting to each cow a bushel basket of silage as we first practised this quantity is now distributed to two cattle and sometimes to three. Roots, the place of which had been taken by the silage, are now again grown in quantities and fed along with silage. Under this latter system of feeding much better results are obtained.

In the last two years, the ration that we feed has been cheapened through the introduction of alfalfa hay which displaces in a large degree, the expensive grain ration which was necessary before we got alfalfa.

Hundreds of silos have been erected this past year. Their owners are now feeding for the first season. These beginners with this great fodder should profit by our experience and not make the mistake of feeding it alone. Silage is decidedly a one-sided ration. It contains very little protein. If satisfactory results would be had from feeding it, it must be balanced up with protein feed such as clover and alfalfa hay, bran, oilcake, meal, or with grains rich in nitrogen.

Co-operative Forestry in Ontario

E. J. Zavitz, M.S.F., Guelph

Some important changes have taken place in the Forestry department of the College within the last year. As was intimated last year the Government has started a forest station in the sand lands of Norfolk County. At present we have an area of 1,000 acres that is being placed under forest management. The creation of forest stations in older Ontario was a plank in the platform of the Forestry committee of the Experimental Union several years ago; it will be gratifying to those connected with the movement then, to know that their efforts were not in vain.

The forest station in Norfolk county contains at present, 1,000 acres of land unfit for agriculture but capable of producing good forest growth. There is, adjoining this area, at least 3,000 acres of similar land which should eventually be placed under forest management. This area contains

about 40 per cent. of cleared land; probably less than this area will actually require replanting. The remaining 60 per cent. is covered with second growth which simply needs protection. The policy to be followed in managing these lands is to protect present young growth, and gradually re-stock the cleared fields on which there is no chance for new growth. The forest nurseries at Guelph have been moved to the Norfolk forest station and will be run in conjunction with the waste land problem.

DISTRIBUTION OF STOCK

This last season the Department sent out about 380,000 plants to applicants throughout the Province. We had expected a larger demand but a number of the applicants were unable to handle the work owing to the extremely wet season last spring. Our surplus material was used on the land at the Norfolk station where there was planted about 40,000 Black Locust and Scotch Pine.

In regard to the conditions of these plantations throughout the province I can report that the results are very favorable, many of the plantations containing from 80 to 90 per cent. of thrifty living trees. Last week I saw a plantation made two years ago at Rondeau Park in Kent county,

Winter Fair Illustrated Supplement

Arrangements have been completed for another illustrated supplement of Farm and Dairy on high grade paper to appear next week. The illustrations of the supplement will include the champion horses,—Hackney, Clydesdale and pony—of the Graham and Redford Co., the champion cows in the dairy test with illustrations of the dairy stables, champion hogs and sheep. The edition will be worth preserving and hanging on the walls so that next year one will be able to compare the 1910 champions with those of 1909.

The first edition of the illustrated supplement issued after the Canadian National Exhibition at Toronto was most enthusiastically received by Farm and Dairy readers; so general was the approval with which it met that we have been encouraged to issue another edition covering the Guelph Winter Fair. The supplement was to have been issued this week, but the cloudy, unfavorable weather so delayed and hindered the photographer as to make it impossible for him to get the work completed in time for this Dec. 16 issue.

which surprised me. This plantation was made on government land, and as an experiment no cultivation or preparation of the soil was given. The soil was sandy and covered with a light growth of grass and weeds. Usually, the method is to make the planting lines with a plow by throwing a wide, shallow furrow in which the trees are planted. This furrow and the land thrown out protects the young trees from grass and weeds long enough for the trees to get a start. Instead of preparing the soil as above, the trees were planted in the sod. About 75 per cent. of the trees are living and promise to survive. This sandy soil has the water table close to the surface and so is very moist, which probably explains the success of the experiment.

BLOW GROWTH AT THE START

Many who receive our plants think they are too small, but this is one of the secrets of successful planting. Two years ago, Mr. Percy Reed of Georgetown reported on his plantation made the previous spring. I examined his plantation a few days ago and found about 85 per cent. of the trees living. He told me that they were disappointed in the growth of the trees during the first two years, but this last season many of the White Pine had grown 18 inches. The plants take two or three years to become established and then

White Pine on average soil should grow from 18 inches to 30 inches a year in height.

A White Pine plantation was made in Durham county on sand land in the spring of 1907. Today the trees are from two feet to three feet high. The educational value of these plantations is beginning to be felt. A number of men who are interested in the question of reforesting the sand lands of Durham county have gone to see this small forest, which only contains about eight acres, but which has proven the possibility of doing such planting. These men were sceptical about the work but this one example has converted them.

It is hoped that these plantations scattered over the Province will influence others to reforest the waste portions of their farms, and so assist in the maintenance of a proper proportion of woodland throughout the agricultural portions of Ontario.

Select Stock That Appeals to You

W. A. Dryden, Ontario Co., Ont.

Products of the dairy farm are all in keen demand and marketable at remunerative prices. The result has been that many farmers have forsaken the old method of milking a few cows and raising a few steers each year, for the one purpose cow. In all cases this practice should not be called a mistake for many men are naturally good dairymen and are fond of the detail work in connection with milk production. But I fear that of late years, some men who are not particularly fond of such work who are not particularly high prices of dairy products, and as a first step toward raising the milk yield from their cows have crossed such high grade "farmer's" cows with a bull of some one of the dairy breeds. The result from such mating has nearly always been disappointing either from a dairy standpoint or from the standpoint of the production of beef.

The point I wish to make from the foregoing is that all men, whether farmers or others should seek work which appeals to them and persistently follow it so that whether they produce milk or beef or other farm products, they may so specialize in one or two lines that these may be brought to such a standard as to be above the average of others men's productions. Many farmers who have thus crossed their females will probably be wishing next spring that the young stuff on their farm was sired by a good bull of some of the beef breeds, so that they might be in line for the good prices for prime steers which will likely rule before grass comes. Good butcher cattle have not been as high in price throughout the fall season for many years, as they have during the last few months. The main reason for this is the scarcity of really good cattle in good condition, as well as increased home consumption in the large centres of population.

Where Farmers Suffer in Competition

Prof. H. S. Arkell, Macdonald College.

Instances that could be given illustrative of conditions wherein the farmer's business suffers in competition with his stronger rivals are numerous. Noteworthy cases are of the stallion trade in United States, of the system of syndicating stallions in Western Canada at three, five and in one case ten times the original price paid in Scotland, of the commission trade in eggs and dressed poultry and of the sale of practically all products of the farm of whatever kind. From the other side of the question, that which has to do with the purchase of supplies for the farm. I give only one illustration—the manufacture and sale of agricultural implements. The prices which the manufacturer is able to obtain for his goods become very often a burden of expense to the farmer which presses heavily upon his income and it is a pretty well recognized fact that the home consumer pays a higher proportionate price for

his implement to custom-made more unres

Diseases

Dr. R.

Quarter sometimes hoof beneath the hair at to the shoe quarter of produce more foot is plant animal thru certain extr Occasional ored fluid issuing from

This occur in and the horse to a stone or substance by it comes o because of ference with thy growth which bec dry and then the cr ally appears likely to occ foot and quarter crack likely considered sign of a we though this are liable to it if exposed sufficient to trouble.

TREAT

A quarter never grow is to start in which downward have reach disappear crack next with a hot it top and stat should be o the foot pu night to so inflammation may be pres

Care must be taken in ing the shoe should be no allowed to the shoe quarter in the crack is The whole should be r little shorte the rest of so that wh foot is o ground an weight of t mal throu there will bearing on cased quar bar shoe useful in o place a share weight on the foot is requi

*A report read at the annual meeting of the Ontario Agricultural and Experimental Union in Guelph last week.

his implements than that at which they are sold to customers in other countries where there is more unrestricted competition.

Diseases of the Horse's Foot—Quarter Crack

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

Quarter cracks—or sand cracks as they are sometimes called—are cracks in the wall of the hoof beginning at the top of the hoof between the hair and the horn and extending downwards to the shoe. They usually occur on the inside quarter of the front feet. They almost always produce more or less lameness. Every time the foot is placed on the ground and the weight of animal thrown on it the crack will spread to a certain extent and produce soreness of the part. Occasionally a red colored fluid will be seen issuing from the crack.

This condition may occur in an instant by the horse treading on a stone or other hard substance but ordinarily it comes on gradually because of some interference with the healthy growth of the horn which becomes first dry and brittle and then the crack gradually appears. It is more likely to occur in weak feet and in fact a quarter crack is usually considered a sure sign of a weak foot although the best of feet are liable to suffer from it if exposed to injuries sufficient to cause the trouble.

TREATMENT

A quarter crack will never grow together again. The only treatment is to start a healthy growth of horn from the top in which case the crack will gradually grow downwards until the new and healthy growth will have reached the shoe and the crack of course disappear. In order to do this the top part of the crack next the hair is either cut out or seared with a hot iron so as to obliterate the crack at the top and start a healthy growth of horn. All dirt should be carefully removed from the crack and the foot put in a poultice of some kind every night to soften the parts and remove any inflammation that may be present.

Care must also be taken in applying the shoe. There should be no weight allowed to rest on the shoe on which the crack is seated. The whole quarter should be rasped a little shorter than the rest of the foot so that when the foot is on the ground and the weight of the animal thrown on it there will be no bearing on the diseased quarter. A bar shoe is very useful in order to place a share of the weight on the frog, which in the natural unshod foot is required to bear its share of the pressure.

Source of our Root and Vegetable Seeds*

Geo. H. Clark, Seed Commissioner, Ottawa
The origin of the seeds of field root and most vegetable crops grown in Canada is Franco, German, English and other European countries. During my recent tour of investigation in these countries I found numerous farmers with relatively small holdings who grow seeds of one or more kinds quite apart from any connection with or inspection by responsible seedsmen. The seeds produced by them are marketed by commission dealers and other middlemen, ultimately reaching the warehouses of the larger firms which hold them for export. The ability of these small growers, as well as the care exercised by them, varies greatly, as shown by the appearance of their growing crops and their methods of harvesting and preserving the seed. It is not to be

France, where many of the seedsmen have instituted a system of more or less efficient inspection of the crops of seed that are being grown for them. By adding considerable expense to production, both in the selection of stock and the inspection of the growing crop, they are able to produce seed of superior quality and to give their customers a fair degree of assurance as to the genuineness of the seed they supply. Keen competition in prices, however, produces a strong temptation to reduce the expense of production and inspection; and this, added to the possibility of error on the part of the actual grower over whom they have not full control, precludes them from being able to assume full responsibility by furnishing a definite guarantee with their supplies.

LARGE SEED FARMS.

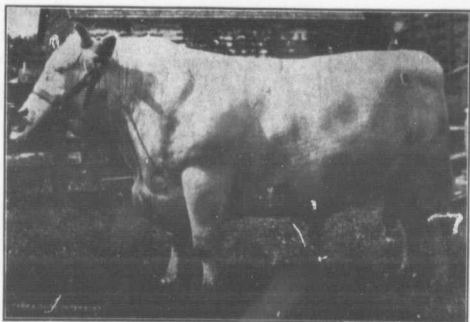
The most reliable sources of seed supply are undoubtedly the seedsmen who sell only those seeds that are grown, selected, harvested and preserved under their direct supervision on their own lands. I visited several such large seed farms, consisting of from 500 to 7,000 acres, in Scandinavia and Germany. On the larger farms the work with each kind and variety of seed, including improvements by breeding and selection, the maintenance of the purity of stock, cultivation, harvesting, curing, threshing, sacking and labelling for shipment, is entrusted to competent experts, most of whom are university graduates in science, who are required to assume full responsibility to the firm in connection with the branch of the work under their charge. Such a staff of experts is maintained at large expense and the prices of the seeds so produced are necessarily high. On some of these farms the areas of seed crops of the various kinds that are grown in any year represent only the orders for seeds that have been received several months in advance of the time for planting them. The managing heads of nearly all of these large seed farms that I visited frankly stated that they were quite prepared, and in fact it was their practice, to give definite guarantees as to both genuineness of stock and percentage vitality with the seeds they sell, and were quite ready to do so with Canadian buyers.

COULD GROW SEED AT HOME

The variable soil and climate found between Vancouver and Prince Edward Island furnish conditions for growing and maturing seed of nearly all our field root and vegetable crops equal and in some respects superior to those prevailing in the parts of Europe from which Canada obtains the greater part of her seed. The seed-growing experiments that were authorized by this Department of Agriculture in 1908 have continued to be quite successful. Already there is evidence to show that home-grown selected seeds produce a better early growth and a more satisfactory crop than do the imported stocks.

The growing and selecting of superior quality seeds of these crops is a highly scientific branch of agriculture, but plenty of Canadian farmers are equal to the task. When compared with Europe, the expense for labor is a deterrent to seed growing, but good lands for that purpose are to be had in Canada at from \$30 to \$60 an acre, while the value of land in the seed-growing districts of Europe ranges from \$300 to \$600 an acre. To encourage further the production of high-class seed of these crops in Canada, this Branch is prepared to secure and provide the services of an expert, well trained in both the practice and science of seed growing, who may, in addition to giving information by correspondence, visit and inspect the operations of growers of field, root and vegetable seeds during the summer season.

For heavy milkers in the winter time, we consider water in the stable a necessity, rather than a luxury. The system in our stables gives very good satisfaction, and is neither elaborate nor expensive.—Frank Webster, Victoria Co., Ont.

