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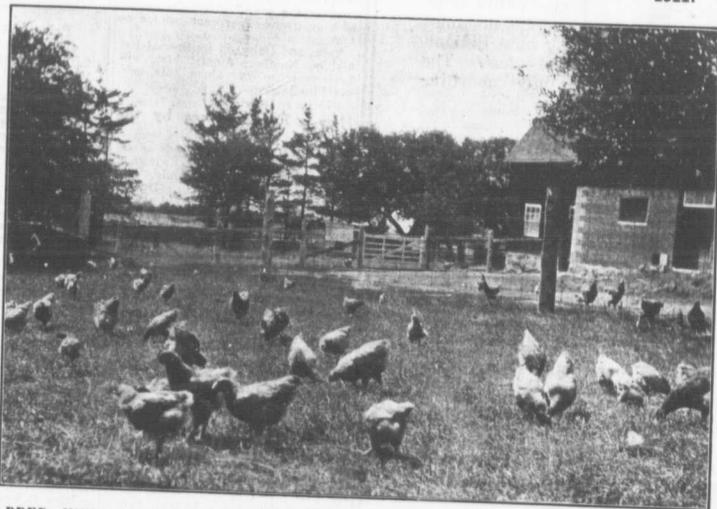
# FARM AND DAIRY

## RURAL HOME

PETERBORO, ONT.

AUGUST 17

1911.



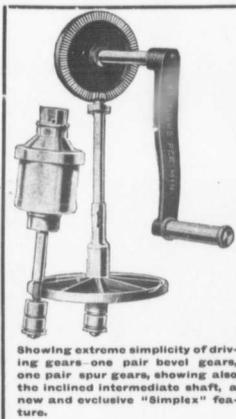
WELL BRED, WELL SELECTED, AND WELL FED CHICKENS THAT ARE VERY PROFITABLE

These birds were hatched this season, and were photographed by an editor of Farm and Dairy on June 30th. Note the excellent growth these chickens had made at that time. They are part of a flock of some 350 Buff Orpingtons kept by Mr. W. G. Rennie, a 100-acre farmer, of York Co., Ont. Mr. Rennie goes in for winter egg production, selling the eggs to the Toronto market. The hens are never kept over the second season. They are sold during June, when they realize from 16 to 18 cents a lb., live weight.

DEVOTED TO  
BETTER FARMING AND  
CANADIAN COUNTRY LIFE

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SOME farmers have an idea that all Cream Separators are alike. Because the machine they are using is not a success they conclude that there is not a better machine and that they will "just make it do for a while."



Showing extreme simplicity of driving gears—one pair bevel gears, one pair spur gears, showing also the inclined intermediate shaft, a new and exclusive "Simplex" feature.

There are many kinds of Cream separators, some are almost useless, some "pretty good," but there is only one make that will give entire satisfaction no matter how difficult the test. The "only" machine is—

### The Simplex Link- Blade

This is because it is the only machine having the LINK-BLADE Separating device and the SELF-CENTERING BOWL. These two features alone make the machine superior in construction to any other machine. But! there are other points of excellence about the machine that are just as important, with the result that the SIMPLEX is a machine of life time-lasting value. Our new Booklet is brimful of Separator facts and is free for the asking.

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## A. P. E. I. Cow Leads the World

A two-year-old Avshire heifer, Milkmaid 7th, owned by MacRae & Sons, East Royalty, P.E.I., on Aug. 2 commenced her year test in the Record of Performance, in which test she qualified with a milk production for the year of 11,696 lbs., having an average percentage of fat of over 4.4. This is said to be the world's record, the distinction having been formerly held by "Lazel of Samarhill," owned by Carr & Son, Almonte, N.Y. This animal in one year gave 11,678 lbs. of milk; thus the McRaes' heifer has a lead of 618 lbs.

The heifer Milkmaid 7th is remarkable for her persistency as a milker more than for any great flow of milk in any one day. Her largest record for a month was in September, when she gave 1,000 lbs. On the last day of her test (Aug. 7th) she gave 20 lbs. At the beginning of her test (Aug. 3, 1910), she was two years, 285 days old.

The Canadian record has been held by "Speck of Springbank," owned by A. S. Turner & Son, of Ryckman's Corners, Ont. She commenced her test on September 3, 1909, and was then two years, 319 days old; she gave in the year 10,353½ lbs. milk, with an average per cent. of fat of 4.20.

Farm and Dairy, in its Special Exhibition Number, August 31st, will have more to say about this new world-leading cow

## How a Farmer Loses by the Tariff

"I am in favour of the trade agreement," stated Mr. Jas. McEwing, of Wellington Co., recently, "for two reasons I will illustrate: During the 12 months just past I sold off my farm 30 tons of hay. It was worth to me what it was worth in the New York market, less the pressing charges, the freight charges and the duty. The first two charges were legitimate. The third, of \$4 per ton on every ton before it entered the United States, was just that much taken from me and paid into the United States treasury. If there was no tariff on that hay there was \$120 that would have gone into my pocket.

"I have at the present time 33 acres of barley on my farm; averaging it at 30 bushels an acre there is a crop of 1,000 bushels, for which the United States at present charges 30 cts. a bushel before it can enter the country. The United States Government levies a toll of \$900 on my 1,000 bushels of barley. There is a total of \$420 levied by the United States on my produce which the trade agreement will remove. Even taking it for granted that all of that amount did not come to me, at least half of it would, and that is an amount worth while for the average struggling farmer"

## Lands, Fisheries, Game and Minerals

A valuable publication has just been issued on "Lands, Fisheries, Game, and Minerals," by the Dominion Commission of Conservation. The book is a large volume of some 525 pages, substantially bound in cloth and fully illustrated throughout with maps, diagrams, and two-color photo engravings. It represents a great deal of exacting research work, and makes available to the average man a mass of instructive and entertaining information otherwise unobtainable by him.

The section devoted to lands describes the agricultural survey of 100 representative farms in each province, made by the Commission of Conservation in order to ascertain just what the condition of agriculture is in Canada. Some of the subjects on which information was obtained are:

rotation of crops, use of manures, prevalence of weeds and insect pests, water and fuel supply and the use of selected seeds. One of the striking facts revealed is that not more than nine per cent. of the farmers of Canada follow any intelligent and effective rotation of crops. By the adoption of more scientific methods which could readily be put into effect, it is estimated that the field crops of the country could be doubled in 20 years. The report is replete with agricultural information of value because it is not hearsay, but a statement of actual facts scientifically obtained by men in the field. An article in Agricultural Production in Canada indicates just what each province has produced of field crops, fruit and live stock since 1891, and also gives crop areas and comparative crop yields.

The book may be had on application to Mr. James Le White, Secretary of the Commission, Ottawa, Ont.

## Pointers for Dairymen

A cross dog has no place in the dairy. He is worth more dead than alive.

It is a mighty poor cow that will

## Prize Farms Awards

The relative standing of those farms in Ontario entered in the Interprovincial Dairy Farms Prize Competition has been prepared by the judges and is ready for publication. As yet Farm and Dairy has not received the awards for those farms of Quebec province entered in the competition. The judges have completed their work of judging in the Agricultural Merit Competition conducted by the Quebec Government but have been so busy they have not as yet had an opportunity to make their report.

The report is expected shortly, when all the awards will be announced in Farm and Dairy at the same time.

not respond to good care, good feeding, and comfortable surroundings.

In order that the dairy may be of the highest financial success most of the feed must be raised on the farm.

The man who makes a success of dairying is kind to his family. So the connection? Well, it lies in the fact that the man with a kind disposition is most successful in handling cows.

## Items of Interest

The Ontario Department of Agriculture will occupy a tent in the same locality on the Canadian National Exhibition grounds as for previous years past. Representatives of the various branches will be in attendance throughout the exhibition with a view to consulting with farmers and others who are interested in the work of the Department.

Alex. Hazellit of Adolphustown, Ont. charged at Nanapanee recently with illegal packing and marking of apples. The complaint was laid by Inspector Brown on the grounds that the apples, when inspected at Montreal, were found immature, wormy and largely culls. Hazellit pleaded guilty and was fined. There has been a great deal of complaint this year about the shipment of green, immature apples, a practice which seems to be on the increase every year. Apples have been sold in Ottawa stores which should have been condemned by the Health Inspector.

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Facts in Connection  
Which will

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COST OF

Year .....	
Number of replies ..	
at rest and taxes (on	
Plowing .....	
Harrowing .....	
Seed .....	
Sowing .....	
Harvesting .....	
Interest and depreciation	
machinery .....	
Miscellaneous .....	

Total cost per acre .....

Yield per bushel .....

Cost per bushel .....

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to grow a certain crop.

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a Year

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FOR WEEK ENDING AUGUST 17, 1911.

No. 33

## A DISCUSSION OF THAT OLD STANDBY—THE FALL WHEAT CROP

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

Facts in Connection With Several Phases of the Subject of the Fall Wheat Crop are Set Forth in This Article Which will Prove interesting and Valuable in Assisting Farm and Dairy Readers Who Grow Fall Wheat to Decide How Much Wheat to Grow and How to Grow It.

I RECENTLY received a bulletin giving the cost of growing crops in the state of Nebraska. From it I learned that it costs the Nebraskan farmer 54.9 cents. to produce a bushel of wheat. I presume that this cost is for spring wheat. The figures are interesting and they may be welcomed by some Farm and Dairy readers who are now figuring as to how much fall wheat they had better sow.

### COST OF GROWING WHEAT

Year	1909	1910	Average
Number of replies	139	150	289
Net cost and taxes (or rent)	\$4,463	\$5,090	\$4,770
Planting	1,373	1,572	1,472
Harrowing	285	279	282
Disking	443	404	423
Seed	1,461	1,342	1,401
Sowing	453	308	421
Harvesting	2,155	2,110	2,233
Interest and depreciation on machinery	505	675	595
Miscellaneous	727	734	731
Total cost per acre	\$13.067	\$13.311	\$12.189
Yield per acre	32.9 bus.	21.6 bus.	32.2 bus.
Cost per bushel	52.7 cents	57 cents	54.9 cents

Our conditions being different from what they are in Nebraska, these figures are of value to us merely in setting forth how we must figure when we set about to consider whether or not it pays to grow a certain crop.

It is generally held that the day of wheat growing in Ontario is a thing of the past. The statement is true in a sense, but I saw by a report recently issued by the Commission of Conservation that in 1910 Ontario produced 17,805,000 bushels of wheat. It is evident therefore that the crop is still of considerable importance and worthy of a little discussion.

While fall wheat is perhaps not the most profitable crop we throughout Western Ontario can grow, I am convinced that it is advisable on many farms to grow the crop notwithstanding; although it is advisable to grow it only in limited acreages.

A few acres of fall wheat fits in well with the general system of farming as practised in our district. We sow fall wheat after barley, sometimes after oats or on a clover sod plowed after haying. On rare occasions we find it on the old-fashioned summer-fallow. The crop is seeded at a time when other farm work is not overly pressing, and with our fast working plows and the wide machinery so generally used, we put it in at much less expense than we used to in the olden days. The crop is then no further trouble, save for seeding to clover, until harvest time, which comes on early after haying and the wheat is out of the way before the spring grains are ripe. It is therefore apparent that the crop fits in well with our farm work, and this is an important consideration in these days of scarce and high-priced labor.

### OTHER ADVANTAGES OF WHEAT

It must not be overlooked that the crop is one of the best with which to seed down both with timothy and red clover. It also is usually very productive of straw, which is undoubtedly valuable around the farm as bedding and in increasing the supply of manure. We run the risk of winter-killing, it is true. But even should it winter-kill, we have lost only our seed, since the land is in good tilth and with little cultivation

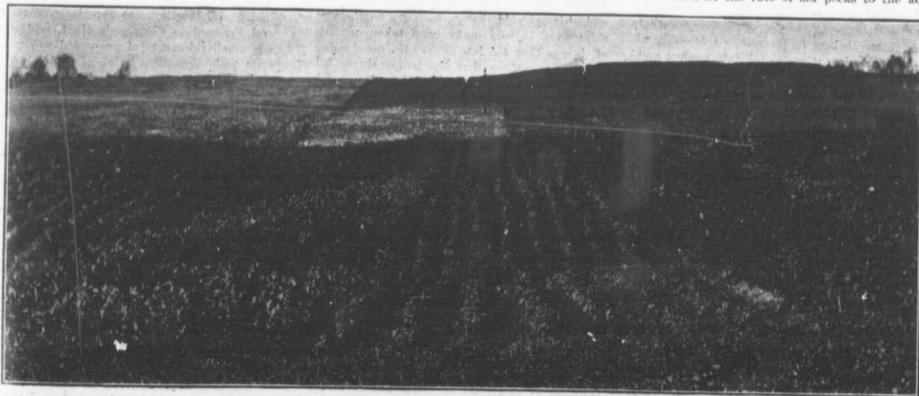
can be reseeded to a spring crop. There is always a ready cash market for wheat, though at times we consider the price too low; for those various reasons, probably this latter is one of the greater, wheat continues to be and is deservedly popular.

How much wheat to sow this fall is not a question for one man to decide for another. On 150 acres I usually sow from 25 to 30 to wheat and find that area about right. The price of wheat at the time of sowing is to many a consideration. It has nothing to do, however, with the price our wheat will bring next fall, although it has been my observation that when the price is low it is usually an ideal time to seed more than usual to wheat, since the average man proceeds on exactly the opposite tact.

### SOIL PREPARATIONS FOR WHEAT

In preparing the soil for wheat I like to have it plowed as early as possible and worked down thoroughly so as to start the thistles and any weed seeds, such as false flax and choss, which are troublesome in the wheat crop. The earlier the land is plowed and the more cultivation it can be given the better will be the moisture supply and the better will be the germination of the wheat after it is sown. I like to seed it in ordinary years about from the 5th to the 10th of September. If the soil is in good condition and the moisture supply is right I would not mind sowing somewhat later, and if the Hessian fly is likely to be troublesome (i.e., if it has been troublesome this year), then it is well to sow later, even as late as the 25th of September, in which case we can miss the fly. I have read that it is well to trap the fly on strips of wheat sown in the field about the last week of August. These strips may be plowed under after the middle of September, in which case the "fly" already in the plants will perish.

I seed at the rate of six pecks to the acre; if



Where Some of the "Problems of the Greater Ontario Settler are Being Solved for Him

The Government Experimental Farm at Monteth in New Ontario, a portion of which is here shown, is designed to find out for the benefit of settlers what crops and varieties of crops are best suited to conditions in that country. It is doing this and more, since the excellent crops raised on this farm have shown the great possibilities of agriculture in the Great Clay Belt and the desirability of New Ontario as a field for settlement.

—Courtesy Cobalt Nugget.

the soil was real fertile and in good condition, five pecks would be enough. I would not sow more than six pecks under any consideration and would much prefer to have any quantity over the bushel and a half thrown away than put it into the soil, since if sown too thickly the heads are

short and the yield is lessened.

Where there is more than usual danger of winter-killing one is ill advised to sow wheat on land where water and ice will stand. The up-lying land, and soil of a limestone nature is the ideal for fall wheat.