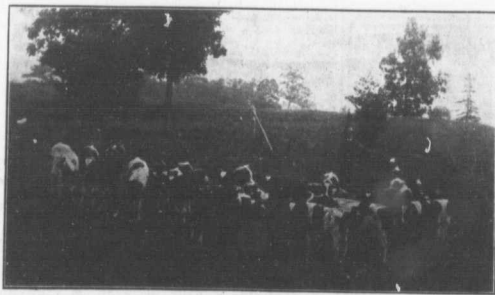


A Bull that Closely Approaches the Ideal Sought for in Shorthorns

"Golden Prince," owned by Sen. W. C. Edwards, Rockland, Ont., captured first at Toronto and first at Ottawa, 1909, as a three-year-old. Note in this animal the low set form, the even balance, the wealth of fleshing, the straight lines, the masculine character—qualities that are eagerly sought for in the Shorthorn.

expected that European exporters will furnish any semblance of assurance as to the genuineness of the stock with seed produced and marketed in this way. But they are able to offer it at a comparatively low price.

Another and more reliable source of supply of these seeds is from seedsmen who arrange for the production of their supplies in advance, and have the seed grown for them on contract from year to year by farmers whom they know from experience to be competent in the matter of selection, and careful in the handling of their stocks. This



A Thrifty Band of Youngsters at Riverside Stock Farm

These calves are but a few of the many richly bred Holsteins soon to be sold by public auction. They are owned by J. W. Richardson, of Caledonia, Ont., whose advertisement appears elsewhere in this issue.

system is quite general in Great Britain and

*From November "Census and Statistics Monthly."

Guelph Winter Fair

There was assembled at Guelph last week a collection of stock never equalled before in Canada and second on the continent. Notwithstanding the fact of the increased accommodation furnished by the new wing of the building, adequate room was not provided for either exhibits or visitors. The crowd was the greatest that Guelph has ever seen, and the building was uncomfortably crowded on the three main days of the show. An adequate entrance is needed to the buildings. Every person entering or leaving the show must pass through the same small door, which resulted in inconvenience and danger to an extent appreciated only by those who were a part of the jam. The directorate of the Fair must again face the problem of space, an increased amount of which will shortly be imperative. It is estimated that in all there were something like 50,000 admissions throughout the week.

THE DAIRY SECTION.

The new accommodation provided for the dairy cattle, while the space was about one-third larger than formerly, was disappointingly small, although the ventilation and light in the dairy department were a vast improvement over that of former years. The dairy part of the show was the best that has been since the slaughter was started. An extended table of the results of the dairy test is given on page 12. The test, which was concluded on Monday night, resulted in again placing Holsteins at the head of the list as milk producers. M. L. Haley's (Springford) Lady Aggie de alt. with 216 pounds of milk, testing 4.3, for the second time in succession won the premier honor. Last year her record was 203 pounds of milk, testing 3.7. Messrs. H. & J. McKee, Norah, had the champion Ayrshire cow—Victoria, 106.5 pounds of milk, testing 4.3, while their Queen Jessie, as a three-year-old, was first in her class with a total production of 133 pounds of milk, testing 4.06. This year's record was the highest ever made at the show. Notice should be taken of the high percentage of fat registered for both Holsteins and Ayrshires.

MOSES.

The horse department, which is a new feature at the Guelph Fair, was the largest of any show yet held under the direction of the Ontario Horse Breeders' Association. Accommodation had been provided for the exhibit of 104 stalls. From 70 to 100 entries were obliged to find stabling at nearby hotels. The last Ontario Horse Breeders' Exhibition held at Toronto had about 175 entries. The largest entry they ever had before was 215. This year at Guelph the entries numbered 230, which is a good increase for one year. The classes were all larger than the last year, those for standard-bred horses being unusually large.

Cowden's Prize, carried off the championship in Clydesdale stallions. Commodore, shown by Smith and Richardson, was runner up. The championship for Clydesdale mares went to Queen Minnie, owned by the late mentioned breeders. In the champion class for Canadian bred Clydesdales and Shire mares, Messrs. Geo. Davidson and Sons' Queen Bess was champion, with Smith and Richardson's Mill Prince in reserve. The champion Shire stallion of the show was Royal King III, owned by John Garbhouse and Son, second placing going to Sand Hill, owned by F. Drury & Son. Charming Cross, Brigham Radiant, owned by Messrs. Graham & Renfrew, captured the championship for Hackney stallions. Plymouth Horace, also owned by Graham & Renfrew, was the second champion pony stallion of the show. Mr. T. A. Cox of Brantford won the championship for pony mares with Tom M. and Mrs. W. Garbhouse that for Shire mares with Blue Bell.

A large number of horses at the show found purchasers, several buyers from Manitoba and Alberta securing some of the choice stock on exhibition for the West at prices ranging from \$500 to \$800.

BEEF CATTLE.

A larger entry than last year and, in fact, the largest for several years, was accorded to the beef cattle section of the show. James Leask of Georgetown again carried off the championship for the best beef animal in the show. The magnificent Shorthorn steer, which last year won the premier honors as a calf, gained the victory for him. This champion steer was sold for \$225.

At the auction sale of carcasses, fair prices were realized. Pork brought 11 1/2 cents; beef 9 1/2 cents to 10 cents, yearling sheep 11 1/2 to 12 cents and lambs 11 1/2 to 13 cents.

SWINE AND SHEEP.

The number of entries in swine were practically the same as last year. The well known breeders who annually attend this show, as well as those shown by a number of new comers, made up the entries. There was a wonderful increase in the sheep department. Difficulty was found in getting accom-

modation created great interest among the farmers. The grain winning prizes in this department instead of being sent to the Ontario Agricultural College and other experimental stations, will this year be distributed among the 11 branch stations of the Department of Agriculture in two-bushel sacks to be given to farmers as seed. The exhibit formed quite a centre of trade as growers, exhibitors and customers seemed to make it a point to meet there.

LECTURES.

Never at any other agricultural fair or exhibition has it been possible to keep the people interested in lectures of a practical character. At Guelph, however, this year, as on former occasions, the people seemed to be hungry for knowledge. Notwithstanding the fact of the enlargement of the building and other departments and the presence of the horse department, which some thought would detract from the attendance at the lectures, they were at each session filled and the addresses were delivered before large and interested audiences. The greater part of the lectures delivered this year were of the nature of what really is necessary in the best types of stock. These demonstra-



Lady Aggie De Kal, (Holstein), twice champion at the Guelph Winter Fair.

M. L. Haley of Springford, Ont., was again successful with his Lady Aggie in the three day dairy test at Guelph. Her record this year was 216 lbs. of milk, testing 4.3. Last year her record was 203 lbs., testing 3.7 per cent. of fat.

modation for them. As it was there was neither room for the comfort of the sheep nor for visitors to see them properly. The cup given by Sir George Drummond for the best pen of lambs was won by Mr. John Kelley of Shakespeare.

POULTRY.

The poultry department of the Guelph Winter Fair has made wonderful strides since it was first held 10 years ago. The entries have more than doubled in 10 years, there being 4,300 this year, which practically utilized all the space provided for them in the new extension to this department.

SEEDS.

The seed exhibit was the best display that has been yet at Guelph. There was one grave oversight on the part of the management in connection with the exhibit. Adequate protection for the exhibit was lacking. Exhibitors at times found it necessary to practically stand over their exhibits with clubs to keep visitors, especially the rough element, from the city, from mixing their exhibits and carrying off a part of them. This was especially true of the corn exhibits. Protection should at least be given the exhibits until after they are judged. The principal feature of the seed exhibit was that made in connection with the field crops competition. The two-bushel lots in this

department dealt with cattle, horses, sheep and swine. Other noteworthy addresses dealt with underdrainage, lessening the cost of milk production, best types of milking machines, the Seed Control Act and the farmers. These will be reported more or less fully later.

Judging Competition, Winter Fair

The results, with individual scores, of the students in the Judging contest at the Guelph Winter Fair, are announced as follows:

Swine—1, E. B. Palmer, 86; 2, F. W. Renwick, 81; 3, P. Stewart, 79; 4, W. A. Kelly, 75; 5, S. H. Clark, 73; 6, A. McLaren, 72; 7, C. A. Bennett, 68; 8, W. J. Paton, 69; 9, G. C. Miller, 66; 10, F. A. Bennett, 63.

Sheep—1, J. Laughtland, 95; 2, J. C. Yule, 84; 3, J. Parkinson, 80; 4, A. McTaggart, 73; 5, S. A. Bergey, 65; 6, J. E. Rettie, 64; 7, C. M. Leonard, 57; 8, M. A. Bosman, 55; 9, J. M. Falconer, 54; 10, J. B. Grande, 53.

Beef—1, W. A. Kelly, 94; 2, D. S. MacDonald, 93; 3, T. S. D. Harding, 91; 4, W. N. Campbell, 88; 5, W. J. Fraser, 85; 6, C. J. Acoer, 82; 7, A. McTaggart, 78; 8, W. V. Longley, 77; 9, J. C. Yule, 76; 10, W. B. Milner, 75.

Dairy—1, G. S. Dunkin, 85; 2, J. N. Sorley, 84; 3, J. M. McLaughan,

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Birds and Animals
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First Prize—Winnipeg, 1908—All-Canada
Guelph, 1909—All-Canada
Guelph, 1909—All-Canada

Price—\$65

83; 4, H. King, 78; 5, A. McLaren, 70; 6, G. Wilson, 72; 7, A. A. Whaley, 71; 8, W. H. Moore, 70; 9, H. H. Lindsay, 68; 10, W. A. Carroll, 67.

Horses—1, Hornor, M. C.; 2, Toole, A. A.; 3, Steckley, J. C.; 4, Rutherford, H. A.; 5, Whale, I. B.; 6, Hurlley, E. W.; 7, Smith, J. E.

—Prof. G. E. Day, O.A.C., Guelph.

Raising Calves

The calves in the Don Herd of Jersey, owned by Dr. David Duncan, whose success as a breeder of Jersey cows is well known, are raised on their mother's milk for the first four weeks at which time skim milk is gradually substituted until at six weeks they receive all separated milk. The fat removed is made up to the calves by a mixture of ground linseed and oil-cake, half and half, scalded fresh each day and which is fed in the milk.

At the earliest possible time in a calf's life it is taught to eat. Each calf is tied before it receives its milk and it is kept tied for a half hour or thereabouts after, when all are let loose and allowed to feed from a common manger of clover hay. In this habit of sucking one another, Sired roots and cut chop are fed once a day. Ensilage is provided morning and evening. That the system practiced is a good one is vouched for by the calves themselves. A trifling bunch than those now in Mr. Duncan's stable, one could not wish to see.

I have been a subscriber to Farm and Dairy for five years, and feel that Farm and Dairy deserves credit for the continued improvement it has made.—J. A. McDonald, Glangerry Co., Ont.

Renew your subscription now.

Get acquainted with
Black Watch
the big black plug chewing tobacco. A tremendous favorite everywhere, because of its richness and pleasing flavor.

The Feeders' Corner

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

Feeds to Increase Milk Flow

Would you kindly let me know quality and quantity of hay or other foods to feed cows to increase flow of milk for buttermaking an obligé—H. A. P., Rockland, Ont.

Generally speaking farmers have no hand a supply of feeds which they wish to feed to their cattle. Having such a list in mind one is more likely to be able to formulate a ration that will be of really some value to the feeder. Taking it for granted that you have the more common feeding stuffs at your disposal or can procure them, I would suggest the following as a good ration to feed your cows in order to maintain a good flow of milk. The amounts given would be for one cow for one day.

- Clover hay 15 to 25 lbs. according to size of cow.
- Oat straw, 5 to 10 lbs. according to size of cow.
- Bran, 3 lbs.
- Chopped Oats, 2 lbs.
- Barley, ground, 2 lbs.

The following feeds might take the place of the above in hay in part or entirely. Oat hay, pure or oat hay millet, vetch hay, alfalfa, mixed hay. Oat straw might be replaced in part by barley. Wheat chaff has considerable food value.

A mixture of 300 lbs. bran, 200 lbs. crushed oats and 200 lbs. fine ground barley should be fed in proportion to the milk product, say one pound of the meal mixture for each four pounds of milk produced. This is to say to a cow yielding 20 lbs. or two gallons of milk you should give about five lbs. of the meal.

If you wished to buy any feed other than bran, I would suggest, gluten meal, oil cake meal, cotton seed meal or pea meal. Of these oil cake meal is probably the best value just at present. The addition of 200 lbs. of oil cake meal to the meal mixture already described would be advantageous.—J. H. Grisdale, Agriculturist, C.E.F., Ottawa.

Two Cows on Two Acres

What would you advise owing on an acre, say, one quarter for summer feeding and three quarters for winter fodder this fall? Would the stuff from four acres be sufficient to feed two cows for a year with fodder? Or would one acre in pasture and one plowed this fall be so seen to best advantage.—J. M. L., Glenora, Ont.

Four acres would not be enough for two cows if you intend giving them two acres pasture. A better plan would be one acre pasture, one acre rough and corn. You would in this way, I think, be able to grow sufficient to feed your two cows the year round, so far as roughage is concerned.

I would suggest three-quarters of an acre Longfellow corn, one-quarter acre mangels and turnips and one acre mixture peas and oats equal parts by weight sown at the rate of five bushels an acre. With this 10 lbs. clover and 10 lbs. timothy an acre. Cut the peas and oats when just into head in order to give the clover a chance to develop. Sow the peas and oats might have been cut before this to supplement the pasture if necessary. The rest of it should be treated for hay. Then, one acre clover hay. This acre might be pastured the latter part of the season after the clover gets well started again and late in August the acre sown to peas and oats for hay. The rest of the season might be plowed with a shallow furrow, rolled out kept cultivated until late in October when

it should be ridged up with the two furrow plow or common plow for that matter then sown to corn and roots the next spring, manure having been applied during the Winter or in the Spring.—J. H. G.

FARM MANAGEMENT

Choice of Types in Holstein Bulls

In selecting a Holstein bull for a herd leader, which of the two types described below would you prefer, presuming that your ancestors were of about equal merit to high records?

No. 1.—A low, thick-set, stocky animal, heavy back, thick neck, thick heavy neck, with high crest, heavy shoulders, deep, dark, square buttock, well quartered in all a rather heavy looking animal. No. 2.—A slim, clean-cut head, we neck, thin withers, narrow cut hams, well set on all a rather light looking animal, all having somewhat the appearance of a steer, being a little legs, but of strictly dairy form and conformation—Young Breeder, Fonthill, Ont.

Generally speaking low set muscular bulls with deep, well developed middles are to be preferred to narrow, eye-necked sleeky looking individuals of the same size. The good dairy bull should, as a first requirement, possess lots of vitality and propensity. The animal described in the second paragraph would, according to that description, appear to be badly lacking in these most important peculiarities. I may say however that it is always difficult to judge of the comparative merits of breeding animals when only words are used to convey conceptions to the mind of the one asked to express an opinion. It is very often hard enough to come to a conclusion when the two animals are side by side.—J. H. Grisdale, Agriculturist, C.E.F., Ottawa.

Cost of Shearing Sheep

How much does it cost to shear sheep each, and how many sheep can be shorn per day, under average conditions?—K. S. York Co., Ont.

A man under average conditions may be expected to shear 25 sheep a day. The condition of the wool, the breed of the sheep and the skill of the man are factors which might allow of only half or less than many sheep being shorn, or twice as many if everything is favorably conditioned. The cost will depend on these things.—J. H. G.

Poor Land and No Manure

I have a field I have pastured for three years owing to the poor crop it has had. I do not know the size of the land or how I the manure this year; I thought I would break it up and sow with some clover. The cost will depend on the size of the field, so it is high and low half the time. Can you give me the name of the peas or something that will do as well or better than peas on this land? How best to work it up without manure to its former condition?—H. H. Wellington Co., Ont.

I would suggest that on the field in question you do not attempt to do anything before the latter part of next July (July 1910). In the latter days of July, having left the field in pasture up till that time you might plow your field with a shallow furrow, say three inches deep, and then either plowing roll once or twice with a heavy a roller as procurable and then disc harrow once, twice and even three times if the soil is very dry and hard.

From that time on the land should be harrowed with a smoothing or a grass or weeds show themselves. This should be done up till the latter part of October when the land should be ridged up with a double mould board plow into ridges about two feet apart and the soil about eight inches high. It should be left till the middle of the spring of 1911 then sown to oats and peas, a moderate seeding, say

two and a half bushels an acre. At the same time sow 10 lbs. red clover seed and 12 lbs. timothy seed per acre. The next year, 1912, provided the season 1911 has been normally favorable for a catch of grass there should be clover and timothy growing. This might be pastured off or cut off for one crop hay and then left to pasture till the following July, 1913, when the above plowing process should be repeated. This three year rotation is in my experience the most satisfactory and the most effective in bringing up run to good average.

If, due to very adverse weather conditions or other cause you should fail to get a catch of clover and grass in 1911 it would be well to cultivate the oat stubble well and sow fall rye in September. This rye could be turned down in the spring of 1912, the land thoroughly worked and then sown to buckwheat to be again plowed down and the land well worked in autumn, ridged up and seeded to oats and grass and clover seed in spring 1913.—J. H. Grisdale.

Soils Best Adapted for Wheat

Will you please give me whatever information possible as to what kind of soil is best adapted to the growing of spring and winter wheat.

Perhaps your experimental farms can give me information regarding this; also kindly ask them to state which of the following soils are best adapted to this? Light sandy soil with clay subsoil. Heavy sandy soil with clay subsoil. Heavy loam with clay subsoil. Black loam with clay subsoil. Light clay with clay subsoil. Heavy clay with clay subsoil. Clay loam with clay subsoil.

Kindly advise them to state these in their respective order, and oblige.—E. B., Abbotford, Wis.

It would not be safe to say positively that any one of the various soils mentioned was the best or worst of the lot for either spring or winter wheat. So many factors quite independent of the kind of soil go to control the quality and quantity of the wheat crop that at best any opinion expressed would be more or less of the nature of a surmise.

However, given good drainage and proper soil preparation with average weather conditions, the probabilities are that the various soils described are valuable for wheat production in the following order.

1. Clay loam with clay subsoil.
2. Black loam with clay subsoil.
3. Sandy loam with clay subsoil.
4. Light clay loam with clay subsoil.
5. Heavy sandy soil with clay subsoil.
6. Heavy loam with clay subsoil.
7. Light sandy soil with clay subsoil.

This would probably be the case for

both spring and winter wheat unless the heavy loam was very level and not very well drained in which case the sandy soils might stand relatively higher.—J. H. G.

Plenty of bedding should be provided for the cattle. If they are not carried every day they should be well brushed before being milked. A good thing to do this with is to take a handful of hay, twist it up tightly and use it thoroughly as long as it lasts, then take another.—Frank Webster, Victoria Co., Ont.

Growing Fine.—Recently I secured a club of seven new subscribers for Farm and Dairy and received as a premium a pure bred pig sent me by Farm and Dairy from Mr. A. A. Colwill of Newcastle. I am very much pleased with the pig. It is growing fine, and weighs now about 70 lbs. I also received the pedigree from Mr. Colwill and thank Farm and Dairy for my fine premium.—Robt. Bellamy, Northumberland Co., Ont.

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

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The British Columbia Dairymen's Association
Under the auspices of the PROVINCIAL GOVERNMENT DEPARTMENT OF AGRICULTURE, will hold a **Dairy Farm Competition**
Running from 1st January to 31st December, 1910
PRIZE TO BE AWARDED: CHALLENGE CUP
(Cup to be won three times, not necessarily in succession, before becoming the absolute property of Competitor)
A Gold Medal will be awarded to the successful Competitor securing the Cup each year, as also will Silver and Bronze Medals be given the next two best Competitors in order of merit.
ENTRIES CLOSE 1st JANUARY, 1910
For further particulars and entry forms, apply to **R. W. HODSON, Secretary-Treasurer,** Live Stock Commissioner's Office, Dept. of Agriculture, VICTORIA, B. C.
N.B.—Competitors before entering competition must be duly enrolled as members of the British Columbia Dairymen's Association; the membership fee being One Dollar, which should be forwarded to the above-named Secretary-Treasurer.

HORTICULTURE

Black Heart in Fruit Trees

W. T. Macoun, Central Experimental Farm, Ottawa

Black heart is a condition found in trees grown in cold climates. It is caused by the death of the young wood in winter. The bark and cambium (the growing tissue next to the bark) remaining uninjured, growth continues in the spring, as usual, but the injury remains and eventually causes the death of the tree. If, for instance, rot gains an entrance through the crotch or a dead branch the whole interior of the tree may rot and some day the tree will blow over and it will be found merely a shell which has been held together by the trunk and a few outside layers of wood.

Black heart in its incipient stage may be prevented by careful attention to Northern grown nursery stock. During the winter, after the first season's growth of the young grafted tree, most varieties are likely to be killed back, and when the tree begins to grow in the spring it will be found to be a young tree with a black heart below the point where growth begins. This is black heart. Careful nursery men now cut back the young trees before or after the first season's growth in order that the tree may start growth from healthy wood. The same thing may occur the second season, and the trees are again cut back, but it is usually not necessary to cut so far.

Even after trees are three and four years of age and have been planted in the orchard they may get black heart by winter injury, but it is much rarer than when the trees are neglected in the nursery. The tender varieties are more susceptible to black heart than the hardy ones.

Barrels Best for Apples

W. G. Fischer, Canadian Trade Commissioner, Canadian Consulate

A considerable quantity of apples have been arriving in boxes of 40 pounds weight. For a limited time this seems to be a very popular package. An important point, which seems necessary to Canadian exporters to observe, is exactness in stenciling the different packages whether barrels, crates or boxes, and to see that the contents are exactly as the marks on the outside of the package indicate.

From inquiries here, the most desirable package for Canadian apples is the regular Canadian barrel. There is a general feeling that the purchaser can rely on the quantity of fruit packed in that way.

Expensive Spraying Avoided

Although spraying is a necessary operation in successful orcharding, more expense is often put upon it than is necessary. Farm and Dairy knows of one man who paid \$115 within four years for the spraying of an orchard of two acres. He has been compelled to San Jose scale but has a point.

It does not pay him to expend so much money to have his trees sprayed when he can buy a good spraying apparatus for one-fourth of what he has already paid out and it will last for ten years or more, and the cost of spraying the trees with it will then be but a few cents a tree.

The night mulch material used, either home-boiled or commercial. It can be bought already prepared and ready to be diluted with cold water and applied to the trees by diluting this, generally, one should not add more than eight times its bulk of water.

A home-made lime-sulphur wash may be made by boiling 17 pounds of sulphur and 22 pounds of lime an hour with enough water to boil it, then straining and adding enough water to make 40 gallons and spraying it thoroughly over the trees. This is to be done at any time when the trees are dormant. Do a thorough job and repeat the wash once, one when the wind is from one direction and the other when it is from the opposite direction.

If one has such scale, it would pay to give the tree two washes, first in the fall, shortly after the leaves drop, and again in the spring, when the buds are swelling. This will really do the work in a satisfactory manner, and will kill the scale and the grower can keep it in control and produce good fruit after that.

Over-Planting of Strawberries and the Western Markets

At the convention of the Ontario Fruit Growers' Association in Toronto in November, a paper on the above subject was given by Mr. Robt. Thompson of St. Catharines. The following is a synopsis of the paper.

"In taking up this subject we must look at it from a disinterested standpoint. Strawberries are not over-planted, but there is under distribution. The great consuming public, except in a few countries, have not begun to get all of the berries they want and, in many instances, they have had to pay very high prices. Of course, the fruit growers, who have been induced, by the fairy tales of the real estate agents and of others who have land to sell (and who are not over-acted in representations of profits derived from fruit growing) to purchase land at high prices excepting the very best prices for their fruit, will say that berries are over-planted and prices too low. But we must remember that berries can be grown over a large area of our country, except in a few spots, at any time and in too large proportions to be many to enter into the production. We must expect to be prepared to sell at a reasonable price and at the same time be prepared to use common sense and good judgment in disposing of the fruit.

"The grower has many troubles to contend with. If he has a good care and cultivation secured a good crop he need not feel that he is bound to sell to the canner or the jobber at the first price offered, if it is not deemed sufficient. The general market will always pay a fair average. If we have the promise of full crop we have to grow it and then we are bound to sell to sell at any price and are not to get the promise of any rise in the market, they think they are making a good deal, when as a matter of fact, if any market were to open, it is impossible to have any rise in price.

"Take the past spring, for example. The canners had sold all of their stock of canned strawberries and were bare berries they anticipated a good crop of berries but the price of berries was from three and three quarters to four and a half cents a box. Many growers thought that they had to take this price and sold; others held off. Being late in the cold weather, berries ripened late to come in a rush. Prices fell for three or four days and the factories bought at from two to three cents a box. Of course, this was a serious loss to the growers who were sold on the day they shipped, and the shippers did better than factory prices.

"I have investigated the sales of many growers and find that in every berry properly they make more by shipping. I will give one grower's returns from this about medium re-

turns—and he shipped all of his crop to Toronto to commission houses so that he had no fancy outlet. He had 512 crates and they netted him four and one-sixth cents a box after paying for crates, boxes and charges. He says that he had four advantages over the factory, first, disposal of whole crop; second, cash every week (important); third, handling everything new (very important); fourth, no canning factory abuse (most important) but the berries were well picked and the factories had not nearly filled their orders and the pack of strawberries was again short.

THE NORTHWEST MARKET
"In regard to the northwest market as an outlet, I feel confident that within a few years, that market will take a lot of our berries. Our growers sent out three cars of berries this season with on the whole fair success financially and gained a lot of valuable experience. Before sending the Leries our growers were skeptical as to berries carrying safely. The consumers in the west were doubtful also. After the berries were shipped, bought and used, we found that the berry would carry safely, that the buyers found that our berries were better in flavor and stand up long enough to use and can, and that they are prepared to buy Ontario berries with confidence in the future.

"One word as to the future. Our association sent to the West this season nearly 150 carloads of small fruits, and there have been almost 500 cars of berries to the Niagara district. Our portage is that if we go after this market in a businesslike manner and arrange to supply the public regularly with Ontario fruit that the people out there are ready to give our fruit the preference. If we succeed we must use good packages, load the cars properly, see that fruit is cooled everywhere, have the fruit picked carefully and at proper stage of ripeness for each variety and we must also see that the standard Commission will have the rates lowered to points west of Brandon. The rate of from \$1.00 to \$1.60 a hundredweight to all points west of Brandon is largely prohibitive. If we can secure rates to that western point in proportion to what we have to Winnipeg, Portage, Prairie and Brandon, inside of three years, more fruit will be shipped west from Ontario than will be shipped to Ontario and eastern markets.