## MODERN AIDS TO MARKET EXTENSION FOR OUR FRUIT

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

### Our Fruits to a Great Extent can be laid down Successfully in Distant Markets. Fruit to Carry Properly must be Precooled. Some Facts set forth Concerning this Important Question.

IT is significant that the factor which, more than any other, is influencing the development of Ontario's fruit industry is neither



Prof. J. W. Crow

supply nor demand, but distribution. This province possesses every natural facility for the production of a great variety of choice fruits, and a careful survey of the situation leads one to the conclusion that horticultural crops are destined to occupy a place of increasing importance in our agricultural economy. It can scarcely be charged that we do not produce enough fruit to supply our local markets, but it can be truthfully stated that production is not increasing nearly as fast as conditions would warrant.

The reasons for this too slow development of the fruit trade are to be found in certain conditions which from time to time are very strongly in evidence on our local markets. Every fruit grower is familiar with the disastrous results that invariably accompany what is known as a glutted market. That this unfortunate condition is to a very large extent preventable is the firm opinion of the writer, as it must be of anyone who will study the subject with reasonable thoroughness.

#### MARKETS OTHER THAN AT OUR DOORS

One hears the statement regretfully yet sincerely made that certain localities capable of producing large quantities of fruit are unable to dispose of it at a profit because "the market is always overstocked at the time our fruit is ripe." It is undeniable that production is often entirely out of proportion to the needs of local markets. Some of us have never thought, however, of endeavoring to secure other markets than those immediately at our doors, and while our wide-awake competitors appropriate to themselves markets which rightly belong to Ontario, we foolishly allow our fruit plantations to fall into neglect and turn to some other line of farming which seems to hold out better financial inducements.

#### EXTEND OUR MARKETS

Our most progressive shippers have hardly begun to realize the extent to which our fruits can be laid down successfully in distant markets. It may interest some to know that Ontario peaches (which are said not to ship well) sold in London, England, last season for 10 cents each, having landed there in excellent condition. It is some years since Niagara district peaches were first placed in Winnipeg market in perfect condition after a lapse of eight days, and it is regrettable that more attention has not been given by Ontario shippers to this phase of market extension.

Many Ontario fruit men still express doubt about the feasibility of placing our pears and even fall apples on the British markets, while the same classes of fruit are being continually and successfully disposed of in that market by British Columbia, Oregon and California shippers. These fruits are also deposited safely in English markets from points as far distant as New Zealand, Tasmania and Southern Australia, from which

countries they are carried in cold storage for an ocean voyage of seven weeks' duration. In the face of these and of many more similar facts, can it be denied that Ontario producers have magnificent opportunities in the markets of our North-West and in Britain? Shall it be said that Ontario's fruit men are behind the times and unable to cope with problems which other countries are solving to their own very great satisfaction?

#### WHAT MARKET EXTENSION INVOLVES

This question of the extension of markets constitutes probably the most important problem facing us to-day. Its solution involves the planting in any given locality of special varieties selected with reference to their suitability for the market in question, as well as for profitable production in the said locality. It involves the planting of these varieties in quantities sufficient to guarantee bulk shipments. If growers are to reap for themselves the largest percentage of profit, it involves also the handling of the crop through a district selling organization controlled by themselves.

The key to the situation remains, however, to be discussed, and if recent unfortunate experiences can furnish any lessons which may point the way to better success in the future, it may be profitable to discuss them here. Poor weather conditions of the fall of 1909 hastened the ripening of the apple crop. Apples were picked, packed and shipped in unusually warm weather. As a consequence, fruit which under normal weather conditions would have reached Old Country markets in good condition, was received at Montreal in a slack and wasted state. Needless to say, ruinous prices were received when this fruit was finally disposed of in trans-Atlantic markets.

#### IMPORTANCE OF PRECOOLING

It is pointed out by Dominion fruit inspectors and others who examined the shipments, that the damage was done before Montreal was reached, and although cold storage facilities on the steamships were in very many cases taken advantage of, it was then too late to save the consignments. When one realizes that the temperatures taken at Montreal of the interiors of barrels ranged in some instances higher than 80 deg. F. and in very many cases over 70 deg. F., it will be plain that the statements made are correct. Many shippers suffered very seriously, and if their experience helps us to realize what handlers of perishable food products have long known, this lesson may be of value to us in the end.

It is an established fact that the most important period in prolonging the "life" of fruit, vegetables and flowers is the first few hours after picking; in meats, the first few hours after killing, and in dairy and poultry products, the short space of time immediately succeeding their production or manufacture.

#### PROLONGING THE "LIFE" OF FRUIT

Realization of the perishable nature of food products has led to very great changes in methods of handling these materials. Experienced shippers of this class of goods affirm most emphatically that immediate cooling is absolutely necessary in order to secure the greatest possible degree of keeping quality. High temperatures

favor the development of disease, as well as detrimental chemical and physiological changes, which result finally in decay, and the up-to-date shipper of perishable products simply proceeds to extract the surplus heat as quickly and economically as possible. Low temperatures prolong the "life" of fruits by retarding the progress of these diseases and the processes of decomposition. California fruit growers have set many a splendid example to their fellow horticulturists, and in this matter of "precooling" they are again far in advance of most others. Large plants equipped with mechanical facilities for cooling air and circulating it through loaded cars are already in operation.

#### PRECOOLING IN CALIFORNIA

Some of the newer plants under construction in California will be capable of cooling from 20 to 40 carloads of fruit in four hours. They are located at central assembling points, from which whole train loads of fruit are despatched to eastern markets. Some of them are owned by the growers, who find that through the possession of such facilities they are able to ship very much longer distances and their fruit arrives in better condition. Iceing charges, which approximate \$75 a car from California to New York, are also largely done away with, as in moderately cool weather the cars cover the entire distance, requiring from 11 to 15 days, without requiring to be re-iced in transit. The railways, too, are interested in the problem, and the Santa Fe and Southern Pacific roads are each establishing two large plants at different centres. They find that in addition to increasing the total quantity of business, the new system also permits of very considerable increase in the carrying capacity of cars.

#### APPLY THE SCHEME IN ONTARIO

If we are to take our proper place as a fruit producing province, it is certain that some such system as has been evolved in the west must be adopted here. The establishment of an efficient system of pre-cooling plants will do more than any other one thing to place Ontario's fruit industry on a safe and prosperous basis. The application of the scheme to Ontario's conditions will of necessity be slow and difficult, but it must come. In connection with the apple industry alone, it is beyond question safe to state that many thousands of dollars could have been saved in 1909 by the intelligent use of cold storage and pre-cooling plants. Valuable experimental and demonstration work has been and is being done with tender fruits, notably in connection with the St. Catharines (cooperative) Cold Storage and Forwarding Company's plant, and occasionally small shipments of pre-cooled products have been made from other points as well. There would seem to be great need for more work of this nature, and it is hoped that the near future will see considerable advancement in our opinions respecting long-distance shipment of perishable materials and in our knowledge respecting the same.

It would be interesting to enter into a discussion of the influence which would be exerted on local markets by the development of the system above described. We have much yet to learn regarding the holding of produce over a glutted period. Strawberries are said to have been held in cold storage for 21 days without apparent deterioration in any length of season over which it would be possible for them to extend their operations on such fruits. Customers generally would receive a more evenly distributed supply and dealers and growers would be saved from the too frequent losses occurring under our present system of non-storage.

Enough, we hope, has been said to awaken interest in the use of cold storage and pre-cooling as a means of distributing our fruits over a wide area.

Potato blight is out Ontario this season varieties have been the early crop is early potatoes in high, as high as 8 places. The tops of blight and will not structure long enough crop of tubers. The short of a calendar in view of that blight is concerned.

During the first wats of Farm and Durham, Northumb and while there obses the yield from by the destruct blight. While at r Hope, our represente observed on experimental plots connection with the local branch of the Ontario Department Agriculture, what has long been known as has been talked about in the columns of Farm and Dairy, blight can be prevented. The illustration on this page speak ter than words of the possibilities of preventing blight by spraying with the Bordeaux mixture.

The Bordeaux mixture for potato blight is wholly a preventative measure. After the blight once gets well started in the vines it is impossible to check its ravages. It must be set, and this may be done with Bordeaux mixture days during the season potato tops. The object the leaves with stone) contained in the vent the spores of the leaves and causing the

The largest illustration the potatoes not affected do the subject justice



The Blight Starts its potatoes in this plot. When photographed, turned quite brown and soon be dead. This plot was Paris Green to combat the measure were taken against

**Observations on Potato Blight**

Potato blight is uncommonly prevalent throughout Ontario this season. The tops of the early varieties have been dead for some little time, and the early crop is exceptionally light. Prices for early potatoes in recent weeks have been very high, as high as \$2 a bush, being paid in many places. The tops of the later varieties are also blighted and will not stay green and retain their structure long enough to develop a fair to average crop of tubers. This partial failure of the potato crop may well be termed as something like the short of a calamity, and it is so far as the blight is concerned it could have been prevented.

During the first week in August one of the editors of Farm and Dairy spent several days in Durham, Northumberland and Ontario counties, and while there observed many patches of potatoes the yield from which will be greatly reduced by the destructive blight. While at Port Hope, our representative observed on the experimental plots in connection with the local branch of the Ontario Department of Agriculture, what has long been known and has been talked about in the columns of Farm and Dairy, that blight can be prevented. The illustrations on this page speak better than words of the possibilities of preventing blight by spraying with the Bordeaux mixture.

The Bordeaux mixture for potato blight is wholly a preventative measure. After the blight once gets well started in the vines it is impossible to check its ravages. It must be prevented from the outset, and this may be done by periodical sprayings with Bordeaux mixture at intervals of about ten days during the season of rapid growth of the potato tops. The object of the spraying is to coat the leaves with the copper sulphate (blue stone) contained in the mixture, and thereby prevent the spores of the blight growing on the leaves and causing the destruction of the tops.

The largest illustration on this page showing the potatoes not affected by the blight does not do the subject justice. The luxuriant growth

made by the potatoes on the plots sprayed with the Bordeaux-Paris Green mixture was remarkable in contrast with other potatoes to be seen in the district. Of late the experimental plots have attracted the attention of all who have seen them. If the tops remain green for another month they will add remarkably to the yield of potatoes over and above those now blighted and which because of the blight will not make further growth.

It would appear that many have learned their lesson this year about potatoes. "Another year," said Mr. Robinson, who is connected with the local Department, and who was showing our representative over the plots, "we reckon that there will be a good many pounds of bluestone gone out of this town to be used on the potatoes grown in this district. One farmer only yesterday who saw the plots, remarked: 'If we could only keep our potato tops green, as these are, it would be a great thing for us farmers.'"



**Potatoes Not Affected by Blight—There's a Reason Why**

The three illustrations on this page are all of the same variety of potatoes, Empire State, planted at the same time on the experimental plots at Port Hope, Ont. The plot here shown as it was photographed by an editor of Farm and Dairy on August 3, was not affected in the least by the blight. It had been sprayed with Bordeaux-Paris Green mixture.

**Jottings from Farmers**

Every time a cow switches her tail to knock off flies she uses some energy which would otherwise go to milk production. Moral: Spray the cows.—Henry Glendinning, Ontario Co., Ont.

Alfalfa is one of the best crops the farmer can grow, but he can only grow it after years of work, and I would not advise any farmer to undertake to grow a very large amount of alfalfa until he has learned how to grow it on a little field. Start on a nicely cultivated, well drained part of the farm, and grow half an acre, and then gradually spread out until it is all over the farm. We grow it as a regular crop at Ottawa. It is our best hay crop, but it was hard to get it started.—Prof. J. H. Grisdale, Dominion Agriculturist.

Many farmers are possessed with the idea that the suckers or earless stalks, which grow from an ear-bearing stalk of corn, are a hindrance to the best growth of the latter, and valuable hours are sometimes spent in removing them. But, according to Wallace's Farmer, actual experiments during two successive years, on Nebraska farms, demonstrated that corn with the suckers left undisturbed out yielded that from which the suckers had been removed. Their leaves like the others, would seem to perform a useful office in absorbing nutritive elements from the atmosphere, for the benefit of the ear on the main stalk.—C. R. Barnes, Extension Division, Minnesota.

**Facts About Alfalfa Seed Production**

One reason frequently advanced why more alfalfa is not grown is that the seed is expensive to purchase. Alfalfa seed can be grown by the farmer himself in many parts of Ontario. In order to determine the extent of the alfalfa seed production in Ontario and the success of those who had tried it, Prof. C. A. Zavitz of the O.A.C. has corresponded with many growers in Ontario and gathered much information on the subject.

Replies were received from 81 farmers who have grown alfalfa seed on their own farms from one year to 15, 20, and even 30 years. The 43 farmers who reported that they had grown seed for five years or more reside in seven counties in the south-western part of Ontario, and more than half of them are located in the counties of Haldimand and Lambton. The counties of Welland, Brant, and Lincoln are also well represented, and the counties of Kent and Wentworth are included in the list. The 38 farmers who reported as having grown alfalfa seed for less than five years reside in the seven counties already referred to, and also in the counties of Elgin, Oxford, Waterloo, Huron, York, and Durham.

**13 COUNTIES PRODUCE ALFALFA SEED**

It will, therefore, be seen that there are reports from 13 counties in Ontario in which alfalfa seed has been grown as a farm crop. The information thus presented has been obtained almost entirely from the reports of those 43 farmers who have grown alfalfa seed on their own farms for five years or more. The 43 farmers have grown alfalfa hay from six to 45 years, the average being about 14 years. The areas used for the production of alfalfa seed have varied from three to 40 acres previous to 1910, and in the last year from nothing to 35, the average for all the men for 1910 being 11.5 acres.

Every one of the 43 farmers stated that he had used the second crop for seed production. One farmer, however, referred to the fact that he had used the first crop for seed in a few instances. According to the reports the yield of seed varied considerably, the highest being seven bushels per acre, obtained by Mr. Jas. Douglas in Brant Co. One farmer in Haldimand County and another in Brant County reported that they had obtained an average of about four bushels of seed per acre. Another farmer in Haldimand County states his average to be only three-quarters of a bushel per acre. The average yield per acre obtained by all of the farmers for all of the years in which seed has been grown is 2.07 bushels. The quantity of seed per acre seems to be influenced to a marked degree by the conditions of the season and by the quality of the soil.



**Utter Destruction Caused by Neglect**

This plot of Empire State potatoes is immediately between the two plots shown in the other illustrations on this page. Conditions of seed, soil, cultivation, moisture and sunshine were identically the same for all three plots. This plot, however, was neither sprayed with Paris Green nor with Bordeaux mixture. Potato beetles have made almost a clean sweep here, and left few leaves remaining on August 3 when few leaves were left before being destroyed by the blight.

—All photos by an Editor of Farm and Dairy.



**The Blight Starts its Destructive Work**

The potatoes in this plot have been struck by the blight. When photographed on August 3 the tops had turned quite brown and gave evidence that they would soon be dead. This plot was sprayed regularly with Paris Green to combat the "bugs," but no preventive measures were taken against the blight.