Prosecutions by Fruit Inspectors

Prosecutions by Dominion Fruit Inspectors during the past three or four weeks for improper marking and packing of apples, have resulted in the following convictions and fines: Geo. Wilson, Mitchell, 4 charges \$50; F. G. Matthews, Colborne, Ont., 2 charges \$85; J. L. Wilson, Colborne, Ont., \$10; Orono Fruit Grow-

ers' Association, Newcastle, Ont., \$10; D. F. Hamlin, Goderich, Ont., \$10; D. Wilson, Seaford, Ont., \$10; John Coyle, Colborne, Ont., 3 charges \$150; Jas. Coyle, Colborne, Ont., \$10; C. Sleep, Port Perry, Ont., \$10; S. G. Dudley, Colborne, Ont., \$10; G. Vipond, Colborne, Ont., \$10; J. F. Elliott, Woodstock, Ont., \$10; D. Cameron, Ripley, Ont., \$10; W. H. Lobb, Clinton, Ont., \$10; Wm. Coyle, Colborne, Ont., \$10; Stewart Bros., Kincardine, Ont., \$10; J. H. Fleming, Kincardine, Ont., \$10; G. Fothergill, Galvane, Ont., \$10; John Denholm, Blyth, Ont., 7 charges \$825.

Garden Insects

An interesting and instructive address on "Insects that Affect Market Gardens," was given by Mr. C. W. Nash at the convention of the Ontario Vegetable Growers' Association at Toronto in November.

The worst class of insect pests are those below the surface of the ground. Out-crops do an immense lot of harm. They are hatched from eggs laid by the mother. The white grub also does great mischief. They come from eggs of the "June bug."

It is difficult to destroy these underground insects. By driving liquids into the ground with a blunt stick and pouring into them a handful of carbon, which is heavier than air, and works down, they can be killed. For cut-worms, take bran, mix with molasses and water; to every 10 parts put one part of Paris green and drop the mixture along the rows in the infested bed. They prefer this to green food. Two varieties of stem borers give trouble.

"Insects that attack foliage are countless," said the speaker. "Some suck, others bite. Among the former are green plant lice. To kill them use kerosene oil, or even common soap. This closes the spiracles through which they breathe. Do not use kerosene emulsion; continual use of this injures the plant owing to the mineral oil in it. Larvae of onion or cabbage are killed by cultivating along rows. The radish fly is troublesome. Dust them with fine wood ashes early in the morning.

"Insects which feed with jaws, as potato bugs and larvae of white cabbage butterfly, can be killed with arsenate of lead sprayed on and there is no danger of burning the foliage with the poison. Use two pounds to 50 gallons of water. As an alternative use four ounces pyrethrum to one pound of phenyl powder.

"The slug is destroyed by dusting over the ground while they are feeding. Do this in the morning, with salt or quicklime. For cut-worms dress the ground with kankit or nitrate of soda, and rotate crops as frequently as possible. For asparagus beetle, spray with arsenate of lead."

POULTRY

Poultry Products

"Frofitable poultry products are being marketed at a testing agency. W. R. Graham Fair.

"During the chicken season, nine millions to this mean that whatever of emphatically, sor. "Prices products are as well as those far from being poultry have been least warrent farm produce.

"There need deduction, either. The British market always the that are guaranteed for poultry that and shipped in Canadian poultry creation, yet and poultry price the past three years. This means that least poultry and it unless it is demand, a serious result.

FARM CONDITIONS

"No man is to raise more than is the farm sor Graham. Only give a good and a wide room, getting sides being in which some on light is, less than in winter. He is vindicating they plenty of exert that would not Danish eggs prices paid for cre, why? Becau

erative societies. Denmark, the centre where the and well. From the British market there pay the they know even represented by tive Societies. adopt a similar which is a fish product?

Feeds and

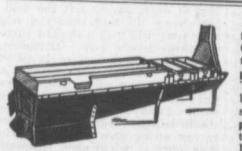
Miss Mary Yates
In feeding f one must remember in feeders. Hence create a variety ordinary condition. Such gro and barley are needed. Of course when vegetation green food should be done by parts of clover or mangel. A new that a chicken function of this a grinding mill, is small out of strength.

GRINDING POW

As an instan powder the grain a hen has been

"Part of an ad Poultry Sent to Guelph Winter F

Champion Evaporators Make Better Syrup



"CHAMPION" EVAPORATOR

Don't rattle at your luck if the other fellow gets more out of his Maple Grove than you do. Every day you try to make syrup without a "Champion" Evaporator you are losing money.

"Champion" evaporators are corrugated with a bottom which doubles the heating surface. This means that the "Champion" will do more work for its size in any other form of evaporator. It finishes the syrup without re-heating. Free—Our booklet of useful information for syrup makers.

THE GRIMM MFG. CO.
58 Wellington St., MONTREAL

FARM AND DAIRY

AND RURAL HOME

Published by The Rural Publishing Company, Limited.

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

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

CIRCULATION STATEMENT

The paid subscriptions to **Farm and Dairy** exceed 7,000. The actual circulation of each issue, including copies of the paper sent to subscribers who are not in a position to receive a copy, varies from 8,000 to 12,000 copies. No subscription lists are kept, and the full subscription rate is not paid for those who do not contain any dead circulation.

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

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We want the readers of **Farm and Dairy** to feel that they can deal with our advertisers with our assurance of our advertisers' reliability. We try to admit to our columns only the most reliable advertisers. Should any subscriber have a complaint to be investigated the circumstances will be investigated the circumstances fully. We had reason to believe that any of our advertisers are unreliable, even in the slightest degree, we are anxious to remove them from our columns through their advertisement. Should the circumstances warrant, we will expel them from our columns. We will not only protect our readers, but our reliable advertisers as well. All that is necessary to enable you to do this is to write to our office. The details of the Protective Policy is that you should in all your letters to our advertisers the words, "I saw your ad. in **Farm and Dairy**." Complainers should be sent to us as soon as possible after reason for dissatisfaction has been found.

FARM AND DAIRY

PETERBORO, ONT.

RETAIN OUR LIBERTY OF SPEECH

No movement connected with agriculture in Ontario is more encouraging than that which has taken place in the past couple of years in the organization of over 100 farmers' clubs. This shows that as farmers we are beginning to realize that the time has come when we must organize in order that we may assert ourselves as a class, on the public questions of the day.

There is one feature connected with the formation of these clubs, that we have mentioned before and which we do not like. The clubs are receiving government grants. In return for these grants they have to pledge themselves not to discuss questions of the day that may be political in nature. This is a time when our farmers should be discussing the navy question from all standpoints, and making their views known. If the 100 or more farmers' clubs in Ontario were to announce their views, the government would be quick to take notice of the feeling thus expressed.

As it is, our farmers' clubs are not

supposed to discuss a matter of this nature, because it is a political question. Is not this "selling our birthright—liberty of speech—for a mess of pottage?" The labor unions prize their liberty of speech too much to sell it for the privilege of drawing a government grant. Why should we farmers humiliate ourselves by doing so? Have we not enough resourcefulness to raise the small sums we need to keep our clubs going?

Farm and Dairy sees no objection to our dairymen's, live stock, fruit growers' and similar organizations receiving government grants. They are engaged purely in educational work, and their efforts are confined to special lines of labor. Farmers' clubs are in a totally different class. The members of our farmers' clubs should be free to discuss every question affecting them, that may come up for consideration. In organizing these clubs, the Ontario Department of Agriculture has shown commendable enterprise. This is a case, however, where we should refuse its assistance and act for ourselves.

PUSHING RE-FORESTRY MATTERS

Much credit is due the Council of the United Counties of Durham and Northumberland, Ont., for the enthusiastic and statesmanlike manner in which it has pushed the Forestry question as it pertains to the waste sand lands within the bounds of the Counties. The Council, through Warden A. A. Powers and the Agricultural Committee of the Council, is especially to be congratulated in having been able to secure from Dr. Fernow of Toronto University a practical formulated scheme of reforestation that is adaptable to the areas in question. The estimates, made by Dr. Fernow, although, as he said, most conservative, show that the waste sand lands of which there are 15,000 acres in these Counties would, if reforested according to the comprehensive scheme that he suggests, provide in from 60 to 75 years a revenue sufficient to cover the total expenditures of the Counties.

The proposition as advanced is one that must appeal to all within these Counties. It is a straight business proposition of dollars and cents. While it is true that the scheme is a "long winded" one, and as such not readily acceptable to us as Canadians, who, for the most part, are inclined now to work on the get-rich-quick principle, still we must be patient. We must learn to wait, which virtue the French, the Germans and the Briton have demonstrated to be the most profitable policy in the long run.

Since the Province as a whole and our people of the future will be the most benefited, Dr. Fernow's proposal is to finance the matter in such a manner as to place on them the largest burden. His proposition in short is "The expropriation of these lands on behalf of the Counties, the property to become vested in the Counties; the Legislature to provide the funds for the expropriation proceedings as well as for planting by issuing long term bonds for which the Counties would become re-

sponsible, guaranteed by the Province with a lien against the land. Thus the future generation, which reaps the benefit, will be responsible for the discharge of the bonds when the property itself is able to repay them."

Naturally it would not be practicable or even desirable to plant the whole area at once. Dr. Fernow suggests a 20-year campaign, requiring on the average the annual planting of 500 acres, the rate of progress to be varied as opportunity makes advisable. The problem is a large one. It is, however, quite within the possible and looks decidedly small beside the reforesting work of France and Germany. If, as Dr. Fernow claims, these wastes can be so managed as to yield, in a reasonable period, a revenue sufficient to cover all expenditures of the United Counties of Durham and Northumberland, the scheme merits most hearty support.

THE WOMEN ON OUR FARMS

In the Household Department of this issue appears the conclusion of an article from our last issue, entitled "The Tragedy of the Farmer's Wife." This article was taken, with only some slight changes from the June issue of *The Delinquer*. The conditions described are very much exaggerated. We can be thankful that they do not apply to the great majority of farm homes in Canada. We do not believe that they apply either, to any great extent, to the farm homes of the United States. Nevertheless there is some degree of truth in the article. The fact that there is a larger proportion of women in our insane asylums from our farms than from any other class of the community, reveals conditions that cannot be ignored. It is such conditions as these, isolated as they may be, that afford ground for such articles as the one to which we refer.

While in a great proportion of the farm homes in Canada, our farmers' wives are as well treated and happy, as the women in our cities, still the fact remains that many women on our farms do not enjoy comforts and conveniences in their work to which they are entitled.

How many farms, for instance, are equipped with running water in the barns while lacking this convenience in the house? How many barns have been improved by the construction of windows to admit plenty of light while the homes have not been improved in the same manner? How many farmers' wives still struggle through the washday each week, without enjoying the assistance of such an inexpensive device as a washing machine?

There are sections in which the women still do a large part of the milking, washing the milk cans, and perform other laborious work from which they should be exempt. It would appear that, in some cases, the fault is with the women, inasmuch as they do not assert their rights. Fortunately, however, conditions are improving rapidly. Our Women's Institutes are largely responsible for this. It is to be hoped that before long,

conditions in our farm homes generally will be so far improved that contributors to city magazines will not have any grounds on which to write such articles as the one under consideration.

EVIDENCE OF OUR NEED

Canada is face to face with one of the greatest problems, in the navy question, with which we have ever had to grapple. Once we begin to arm, like some of the other nations of the world, we will be saddled with an annual expense which will grow rapidly in extent as the years go by. Letters **Farm and Dairy** has received from farmers in all parts of Canada show that many of our farmers are opposed to the proposed expenditure. Others, while not opposed, feel that the question needs more consideration than it is likely to receive. The fact is that as farmers we are perfectly powerless to make our views known. We should be doing so in no uncertain tone. Why do we not? Simply because we have no proper organization representing us as a class. We are so disorganized that we are led around by the nose by both political parties.

We have the Dominion Grange, but it is numerically so small that it does not carry the weight that it should. **Farm and Dairy** does not agree with many things advocated by the Grange. We have felt occasionally that the Grange is apt to be narrow in its views. Still, however, it is the only organization of the kind that the farmers of this country have. Instead of refusing to support it, because we may not agree with all of its views, we farmers should stand by it, attend its sessions, take part in its discussions and make it representative of us as a class.

As long as we fail to give adequate support to the organizations representing us as farmers, we may expect and will deserve to get only whatever the political parties see fit to give us. Is it not time for us to arouse ourselves? Do you wonder that Ontario has got only six farmers in the Dominion House?

IT PAYS TO HAVE THE BEST

When Senator W. C. Edwards, of Rockland, Ont., paid \$6,000 some years ago for a Shorthorn cow, at public auction, many of the people who heard of the purchase, laughed at the investment. To them it seemed ridiculous that such an expenditure could ever be made profitable. That it has proven so, is believed by Senator Edwards. Anyone who inspects his herd will see good reason for such a belief.

Stock from this cow, including the herd bull, as well as a younger bull now in use, have improved this herd to a remarkable extent. This stock, because of its breeding, sells at high prices. It has the quality and the herd shows it. While the initial price paid was high, the investment is being paid back with good interest through the progeny of this famous cow.

When our leading breeders find it profitable occasionally to pay such high prices as this for an animal of

known merit and sizes how important we should see ble stock is kept herds. A purchase spent in the purchase of known individuals, improves a wise

Creamery

Butter makers are tribulations with conditions on matters referred to suggest an address letters to

Creamery Me Dairy

Questions of dairy-ery-men were discussed at a meeting held of the dairy built on Wednesday of dresses were not whole time being spent in the direction of the Parsons of Jarvis Dean delivered their views on the matter and the makers and other merchants, cream duers and other business, a most interesting and profitable discussions were out.