SUBSCRIPTION LIST WILL OPEN ON MONDAY, AUG. 14, AND WILL CLOSE ON OR BEFORE 3 P.M. MONDAY, AUG. 21

# CAWTHRA MULOCK & CO. OWN AND OFFER AT

# 98 1/2

## \$1,250,000 of 6% First Mortgage Sinking Fund Thirty Year Gold Bonds of

# CANADA BREAD COMPANY, LIMITED

(INCORPORATED UNDER THE LAWS OF THE PROVINCE OF ONTARIO)  
The same to carry with them a bonus of 25 per cent. of Common Stock.

DATED August 1st, 1911.

DUE August 1st, 1941.

Principal and semi-annual interest February 1st and August 1st, payable at any branch of the Union Bank of Canada or Metropolitan Bank.

### Nominations: \$100, \$500 and \$1,000

Bonds issued in coupon form, with privilege of registration of principal

TRUSTEE:

Guardian Trust Co., Limited, Toronto.

### CAPITAL ISSUED AND FULLY PAID UP

6 per cent. FIRST MORTGAGE THIRTY-YEAR SINKING FUND GOLD BONDS	.....	\$1,250,000
6 per cent. NON-CUMULATIVE PREFERRED STOCK, ISSUED AND FULLY PAID UP	.....	1,250,000
COMMON STOCK, ISSUED AND FULLY PAID UP	.....	2,500,000

### BOARD OF DIRECTORS

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HEAD OFFICE: Toronto.

PLANTS AT: Montreal, Toronto, Winnipeg

### PURPOSES OF COMPANY

Canada Bread Company, Limited, has acquired as going concerns the plants and business of the Bredin Bread Company, Limited, of Toronto; Geo. Weston (The Model Bakery), of Toronto; H. C. Tomlin (Tonia Bakery), of Toronto; Sturte, Limited, of Montreal, and W. J. Boyd, of Winnipeg. The case of Boyd, the real property is excluded, but a parcel of vacant land in the City of Winnipeg, about two acres in extent, is substituted. The first three companies have been in operation for almost thirty years, and the last two for close to twenty years. They have all grown from small beginnings till they are now among the largest in their respective fields in Canada. The combined output of the companies at present is, approximately, 600,000 loaves of bread per week. It is intended, by extensions to the present plants and the erection or acquisition of new plants, to forthwith increase the output of the Company to one million loaves per week, with other extensions to follow in the other large cities at a later date.

### POSITION OF BONDS

For full particulars, reference may be made to our prospectus, which is accompanied by a letter from Mr. Mark Bredin, the Vice-President, and General Manager of the Company. We draw attention to the following points:

1. The present \$1,250,000 of 6 per cent. First Mortgage Sinking Fund Thirty-year Gold Bonds are secured by Trust Deeds to Guardian Trust Company, Limited, Toronto, constituting a first mortgage on all the property, real, personal or mixed, now owned or hereafter acquired by the Company, as more fully described in said Trust Deeds. In the Trust Deeds it is specially stipulated that of the \$1,000,000 cash being placed in the treasury, the sum of \$500,000 shall be held by the Trustee, to be used only in the redemption of bonds or in investment in additional plants and real estate, thus increasing the fixed assets under the mortgage. A Sinking Fund of 1 per cent. is operative from August 1st, 1911.
2. The assets of the companies already taken over stand in excess of all liabilities and without any allowance for good-will, trade marks, etc., at \$41,428.76. There has also been placed in the treasury \$1,000,231.02 of cash, which, besides furnishing funds for the purchasing or construction of additional plants, will provide ample working capital.
3. The earnings of the present plants, as per certificate of Messrs. Price, Waterhouse & Co., after allowing for depreciation, amounted from April 30th, 1910, to April 30th, 1911, to \$107,916.14, to which may be added \$35,000, being interest at the rate of 3 1/2 per cent., on \$1,000,000 cash in the treasury pending its employment on extensions. It is estimated that, with the economies to

be effected, the earnings on these plants will shortly amount to \$180,000 a year, or nearly two and one-half times the bond interest.

4. With the extensions that it is proposed to effect forthwith, the Company, by the end of its first fiscal year, should be in a position to show earnings of \$500,000 a year, equal to three and one-half times the interest requirements on the bond issue, and with all the additional plants that will be provided with the cash now in the treasury, the earnings should steadily gain to over \$550,000 a year, or more than seven times the bond interest requirements.

5. The Company, with its plants situated in the larger cities of the different provinces of Canada, will be in an exceptionally favorable position to benefit by the marked economies that will be possible in manufacturing and, more especially, in distribution, and all the time will be turning out a more uniform product under the most sanitary conditions. 6. The Company, which has made the different companies particularly successful will be identified with the management and direction of the new Company. Mr. Mark Bredin, who is probably one of the most successful bread manufacturers in Canada, will occupy the position of Vice-President and General Manager, while the services of the heads of four of the different companies taken over and of an efficient representative of the fifth have been assured to the Company.

### SUBSCRIPTIONS

Subscriptions should be made on the form accompanying the prospectus, and are payable as follows—

- 10 per cent. on par value on application, and
  - 88 1/2 per cent. on par value on allotment.
- OR
- 10 per cent. on par value on date of allotment.
  - 10 per cent. on par value on application.
  - 25 per cent. on par value on 1st Sept. 1911.
  - 25 per cent. on par value on 1st Oct. 1911.
  - 25 per cent. on par value on 1st Nov. 1911.

88 1/2 per cent.

Upon final payment by the subscriber for all the bonds allotted, the Guardian Trust Company, Limited will deliver the bonds, together with fully paid-up shares of the Common Stock of the Company equivalent at par to 25 per cent. of the par value of bonds allotted.

Application will be made to list the bonds and common stock on the Toronto Stock Exchange. Copy of the trust mortgage and legal opinion of A. M. Stewart, and certificates of Price, Waterhouse & Co., and Canadian-American Appraisal Co., are open for inspection at the office of the Guardian Trust Company, Limited, Toronto.

Prospectus and application forms may be obtained from and subscriptions should be forwarded to  
**GUARDIAN TRUST COMPANY, LIMITED, TORONTO**  
 ANY BRANCH OF UNION BANK OF CANADA AND THE METROPOLITAN BANK

# CAWTHRA MULOCK & CO. MAN, 12 King Street East, TORONTO

(MEMBERS TORONTO STOCK EXCHANGE)

## FARM MAN

### Top Dressing

I have a field about 20 lbs. of a crop with a nurse crop of dry weather the state in some places this is good, but I leave it down. I am and intend to top manure as soon as I like to know if there the alfalfa plant sowing immediately. I been applied—J. W. out.

There would be completely ruining plants should you narrow this field.

manure, if applied spreader and not be good practice rially benefit the you.

You are well advised stand of alfalfa should the weather from this time forward it will develop a satisfactory stand.

may be renovated in the alfalfa field. It is comparatively light will give a considerable than one would expect.

thin the plants stand advantage of alfalfa.

Any cultivating of this stand would be practised upon and then only expect the value of such alfalfa in your own part.

### Do not Pasture

By Glendinning, G.

We hear much no hardness of the alfalfa information being discriminate pasturing very bad. Alfalfa, carried over for and not be pastured close, particularly y horses should be allowed to account.

hen the by close pasturing, Alfalfa is not as hard as we believe. It and will yield a plentiful pasture if made.

I have pastured, least pasture it made most be used. fied turning over cow field when it was a crop for 1 1/2 to two hours alfalfa was eaten down inches high, however.

ing was allowed, and into the winter, it is stubble for protection.

### Compulsory Road

It has come to the low. The farmer road drag voluntarily

force has made road force. A one-hill tax, rived on all property and it can be used for

pose. A supervisor and 50 cents a mile dragging.

Whatever may be the future, to-day it over vast stretches of

It is folly to talk has way sections, road ing material, just as

material to build hard ure ties all hand. has been proved the et and most effective taining and improving is so simple and ch overflows decline to use mer dollars to drag probably because he is

**FARM MANAGEMENT**

**Top Dressing and Cultivating Alfalfa**

I have a field seeded last spring with about 20 lbs. of alfalfa an acre, along with a nurse crop of corn. It is very dry whether the stand of alfalfa is very thin in some places, but in parts of the field it is good enough to tempt me to leave it down. I am now cutting the oats and intend to top dress the field with manure as soon as I can. I would like to know if there is danger of injuring the alfalfa plants by discing or harrowing immediately after the manure has been applied.—J. W. K. Glangarry Co., Ont.

There would be great danger of completely ruining the young alfalfa plants should you attempt to disc or harrow this field. To top dress with manure, if applied with a manure spreader and not too heavily, would be good practice and should materially benefit the young plants.

You are well advised in keeping this stand of alfalfa such as you have. Should the weather prove favorable from this time forward, in all probability it will develop and prove to be a satisfactory stand. The thin places may be renovated next spring if such attention is necessary, and even a comparatively light stand of alfalfa will give a considerable yield more than one would expect since when thin the plants stool out and take advantage of available room.

Any cultivating, discing or harrowing of this stand we would not advise to be practised until next spring, and then only experimentally until the value of such cultivation be proved in your own particular case.

**Do not Pasture Alfalfa**

*By Glendinning, Ontario Co., Ont.*

We hear much nowadays as to the hardness of the alfalfa plant. If such information leads any of us to indiscriminate pasturing, such advice is very bad. Alfalfa, which is to be carried over for another year should not be pastured close at any time, particularly if horses. Stock should not be allowed on it in winter on any account. When the crown is killed by close pasturing, the field is done. Alfalfa is not as hardy as some would have us believe. It needs good care and will yield a profit for such care.

I have pastured alfalfa and excellent pasture it makes, but good judgment must be used. We have practised turning our cows into the alfalfa field when it was a couple of feet high for 1 1/2 to two hours a day. When the alfalfa was eaten down to about six inches high, however, no more pasturing was allowed, and the alfalfa went into the winter with six inches of stubble for protection.

**Compulsory Road Dragging**

It has come to the inevitable end in Iowa. The farmer will not use the road drag voluntarily. The Legislature has made road dragging compulsory. A one-mile tax has been provided on all property in the townships and it can be used for no other purpose. A supervisor may be hired and 50 cents a mile is the rate for dragging.

Whatever may be the form of road of the future, to-day it is a road over vast stretches of the country. It is folly to talk hard on the very many sections, removing the metal-rod material, just as it is to refuse to build hard roads when the material lies at hand. The road drag has proved the simplest, cheapest and most effective means of maintaining and improving dirt roads. It is so simple and cheap that road over-seers decline to use it. The farmer declines to drag his own road probably because he is tired to have

road work done for him. In a great majority of cases he is not willing to do this extra work in order to improve his road. This probably the explanation of his neglect.

When so simple, effective and cheap a means of road maintenance is not used by local road authorities nothing is left but the application of the law. The Iowa legislators have acted wisely in enforcing road drag laws. It is a sad commentary on the business sense of road officials, but it is an act eminently demanded. It is to be hoped that other states will follow the example, until the road drag becomes a familiar object not only on dirt roads but gravel and macadam roads as well. Nothing will so easily and cheaply maintain the life and comfortable use of a gravel and macadam road as the drag.—Broeders' Gazette.

**How to Destroy English Sparrows**

In its economic relations the English sparrow among birds is comparable to the rat among mammals. It is cunning, destructive, and filthy. It destroys small fruits, as cherries, grapes, pears, and plums. It also destroys buds and flowers of cultivated trees, shrubs, and vines. In the garden it eats seeds as they ripen and nips off tender young vegetables as they appear above ground, peas and lettuce being especially subject to attack. It damages wheat and other grains when newly sown, ripening, and in shocks.

It reduces the numbers of some of our most useful native species, such as bluebirds, house wrens, purple martins, cliff swallows, and barn swallows, by destroying the eggs and young and by usurping the nesting places. It attacks other familiar native birds, as the robin, wren, red-eyed vireo, and catbird. Unlike our native birds whose places it usurps, it has no song, but is noisy and vituperative. It defiles buildings and ornamental trees, shrubs, and vines with its excrement and with its bulky nests.

**DESTROY THE SPARVA**

The most effective method of preventing the increase of sparrows in a locality is to destroy their nests at intervals of 10 or 12 days throughout the breeding season. Occasionally they build large, exposed nests in trees, but as a rule they build open nests in bird houses, cornices, waterpots, and similar places. While it is often difficult to reach nests with the hand, they can usually be torn down by means of a long pole having an iron hook at the tip. By a concerted and continued movement to destroy every nest after the eggs are laid, English sparrows in any locality may be gradually reduced without resorting to shot or poison.

Where the use of poison is not prohibited by law, it may be effectively used to reduce the number of sparrows. Of the different poisons tested, the most satisfactory is strychnia sulphate. Wheat has proved to be a good bait. The grain should be regularly supplied at the baiting stations until the birds have become accustomed to resort to the place. A good time to apply it out is early morning, as the birds are sure to be hungry for breakfast.

**AMOUNT OF POISON**

In deciding the amount of poisoned wheat to put out at one time, it is well to estimate the number of sparrows frequenting the feeding place and to allow about 20 kernels for each sparrow. Although two kernels of wheat coated with the solution have been known to kill a sparrow, six or seven kernels are required to insure fatal results. Only as much poison should be put out as is likely to be eaten in one day, as exposure

to moisture reduces its virulence. Furthermore, sparrows that take less than a fatal quantity, or that become frightened by the death of comrades, will forsake a feeding place if poison is kept there constantly. It is better, therefore, to supply unpoisoned wheat after each poisoning until the birds have recovered confidence.

A poison mixture that has proved very effective is prepared as follows: Put one-eighth ounce of strychnia sulphate into three-fourths of a gallon of hot water and boil until dissolved. Pour the mixture that has proved very effective is prepared as follows: Put one and a half teaspoonfuls of starch with a few drops of cold water, add it to the poison solution, and heat till the starch thickens. Pour the hot poisoned starch solution over one quart of wheat and stir until every kernel is coated. Small-kernelled wheat sold as poultry food, if reasonably clean, is preferable to more easily eaten by the sparrows. The first point to make sure of, how-

ever, is that it is English sparrows are being poisoned and not some of our valuable birds.

**Skim Milk Paint.**

The following receipt for making skim-milk paint is from the Scientific American: Stir into one gallon of milk about three pounds of Portland cement, and add sufficient wet red paint powder to impart a good colour. Any other colour may be used in place of the red. Mix only as used, and keep thoroughly stirred. The milk will hold the paint in suspension, but unless stirring is continued frequently, the cement, being heavier, will settle to the bottom.

Enclosed find \$1 for my renewal to Farm and Dairy for another year. It is a splendid farm paper, and should be in every dairyman's home.—J. M. Young, Middlesex Co., Ont.

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Write us for artistic booklet telling all about them. Ponce Park, So.

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Agents wanted in some sections. Write for particulars.

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An IHC Engine costs less than any other if you measure by the years of service. And you can get just the IHC you want. There is

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IHC Gasoline Engines are made in the following styles and sizes: Vertical type—2, 3, 25, and 35-H. P.; horizontal—1 to 25-H. P.; semi-portable—1 to 8-H. P.; portable—1 to 25-H. P.; traction—12 to 45-H. P.; sawing, pumping, spraying, and grinding outfits, etc. Built to operate on gas, gasoline, kerosene, distillate, or alcohol. Air-cooled or water-cooled. Don't buy any engine till you investigate the IHC line. Learn all the facts about the design, materials, and workmanship that go into the construction of IHC engines—then decide. See the IHC local agent at once, or write nearest branch house today for our new catalogue.

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The Bureau is a clearing house of agricultural data. It aims to learn the best ways of doing things on the farm and then distribute the information. Your individual experience may help others. Send your problems to the IHC Service Bureau.



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The rope is so arranged that by unsnapping it from the top section the ladder can be separated to form two single ladders.

The books automatically lock at every round and unlock between the rounds.

These ladders are strong, light, easily operated, durable, and convenient, a necessity around the house and farm buildings.

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THE STRATFORD MFG. CO. LIMITED  
STRATFORD, ONT.  
We make all kinds of Ladders, Lawn and Porch Swings and Seats.

Nine new subscribers to Farm and Dairy will win you a pure bred pig.

## HORTICULTURE

### Renovating Strawberry Beds

F. H. Hall, Geneva, N.Y.

Usually it is better to set new strawberry beds each year than to continue the old ones. The advisability of removing more than one crop of fruit depends largely on the condition of the bed. If the strawberry plants are numerous, vigorous and healthy, and the ground not too weedy, they may be left for a second crop. Two and even three profitable crops may sometimes be harvested before making a change. The berries ripen slightly earlier but average somewhat smaller on the older beds, and the plants are more liable to trouble from insects and diseases. The cost of cleaning out and caring for an old bed is usually greater than for setting a new one. Under some conditions a quick-growing crop maturing before winter may be grown upon the same soil if the strawberry vines be plowed under as soon as the crop has been harvested, or it may be advantageous to sow the ground to a clover cover-crop to be plowed under the following spring.

If the bed be retained for a second crop it will be necessary to clean out, and renovate the rows. Some growers go over the bed with a mowing machine and as soon as the leaves are sufficiently dry burn over the en-

tire field during a wind blowing in the direction of the rows. This must be carefully done or injury may result to the plants. Such treatment tends to lessen insect and fungus troubles.

The majority of growers who retain their beds narrow down the old rows with plow, disc-harrow or cultivator to a width of from six to 12 inches, depending on the stand of plants, and cultivate thoroughly to loosen the ground which has become hard and compact from the tread of the pickers. The weeds and surplus plants should be cut out from the rows remaining and a heavy application of plant food, preferably in the

charges up to 85 a car. The car inspectors employed by the Department will watch the handling of these shipments as usual, and careful temperature records will be obtained at all points.—J. Ruddick, Cold Storage Commissioner.

### Improve Potatoes by Selection

J. W. Clarke, Brant Co., Ont.

A wonderful improvement in the quality and yield of potatoes can be obtained by careful seed selection. I have been working on potatoes for five years. I started with the Carman and worked to get a good yield, dry, smooth and with full ves-



The Cultivator at Work in a Renovated Strawberry Patch

This illustration shows Mr. G. B. Pattison, in the Clarkson district, Ont., as he was photographed in August, 1910, cultivating an old strawberry patch after it had been renovated. After the crop was harvested the rubbish was mowed, raked and drawn off the patch. A plow was then used to run a furrow on each side of the rows, which left the rows about eight inches wide. The seuffer was then run through twice, after which the rubbish was shaken up and hauled off, after which the rows were weeded and cleaned. Later in the fall this patch would be hoed again; the cultivator would be used each week if possible to the end of the growing season.

form of well-rotted stable manure, should be broadcast lengthwise of the rows and directly over the plants.

### Cold Storage for Fruit Shipments

Editor, Farm and Dairy.—Arrangements have again been made with the steamship lines for the operation of cold storage chambers for fruit only on the following steamers:

#### TO LONDON.

Date Steamer. Agent.  
August 20—"Sicilia".....H. & A. Allan.  
August 26—"Aussonia".....R. Reford & Co.  
Sept. 3—"Corinthian".....H. & A. Allan.  
Sept. 9—"Ascanti".....R. Reford & Co.  
Sept. 16—"Devona".....R. Reford & Co.  
Sept. 23—"Albania".....R. Reford & Co.  
August 19—"Hesperian".....H. & A. Allan.  
August 26—"Cassandra".....R. Reford & Co.  
Sept. 2—"Granania".....H. & A. Allan.  
Sept. 9—"Saturia".....R. Reford & Co.  
Sept. 16—"Hesperian".....H. & A. Allan.  
Sept. 23—"Ionian".....H. & A. Allan.

#### TO LIVERPOOL.

Sept. 2—"Meganitic".....White Star-Dominion Line.  
Sept. 9—"Tunisian".....H. & A. Allan.  
Sept. 16—"Laurentic".....White Star-Dominion Line.  
Sept. 23—"Coroian".....H. & A. Allan.  
Sept. 30—"Meganitic".....White Star-Dominion Line.

#### TO BRISTOL.

Sept. 6—"Royal Edward".....Canadian North-ern S.S. Co.  
Sept. 23—"Royal George".....Canadian North-ern S.S. Co.

The arrangement is the same as has been made during the last three years. Intending shippers must apply for space to the steamship agents in the usual way. They will be charged the regular cold storage rates. The Department simply gives a guarantee of earnings to the steamship company to insure the operation of a chamber on each of the steamers mentioned in this list.

Shippers are reminded of the arrangement between the Department and the railway companies for supplying seed cars for the carriage of fruit for export. The cars are supplied by the railway companies on request of shippers made to the nearest agent, and the Department pays icing

You can hardly see the eyes in my Carman to-day. By planting potatoes of medium size and uniform in shape, we have gradually bred away from small potatoes.

Select the best potatoes only. If the potato is dry, it indicates a lack of starch, and such a potato should be rejected. Very large potatoes are not desired on the market and are apt to be hollow. By selection of the best types from the best hills, I have produced the kind of a potato that I consider ideal for market purposes. Now is the time to start to improve potatoes by selection when digging.

### Cut out Blight Now

Grant S. Pearl, Halton Co., Ont.

In August blighted portions of fruit trees are readily discernible. The diseased leaves and branches have a wilted and fire-fanged appearance and in some cases the branches are devoid of leaves. Also, the bark appears shrivelled and cracked, and is darker in color than healthy stock.

If removed now these infection portions will not act as a source of contamination to the rest of the orchard next spring, nor during the winter pruning operations. There is always danger of carrying the disease germ in the saw, consequently it is furthermore advisable to disinfect the saw each time it cuts a diseased branch. A 10 per cent. formalin solution gives satisfaction and does not corrode, or in any way injure the tools. The disinfecting material is most readily carried in a bottle. A swab is made by pushing a wire through the cut into the handle and cotton wrapped around the wire.

In every case the incision should be made at least from six to 12 inches below the diseased parts of the branch, so as to insure the removal of it all. All these prunings should be destroyed at once by burning. If allowed to lie around the orchard, borers, especially the shot-hole borer, will work in them and consequently carry a disease to the trees again. Thus it is very important that the prunings be burned.

## POULTRY

### The New Pou

L. C. Smith, P., Ont.

Light, freedom from good ventilation are important points to be when constructing a house. Conveniences are also important; these points are best open front style of coops.

We farmers often diversity in the erect poultry houses. We get it into our minds, so long as it is used to be warm.

We recently showing new poultry house.

deal of pride he pointed with numerous small and dead air space boarded and shingled to the large double w.

This man had an old constructed, which he good results, and why build on the old principle successful, is beyond

near neighbors who have seen his poultry

last year in a structure one side no protection spruce hedge, and

We ourselves are using a type house, but we front out and substituting, and it is giving

tion. We are building on the open front type on three sides are also covered with building out the draughts. This

is about three feet to two feet of wire netting length. This house from draughts and dry. From our exper

renovated old house good results from our

### Lice and Fleas

C. E. Brown, Univers

The two most common which affect chickens are the common lice, comparatively easy to control where the chick

plod with a good dust filling a large, shallow dust or fine coal ash breathes through tiny

side of its body and wading herself these are become filled and the

to death.

The mite is different as it breathes through the dust or in very little or no effect, rarely stays on the

hdaytime, preferring to cracks and crevices of till the fowls return

one of the best plans to fill this pest is to fumigate with sulphur or fumi

The hens must first be in the windows and doors then smoke the building

for at least three hours be repeated once or twice at intervals of three or

to catch the mites the

### FOR SALE AND WANT

TWO CENTS A WORD

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Penit, and brooder.

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FOR SALE—Iron Pipe, P

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It Needs No Painting

AMALITE has a real mineral surface; it needs no paint to protect it. In rain and sun and snow and hail, Amalite takes care of itself. It needs no coddling; there is no maintenance cost. You lay it and leave it.

The mineral surface is durable, permanent, absolutely weatherproof, unaffected by climate, insoluble in water, not injured by smoke.

Amalite is easy to lay. No skilled labor is required. You simply unroll it on the roof, and nail it down with nails which we supply to you. Cement the laps with the adhesive cement which we also supply free packed in the center of the roll.

Amalite costs no more than the kind of roofings that require constant painting. You get twice as much weight of roofing for your money as you do with other roofings.

Sample free on request. Address nearest office.

### Everjet Elastic Paint

Save money by using this black paint wherever the color is no objection. Elastic, heat-proof, durable. Use it for roofings and all exposed iron and wood.

### Creonoid Lice Destroyer and Cow Spray

Spray the hen house regularly with Creonoid to kill disease germs, repel insects, suppress odors and prevent the spread of contagion. Sprayed on cattle it keeps the flies away, and the cows thus protected produce more milk.

### THE PATERSON MANUFACTURING CO., Limited

Montreal Toronto Winnipeg Vancouver  
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**POULTRY YARD**

**The New Poultry House**

L. C. Smith, *Peel Co., Ont.*  
Light, freedom from draughts and good ventilation are the three most important points to be kept in mind when constructing a new poultry house. Convenience and cheapness are also important points. All of these points are best obtained in the open front style of poultry houses.

We farmers exhibit a strange perversity in the erection of our new poultry houses. We cannot seem to get it into our mind that a poultry house, so long as it is dry, does not need to be warm. Friends of mine were recently showing me over his new poultry house. With a great deal of pride he pointed to the double walls with numerous plies of paper and dead air spaces, to the double boarded and shingled roof, and then to the large double windows in front. This man had an old house similarly constructed, which had never given good results, and why he should again build on the old principle, proven unsuccessful, is beyond me. One of his near neighbors who has had good success with his poultry, kept his hens last year in a structure that had on one side no protection at all except a spruce hedge, and they did well.

We ourselves are using an old warm house, but we have torn the front out and substituted wire netting, and it is giving great satisfaction. We are building a new house on the open front plan. The walls on three sides are single-boarded and covered with building paper to keep out the draughts. The front, which is about three feet to the eaves, has six feet of wire netting the entire length. This house is cheap, free from draughts and, above all, it is dry. From our experience with our renovated old house we are sure of good results from our new one.

**Lice and Mites**

C. E. Brown, *University of Minnesota.*

The two most common parasites which affect chickens are the red mite and the common lice. The latter are comparatively easy to keep under control where the chickens are supplied with a good dust, bath made by filling a large, shallow box with road dust or fine coal ashes. The louse breathes through tiny holes on either side of its body and when the hen is dusting herself these breathing holes become filled and the louse is choked to death.

The mite is differently constructed as it breathes through its nostrils and the dust or insect powder has little or no effect on it. Besides it rarely stays on the hen during the daytime, preferring to hide in the cracks and crevices of the building till the hens return to roost at night. One of the best plans to rid a house of this pest is to fumigate the building with sulphur or fumigating candles. The hens must first be driven out and the windows and doors tightly closed, then smoke the building thoroughly for at least three hours. This should be repeated once or twice afterward at intervals of three or four days so as to catch the mites that hatch from

the eggs that were not destroyed by the sulphur. The mites have never secured firsts on this station as given us any trouble at this station as we whitewash the houses every year and keep the roosts thoroughly soaked with kerosene during the warm weather, which is the mite breeding season.

**Feed for Layers in Summer**

*Maritime Poultry Supply Co., Moncton, N.B.*

In feeding laying stock during the summer we find that in order to have them give the best returns we have to use a forcing mash, just the same as in the winter. In fact we make no change in our method of feeding during the summer months, except that as the hens have the run of a large grass plot, we do not have to supply them with green food. We keep grit, shell and charcoal before them all the time, and feed laying mash in hoppers. In addition we give one quart of mixed grains morning and night to every 25 birds. We do not let the male birds run with the laying stock, so that our eggs keep better and give our customers better satisfaction generally. By this method of feeding we get more eggs and larger ones, and also find that the hens lay right through the moulting season.

The hens that are not to be carried through the moulting season are fattened and killed off just about the time the moulting season begins. The others are given a little more beef scrap in the laying mash during the moulting season, and that brings them through in good shape. Old hens are killed off when two years old in our laying pens. Breeders are not fed a laying mash at all.

**Dominion Exhibition, Regina**

Strong in all lines connected with agriculture, the Dominion Exhibition at Regina last week was an unparalleled success in the history of western fairs. Exhibits in all classes were good and wide representation. In the cattle classes six provinces were represented, and the breeders of Ontario and Quebec matched their cattle with those of the west, and found that the exhibitors of the younger provinces were well able to hold their own.

The Canadian west is an agricultural country and the Regina Exhibition was an agricultural fair. The display of the various western provinces was representative of the first place that agriculture takes in those provinces. The displays of manufacturers also were closely related to agriculture, that of threshing engines being the largest.

**DAIRY FEEDINGS STRONG**

The dairy cattle exhibit was the largest ever seen in the west, Ayrshires, Holsteins and Jerseys being well represented. The presence of eastern exhibitors made the competition keen. The exhibit showed clearly how important a place dairying is taking in the west. Formerly Short-horns and other beef breeds only were to be seen at the fairs. In the last three years in particular the dairy exhibits have increased rapidly. The number of sales made by exhibitors at the fair shows that dairy cattle are in great demand.

**AYRSHIRES**

"Exceptionally fine beasts" was the terse comment of W. W. Ballantyne, Stratford, Ont., in reference to the Ayrshire exhibit he had judged. The exhibitors were P. D. McArthur, North Georgetown, Que.; Rowland Ness, De Winton, Alta.; F. H. Harrison, Pense, Sask.; and Wm. T. Shulthorpe, Sask. Competition was keen between the first three named and they carried off most of the awards. As was to be expected, the grand champion bull was McArthur's Netherhall Milkman, one of the best show

Ayrshires in Canada; Senior, owned by Ness, was second. McArthur also yearling firsts on senior and junior yearling bulls bred by the exhibitor, and on cow and two of her progeny. First place for three animals, the get of one sire, went to Ness, as well as other minor prizes. Ness was particularly strong in females, and carried off a good share of the awards. Holsteins, owing to the failure of a large number of the entries to show up, were weak in numbers, but in quality were equal to the best. The exhibits appearing before the judge, Mr. D. C. Platt, were the pink of the herds of Colony Stock Farm, Cognition, B. C., and A. B. Potter, Langbank, Sask. Colony Stock Farm had rather the better of the argument. Potter, however, had two excellent animals in Sir Pieterje Quillentine and Martha Anna's Prietorie.