WORK OF

The chief dairy Frank Harris, general manager of the creamery in Ontario. Some relative to the cream given. It had said that the creamery from more extensive Ontario, there are cream and 16,000 patrons serving factories. With the work it is enormous job it would of these 30,000 can hope to do it is who are not making butter makers to visit patrons a sum whereas such their best interest profitable. He demonstrated the get too close to the matter of moisture 284 tests made for was 14.66 per cent percentage was 14.

GRADING

The discussion of cream seemed to be grading of cream under our conditions isolated cases. was thought, were the grading a individual cases were must of necessity. What to do with butter, the creameries and the crage maker might handle second grade as points again Forester, manager Company, Hamilton any at the Silver had in two years' the quality of the creamery by upgrading. The plan to offer a bond for sweet cream to cent. For sweet cream 24 cent, a bond allowed. Patrons produce good cream dollars and cents, they cooled the cream

known merit and breeding; it emphasizes how important it is that as farmers we should see that the best possible stock is kept at the head of our herds. A comparatively few dollars spent in the purchase of a pure-bred bull of known breeding and strong individuality, in 99 cases out of 100 proves a wise expenditure of money.

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.

Creamery Meeting at Guelph Dairy School

Questions of vital interest to creamery-men were discussed at the creamery meeting held in the lecture room of the dairy building at the O.A.C. on Wednesday last week. Set addresses were not provided for, the whole time being given up to discussion which was wisely and effectively directed by the chairman, Mr. J. J. Parsons of Jarvis, Ont. Prof. H. H. Dean delivered the address of welcome in which he extended to the butter-makers and their assistants, butter merchants, cream haulers, cream producers and others interested in the business, a most cordial welcome. The meeting was well attended and the discussions were of interest throughout.

WORK OF INSTRUCTOR

The chief dairy instructor, Mr. Frank Horns, gave briefly a report of the creamery business in Western Ontario. Some interesting statistics relative to the creamery business were given. "It had been suggested," he said, "that instructors visit the patrons more extensively. In Western Ontario, there are 15,307 patrons sending cream and milk to creameries; 16,985 patrons sending milk to cheese factories. With only six men to do the work it is evident what an enormous job it would be to visit all of these 30,000 patrons. All that we can hope to do is to visit those patrons who are not making an effort to produce sanitary milk. Mr. Horns urged butter makers to devote more time to visiting patrons and pointed out to them wherein such a work was in their best interests and would prove profitable. He drew attention to the tendency on the part of makers to get too close to the legal limit in the matter of moisture. The average of 284 tests made for moisture this year was 14.66 per cent., last year the percentage was 14.33.

GRADING CREAM

The discussion on the grading of cream seemed to indicate that the grading of cream was impracticable under our conditions save a few isolated cases. Cream haulers, it was thought, were not capable of doing the grading and save where the individual cans were used, such work must of necessity fall to their lot. What to do with the second grade butter, the competition from rival creameries and the fact that the average maker might not be trusted to handle second grade cream, were given as points against grading. Mr. Forester, manager of the Pure Milk Company, Hamilton told how his company at the Silver Creek creamery had in two years' time greatly raised the quality of the cream coming to the creamery by adopting a system of grading. The plan adopted had been to offer a bonus of two cents for sweet cream testing above 24 per cent. For sweet cream testing under 24 per cent, a bonus of one cent was allowed. Patrons found out that to produce good cream was a matter of dollars and cents, the result was that they cooled the cream and had it

lost over the 24 per cent. standard in order that they might receive the two cent bonus. A more complete account of the discussion on this important subject will be published later.

CREAM HAULERS

On the instructing and equipping of cream haulers, it was agreed that the scales should be used rather than the creamery pail and stick and that a good cream hauler was a valuable part of any creamery and should be retained in the business if only a little additional pay were required to keep him satisfied. Changing cream haulers was a mistake to be avoided wherever possible. The question of individual cans, jacketed cans and tanks, different means of sampling and weighing, each and all were discussed. A new individual cream can device, and manufactured expressly for the Silver Creek creamery, was exhibited for the approval of the creamery-men present.

INJUSTICE TO RICH CREAM

That rich cream has not in the past got justice from the Babcock test where the pipette is used was allowed by all who took part in the discussion of this important question. Only by means of the scales was it possible to get a correct test with rich cream. Mr. Mack Robertson, creamery instructor, of St. Marys, said in this connection that there was not much use in one's going out to get rich cream if we do not adopt a method of testing that would do justice to rich cream. Much experience in this connection was given. Mr. Harris said that he would not back the pipette since having used the scales. Formerly 25 per cent. of his patrons were kickers; now that number had been reduced to four or five per cent. He said that it took practically the same time to do the work with the pipette as with the scales. Mr. Durdle of Brussels creamery, said that "for using the scales for three years, he would not go back to the pipette if he had to buy the scales himself. With the pipette they had but four per cent. overrun whereas now with the scales they secure an overrun of 16 per cent.

\$93.37 MORE THAN EXPECTED

Mr. Morley Jackson, who is now operating a creamery in Lambton county gave strong evidence in favor of the scales. Since October 6th, his factory has been shipping cream to Port Huron. On 18 shipments of cream having a value of \$1,500, which averaged 52 per cent. butter fat, his Company had received from the Port Huron firm \$97.37 more than he had billed them for in checking them up by the test in which the pipette was used. The Eastern Dairy Company had made use of the scales. It was urged that the time was ripe for legislation on this matter of the Babcock test. A resolution was moved by Mr. Frank Horns that the Dominion Government be asked to enact such legislation as will ensure properly graduated glassware, including thermometers, lactometers, Babcock test bottles (both cream and whole milk) and that some penalty be provided for those who over-read or under-read the Babcock test for commercial purposes. Mr. G. G. Pablow, chief dairy instructor for Eastern Ontario in seconding the resolution said that he had found much glassware that was too far wrong. The motion was carried unanimously.

MAKER VISITS PATRONS

As a means of seeking to improve the cream supply by visiting patrons, Mr. Keyes of the Bluevale creamery gave his experience. Through his work of visiting the cream, which when he first went to the Bluevale creamery, tested 17 or 18 per cent. now averaged 25 per cent. Mr. Keyes does the most of his visiting in the month of May and afterwards as much as possible. He said that he had stayed up for half the night in order to get out to where bad cream



First in the Hearts
of the Countrymen

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Cream

Separators

have, by their universal performances
of superiority, won for themselves the
highest position in the Dairy
EVERYWHERE

THE DE LAVAL SEPARATOR CO.

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WINNIPEG

VANCOUVER

IT HEADS THE LIST FOR ONTARIO

Prof. C. A. Zavitz, of the Ontario Agricultural College, Guelph, at the Annual Meeting of the Ontario Agricultural and Experimental Union last week, said that the "O.A.C. No. 21" barley stood at the head of the list above all other barleys in the Co-operative Experiments conducted on farms over Ontario, it having a lead of approximately two bushels an acre.

A Wentworth County, Ont. subscriber to FARM AND DAIRY, who grew "O.A.C. No. 21" and the common Mandscheuri barley side by side in the same field and on the same kind of soil, reports to FARM AND DAIRY a yield of 36 bushels an acre from the common Mandscheuri and 44 bushels from the "O.A.C. No. 21." A lead of eight bushels an acre for the "O.A.C. No. 21."

Have you taken advantage of the exceptional opportunity offered by FARM AND DAIRY to secure seed of this great improved barley? The offer is:—

Two Bushels of "O.A.C. No. 21" for only
Four New Subscriptions to Farm and Dairy

One Bushel for Two New Subscriptions
Subscriptions to be taken at \$1.00 each in both cases

The barley will be delivered F.O.B. Brantford, Ont.

Send in your subscriptions at once and claim your share of this great barley before the supply is exhausted.

CIRCULATION DEPT. FARM AND DAIRY PETERBORO, ONT.



THIS old world is turning around mighty fast,
And even great troubles can't be long to last;
So when it is darkest and trials abound,
Just cheer up and wait till the bright side comes 'round.

A Christmas Stop-Over

By Mabel Nelson Thurston

THERE were two day coaches on the train—passenger trains run light on Christmas Day. The porter strolled through them both, holding the yellow telegram, but though women started and men glanced up sharply, nobody answered to the name of Miss Janet Wareham. There remained the sleeper christened Archimedes—and the dining car. Half a dozen hand bags and suit cases were scattered about the sleeper, but the only occupant was a bald-headed and apparently choleric middle-aged gentleman who glowered indignantly when the porter remarked: "Telegram for Miss Janet Wareham, sah?" and retorted: "Do I look as if I know Miss Janet Wareham?" which while not precisely answering the query, apparently satisfied the porter, who did not, and he passed on to the dining car.

There were a dozen people in there, among them a brown-eyed young lady, sufficiently attractive to be pleasant to look upon, especially if one was unfortunate enough to be travelling over Christmas morning. She had therefore been receiving her full share of silent attention, which may have accounted for the charming color in her cheeks and the extreme aloofness of her demeanor. It was most annoying, unpleasant and unseasonable to be travelling alone at that, upon Christmas morning, but she had but two hours more of it and then—

"Telegram for Miss Janet Wareham."

The young lady started from her seat, all the color in her face suddenly outblown and her brown eyes wide with fear. The porter, stepping forward, put the telegram beside her plate, and waited. She nervously pulled open a silver purse, handed him a cent without glancing at it, and then tore open the envelope. Instantly the color surged back into her cheeks, and, crushing the telegram in her hand, she nodded to the waiter for her bill.

"How soon do we reach Toronto?" she asked. Her voice was stern, but the sternness was not for him.

"In half an hour, miss," he answered submissively.

"Thank you," she returned regally, but the tip that she was leaving upon the tray made his eyes shine.

"Thank you, miss, wish you Merry Christmas, miss," he said, performing his nervous duty in securing her belongings first, that he might offer them to her. The girl stopped, and her face softened enchantingly.

"It is so nice to hear that," she said. "I didn't expect to for two hours yet. I hope that you will have more of them."

By the time she had reached her seat, however, the sternness had retreated before a mounting indignation. It was presuming of him to send that telegram as he thought she couldn't take care of herself or— a rigid phony challenging that statement as if she had given him any reason, to think that she wanted to be met at Montreal. She leaned back, planning the telegram that she did send in reply. She could send it from the train, but so long as she

repeated. "It went out five minutes ago, miss."

"But I thought we waited here half an hour," she cried. "I came on the Western express. The time-table gave me half an hour surely."

The gatekeeper's voice became distinctly sympathetic. Perhaps it was because he was undergoing the rare experience of having nothing to do, or perhaps it was the influence of Christmas, or perhaps it was a pair of brown eyes which, all dignity forgotten now were full of trouble. Whatever it was, he bent in a manner rarely known to gatekeepers.

"It's too bad, Miss. The Western express was late, and Number Sixteen waited for it, and then pulled out. Somebody ought to have told you."

"I should have looked for myself," Janet answered, bravely struggling with her dismay. "What time will the next train go?"

"Not until three-fifty, my afraid Miss," he answered reluctantly.

"Three-fifty, surely there is one earlier than that!"

"Not to Montreal, miss—that's a side line. There are plenty to Smith's Falls, but you'd have to wait there just as long."

There were almost tears in the brown eyes now; the girl forced them back and tried to thank the man composedly, but when she sank into a seat in the waiting room, the eyes were full of consternation. To have to spend Christmas Day in a railroad station. She could still get to Montreal in time for dinner, but to miss the day—all the nonsense and frolics and opening of gifts and the for-a-back scamper over the brown Maryland hills; instead, to have to spend interminable hours in an empty railroad station. Janet sat up very

repeated. "It went out five minutes ago, miss."

"But I thought we waited here half an hour," she cried. "I came on the Western express. The time-table gave me half an hour surely."

Remember Your Friends

It is time now to decide your Christmas gift to your friends. It is becoming more popular every year, to send to your loved ones, remembrances that will constantly remind them of our thoughtful friend that will remind them every week of your interest in them? Let us suggest a novel and choice gift.

A Year's subscription to Farm and Dairy should be a most valuable gift for your neighbor and one that will result in much good to them and to their family. Send us the name and address of the friend with whom you desire to send Farm and Dairy for one year, together with \$1 and we will send them, so that it will reach them on Christmas morning an attractive Christmas card, showing that you are sending them Farm and Dairy for one year, as a Christmas gift. We will also at the same time renew your subscription FREE for 6 months.

Decide at once. Avoid the rush at Christmas. We are busier then, and so are you. Send us the name to-day and we will do it for you. Address Christmas Editor, Farm and Dairy, Peterboro, Ont.

had to change cars at Toronto, anyway, she preferred to do it then; there would be a satisfaction in seeing the agent take it.

Half an hour later, a brown-eyed young woman, in an extremely stylish and becoming brown travelling suit, stood before the telegraph window writing something rapidly upon a blank.

Mr. Robert Dudley, Montreal: Certainly not.

She pushed this through the window, paid the charges, and then walked across to the news stand for a magazine. She glanced through one after another, but they all seemed unaccountably dull as what magazines would not on Christmas morning?

Finally, however, she selected a couple, and started for the train gate. Then, for the first time, she became conscious of something unnatural in the big vaulted station. It was Toronto—she glanced through the crowd, and started for the train gate, and there was her train? Her glance sped down the long row of closed gates, with, beyond them, stretch after stretch of empty track. There was but one gatekeeper in sight; she hurried over to him.

"The train for Montreal?" he

repeated. "It went out five minutes ago, miss."

"But I thought we waited here half an hour," she cried. "I came on the Western express. The time-table gave me half an hour surely."