In Jerseys, B. H. Bull & Son carried off most of the awards, with Jos. Harper, Kinley, Sask., in second place. In the female classes Harper secured a notable triumph in getting the female championship over Bampton Rochette, a hitherto unbeaten animal. All other firsts went to the Ontario herd.

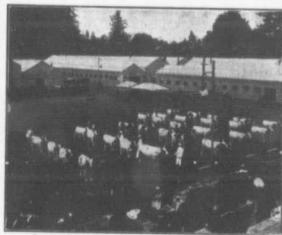
Exactly one hour and four minutes was required to place the award for the best ten dairy animals owned in one province. First was finally given to P. D. McArthur's Ayrshires, with Colony Farm Holsteins a close second. Porter's Jerseys also were fairly in the running. For best five head of dairy cattle the placing was reversed, the Holsteins coming ahead with McArthur second and Bull and Harper in third and fourth places.

**OTHER STOCK**

Splendid representatives of the Shorthorn, Aberdeen-Angus and Hereford breeds were found in the beef breeders here and the western breeders held their own. Things were made lively here by the presence of Carpenter and Ross, Mansfield, Ohio, with their Shorthorns. The United States exhibitors carried off some valuable awards.

If the Dominion Exhibition was a greater success in any one class than in others it was in horses. All classes were well filled. The great majority of exhibitors were western men and most of the awards went to them. Light horses were exceptionally strong. In the heavy classes, Percherons were a stronger class than at eastern fairs.

**Exhibition Number, August 31st**



The READERS of Farm and Dairy are looking forward to our

**Fourth Annual Exhibition Number**  
to be issued August 31st.

CONTRIBUTIONS to this Number will not only interest natural authorities on important subjects, but every department of the farm will be covered by interesting and instructive articles. The illustrations will be the best that can be obtained. This Number will also contain an illustrated supplement, if not the superior, of anything we have yet published.

The CIRCULATION of this Number will be largely increased. Besides going to our regular readers, many sample copies will be mailed to selected lists, and many more will be distributed to those attending the leading exhibition in Eastern Canada.

ADVERTISERS who use large space in this Number will benefit greatly. Any misfit this great issue.

RESERVATION of space should be made at once, and copy should be in our hands not later than August 21st.

For full particulars address **ADVERTISING DEPARTMENT Farm and Dairy - - Peterboro, Ontario**

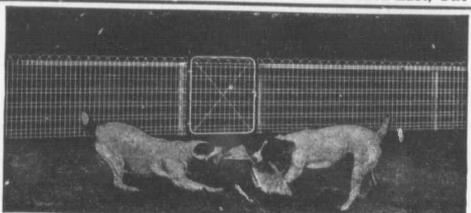
**ELM GROVE POULTRY FARM**

FOR SALE—Good Cockerels. Single Comb Black Minorcas, S. C. White Leg-horns, Rose Comb Brown Leg horns and Rouen Ducks.

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A fence of this kind only 16 to 23c. per running foot. Shipped in rolls. Anyone can put it on the posts without special tools. We were the originators of this kind of sold etc. Supplied in any lengths desired, and painted either in green or blue. Also, farm fences, and gates, netting, baskets, mats, fence tools, etc. Ask for our 1911 catalogue. The most complete fence catalogue ever published.

**THE PAGE WIRE FENCE CO., LTD., Walkerville, Ont.**  
Branches—Toronto, Cor. King and Atlantic Ave. Montreal, 266-27 Notre Dame St. St. John, 27 Dock St. The largest fence and gate manufacturers in Canada.



**The Cause of Lunacy**  
(Toronto Globe)

Among the ills to which humanity is subject there is none other so terrible as the mind disease. The purposeless eyes, the mirklike laugh, the meaningless words of the insane awaken in us a pity too great for words. And when the guarded walls and the barred windows shut in not so many thousand "cases," but some one near and dear—the father who guided our first faltering steps, the mother perhaps who is dearer to us than even the hope of Heaven, the brother who lay beside us in the cot of childhood—there comes the strong desire to do what men can do to lessen for those who come after us the heart-break that results from the contemplation of mental disease.

What is the chief cause of lunacy? How can it be removed? Dr. Ferris, President of the New York State Commission on Lunacy, says that one out of 279 persons in that State is insane, and that it is a matter of record that 26.9 per cent. of the cases of lunacy in the State are the result of the use of whiskey or other spirituous liquors. That is not the random statement of some temperance fanatic but the deliberate verdict of a scientist who knows the facts as few men in America know them.

**Records Not a Matter of Breed**

Editor, Farm and Dairy.—In several recent issues of Farm and Dairy I notice articles by Holstein and Ayrshire breeders praising up their respective breeds. These letters have been interesting to me insofar as I can obtain any information from them regarding feeding and the milk produced from such feeding.

Such articles are of educational value to the average dairy farmer if the writers would leave out some of the sarcastic knockings at other breeds. Naturally we Jersey men do not like to hear statements such as "the Holstein cow has beaten all records of the world," or "the Ayrshire is the most profitable cow in the world." We admit that each dairy breed has its own good qualities, but we have not in our midst that breed of cattle that will please the Ayrshire, Holstein, Guernsey and Jersey fancier combined. Each fancier of a particular breed is wrapped up in his own breed, and as the saying is, "married to it," and naturally will fight for it and sees the strong points of his own breed more clearly than would the fancier of some other breed.

I have been studying the dairy cow for over 20 years, and have come to the opinion that world record cows can be produced from any of the dairy breeds, and when they are produced they are like every other great thing—a freak of nature. We find that many a breeder has been disappointed in paying big prices for world record stock. When mated, their offspring are a failure as makers of world records.

**LEADING RECORDS**

As a Jersey breeder I say we have room for all breeds, and the Jersey cow is not by any means in the background. I give her the records of the 12 highest testing cows in the four leading breeds of dairy cattle:

Missy of the Glen (Guernsey).....	954.76
Jacobs Irene (Jersey).....	952.99
Bobby Dimple (Guernsey).....	906.89
Burdette Artie (Holstein).....	861.53
Bobbie Ann (Guernsey).....	860.39
Yekas Sunbeam (Guernsey).....	857.15
Bobbie Ann (Guernsey).....	854.72
Oga 4th's Pride (Jersey).....	851.73
Abigail of Bechlands (Jersey).....	849.62
Abigail Oga 4th's Pride (Jersey).....	836.99
Bobby Bloom (Guernsey).....	836.21

It is only fair to the other breeds to state that the publication of the record of Missy of the Glen was made obligatory by an injunction secured by the owner of the cow. If Missy be omitted from the above list her place would be taken by Jacobs

Irene and the remaining cows would each move up one. The Ayrshire cow Netherhall Brownie 9th would take 12th place. It will be further noted that all of the records above are official Register of Merit or Advance Registry Records with the exception of the Holstein tests, which are semi-official records from the standpoint of strictly official tests. In a strict classification, therefore, the Jersey cow Jacobs Irene, would head the list and give a place for seven Jerseys, four Guernseys and one Ayrshire.

If we could have the cost of each cow's feed or the amount of feed consumed, to produce each of these cows' records, we could form our opinion of the most profitable cow in the world. Even if the Jersey is the smaller of the breeds, she chews her feed faster than any of the other breeds and may be the largest eater.—George Lathwaite, Huron Co., Ont.

**The Bane of the Idle Acre**

C. R. Barnes, Middlesex

Have you an idle acre on your farm? If so, why not at once put it to some use—if for no other reason, that it may work no injury to yourself or to your neighbor? Every such acre, in a settled community, is an accuser, branding its owner—so says a contemporary—"as either thoughtless, wasteful or shiftless; possibly all three." On any such acre, weeds may grow sufficient to "seed down" a township and to increase the labors of the whole farming population.

The broad areas of uncultivated land, which form so large a percentage of thousands of farms, are a standing indictment of our systems of landownership and taxation, as unreasonable and unjust. No man should be entitled to hold more land than he can fully cultivate or make otherwise useful to the community; as, for instance, in the growing of timber trees or in the maintenance of a well-stocked fish-pond.

Idle land should be so heavily taxed that nobody could so afford to keep it out of use—it must be "Cultivate or sell!" But instead of observing this just rule, we punish with heavier taxation the farmer who improves and enriches his land, and let the owner of only nominal taxation, the owner of idle acres.

**Notes for Dairymen**

The popular and probably the better way to improve the dairy herd is to inject better blood by purchasing a good sire. The more expensive way is to buy the cows, but the former method, it is only necessary to purchase the bull.

The extremely hot weather of the past few weeks has resulted in dry pastures in many sections of the country and the milk flow has dropped off greatly. It is the wise cow keeper who works against such a situation by growing some kind of soiling crop. There are few few farms, however, where fodder corn is not available, and there is no better time to make use of this feed than during the season when pastures are short and cows are dropping off rapidly in their milk flow.

If a temporary loss in the amount of milk for market was the only consideration it would not be such a serious matter. This is not the situation, however. A cow that decreases greatly in the milk flow because of a scarcity of green feed at this time of the year cannot "come back." The fall rains bring an abundance of green feed later on, but the cow is not in a position to make a profitable use of it unless her milk flow has been kept up during the dry period.



**Save One Dollar,  
Lose Two**

Isn't that just about the size of it—when something shoddy and cheap is foisted on you in place of the

**De Laval  
Cream Separator**

You see, the early disability of the shoddy thing, and poor performance while it does hang together, makes it a losing proposition, no matter how cheap.

*The De Laval for Satisfaction.*

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Readers of this paper to show Farm and Dairy to their friends, to their neighbors, to people they know, and who do not take Farm and Dairy.

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Talk about our Special Features and the extras, Magazine Numbers, Illustrated Supplements, Special Articles, the Prize Farms' Competition, and the Practical Dollars-and-Cents value—and lots of it—that Farm and Dairy Gives.

Grasp this Opportunity! Allow the Boys and Girls to win some of the Farm and Dairy Premiums, which many others are getting and which are proving so satisfactory to them.

**FARM AND DAIRY  
PETERBORO, ONT.**

One feature of the yield of cheese is that it is worthy of special mention to make a pound of cheese is rather more than a pound of milk. The low average test of the average test of lower than in previous years. It is difficult to explain, a 10 per cent. of the factories pay for milk value for cheese making is given to this extent: the lowest is 10 per cent. instead of quality. "Since the yield of large on the fat and together with the amount of the milk it can render it is practically impossible for a cheese maker, no matter how large, to secure a large yield of milk testing below in its fat content or from milk cooled.

"If producers will join thoroughly they realize that in the milk it is not the fault of the cheese maker that the 'average' is also seen that when percentages of fat cheese making, the test not receive full value of the proceeds.

There are three great problems in Eastern cheese factories, and they should work to fill these cheese factories, and we need the universal pay by test, and we need facilities in our factories that majority division over which I am small and poorly makers are doing wrong considering all the changes with such factories maker works under a d the question of the most first be solved by improvement can be made. Stricter regulations of factory conditions would all factories had to pay some of the smallest of business. A large number of the patron is beginning to see that it would be an advantage On six miles of road my section are four factories makes six cheese daily, and two only four. Combined would make a great deal of difference in this is that all but rarely owned.

PAY BY TEST We have only one factory section are four factories makes six cheese daily, and two only four. Combined would make a great deal of difference in this is that all but rarely owned.

We have only one factory section are four factories makes six cheese daily, and two only four. Combined would make a great deal of difference in this is that all but rarely owned.



### SYNOPSIS OF CANADIAN NORTHWEST LAND REGULATIONS

Any person who is the sole head of a family, or any male over 18 years old, may homestead a quarter section of available Dominion land in Manitoba, Saskatchewan or Alberta. The applicant must appear in person, make the Dominion Land Agency, or sub-agent, for the District Entry by proxy must be made at any agency, on certain conditions, by father, mother, son, daughter, brother or sister of intending homesteader.

Duties—Six months' residence upon and cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 80 acres solely owned and occupied by him or by his father, mother, son, daughter, brother or sister.

In certain districts, a homesteader in good standing may pre-empt a quarter section alongside his homestead. Price \$3 per acre. Duties—Must reside upon the homestead or pre-emption six months in each of six years from date of homestead entry (including the time required to clear homestead pasture and cultivate fifty acres extra).

A homesteader who has exhausted his homestead right and cannot obtain a pre-emption may enter for a purchased homestead in certain districts. Price \$3 per acre. Duties—Must reside six months in each of three years from date of entry and erect a house worth \$200.

W. W. COBY,

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

## Well DRILLING MACHINES

Over 75 sizes and styles, for drilling either deep or shallow wells in any kind of soil or rock. Mounted on wheels or on rails. With engine or horse powers. Strong, simple and durable. Any mechanical can operate them easily. Send for catalog.

WILLIAMS BROS., ITRACA, N.Y.



See your cows more comfortable and secure better results this winter.

It is a fact that the cows in a stable equipped with stalls give more milk than the same cows in a stable with the old fashioned ties.

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#### Stanchions

allow the cows more freedom. They do not worry, but devote all their time to the making of milk. You will be surprised at the increase in your profits after installing our stanchions. Our catalogue tells all about them. Send your name and address to-day.

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## THE IDEAL GREEN FEED SILO



Will save your hay and decrease your grain bills, you will produce more milk at less expense and with less labor, built from lumber thoroughly treated with specially prepared wood preservative. Free catalogue on application.

The Oldest Company in Canada Building Silos

## THE IDEAL GREEN FEED SILO



## Canadian Dairy Supply Co., Limited

592 St. Paul Street, Montreal, Canada

## Creamery Department

Butter makers are invited to send questions on matters relating to butter making and to suggest subjects for discussion. Address communications to Creamery Department.

### Sampling Sour Cream

Considering the best method of drawing a fair sample of sour cream for the Babcock test Prof. Farrington of the Wisconsin Agricultural Experiment Station has suggested that the cream be heated to a temperature of at least 100 deg. F. and then the hot cream poured back and forth from one can to another. Heating the cream will change its viscosity and drive out some of the air or gases held therein; it will also liquefy the lumps of butterfat and soften the coagulated curd.

In order to be well satisfied that sour cream has been thoroughly mixed, it is well to pour it through a fine sieve while warm. By doing this the clots of curd and butterfat will be collected in the strainer; these may then be forced through the meshes of the strainer by means of a rubber pestle or finger, and the warm strained cream will be so thoroughly mixed that a fair sample for testing may be taken from it.

In many cases it is absolutely impossible to get a fair sample of sour cream unless it is heated, and in some cases straining as above described is necessary.