The gatekeeper's voice became distinctly sympathetic. Perhaps it was because he was undergoing the rare experience of having nothing to do, or perhaps it was the influence of Christmas, or perhaps it was a pair of brown eyes which, all dignity forgotten now were full of trouble. Whatever it was, he bent in a manner rarely known to gatekeepers.

"It's too bad, Miss. The Western express was late, and Number Sixteen waited for it, and then pulled out. Somebody ought to have told you."

"I should have looked for myself," Janet answered, bravely struggling with her dismay. "What time will the next train go?"

"Not until three-fifty, my afraid Miss," he answered reluctantly.

"Three-fifty, surely there is one earlier than that!"

"Not to Montreal, miss—that's a side line. There are plenty to Smith's Falls, but you'd have to wait there just as long."

There were almost tears in the brown eyes now; the girl forced them back and tried to thank the man composedly, but when she sank into a seat in the waiting room, the eyes were full of consternation. To have to spend Christmas Day in a railroad station. She could still get to Montreal in time for dinner, but to miss the day—all the nonsense and frolics and opening of gifts and the for-a-back scamper over the brown Maryland hills; instead, to have to spend interminable hours in an empty railroad station. Janet sat up very

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morning. She could take a car ride or a cab. The magazine slipped from her fingers and she looked around eagerly, she was not used to be bothered by circumstances. It was a Christmas problem—given five hours and a kind Christmas. But first and foremost one must discover what was

X interpreted in terms of humanity proved to be somewhat discouraging. It included, all told, the station master, a couple of girls giggling in one corner, a dreary-looking shopgirl in another and a grim old woman clinging to five bags and an umbrella. Janet glanced at the dreary-looking girl to the grim old woman and a dimple stole into her cheek. Christmas morning though it was, it was funny.

"I wonder," he mused, "if I'll work out even with these other factors. And I wonder which I am the most afraid to tackle, the old woman with the bundles or the girl without any. I think I'll toss up—heads, young ladies; tails, old ones!"

Behind her magazine she deftly tossed a quarter. It fell heads. Some what relieved—for at least way had measure of years in common, she went across to the girl.

"Are you stranded on Christmas Day, too?" she asked her manner full of pretty apology. "I hope you don't mind my speaking to you; it is so dreary to be all alone. I just missed connections and have nearly six hours to wait."

The girl glanced at her, half embarrassed, half defiant.

"I ain't waiting for any train," she said.

"Oh, you are waiting for a friend," Janet interpreted. "That makes a very different matter of it doesn't it?"

The girl shrugged her shoulders.

"I ain't waiting for friends either. I came out to get away from Mame—Mame was in one of her tantrums this morning. She's my sister-in-law, and I live with them, but I don't want to any longer, not if it takes my bottom cent. I can't stand the everlasting nagging. I'd have left long ago if it wasn't for Bim."

"Who is Bim?" asked Janet. "Do you mind telling me?"

"Bim? He's next to youngest, and he's lame. He thinks I'm all right, Bim does, and I guess he's the only one in the world that ever did. I've stood a lot for Bim's sake, but I can't stand things any longer, and I won't. For her to say like that—oh, it's a sweet Christmas I'm having!"

Into Janet's face came a sudden eagerness.

"Oh," she cried breathlessly, "I wonder if you would do something for me—you and Bim?"

The girl stared. "Me and Bim?" she echoed sarcastically. "I guess! It looks like it."

"But I mean it," Janet pleaded. "See here, I am all alone for hours, and I don't know a soul in the city and don't know what in the world to do to pass the time. Won't you let me take you and Bim for a ride? Maybe you know some little uptown stores where we could buy some things or let Bim buy them—don't you? Oh, couldn't we? You don't know how I'd love to."

The girl's eyes, no longer listless now, but alert and searching, travelled over the other girl, no detail escaping her.

"You must be a queer one," she remarked.

"Maybe I am," Janet answered, her dimple showing mischievously—it was a funny little dimple lurking at the left corner of her mouth—"but never mind that. Will you come—you and Bim? We can get a cab here at the door, you know."

"I reckon I'd be a fool not to," the girl answered. "I'd do a tougher thing than that for any one's face."

"All right, then—we'll call them settled," Janet said. "I wonder"—she looked doubtfully at the grim lady with the bundles and then back to the girl—"do you suppose she would

go, too? Or should we have to kidnap her to accomplish it?"

"My soul, she isn't going to ask her, are you?" the girl cried in disgust.

"I'm going to ask her," Janet returned. "I must confess that my hopes are not very flourishing. She doesn't look precisely what one might call responsive. But wait, it's Christmas Day, and one can only try. You don't feel moved to try for me, do you?"

"Not on your life," the girl replied emphatically.

"I suspected as much," Janet sighed. "Well, I can do no more than fail."

She crossed the room to where the lady in question sat submerged in bunions, or as nearly submerged as a person of so much evident character could be. The conversation was extremely brief; in less than a moment Janet returned.

"Got turned down, didn't you?" the girl asked curiously.

"I suppose that that is the name of the process. She told me that when she wanted to take rides, she was capable of taking them by herself."

"Well, that's just what she looks like. I knew you were a fool to go to."

The girl's voice was full of satisfaction, and yet beneath the words Janet detected a dim spirit of championship that warmed a little the wide empty morning. She smiled brightly back at the girl.

"Now for Bim," she said. "I was going to get him some candy, but maybe he'd rather have a different kind—these aren't exactly boys' candies here, are they?"

A flash passed over the girl's face; it was gone in a second, but Janet's quick wit had caught and interpreted it as quickly as it came, so quickly indeed that there was not a break in her sentences.

"But you and I—that's different. Suppose we get some for ourselves?"

The candy stand furnished a box of Huyler's—two, indeed, for Janet suddenly remembered the matron. She was turning away when the florist's stand suggested the thing, and she thrust the candy into the girl's hands and hurried—also was always an impatient creature—on to that, returning a moment later with three clusters of violets.

"One for you and one for me and one for the matron," she explained. "To think of doing one's Christmas shopping in a railway station! Isn't it funny?"

The girl eyed her violets curiously.

"Say—you must have money to burn," she exclaimed. She began pinning the violets to her shabby jacket, then pulled them off, half ashamed, half defiant.

"I reckon I'll go and give a sloop to my hair," she said. "I had such a grouch on this morning that I didn't care."

"All right," Janet nodded. "Don't hurry—there are plenty you know." She slipped a cluster of violets beneath the gold string of one of the candy boxes and went over to the matron with a pretty plea for their acceptance. The matron was not the grim old lady with the bundles, and her interest was quick and vivid.

"It surely is too bad for you," she declared, when Janet had explained the situation, "and there ain't anybody here to help you out, I'm afraid. It's always empty on Christmas Day. Other times there are rafts of children."

"I've found a girl that's going to get a child for me," Janet replied. "Here she comes now. Good-bye. I'll be back before three. I mean to stand on the track and hold up the next train if necessary."

She met the girl at the outer door—a transformed girl. It wasn't the violets nor the pompadour that she referred to all its impressive magnitude. It was the air. The girl winked gravely.

"Think Mame will be now," she asked, "driving up in a barouche?"

My stars, won't she open her eyes, though! Say, which is your carriage?"

"I'm going to the office," Janet answered promptly. "This is a Christmas expedition—I must have a Christmas horse and driver. What do you say to that fifth one? Don't you think his mane looks more festive than the others? Or," with a sudden inspiration, "would you rather have an auto? We can phone for a taxi if that is, if it isn't engaged."

"Say," the girl cried, "do you mean it? A tooter for mine, every time! Gracious, Bim will almost jump out of his skin!"

"In that case," Janet laughed, "a taxi we must have, by all means. And here, by a Christmas chance, is one this minute, so we shan't have to wait—that is, if it isn't engaged."

(Concluded next week.)

The Upward Look

The Steps to Take

Repeat one of you, and be baptized every one of you, in the name of Jesus Christ unto the remission of your sins, and ye shall receive the gift of the Holy Ghost. Acts 2, 38.

Christ is not the king of the kingdom of God and that afterwards all things would be added unto us. Many of us find it difficult to follow this injunction. We are so occupied with our daily cares that we allow Christ to be crowded out of our lives during the greater part of the day at least if not for most of a time. When this is the case we have not got the gift of God's Holy Spirit. Only as we grow to know God better and better and, therefore, to trust in Him more and more will we be able to accomplish what we cast all our cares on Him and look to Him for the strength and guidance that we need. Then we begin to discover that we are not yet our own but infinitely greater.

Before God will give us this power we must do our part. If we ask for it, will He give it to us but we must ask for it in the right way. We must be intensely earnest when we make our petitions and we must be willing to set aside everything in our lives that may be displeasing in God's sight.

Our first duty is described in the text. We must repent. Instead of following our own desires we must be willing to set them aside, gladly if need be, and accept Jesus as our Christ and Lord. We must submit ourselves unto Him absolutely in order that we may be His people. He may deem best even if it does not seem best to us. Our wills must be submitted unto His.

We must repent, also, of sin. All sin, every sin, as far as possible we must remove every sin out of our lives and in this we must ask God to help us. As long as we hold on to some little sin, no matter how small it may be, we will not send His Holy Spirit into our lives. We must choose between cleaving unto sin or cleaving unto God. In this, also, we must ask for the Divine assistance. We should go alone with God and ask Him to search us thoroughly and bring to light anything that displeases Him. (Psalm 139, 23, 24). Then we should wait for Him to do it. When the displeasing thing is revealed it should be put away at once. It may be necessary for us to forgive some one for an injury that the law has done to us. We may have to make light some wrong that we have committed. Often the fear of confessing an old sin prevents people from finding the greatness of their sin.

A second step that we must take is brought out in Acts 5, 32 where we read: "The Holy Ghost, whom God hath given to them that obey Him." We must be willing to obey

God, absolutely in all things. If God sees that there is anything in our life that He prizes so much that we allow it to crowd our duty to Him into the background then that is the thing He may ask us to relinquish. There may be no harm in the thing itself. The harm comes in placing undue importance upon it. Christ, for instance, loves to shower riches and honor on those who love Him and have faith in Him but when He finds that we are being led too high by a value on riches or honour He may ask us to give them up just as He did with the young rich man described in Matthew 19, 16, 22, whom He commanded to go and sell all his possessions. This young man refused to obey the Lord's injunction and, therefore, He went away sorrowful.

"Hence," says Dr. Tappan, "we touch upon the hindrance to the baptism with the Holy Spirit in many lives; there is not total surrender, the will is not laid down, the heart does not cry, 'Lord, where wilt thou lead me, thou wilt, as thou wilt.'" There is nothing to be feared in God's will. God's will will always prove in the final outcome the best and sweetest thing in all God's universes. Obedience does not mean merely doing some of the things, or many of the things, or most of the things that God bids us do. It means total surrender to the will of God. "Obedience is really an attitude of the will lying back of specific acts of obedience."

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Let us still other steps that we must take before God will grant us the gift of His Holy Spirit but these will have to be described next week.—H.N.

The Tragedy of the Farmer's Wife.

(Concluded from last week.)

Further back than that there was the division of her work into that of a woman and not that of fitting a man to set his hand to. The American Indian will not touch squaw's work. It is a savage idea that the arrival of savagery. The clerk in a store will sweep the floor for his wife and dry the dishes after her, that they may have an hour together. So will the office or professional man who sees his wife overworked. Ten men spend the holidays and Sundays fixing up conveniences in the house. But not so with many farmers. There are exceptions, of course, but the rule holds with fair percentage and exists as a simple fact. The same general condition holds with the hired men, yet I have seen one of these who could feel the great weariness of the farmer's wife and who would perform tasks to relieve her. The gratitude she showed this man was pathetic.

But of the greatest of the shortcomings of some farmers lies in the fact that they provide their wives with nothing to make their homes more homelike or to lighten their duty. It is often noticed by the farmer that the fact that he no thought of the improvement of the farm home. When the farmer and his wife started in with nothing in the early days, the laboring through was the getting of money out of the farm. To do this was the dominating idea ever in the man's mind. There were few conveniences in the house or in the field. The farm, for however that the net output of the farm would be increased by the purchase of the best machinery. This machinery was installed, and the policy for itself many times over. The labor was continued and soon there were wagons and mowing-machines and gang-plows and threshing machines. The principle of the man's application. It was not obvious that the installation of a modern range would increase the output of the farm, nor would running water in the kitchen.

The same is true of farmers for the lack of these things. Life on the farm is

isolated. The fathers of the farmers were farmers, and their mothers were farmers' wives. There were no conveniences in their homes nor in the homes of their neighbors. There is an unfamiliarity with their very existence that rather blocks their introduction.

The farmer has a greater number of virtues than any other man in the country, but he has his own peculiar faults. The tendency to extol him as the mainstay of the nation and possessor of all the virtues of the catalogue has somewhat spoiled him. The facts are that he has a very glaring shortcomings. He is sensitive of criticism, and could be readily broken down if there were a way to get at him. Those who are at fault should be reminded of their shortcomings in no uncertain terms. In this way, they would finally be brought to realize them and to mend their ways. They do not appreciate the fact that they are not doing the right thing by their women.

Every farmer would be got by the ears and made to look his wife over with the same judgment and discretion as he does his horses and cows there would be the greatest revelation in conditions that the country has ever known. When a horse or flesh, goes off its feed, grows gaunt, hangs down its head and drags its feet, its case is immediately looked into. It receives the treatment it requires, and usually goes on from its pasture where the grass is tall, and does no work until its strength and health are restored. Let every farmer compare the physical condition of his wife with that of the business man's wife of the same age, and, if she is not as strong and young as his own, let him lay the blame at the latter.