### Reciprocity and Butter

Mr. Clifford Sitton's assertion that the butter industry of Canada would be injured by free trade in butter and cream between this country and the United States is so glaringly and ludicrously wrong that many people acquainted with the facts have taken exception to it. The following letter is contributed by an extensive dealer in butter of an experience as long as Mr. Sitton's manhood life:

"If I read Mr. Sitton's address to Canadians correctly, he says the butter industry will be injured by the reciprocity agreement. He must have put that along with other misstatements into his manifesto as a 'fill-up.' Some time after the reciprocity agreement was made known I asked the manager and chief proprietor of one of the largest creameries in Canada as to its effect on the butter business. His answer was 'that the agreement was a splendid thing for butter and cream and meant millions of dollars to Canada.'

"To the farmer, the artisan, and the great body of consumers this is the grandest piece of beneficial legislation ever granted to the Canadian people. The farmer who votes against it is doing himself an injury of a

terribly serious kind to please a set of men who are trying to bind him hand and foot to rapacious monopolies."

### Grading of Butter and Cheese

The battle of the grades, which has been going on for some years in several of the Australian dairying states, has neither been lost nor won, but it has been suddenly terminated. Regulations are being formulated by the Commonwealth Department of Trade and Customs which will make the grading of butter and cheese for export compulsory. The grading will not only be compulsory, but it will also be necessary to brand the boxes with the official classification fixed by the official grader.

The export trade of the Commonwealth is, for a time at least, (or better or worse), to be conducted under a system of compulsory grade marking, and it will be necessary for the dairying industry in each state to adjust itself to new conditions. Dairy education becomes not only im-

portant, but indispensable and urgent throughout the country. As the classification is to be marked upon the export boxes, it becomes a matter of the first importance that the largest portion of each state's produce should be brought to the higher grades. Much good has been done by recent conferences of experts in the direction of arriving at uniform methods of grading.

### Effect of Condition of Cream on Test

O. F. Hunziker, Purdue University.

If tests are to be uniform and accurate, the cream must be in such condition, when sampled, that a fair and representative sample can be taken. If, at the time of sampling, the cream is too thick, is tough, dry and leathery on the surface, is partly churned or curdy, it is very difficult to secure a fair sample, and tests of such cream are prone to be irregular as well as inaccurate.

This condition of cream can be readily avoided by taking proper care of it on the farm. Every patron should, for his own good, make a reasonable effort to have the cream in proper mechanical condition, homogeneous and uniform in body, before the dairy station, station agent or creamery samples it. If this is done, the



### A Good Creamery in a Famous Dairy District

The reputation held by Eastern Townships' butter among produce men speaks well for the creamery men of that section of Quebec. The creamery here illustrated, owned by A. J. Tremblay, is in Missisquoi Co., Que.

—Photo by A. Trudel

sample cannot help being fair and representative of the true richness of the cream from which it is taken. Conscientious observation of this precaution on the part of the patron will remove a very common avenue that leads to irregular and unsatisfactory cream tests.—Bul. No. 150.

### FOR SALE AND WANT COLUMN

FOR SALE—Cheese factory; excellent location, Oxford County; house in connection. Terms reasonable. Apply Box 18, Farm and Dairy.

### CREAMERY FOR SALE OR RENT; is good town, main line railway; money maker; easy terms; good price for making; snap. Average make past four years about eighty-two thousand pounds butter. Don't write unless you want to do business. Write immediately. Box 8, Farm and Dairy.

CREAMERY FOR SALE OR RENT; is good town, main line railway; money maker; easy terms; good price for making; snap. Average make past four years about eighty-two thousand pounds butter. Don't write unless you want to do business. Write immediately. Box 8, Farm and Dairy.

## FACTORY MANAGER WANTED

To use the best and cheapest preparation for all cleaning purposes in Cheese Factories and Creameries. Used at Dairy School Guelph and by the leading factory men of Western Ont.

Write for prices to

R. A. TRELAVEN  
MOOREFIELD, . . . ONT

**Cheese Department**

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

**Why the Yield is Low**

Frank Hertz, Chief Dairy Instructor, W. Ontario

One feature of the cheese business that is worthy of special note is the number of pounds of milk required to make a pound of cheese. In some sections this is rather high and may be accounted for to a large extent by the low average test of the milk. Why the average test of milk should be lower than in previous years is more difficult to explain, except that, as yet about 10 per cent. of the cheese factories pay for milk according to value for cheese making, less attention is given to this point and energy bent towards producing quantity instead of quality of milk.

Since the yield of cheese depends largely on the fat and casein content together with the sanitary condition of the milk it can readily be seen that it is practically impossible for a cheese maker, no matter how skilful, to secure a large yield of cheese from milk testing below in these two constituents or from milk not properly cooled.

If producers will study this question thoroughly they will come to realize that in the majority of cases it is not the fault of the cheese maker that the 'average' is 'high'. They will also see that when milk of different percentages of fat is 'pooled' for cheese making, the rich milk does not receive full value in the division of the proceeds.

**Problems in Eastern Ontario Cheese Factories**

J. McAllister, Russell Co., Ont.

There are three great big needs that we dairymen in Eastern Ontario should work to fill. We need bigger cheese factories, and better factories. We need the universal adoption of pay by test, and we need cool curing facilities in our factories. The great majority of the factories in this division over which I have direction are small and poorly equipped. The makers are doing wonderfully well considering all the chance they have, but with such factories the cheese maker works under a disadvantage. The question of the small factory must first be solved before other improvements can be looked for. Stricter regulations regarding sanitary conditions would close some. If all factories had to pay a license, many of the smallest would go out of business. A helpful sign is that some of the patrons themselves are beginning to see that bigger factories would be an advantage.

On six miles of road in one part of my section are four factories. One makes six cheeses daily, another five, and two only four. These factories combined would make one good factory. The great difficulty of combining them is that all but one are privately owned.

**PAY BY TEST**  
We have only one factory in my section paying by test. Some have failed the test and given it up; the failure of the system being largely due to incompetent makers. In one factory in which I worked as a cheese maker for seven years, we always paid by test, and it was very seldom that any of the patrons objected to their test. My experience leads me to believe that pay by test is all right if the test is done properly, and to make sure I would suggest that the appointment of officials to do the test

for a group of factories would be an excellent idea. We have no cool curing rooms in this syndicate. I have one factory in my district making just a little over the cheese a day. How can such a small factory afford to put in cool curing facilities? I have one factory pretty well up-to-date, but most of them are very old-time. The solution of the cool curing problem depends on the solution of the small factory evil.

**Striking Results of Cool Curing**

C. B. Meyers, Hastings Co., Ont.

We decided in 1907 to build an ice box in our factory. Before this we had a first-class building, with cement floors in the curing and make rooms, a machine for cutting, agitators, and everything first-class. We found, however, that although our plant had cost us over \$5,000, we could not control the temperature. In the warm weather in June, July, and August the temperature at times would go up as high as 80 degrees; anyone in the cheese business knows that such a temperature is too hot for cheese. We called in Mr. G. G. Publow, and he advised us to build an ice chamber in the factory, taking for the purpose about one-third of our then large curing room. This method cost us much less than the building of an addition to our factory as a large number of neighboring factories have done.

In the years 1905-06 before we had a cool curing room, our yields had been 11.00 and 11.03 respectively. In 1907 the number of pounds of milk per pound of cheese was 10.84; 1908, 10.82; 1909, 10.82; 1910, 10.75. We have had the same maker for 12 years and the same patrons, as in this township all the factories are joint stock companies, and we never change our milk routes.

**SATISFACTORY RETURNS**

The total cost of remodelling our curing room was \$466. The differences in yield between 1907 and 1908 showed 4150 lbs. of cheese worth the credit of the cool room. The average price in 1908 was about 12 cents. The total cost of the curing room was more than saved by the increase in yield the first year.

As our factory lies close to the Bay of Quinte, the cost of filling is small. The job is let by contract. It has cost \$30 a year to cut, haul, and pack the ice, which for a factory scaling 250,000 lbs. of cheese is very light.

I have shown this, as regards yield, that cool curing has been a great success with us. As regards quality we have sold all the cheese on the Belleville cheese board, and our factory has always been one of the first selected at the highest prices, and we have never had the slightest fault found with the quality. It has been a pleasure to sell first-class cheese.

**GREATER LOCAL DEMAND**

In improve local trade we have had quite an experience since we installed our cool curing room. We are situated between Trenton and Belleville. The grocers had always been taking a few cheese, but formerly they found that our cheese was too dry, as in the ordinary room our cheese did not retain moisture enough and the trade did not care for them. Since 1907 our trade with the grocers in Trenton has increased as follows: from scarcely 12 boxes for the year 1906; 1907, \$130; 1908, \$600; 1909, \$1,300; 1910, \$2,000. In fact, we have had nearly the entire trade in the town of Trenton. We have supplied all groceries during 1910.

Cheese companies or factory owners are making a great mistake in not so constructing their curing room that the temperature can be controlled. They would be well repaid by a much better yield and by a much finer cheese of a quality that will command

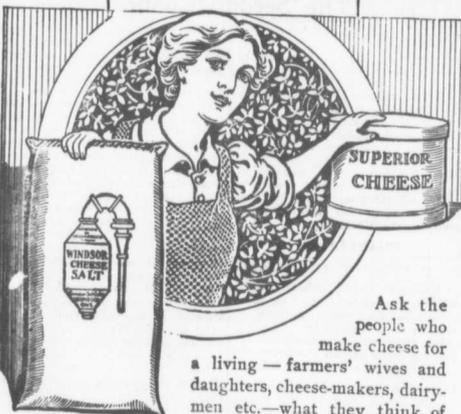
a higher price for export and of an excellent idea. We have no cool curing rooms in this syndicate. I have one factory in my district making just a little over the cheese a day. How can such a small factory afford to put in cool curing facilities? I have one factory pretty well up-to-date, but most of them are very old-time. The solution of the cool curing problem depends on the solution of the small factory evil.

**Quality of Cool Cured Cheese.**—I have no data on the shrinkage saved by our cool curing room, but am convinced that the amount saved on "heated cheese" would in very few years pay for the installing of the insulated room. But that is not all. The quality of cheese is of more consequence, and I believe if all Canadian cheese were cool cured, our cheese would

command a much higher price. If the buyers would pay for cheese according to quality, in a very few years all factories would be compelled to install cool curing rooms, or go out of business.—O. R. Francis, Oxford Co., Ont.

Farm and Dairy is a splendid paper for those engaged in the dairy business. I have received a lot of information from it, which has been most useful to me here in New Zealand.—W. Grant, Dairy Instructor, Wellington, N.Z.

**WINDSOR CHEESE SALT**



Ask the people who make cheese for a living — farmers' wives and daughters, cheese-makers, dairymen etc.—what they think of Windsor Cheese Salt.

Without exception, they will tell you that Windsor Salt makes the smoothest, finest cheese.

A good many will probably say that they could not make good cheese without Windsor Salt.

For years, those who take the prizes for cheese making, have used Windsor Cheese Salt.

Isn't that the salt you want?

**THE SIMPLEST CREAM SEPARATOR**  
Is Easiest to Wash and Lasts Longest

**SHARPLES Dairy Tubular Separators**

are the only separators without disks or contraptions—the only simple separators. They have twice the skimming force of others. Skim faster. Skim twice as clean. Repeatedly pay for themselves by saving what others lose.

A Dairy Tubular recently finished work equal to 100 years service in a five to eight years. The total cost for oil and repairs was only one dollar and fifteen cents. Write for illustrated account telling all about it.

Tubulars are later than and different from all others. Modern. Built on the only known principle which overcomes the faults and parts of others. Patented. Cannot be imitated.

"Finally a Tubular." Is the desire of those who have others. That is why the World's Best is so rapidly replacing others. Tubulars wear a lifetime. Guaranteed forever by the best service in the world on this continent. Our local representative will be glad to show you a Tubular. If you do not know him, ask us his name. Write for catalog 23.

**THE SHARPLES SEPARATOR CO., Toronto, Ont. Winnipeg, Man.**



THAT which is past is gone and irrecoverable, and wise men have enough to do with things present and to come.—Bacon.

## The Second Chance

(Copyrighted)

NELLIE L. MCCLUNG

Author of "Sowing Seeds in Dany"

AND so it came about that Pearl Watson was once more called to face the large and cheering audience, while Father O'Fynn, with many kind words, presented her with the W.C.T.U. oratorical prize.

Miss Morrison went home that night disturbed in spirit, wondering if, after all, there might not be something more in it than gestures, voice, memory, and articulation.

### CHAPTER V.

#### AT THE CHICKEN HILL SCHOOL

Ho! I'm going back to where we were youngsters! Meet me there Dear old barefoot chums, and we will be as we used to be. Lawless rangers up and down The old creek behind the town.

—James Whitcomb Riley.

If a river is measured by the volume of water in its current, the Souris River, on whose southern bank the little town of Millford is built, is but an insignificant stream, but if bold and precipitous banks, sheer cliffs, and a broad valley are to be considered, then the Souris may lay claim to some distinction. For a few weeks in the spring of the year, too, it is a swift and mighty flood that goes sweeping through the valley, carrying on its turbulent waters whirling ice-jams, branches of trees, and even broken bridge-timbers, from the far country known as the "Antlers of the Souris." When the summer is very dry, the river shrinks to a gentle, trickling thread of water, joining shallow pools, overhung with gray-green willows that wraith in the breeze.

At Millford, the Souris flows almost straight east and keeps this direction for about three miles, and then turns sharply north toward the Sand Hill country, where six miles farther on it joins the Assiniboine. On one of its banks, just before it takes the northern turn, stands the farmhouse of Thomas Perkins, a big white frame house, set in a grove of maples; a mile south is the big stone house of Samuel Motherwell, where Pearl Watson wiped out the stain on her family's honor by working off the old ten-lollar debt of her father's. Two miles farther east, on the Turtle Mountain trail, stands the weather-beaten schoolhouse where Martha Perkins got her meagre education and where Bud, her brother, was now attending. The schoolhouse is large and unlovely, without tree or flower. The rain and the sun, the scorching winds of spring and winter's piercing blizzards have had their way with it for many years, and now it defies them all, for its paint is all gone, and it has no beauty for them to fade.

A straggling woodpile and a long

straw-covered shed stand near it. Three windows, curtainless and staring, are on each side, and a small porch with two steps leading up to it is at the south end. Here the gophers frolic in the quiet summer afternoons, and steal what is left of the children's dinners from the tin pails behind the door. The porch smells of crumbs.

Away to the east, Oak Creek runs through a wooded belt of fertile lands, its tall elms and spruce giving a grateful shade to the farmers' cattle. To the north are the sandhills of the Assiniboine, where stiff spruce trees stand like sentinels on the red sand; but no tiny seedling had ever been brought to the schoolyard, no kind hand had ever sought to relieve that desolate grassy, bleak and lonely as a rainy midnight in a deserted house. Inside, the walls are dull with age, so dark and smoked you would think they could become no darker shade, but on the ceiling above the long stowepole that runs from the stove at the door to the chimney at the other end, here runs a long, straight stair. The stove is a big, square box, set on four stubby feet, and bears the name "Sultana."