The result of this making so hard of the woman's lot on the farm is a handicap on that great basic industry. Even where she knows nothing better, where none of her sisters or friends have married into a different life, there is a deep, unending hatred for the career she leads. It fills her breast before her children are born, and it enters into the viewpoint of things that these children get from her from babyhood up. The rising generations are starting in by inheriting farm life, and the great effort is to get away from farm life. Those with any ability succeed in doing so, and only the inefficient are left to improve the native conditions.

And it could all be remedied. There are most satisfactory homes in every farming community in the land where the wives lead lives of thrift and industry among conditions that are as favorable or more so than those of the city. The farm, for all its chances can be arranged as well in the country as in the city and can be furnished with as many labor-saving devices.

Don't Throw Away

MENDEL'S

They must all look in all directions. Use them. No stock, cream or other. Anyone can use them. They are sold by all grocers. Agents everywhere. Sample free. U.S. COMPLETE PACKAGE BY MAIL. \$1.00. COLLECTIBLE BY MAIL. Collectible by G. C. Dept. U. Collingwood, Ont.

THE WAY OUT

of your inferior household, low salary position, or the way to the door of the Central Business College of the

Central Business College of the

In this school you may enjoy practical training at small expense and you will be able to find a good salary. Particulars freely by mail. Please write and let us help you. Address: THE WAY OUT, 1000, Front Street, Toronto and Gerrard Streets.

Embroidery

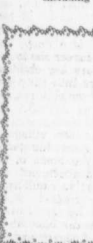
Designs illustrated will be furnished. Senders desired will confer. Household Embroidery. They will be possible after.



449 Design for



451 Design for



456 Design for

COLLAPSIBLE SHEETS

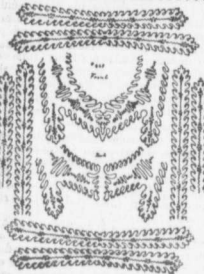
Such a sewing bag always makes an excellent gift. It is made of flat to be packed in a trunk. In this case

board cut in sections traced over the lines and placed into the paper. The paper is attached and the pattern is cut through which the paper keeps the basket in. This pattern will dress on receipt of

To mend a small tear, place a small piece of paper over the hole. It will melt, but always the wool. Cool

Embroidery Designs

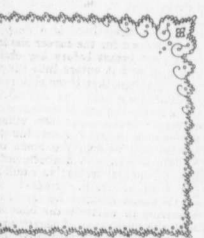
Designs illustrated in this column will be furnished for 10 cents each. Readers desiring any special pattern will confer favor by writing Household Editor, asking for same. They will be published as soon as possible after request is received.



449 Design for Braiding a Bootee Garter.



451 Design for Embroidering Infants' Caps in Two Styles, Including Patterns for Caps.



456 Design for Embroidering a Handkerchief 19 inches square.

COLLAPSIBLE SEWING BASKET 607

Such a sewing basket as this one will always make an acceptable gift. It is simple and easily made. It can be opened out flat to be packed in a suit case or trunk. In this case the material is a pretty flowered cretonne, but any pretty silk or simpler flowered material can be used. The basket is supplied with convenient pockets and pin-cushions and is altogether attractive and useful.

The foundation for the basket is card-board cut in sections. The material is arranged over this and stitched and panned into place. The pockets, cushions, etc., are attached and there are eyelets through which ribbon is passed which keeps the basket in shape.

This pattern will be mailed to any address on receipt of 10 cts.

To mend a small hole in tin or granite ware, put the vessel on a hot stove. Place a small piece of sealing wax over the hole and not only let it melt, but allow it to burn into the ware. Cool gradually.

Every owner or renter of real estate pays for the installation of running water in the house because his regulations force him to it. Yet the well-to-do farmer, who is much more prosperous than the average city dweller, says he can not afford it, and his wife draws the water from the well, his house is unsanitary, the children die of typhoid and a bath is unknown.

The cure of the unfavorable conditions on the farm rests in awakening the women to the fact that more consideration is due them, and in rousing the men to their duties to their wives. When the farmer has to pull himself together and ask whether or his wife is doing more work than is he. If so, he and the hired men may relieve her of certain duties that verge on man's work while her tasks are trimmed down to her just due. If the wives would organize and go on strike for a set of principles, they would not only be doing good to "scab labor" to take their place. Any organization that will teach women their due and men their duty will be beneficial. Any enthusiast who is burning with zeal for the good to humanity may go among farmer people and show them a better living and find a better field for missionary work than in savage lands.

But to get at its farming people need a mass requires education. President Roosevelt, in his message to Congress on the occasion of the presentation of the first report of the County Life Commission, stated that a new education was one of the three great needs of the people on the farm. An education that prepares the boys and girls for life on the farm, that shows the girls why it is due them and how to get it, and the boys how to their duties in the home, as well as to make money, is the need of the rural school, with its practical training and enlarged circle of association is the nearest present approach to the need and offers the most obvious ultimate relief. In the mean time there is opportunity for individual work.

The Children's Playthings

Have you ever visited a home where the children's toys were strewn from "garret to cellar," where often the mother has to clear off a chair before the visitor can be seated? Surely this is wrong. While we all want the children to enjoy themselves, there is a limit to this wholesale litter. We cannot all have play rooms or nurseries, yet we can set aside a closet or several drawers for the little folks, and when they are not playing with their tops, insist upon them being kept there.

It is an excellent idea to keep some of their playthings out of sight for a few days, then bring them out and put others away. They will treasure newer to the child and he will appreciate them more; again, they will last much longer. Little folks should be taught to put away their things at night; don't wait until the last moment, when they are tired and fretful, but have them do it early.

When a hole is discovered in any starched garment, slip a separate piece of the material in starch and iron to the material. The patch will thus be perfectly straight and not come off until the garment is washed again.

HINTS FOR THE HOLIDAYS

Why not send for one of our New Premium Lists and make a selection of several premiums which you would like to earn for the Holiday Season. You can earn them in a short time, and save buying them at Christmas time. A club of new subscribers for Farm and Dairy is easily secured.

OUR HOME CLUB

Open for Criticism

Members of the Home Club are asked to send us criticisms on the article published on the story page of the Dec. 9 and this issue of Farm and Dairy entitled, "The Tragedy of the Farmer's Wife." Note the editorial in this issue. (Household Editor).

A HOLIDAY WITH UNCLE SAM

Where are the members of our Home Club? I hope they are not all taking a holiday. It is pretty hard work writing letters to our Club, so the writer took a holiday across the line early in the fall.

This holiday was interesting to me in several ways. First, because I had never been there before, and second, because I used to sometimes feel dissatisfied and think if we only lived in some of the States, we could perhaps make money easier and have a fair chance of being able to take it easier when we got old.

But do you know I found the face of the same old Mr. Tol starting at me in Michigan and I also found that he worked seven days in the week there instead of six, as we are accustomed to do in Michigan.

Farmers were sowing fall wheat and cutting corn on Sundays. In some cases where they did pretend to keep holy the Sunday, they seemed to think it a splendid day for buying lambs or cattle to feed in winter, and in some cases drove nearly all day in search of something to suit them.

It seemed to me that it was grow corn to feed more hogs, for money to buy more land, to grow more corn to feed more hogs, etc., and they never seemed to stop to consider how in the beautiful old world, "a monkey." They had lots of it but wanted more, spent it freely but within their means, and were always good natured and jolly. I came home well satisfied with the Land of the Maple and think the holiday did me good.—"The Doctor's Wife."

SIMPLICITY IN HOUSEKEEPING

I like the view "Sister" takes on this question so much, it must give my opinion. It is as good as a tonic to find one who is not just carried away with fancy work and the idea that to be a good housekeeper you must keep up with the very latest fads. Fancy work may be all right in its place, but give me the good plain cook and general housekeeper and you have a queen in your kitchen. Some women will spend hours at fancy work needing the very closest attention and then imagine they cannot do their own sewing; they must get a seamstress in and pay perhaps \$1.00 per day.

Why cannot we learn to do plain sewing as well as fancy work, or when we do make some fancy article make something we will not be afraid to use. The sooner we get back to the "simpler living" the happier we will be.—Aunt Jane.

Trip Through Europe

Those of our subscribers who have won a set of our beautifully illustrated post cards, giving a tour around the world, will be glad to note that we have an even better set now, of 50 elegant views of Europe only. Send one new subscription only, and we will send you this fine set of 50 most beautifully illustrated post cards, free. As our supply is limited we cannot give this set for renewal subscriptions. Send to-day, one new subscription. Receive the set free in return.

Cups and jugs should occasionally be scrubbed around the handles with a well soaped brush. Unless this is done, they are almost certain to get a grimy look.

The Sewing Room

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

CHILD'S COAT 694.



The long coat is always the best for little children and this one includes the plaid sides that make such a feature of the season. It is thoroughly comfortable and attractive.

Material required for medium size (6 yrs) is 4 1/2 yds 27, 2 1/2 yds 44 or 52 in wide with 2 1/2 yds of banding.

The pattern is cut for girls of 4, 6 and 8 yrs and will be mailed on receipt of 10 cts.

BLOUSE OR SHIRT WAIST 6405



The simple shirt waist double breasted mode is a favorite. This mode is intended to form the single revers that are most effective.

Material required for medium size is 3 1/2 yds 24 or 27, 3 1/2 yds 32 or 34, 4 1/2 yds 44 in wide with 3/4 yd of velvet.

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

DOUBLE BREASTED COAT 6483.



The coat that is double breasted and buttons up about the throat is comfortable for cold weather. It is to be extensively worn this season, and this one is graceful and becoming.

The fronts include the curved seams to the shoulders that always mean pretty lines, and the back is made with seams that extend to the arm holes only.

Material required for medium size is 7 1/2 yds 27, 4 1/2 yds 44 or 52 in wide, with 4 1/2 yds of banding.

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

GIRL'S BOX PLATED DRESS 6481



The box plated dress with a shield in sailor style is much in vogue. It includes the becoming sailor collar, it is simple and childlike in effect, and is certainly smart.

The one illustrated is made in Bordeaux red serge. Material required for medium size (10 yrs) is 6 yds 24 or 27, 4 1/2 yds 32 or 34, 1 1/2 yds 44 in wide with 1 1/2 yds of banding and 14 yds of banding.

The pattern is cut in sizes for girls of 6, 8, 10 and 12 yrs of age and will be mailed on receipt of 10 cts.

Read our Christmas gift offer on story page.

The Experimental Union

Two hundred million dollars annually represent the value of the farmer crops of the province of Ontario. To appreciate the value of the work of the Ontario Agricultural and Experimental Union which held its annual meeting in Guelph last week, one needs only to be told that experiments with farm crops are being conducted on 4,950 farms throughout the province this past year, and that these experiments are making a study of which crops are the most profitable under either own conditions, that the results of these experiments are demonstrated in each locality wherein they are conducted and that the valuable information secured from the whole of this work is disseminated through various channels to the farmers of Ontario as well as to those of other provinces. In this way and through the distribution of seed grain, the Experimental Union is responsible for much of our increasing prosperity and the ever-increasing annual value of the farm crops of Ontario.

The secretary, Prof. A. W. Zavitz, in his annual report drew attention to the fact that it is 24 years since the present system of experimental work was started in a general way with only a very minor exception. The development of the work has resulted in doubling the yields of Ontario farm crops and in filling the agricultural college with students.

President J. G. Laird of Blenheim, Ont., in his address pointed out that many farmers had worked themselves into new varieties through the grain secured for the experiments. This meant direct increase in yields. Nor did it profit the experimenter alone; others became encouraged and repeated increased returns where the work of the Union had introduced the farmers to the province. Touching upon the matter of co-operation, the president said that were we as farmers to band ourselves together, we could reap much more than we do at present. Emphasis was laid upon the matter of personal appearance and the speaker said: "We would be more respected than we are, were we as a class to wear better clothes. We have no reason to be

ashamed of our calling and we should see that our calling is not ashamed of us."

A special feature of the program of the Union this year was the prominence given to the work of the eleven district representatives of the Department of Agriculture which are now located at various centres over the province. Reports of work accomplished showed the movement to be a great one and worthy of hearty support and extension. The short courses in connection with these departments seem to be the most popular part of the work as President Creelman said when telling his recent experiences at the short courses held in Dundas County "When as many as 400 people, men that had previously no organization, would turn out to a short course and stay from eight o'clock in the morning until late at night, it looks as if the short courses had come to stay."

By far the most important feature of the meeting was the reports on the results of co-operative experiments with cereals, legumes, fertilizers, potatoes, sweet corn, field roots, fodder plants, and hay crops, given by Prof. C. A. Zavitz. It would be hard to estimate the results to the country from the information directed by Prof. Zavitz. In the case of barley alone, much has been accomplished. The O.A.C. No. 21 barley—a special strain of the variety that was distributed over the province through the medium of the Union and which has been of well-known benefit—has stood at the head of the list of barleys since it was sent out in these experiments four years ago. It has given practically two bushels to the acre more than the Manchouere variety. It is more popular, has stiff straw and is freer from rust than the old Manchouere. Prof. Zavitz said that he had traced some 3,000 or 4,000 bushels of the O.A.C. No. 21 barley, which had been produced from one pound lots that were first sent out and in every instance all spoke very highly of it. He believed that it would take the place of the Manchouere variety that has already done so much to increase returns in Ontario during the last eight or 10 years. (It might be noted that Farm and Dairy offers seed of this variety

to owners in this issue.)

The Commercial Feeding Stuffs Act, 1909, was discussed by Professor Harcourt, of the College. The securing of this act was the direct result of a plan to protect themselves from low grades of feed with which they are unfamiliar and it would also protect the manufacturer against the courts but the law would enable farmers to use feeds economically and intelligently.