Some small effort has been made to brighten the walls. One of Louis Wain's cut pictures, cut from a London Graphic, is stuck on the wall with molasses. There is a picture of the late King Edward when he was Prince of Wales, and one of the late Queen Victoria, framed with varnished wheat. There is a calendar of 1910 showing red-coated fox-hunters in full chase. Here the decorations end abruptly.

The teacher's desk is of unpainted wood, and on its lid, which lifts up, revealing the mysteries of mysteries below, there run ancient rivers of ink, pointing back to a terrible day when Bud Perkins leaned against the teacher's desk in chase. A black spot on the floor under the teacher's chair shows just how far-reaching was Bud's offense.

The desks are all ink-stained and numbered and inscribed with letters and names. Names are there on the old desks that can be read now on business and professional signs in Western cities, and some, too, that are written in more abiding type still, on the marble slabs that dot the quiet field on the river-bank.

The dreariness of the school does not show so much in the winter-time, when the whole landscape is locked in snow, and the windows are curtained by mist-furrows. The big boys attend school in the winter-time, too, for when there is nothing for them to do at home the country fathers believe that it is quite proper to pay some attention to education.

It was a biting cold day in January. The Christmas and New Year's

festivities were over, and the Manitoba winter was settling down to about just what a Manitoba winter can do in the way of weather. The sky was sapphire blue, with fleecy little strings of white clouds, an innocent-looking sky that had noticed how cold it was below. The ground was white and sparkling, as if with silver tinsel, a glimmer of diamonds. Frost-weather would have crusted the trees and turned them into a fairy forest, if there had been trees; but there was not a tree at the Chicken Hill School, so the frost-weather lay like fairy lace on the edges of the straw-covered shed and made fairy frills around the straggling woodpile. Everything was beautiful, blue and silver, sparkle and dance, glitter and glimmer.

Out on the well-tramped schoolyard the boys and girls were playing "shiny," which is an old and honorable game, father or uncle of hockey.

Big Tom Steadman was captain of one side, and his fog-horn voice, as he shouted directions and objurgations to his men and his opponents, was like a discordant note in all that luscious roasting season.

Libby Anne Cavers was on the other side, and Libby Anne was a force to be reckoned with, for she was little and lithe, and determined and quick, with the agility of a small, thin cat. She was ten years old, but looked about seven.

### Never Trouble

There's a saying old and trusty,

And good as any new—

"Never trouble trouble"

"Till trouble troubles you."

Trouble's like a thistle,

That hangs along the way;

It cannot mail to silver,

Some other bitter day.

But, why not walk around it?

That's just what you can do;

Why should you trouble trouble

Before it troubles you?

Trouble is a bumblebee,

It keeps you always vexed

Until you means to sting you

The next time—or the next.

But, bless you, see thinks only

Of breakfast dipped in dew

Keep right ahead—in that play.

Will never trouble you.

O, merry little travellers,

Along life's sunny ways,

When bumblebees and thistles

Affright you at their plays.

Remember the old promise

That your sorrows shall be few,

If you "never trouble trouble"

Till trouble troubles you.

—E. P. Allen.

big Tom had the ball, and was preparing to shoot on the opposing goal. He flourished his stick in the air with a yell of triumph, and in his mind the game was already won. But he had forgotten Libby Anne, who, before his stick reached the ground, had slipped in her own little crook, and his stick struck the empty snow, for Libby Anne was fast flying up the field with the ball, while the players cheered. It was nearly done.

Tom Steadman ran after her in mad pursuit, and overtook her just as she passed the ball to Bud Perkins, who was the captain of her side. Then Tom Steadman, coward that he was, struck her with his heavy stick, struck fair and straight at her poor little thin shins, a coward's blow! Libby Anne doubled up in a poor little whimpering, writhing ball.

A sudden horror fell on the field, and the game stopped. Bud Perkins looked at her poor quivering little face, white as ashes now, his own face

almost as pale, and then, pulling of his coat, ran over to where Tom Steadman stood.

"Drop yer stick, you coward, and stand up to me," he said in a voice that rang with the blood-stuff.

Tom Steadman was older and bigger and was the fiercer, very sure that he could handle Bud, so his manner was full of assurance.

The school closed in around them and watched the fight with the stolid indifference of savages or children, which is a matter of opinion. Big Tom Steadman dealt his cruel, deathly hammer blows on Bud, on his face, head, neck, while Bud, bleeding, but far from beaten, fought like a cornered badger. The boys did not cheer; it was too serious a business for noisy shouting, and besides, the teacher might be aroused any minute, and stop the fight, which would be a great disappointment, for every boy who was big and little, wanted to see Tom Steadman get what was coming to him.

Bud was slighter but quicker, and fought with more skill. Big Tom could hit a knockout blow, but there was only a matter of time before the one way of dealing with an antagonist, and so, when one of his eyes suddenly closed up and his nose began to bleed, he began to realize that he had made a big mistake in hitting Libby Anne when she was there. With a clever underarm he had clinched with him, and he felt heavily.

Libby Anne, limping painfully, put her "shiny" stick into Bud's hand.

"Sock it to him now, Bud," she said, "now you've got him."

Bud dropped the stick and tried to laugh, but his mouth would not work right.

"Go to 'em, Tom," Bud said. "I won't hit you when you're down. Stand up and let me at you again."

Tom swore threateningly, but showed no disposition to get up.

"I guess he's had enough," Bud said. "He's sorry."

Libby Anne. He sees now that it's dirty shame to hit a little girl. He never thought much about it before. Come away, kids, and let him think."

When school was called, the whole story of the fight came in. Tom Steadman was the only son of one of the trustees—the trustee, indeed, the one who lived in the biggest house, was councillor of the municipality, owned a threshing-machine, boarded the teacher, and made political speeches—and so Bud's offense was not a slight one.

A school meeting was called, to see what was to be done. Young Tom was there, with a swollen lip and one and with sunset shades around his eyes. Libby Anne was there, too, but she had been warned by her father, a poor, shiftless fellow, living on a rented farm, that she must not say anything to offend the Steadmans, for Mr. Steadman owned the farm that they were living on.

The trial was decided before it began. The teacher, Mr. Donald, was away attending to the funeral, and his place was being filled by a young fellow who had not enough courage to stand for the right.

The question to be decided was this: Did Tom Steadman strike Libby Anne with intent to hurt her, or did he merely reprimand her gently by "shiny on her own side," or did he run under her stick when she struck at the ball? Tom Steadman said he had under her stick, and he said she whereupon some of the children who were not living on rented farms groaned. Several of the children gave their testimony that he had without doubt struck her purpose!

(Continued Next Week)

The Upward

The Nature of

No. 21

There is no fear in love casteth out fear. He that loveth his brother hath perfect love in him. 1 J. 4.

Did we but understand the consequences that we allow ourselves to incur governed by our fears from them as we would please. Our fears for upon themselves. The certain then the large formidable do they will but let them they they cover our whole hearts.

In this department I stated that the spirit came into our hearts by Satan as the spirit of power, spirit of fear. Just in we permit Satan's power gain entrance in our eyes of spirit of power departs. Fear, fear and power of the same mind at the finger, therefore, being of us must fight it just as we would any other force.



# The Upward Look

## The Nature of Fear

No. 21

There is no fear in love; but perfect love casteth out fear; because fear hath torment. He that feareth is not made perfect in love.—1 St. John 4: 18.

Did we but understand the disastrous consequences that result when we allow ourselves to listen to and be governed by our fears we would flee from them as we would from a pestilence. Our fears feed and grow upon themselves. The longer we entertain them the larger and more formidable do they become. If we will but let them they will grow until they cover our whole horizon.

In this department last week it was stated that the spirit of fear is sent into our hearts by Satan. God gives us the spirit of power; Satan the spirit of fear. Just in proportion as we permit Satan's spirit of fear to gain entrance in our thoughts God's spirit of power departs. Sin and holiness, fear and power cannot occupy the same mind at the same time. If, therefore, being evil in nature, we must fight it just as earnestly as we would any other form of known sin.

There are many forms of fear. There is the fear of poverty, ill health, loss of friends, ridicule, failure, death. In whatever form it manifests itself, if it prevents us from listening to the inner voice which whispers to each one of us, "Trust in God and do the right," counting not the cost, troubling not about the outcome, then it is sin. If we are loving and trusting in God as we should we need have no fears, because perfect love—love to God—casteth out fear. He that feareth is not made perfect in love.

Fear is contagious. If our friends find that we are fearing some expected disaster they begin to fear it too. When a business man allows himself to think of failure in his business his fears soon communicate themselves to those with whom he does business, who, in turn, begin to restrict their credit and to withdraw from him their support. Thus the business man who allows his fears to dominate him attracts the very thing he dreads.

And so it is with everything we do. Our fears that we may not succeed make us incapable of succeeding. If we fear ridicule others are quick to note it and thus are encouraged to say and do things which might never occur to them did we but master our fears and show forth a strong, confident, undaunted spirit. Do we fear failure? We shouldn't. For then we will not be daunted even if it does come and we will be ready to try again and still again, if need be, until success crowns our efforts.

The man or the woman whose trust

in God never has any long abiding fear because the exercise of simple, trusting prayer soon expels it from the heart. Such always have with them a sense of protection, and the very realization of this makes their protection complete.

A man or a woman who has once discovered God's power and willingness to help when he or she lut trusts and serves Him aright, gains a power that makes the accomplishment of what may seem to others wonderful results a comparatively easy matter. Their calm confidence in themselves inspires confidence in others, and thus by virtue of the law that like attracts like (mentioned previously in the case of thoughts of fear) they continually attract to themselves from all quarters the aid of those whose assistance will be of value to them. Because they refuse to allow fear to dominate them they in turn dominate their circumstances and thus are able to move on from small victories at first to larger and more important ones later. In all this there is a great Divine law which has ordained, in the words of Christ, "all things are possible to him that believeth." (St. Mark 9:23.)

Let us recognize this great principle and banish our hampering fears as we would Satan himself. If they persist let us but pray, and trust and work, all three, the harder, for "what things so ever ye desire, when ye pray, believe that ye receive them, and ye shall have them." (St. Mark. 11, 24.) —I. H. N.

## How Ridiculous

The Friend: "Your wife doesn't appear to be in very good humor."  
Husband: "No, she thinks I've invited you to dinner."

Any little girl can do the churning with

# MAXWELL'S

Favorite Churn.

It makes the smoothest, richest, most delicious butter you ever tasted.  
The roller bearings—and hand and foot levers—make churning an easy task, even for a child.

All sizes from 1/2 to 30 gallons.  
Write for catalogue if your dealer does not handle this churn and Maxwell's "Champion" Washer.  
David Maxwell & Sons, St. Mary's, Ont.



93



**Let's make a Jelly Roll—  
With FIVE ROSES flour.**

*Its Strength and Fineness hold your batter together in the long well-greased pan.*

**Bakes evenly.**

**Smooth Texture—soft, golden Crumb, spongy, porous, yielding.**

**No holes, nor lumps to vex you.**

**And when you turn it out on the damp napkin hot and saucy, and you spread the under side with "jell" —**

**It doesn't get soggy nor crumbly.**

**Roll it gently, carefully.**

**Not a crack—not a break.**

**Perfect Smoothness—a Perfect Roll—Yours.**

**Bake anything, make anything.**

**Use FIVE ROSES—bread and pastry.**

**Melting puff paste—flaky pie crust—crinkly fritters—**  
tooth some rolls.

**FIVE ROSES for anything—everything.**

**Be flourwise.**

# Five Roses Flour

Not Bleached  Not Blended

**OUR HOME CLUB**

WHEN NOT TO LEAVE THE FARM  
From a little conversation that I had with a gentleman in town the other night I have decided, that while it may be all right for me, a young man, to go to the town looking for work if the boss can't find a steady job for me, it certainly isn't all right for the farmer who has spent the best

portion of his life on the farm to sell out and go into business in town. Last Saturday night, after having supper, milking eight cows, and fixing up the horses for the night, I rode into town on my wheel to see the sights and more particularly to get a pair of shoes repaired. It was a case of "shoes repaired while son wait," and while I was sitting back in one chair with my feet up on another to avoid the litter on the floor, and looking on the miserable old shop and after all, it occurred to me that he had a pretty poor life indeed, compared with that of even the average farmer in the country.

He was unusually intelligent for a man in his position, and soon we were discussing various questions. Gradually it came out that the cobbler had at one time been a fairly prosperous farmer. Attracted by the easy life and the apparently large profits of some of his friends who were merchants in that same town, he decided to sell out and go into the grocery business.

"I started to go down from that day on," said he with a sigh. "I knew practically nothing about business; I was a poor buyer, and was not in the giving of credit. In less than two years I had to give up my business, and had just enough left to establish a retail liquor business. My! but that was a terrible year! The man at old jobs around town. On the farm, while we did not have many of the luxuries of life, we were always sure of warm clothes and enough to live in living in the fresh air and was a free man. Now I am sitting here on a cobbler's bench, driving nails day after day and not skilled enough at the trade to ever hope to make anything more than the barest livelihood for my wife and myself. I would only too gladly go back to the farm, but my capital all went in my attempts at business in town."  
I have run across two or three other similar cases of men of middle age who had left the farm and lost their all in an attempt to make an easier living in town. Having paid the cobbler the ten cents he charged me (a pretty hard earned ten cents), I started back for home more dejected than ever that the country was a good place for the middle-aged farmer to stay in, and, perhaps, a pretty fair place for the country boy as well who know no particular trade or business conditions on the farm were not just such as he would like to have them. — Another Hired Man."

**The Sewing Room**

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

**GIRLS' SAILOR SUIT, 206**



The sailor suit is one that stays in demand for little girls. This one is finished with blouse that is hemmed at the front edges and which can be made plain or with an applique yoke.

The quantity of material required for the 10 year size is 6 yards or 27, 4 inches wide, or 3 yards 1/2 yard or 27 inches wide for sailor collar and cuffs, 1/2 yard for shield and standing collar. This pattern is cut in sizes for girls from 6 to 12 years of age.

**SEVEN GORED PLAITED SKIRT FOR MISSES AND SMALL WOMEN, 208**



The plaited skirt is always a becoming one to slender figures, consequently, it suits young girls and small women peculiarly well. This one is cut in conformity with the latest style.

For the 16 year size she will be required 7 1/2 yards of material, 27, 4 1/2 inches wide or 4 1/2 inches wide at the lower edge. This pattern is cut in sizes for misses of 14, 16 and 18 years of age.

**ONE-PIECE BLOUSE, 767**



The blouse that is made with a pointed yoke and trimming portions is a new form with an attractive. This one includes a girls that is smart and generally becoming, but which is not obligatory.

For the medium size will be required 2 yards of material, 27 inches wide, 15 inches 36 or 44, with 1 1/2 yards 27 inches wide for the trimming, 1/2 yard of 4 1/2 inch over lace for yoke and under sleeves. This pattern is cut in sizes 36, 38, 40, and 42 inch bust measure.