WEED SEEDS FROM ELEVATORS

The Hon. Nelson Monteith who took part in the discussion upon this act congratulated the members of the Union on having their efforts reach fruition at so early a date. Since the amount of food stuffs consumed in Ontario is enormous, he suggested that the Union bestir itself in regard to the tailings brought in from elevators at Port Arthur. The nuisance caused by weed seeds in this connection should be abated. "They are poisoning the lands of the Province," said Mr. Monteith, "and since efforts have been so successful in the matter of securing an act regarding feeding stuffs, efforts should be put forth to regulate the matter." Mr. W. S. Fraser, Bradford, endorsed what Hon. Nelson Monteith had said and instanced the large amount of noxious weed seeds in mixed chons, in the compounding of which these tailings are used. He cited Professor Graham's experience in feeding weed seeds to poultry, the result of which the professor claimed was that had he continued the use of the seeds for a week or so longer, his stock would have died. This was good evidence of their feeding value. Professor Harcourt explained the difficulty of having this matter dealt with effectively owing to the various interests that would be affected and to the fact that western opinion would be strongly against any such regulations.

TO REMEDY THE EVIL

Mr. Nelson Monteith, Mr. Fraser, and Professors C. A. Zavitz, and Harcourt were appointed a committee to draw up a resolution dealing with the matter and on their suggestion the following resolution was adopted:

"That voting for the introduction for feeding purposes of screenings containing noxious weed seeds, and to the damage resulting therefrom, and to the prohibition throughout Ontario, this Union respectfully recommends and urges that such legislation be enacted as will remedy the evil."

The report of the results of experiments of commercial fertilizers on farm crops by Professors W. P. Gangle and C. A. Zavitz demonstrated the fact that farmers generally should experiment with fertilizers and find out the actual needs of their soils and that we can never dispense with barnyard manure since we must have organic matter present in the soil if we would get the best results.

GRASS EXPERIMENTING ON ROADS

That the time has come about arrived when we should cease the experimenting in connection with road making and get down to laying out roads and making them permanent has been under certain rules and principles of construction, is, in brief, the point made by Mr. A. W. Campbell, Deputy Minister of Ontario Roads in Ontario. He estimated that 21 millions of dollars or its equivalent had been spent in the last 10 years on the roads of Ontario. Had the results been under fixed plans and specifications, he would macadamize every mile of road in the Province. Such results have not been accomplished simply because the work has been scattered, has been under patch and repair directed by unskilled labor instead of permanent works carried out by competent commissioners.

To grow better children rather than to grow better grain and more of it was the object as outlined by Prof. McCready of the School Division of the Experimental Union Committee, which division was appointed last year to receive of the work as carried on in the schools are most encouraging. Children are given pleasure as well as helpful instruction, and a deeper love for nature and agriculture is engendered in their minds through this work.

PHENOMENAL YIELDS OF GRAIN

Over 140 bushels of wheat to the acre and how it was produced was a part of a very interesting address entitled "Sweden," given by Prof. C. James, Deputy Minister of Agriculture. Svalof is a little village in Sweden, a centre of production of agricultural machinery and a good deal of a Swedon a man who has demonstrated how to double, treble, and quadruple the yield of grain. "Sweden is one of the most progressive agricultural countries in agricultural education," said the speaker. "Svens spends over one million dollars annually on agriculture, which fact comes as a surprise to a people who often think of Sweden as being on the edge of the ocean." The seed institute, the seed company, their farm and an agricultural high school that came under Mr. James' notice, each and every one of them are the result of the initiative and self reliance of the people at Svalof who do not wait on the Government but whose work the Government afterwards comes along and admires, were qualities admired by Professor James. From the two days of instruction and inspiration received while visiting Svalof, Professor James thought that we in Canada should have the Province of Ontario to send a delegation to see just how productive in agriculture is brought about at Svalof.

OFFICERS OF EXPERIMENTAL UNION

The following officers were elected for the year:—Mr. G. S. Henry, O. A. C. President; W. J. W. Lennie, Newton Robinson, Vice-Presidents; Prof. C. A. Zavitz, Secretary; H. Buchanan, Assistant Secretary; J. L. L. Hart, Treasurer, Board of Control; President G. C. Creelman; Ferguson, Dalmeisy; A. McKenney, Essex, Executive; H. M. Weeks (Glouce); J. E. Woones, Creemore; S. H. Gandier, Lion's Head.

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A paper for farmers and dairymen. It is published every week in the year and is an all-around magazine. It is a dairy paper. It has departments for all lines of farm work, including the cultivation of the soil, stock raising, and a strong household department. Its market reports and letters from farmers are two of its best features.

CANADIAN HORTICULTURIST

Practical, common-sense advice on the culture of fruits and vegetables, lawn flowers, shrubs, trees and all ornamental plants. It is inspiration for the amateur, and money-saving to the professional.

THE CANADIAN POULTRY REVIEW

Is the acknowledged peer of all American and Canadian Poultry Journals. It is published practically every week, once each month. Contains from 45 to 72 pages, choke full of live poultry lore. Full reports of all shows, engravings from life photos, etc. Practical, newsy, down-to-date. 32nd and 33rd editions.

THE HOME JOURNAL

Looking over The Home Journal, you can scarcely believe it is the same magazine that you have read before. It has doubled in size—in quality—in attractiveness. The Home Journal of today is a forty page monthly magazine of which Canadian women can justly be proud.

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- Canadian Poultry Review to
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HOLSTEIN-FRIESIAN NEWS

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

BULL TRANSFERS FOR NOVEMBER, 1909

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

Abbecker Butter Boy, Tomas Davidson to A. C. Hallman, Breslau, Ont.

Adrian Lad, Lewis Crosssett to Oscar A. Oatman, Tillsonburg, Ont.

Ashe Tenke, J. B. Arnold to Edward Davis, Aylmer, Que.

Beau Foch Calamity, Jean Chassian to La Societe D'Agriculture, Havre-aux-Maisons, Que.

Billy Button Calamity, Fred S. Ferguson to W. H. Closs, Inverary, Ont.

Billy Major, Fra. Trotter to James Barlow, St. Justine de Newton, Que.

Brownville Snow Bull, J. Armstrong to Ira Harris, Brownsville, Ont.

Burley De Kol Abner, J. L. Dougherty to John R. Davidson, Alba, Ont.

Butter Boy Joe, Joseph Brownlie to George Darg, Fort Erie, Ont.

Calamity Canary Prince 4th, Fred S. Ferguson to Isaac Holder, Brantford, Ont.

Choicest Canary, Gordon H. Manhard to G. W. Clemons, Ontario, Ont.

Claris, Hormidas Lassier to Metairie St. Joseph, St. Hyacinthe, Que.

Count De Dikkert De Kol 3rd, Robert Campbell to James Homewell, Centreton, Ont.

De Kol of Ruvo Nieta 2nd, Andrew Kennedy to William Higginson, Inkeram, Ont.

Duke Pieterette De Kol, W. S. Bender to Joseph Boyd, Bishop's Mills, Ont.

Earl Grange, William S. Shearer to Jas. W. Gray, Holbrook, Ont.

Epworth King, G. A. McCullough to Geo. McHardy, Swan, Ont.

Epworth Warrior, G. A. McCullough to Jessie Eaton, Bearbrook, Ont.

Forest City Prince 7th, G. W. Clemons to D. G. Malloch, Walnut, Ont.

Hector Calamity Healer, W. E. Hermiston to E. W. W. Peterson, Ontario, Ont.

Homestead Cornelius, Ira Nichols to John D. Huggins, Norwich, Ont.

Homestead Poch, Ira Nichols to G. Snell, Norwich, Ont.

Jacob Artis, Logan Bros. to M. M. Thompson, Shubenubant, N. S.

Joseph Alonah Vale, Logan Bros. to E. R. DeMill, Hampton, N. J.

Johanna Conelena Sir Teke, Homer Smith to Leonard Marlett, Ratswell, Man. G. Acres, Vernon, Ont.

King of Holstein, J. H. McLean to J. Knox, Thamesford, Ont.

Korodsky Mantel, O. Lillie to E. J. Sharpson, Manhard, Ont.

Lady Mary's Prince of B. B. F. McCuaig & Robertson to Wellington Allen, Casburn, Ont.

Lilly Mottie De Kol's Laddie, Thomas G. Telfer to David Thompson, Kistore, Ont.

Lilly Valle's Prince, Gordon Summers to James E. McKell, Ivy Leon, Ont.

Lord Marling, Fred Bell to George S. Casselman, Finch, Ont.

Mercena Lad De Kol, W. J. Bailey to J. W. Kelly, Hagersville, Ont.

Mitchellville King, Gordon Summers to Arthur McCready, Mitchellville, Ont.

Mountain Lad De Kol, Andrew Kennedy to Gordon Jones, Winchester, Ont.

Mountains Pride De Kol, Andrew Kennedy to Thomas A. Bailey, Winchester, Ont.

Prince Aargie De Kol, M. L. Haley to J. H. McLean, Hagersville, Ont.

Prince Mercedes De Kol, J. J. Poncelet to St. Joseph, St. Hyacinthe, Que.

Prince of Colchester, Stewart Ester to Jacob Harvey, Brent Wood, N. S.

Prince of Ferner, Mrs. Trotter to Rev. J. A. Lesuyer, Vernon, Ont.

Prince of Holstein, J. H. McLean to J. Knox, Thamesford, Ont.

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

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Imported and home bred, are of the choicest breeding, of good type and have been selected for production. Several young bulls dropped this fall sired by "Nectar" and "Queen-time" (Imp.). As well as a few females of various ages for sale. Write or come and see. J. W. LOGAN, Howick Station, Que. ("Phone in house.") 04-19-10

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From one month to two years old; all bred from large, good-looking stock. Also Yorkshire pigs. Apply to DANIEL WATT or to HON. W. OWENS, Manager, Howick Station, Que. E-21-10 Riverside Farm, Montebello, Que.

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Born, Dec. 31. Dam's official record at three years old, 48 lbs. of milk and 21 lbs. of butter. Calves born March 18th, 1908. Official record of her age, dam of dual Canadian Champion. Dam of dual record at two years, 434 lbs. of milk and 23 lbs. of butter. Also two year old stock bull, grandson of Saranac Lad. E-21-10

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FOR SALE, 2 Bull Calves, sired by Sir Aargie Boets Regis, son of King Regis, the world's greatest 5 year old sire, dam Angie Lilly Pieterette Panl, champion J. R. 4 year old—29.6 lbs butter 7 days. Dam of calves a 20 lb. 7 year old, and 23 lb. 4 year old. Price reasonable considering breeding. P. J. BALLEW

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Herd headed by Count Hengerveld De Kol, son of Pieterette Hengerveld's Count De Kol, with recorders averaging 60 lbs. over 20 lbs butter in 7 days and 30 lbs. in 7 days. Five bull calves, from 9 months old down, from his sire for 35 lbs. butter in 7 days. Hamilton Radial close to farm. Visitors met by appointment. E. CHASE, Brant, Ont. E-TF

SUNNDALE

Offers Hengerveld De Kol Teyos. His dam is now under yearly test; his two nearest grand dams have 7 day butter records averaging over 23 lbs., in 7 days. He is nicely marked and is a good individual of choice breeding. Write for particulars. A. D. FOSTER

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Head your Herd with a son of Sara Hengerveld Korolyk whose dam was recorded for 35 lbs. butter, his 9 nearest dams average 59.12 lbs. of milk in 7 days. Only 2 calves of his sons left. Write for a list of his sons of Count DeKol Pieterette Panl, and a number of Heifers for sale. E-17-10 BROWN BROS., LYN, ONT.

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If you are thinking of buying a choice young cow or heifer in calf, come and see our herd. Will sell you a cow or heifer, down beautiful heifers safe in calf to Starer His Chub, who has a record of five sisters averaging 59 lbs. butter in 7 days and one sister that held world's record as year old with 35.10 lbs. butter. Write us what you want. We will guarantee every cow or heifer we sell. Visitors met at Hamilton by appointment. D. C. FLATT & SON, Millgrove, Ont. L. D. Telephone 2471, Hamilton

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Twenty-eight females, all ages, 17 bulls, including the two great stock bulls, Sir Pieterette Poch De Roser, with records from 13 to 22 lbs. butter in 7 days, and the dam's record of 35 lbs. butter in 7 days.

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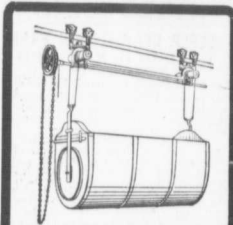
THURSDAY, DECEMBER 23rd, 1909

Among the Holsteins are 20 cows and heifers in milk; ten with calves at side. RECORD OF BIRTH COWS, with records from 13 to 22 lbs. butter in 7 days; COUNT CALAMITY MERCEDES, the most propent living sire in Canada, with record of 35 lbs. butter in 7 days, 23 lbs. of milk, 22 lbs. test, over 4 per cent. He is the sire of the champion two year old heifer of Canada, record 2 years, butter 7 days, 20 lbs.; milk, 7 days, 434 lbs.; milk 1 lb. 43 lbs. He is the sire of the two highest testing two year old heifer of Canada. Their records at 2 years, average butter 7 days, 18.69 lbs. and 20 lbs. of milk. 60 lbs. of milk in 7 days. Heifers bred to him of the leading strains with good official backing, their calves will be bred to an opportunity by choice stock. Sale of cattle commences at one o'clock, so buyers can get evening train home.

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