**LONG COAT, 768**



The long, belted, fitted coat made with a big collar is a fashionable one for many uses. This one will be an appropriate for every material that is used for material coats. The big collar can be cut on a round or square outline.

The quantity of material required for the medium size is 16 yards 27, 6 yards 36 or 5 1/2 yards 44 inches wide, with 1 1/2 yard 27 inches wide for collar and cuffs. This pattern is cut in sizes 34, 36, 38, 40, 42 and 44 inch bust measure.

**OUR FARMER**

Correspondence

PRINCE EDWARD

RING CO.

CARDIAN BRIDGE,

is completed. It was

half a crop. The weather

dry. Grain is rising

for want of rain. P.

mill. Turnips are bar-

ding fairly well, but

specta for apples are fa-

stomely is left for some

afternoon are poor. H.

NOVA SCOTIA

ANTIGONISH CO.,

ANTIGONISH, August

about completed, with

below the average. A.

times very dry, and

grass crops are suffer-

ing from lack of rain.

The milk flow is

as the pastures are pe-

nically 1.90 a cow. B.

Tom Brown.

QUEBEC

RICHMOND CO.,

DANVILLE, August

dry and warm. The

grain crop heavy; con-

dition. The late sowing

by the dry weather. The

of all kinds of fruit. I

apples, 25 per doz.; milk

price, 40¢; pork, 40¢

150 each—M. D. B.

PONTIAC CO.

SHAWVILLE, August

Pontiac Co. have out-

crop we have had for 3

was not winter killed, a

ing owing to abundance

along fine. There h

of pasture, and the dairy

plenty of milk. The s

hay will run about 2

peas, and oats, corn and

root crops are promisi-

ng. Farmers are all look-

ing for a prosperous

year.—J. A. B.

ARGENTEAU CO.

LACHYVILLE, Aug. 8.—F

farmers have as much a

of last year's hay. It

up in their barns. H

swing, but owing to the

we have had most grain

and those that suffered

from the drought are

older. The corn has re-

sults in July will not

be so good as last year's.

weather, and turnips and

will amount to much un-

der. Pastures are pick-

ing. The milk flow has

fallen low, but has

been somewhat feeding t

cows.—A. B.

EASTERN ONT.

LEEDS CO.,

NEWBORN, August 9.—

of this part of the coun-

tingly fortunate in the

WINDMILL

To

live

devel

Grain

Pumps

Tanks

Gas an

Engines

Concr

Write fo

GOULD,

MUIR C

BRANTF

BRANG

WINNIPEG

Pure Refined Paraffine Wax

proof packages. Odorless. 7

any book all about

WAVELEY IR WORKS CO.

Independent Oil

4 CENTS PER

**CAPABLE OLD COUNTRY DOMESTICS**

Arriving Aug. 5th, Aug. 10th, Sept. 3rd, and weekly after. Apply now. The Guild, 71 Drummond Street, Montreal, or 14 Grenville Street, Toronto, Ont.



It is most important to use THE BEST SUGAR for PRESERVING

Make YOUR preserving a certain success by using

The 20 pound bags are convenient—also sold in 100 pound bags and barrels; as well as by the pound.

**St. Lawrence Sugar**

The St. Lawrence Sugar Refining Co. Limited, MONTREAL.

**THE COOK'S CORNER**

Recipes for publication are requested. Inquiries regarding cooking, recipes, etc., gladly answered upon request, by the Household Editor, Farm and Dairy, Toronto, Ont.

**ROGUESS FRUIT CAKE**

One cupful of sugar, two table-spoonfuls of butter, one cupful of chopped raisins and cinnamon, one cupful of sour milk, one teaspoonful of soda, two cupfuls of flour. Bake in a loaf.

**PUMPKIN PIE**

One and one half cupfuls of steamed and strained pumpkin, two thirds of a cupful of brown sugar, one teaspoonful of cinnamon, one half teaspoonful of ginger, one half teaspoonful of salt, two eggs, and one and one half cupfuls of milk, one half cupful of cream. Mix ingredients in order given and bake in one crust.

**CUSTARD OR CREAM CAKE**

Cream together two cupfuls of sugar, half a cupful of butter; add half a cupful of sweet milk, in which half a teaspoonful of soda has been dissolved. Beat the whites of six eggs to a stiff froth and add to the mixture. Have one heaping teaspoonful of cream of tartar sifted thoroughly into three cupfuls of stirred flour and add quickly. Bake in layers in a moderate oven.

**CUSTARD FILLING**

Put two cupfuls of sweet milk into a pan; set it on the range in a kettle of boiling water. When the milk comes to a boil, add two table-spoonfuls of corn-starch or flour sifted into half a cupful of sugar; add the yolks of four eggs and a little cold milk. Stir this into the boiling milk and when cooked thick enough, set aside to cool. Flavor with vanilla or lemon extract. The custard filling should be made before baking cake.

**LADY-FINGERS**

Two eggs, three fourths of a cupful of sugar, one half of a cupful of butter creamed with the sugar, six table-spoonful of sweet milk, two heaping teaspoonful of baking powder. Flavor to taste. Add a pinch of salt. Use enough flour to mix as stiff as you can stir with a spoon. Shape about four inches long and bake in a quick oven. After a few trials you will learn how stiff to make them.

OUR FARMERS' CLUB Correspondence Invited

PRINCE EDWARD ISLAND

KING'S CO., P. E. I. GARDINER BRIDGE, August 7.—Hay-making is completed. It was well sowed, but only half a crop. The weather is very hot and dry...

NOVA SCOTIA

ANTHONY'S HILL, August 7.—Hay-making is about completed, with a crop a little below the average. The weather continues very dry...

QUEBEC

BIGWOOD CO., QUE. DANVILLE, August 7.—The weather is dry and warm. The hay crop is good...

PONTIAC CO., QUE.

SHAWVILLE, August 7.—Farmers of Pontiac Co. have had one of the best hay crops we have had for years. The clover was not winter killed...

ARGENTVILLE CO., QUE.

LACHUTE, Aug. 7.—Farmers have finished haying. In fine crop. Lots of farmers have as much as 30 and 40 tons of last year's hay stacked up in their barns...

EASTERN ONTARIO

LEEDS CO., ONT. NEWBORO, August 9.—A small section of this part of the county has been particularly fortunate in this year's hay...

WINDMILLS Towers diked every five feet apart and double braced

Grain Grinders Pumps Tanks and Gasoline Engines Concrete Mixers Write for Catalogue GOLD, SHAPLEY & NUIR CO., LIMITED BRANTFORD, CANADA

PARAFFINE WAX Pure Refined Paraffine Wax in 150 lb. Pail

WATERLOO WORKS CO. BRIDGEVILLE, PA. INDEPENDENT OIL Refiners 4 CENTS PER LB.

crop. Very little clover was winter killed, and the dampness of April and the heat of May was favorable, and clover was an average crop. Seasonal showers in June helped the timothy, and the majority of farmers report a cut far above last year in quantity. Very few have below an average crop. Some farmers during July burned a few meadows quite badly, and the recent heavy showers have damaged some meadows. The timothy and the whole the hay was easily cured, but not all the farmers unite in saying that the crop here is the best quality produced for five years. A. S. TURNER, 407, FORTY.

DURHAM CO., ONT. BLACKSTOCK, August 8.—Harvest is in full swing. Cutting will be pretty well through by the 10th or 12th. Crops in Cartwright are looking fairly well. A quantity of the oats have failed to fill. There will be a quantity of light grain. Spring wheat is not good. Barley is a very good crop. Peas will probably yield well.—Y.

HALIBURTON CO., ONT. KINMOUNT, August 3.—July was a very catchy month for making hay. Early cut was secured and the weather was very good. Hay will not be cut for a week or two in meadows are under water. Corn, roots, and potatoes promise to be a good crop, also apples. Buckberries are thin. Beef cattle are in good shape. Buyers are paying \$4.10 to \$4.50 a cwt. for early cut. Butcher is 15c a lb., eggs, 16c; new potatoes, 30c a peck; odd, \$1.50 a bag; honey, 15c a lb.—J. S. T.

WESTERN ONTARIO

ERIE VIEW, August 7.—Hay-making is about ended here. Threshing is the order of the day. Grain is turning out better than expected. Oats, wheat and barley promise a very fair crop. Since the last rains pastures have been looking up. Dairy cows are giving a good flow. Since the creamery men control the milk business, beef cattle seem to be more plentiful. Hogs are selling at \$5.50; butter, 35c; eggs, 16c. Some farmers are fighting ranching.—P. B.

OXFORD CO., ONT.

GOLEPPE, August 7.—We are all very busy hauling in grain this week. We will almost finish the harvest if the weather keeps dry. Oats are very light in grain. There are very few in the very light grain, in this section. Fall wheat is good and late peck look fine. Red clover appeared to be all gone, where it was. It is beginning to show fairly well. Corn is good and the root crop promises a large yield. Cows are doing well. Cheese factories are a good opening for the creameries this season.—A. M. McD.

MIDDLESEX CO., ONT.

TEMPO, August 7.—Weather continues dry; a day's rain would be acceptable. Harvest is mostly gathered, and is inclined to be light. Grain will average about 20 to 25 bush an acre. The pasture is brown, but still stock are thriving nicely. Corn looks splendid, and mangle are coming along well. The timothy and clover did much damage to fruit, several soils, and many trees. The farmers are preparing for fall wheat, and quite an acreage will be sown. The threshing season will be short.—J. E. B.

HURON CO., ONT.

BLYTH, August 7.—Weather conditions have had much to do with the quality of the crops in sections where plenty of rain fell the different crops are quite up to the average, whereas in other sections the country have suffered severely for the want of rain; principally the Lake section. The windstorm of a couple of weeks ago did much damage to fruit, several soils, and many trees. The farmers are preparing for fall wheat, and quite an acreage will be sown. The threshing season will be short.—J. E. B.

BRITISH COLUMBIA

NEW WESTMINSTER DIST., B. C. CHILLIWACH, Aug. 3.—The hay crop is good. One man had 138 tons of 45 acres. The grain is doing well. The timothy is in the spring now. There has been too much rain since July 15. The appearance of things now do not think we will have rain for a while yet. Pork is from \$2 to 2 1/2 live weight; sheep, 10c; eggs, 30c to 35c; butter, 25c to 30c; and hay, \$19 a ton.—J. G.

AYRSHIRE NEWS

Farm and Dairy is the recognized exponent of the Dairy interests of Canada. All members of the Canadian Ayrshire Breeders' Association are invited to send testimonials to Ayrshire breeders for publication in this column.

A. S. TURNER & SON'S AYRSHIRES

One of the finest herds of Ayrshire cattle in the world, is that owned by Messrs. A. S. Turner & Son of Ryekman's Corners, Westwong Co., Ont. Included in this herd are two animals that hold world's records for Ayrshires for milk production and three that hold Canadian records. We doubt if there is another herd in the world which contains as many with as large records.

Two points that were noticed particularly by an editor of Farm and Dairy who visited this farm early this season were that Mr. Turner is a liberal feeder and also that he believes in keeping his stock comfortable. There were several inches of bedding under all the animals in the box stalls as well as under the cows. Everything was neat and clean, helped to explain the thrifty, contented appearance of the animals. "Some people," said Mr. Turner, "say that it doesn't pay to feed. I believe that it does not pay to feed. I believe, also, that it pays to bed the stock well. I have seen us use in two box stalls all the straw in a pile reaching from the floor to the hole in the ceiling, when the straw was thrown down. I would not my stock so well if I did not believe that I get it all back in the extra manure."

Mr. Turner has two silos. Last year he raised some 20 acres of corn. The crop was an unusually good one, averaging about 12 feet in height, some of it being 15 feet high. During July and August he feeds silage night and morning to his stock. Some silage is being grown. The acreage is being increased. The Ayrshires proved to be an exceptionally fine lot of animals; they gave every indication of being exceptionally

good producers. Almost without exception they were long, low set animals, showing strong, vigorous constitutions, well developed udders and good teats. Mr. Turner is able to hold his own, he having been a successful exhibitor last fall at the London, Ont., exhibition. He intends to show at the Toronto exhibition this year.

One of the best animals in the herd is a 13-year-old cow, Snow Flake, now entered in the Record of Performance test, she cut 125 lbs. in 1909 and during December produced 1225.40 lbs. of milk, testing 5 per cent. Her production for the month of January was 156.75 lbs. of milk, testing 4.57. For February her record was 162.90 lbs. March 163.50 and for the first four days of April 255 lbs., making her total production for four months 669 lbs.

A WORLD'S RECORD

Another animal which has completed a world's record is Speck of Springbrook, which as a 2-year-old is now a world's champion. This animal has produced 10,353 lbs. of milk and 437 lbs. of butter fat. On the 26th day of the test she was still giving 25 lbs. of milk a day. Another World's Record animal is Canadian Princess, which, as a three year old, she cut 11,377.05 lbs. milk and 419 lbs. of butter fat in 335 days. The Canadian and United States record for butter fat for a two year old record for butter fat of Springbank, a two year old in the herd, which in 1909 produced 396 lbs. of butter fat and 829 lbs. of milk in 238 days. This record was beaten later for milk by Ruby of Springbank, which as a two year old produced 8,568.55 lbs. of milk and 384.77 lbs. of butter fat in 337 days. Briery of Springbank, a three year old, has a record of 10,127.09 lbs. of milk and 376.63 lbs. butter fat for 325 days.

Another good two year old record was made by Sybella of Springbank, viz., 7,388.09 lbs. milk and 322.24 lbs. butter fat in 226 days.

Scotland Princess 2nd, a mature cow, has a record of 10,132 lbs. of milk and 461.02 lbs. of butter fat. The first cow was started by Mr. Turner in the Record of Performance test in February, 1908. This animal also has a record for milk, which produced 9,580 lbs. of milk and 381 lbs. of butter fat. The records made by Mr. Turner are published in the Record of Performance. (Concluded on Page 19.)

Bigger Cream Checks Sure For Years To Come

Just because a separator skims close is not sufficient reason for buying it. Equally important is the question of durability.

An IHC Cream Harvester was put to a year's test at the factory—running steadily for 10 hours every working day. This is equivalent to 20 years of ordinary use, figuring on a basis of half an hour's daily service. Yet in all this time there was no perceptible wear. What better proof of IHC durability can you ask?

IHC Cream Harvesters Dairymaid and Bluebell

have been paying cow owners big dividends for years. Their skimming qualities are unequalled—their ease of turning—ease of cleaning—durability are easily proved by the testimony of owners. Why not investigate? You will find that IHC Cream Harvesters are the only separators with dust-proof gears, which are easily accessible. The frame is entirely protected from wear by phosphor bronze bushings. The IHC has large shafts, bushings, and bearings. The patented dirt-arrester removes the finest particles of dirt from the milk before the milk is separated.

IHC Cream Harvesters are made in four styles—Dairymaid, chain drive, and Bluebell, gear drive—each in four sizes. The IHC dealer will be glad to point out the above features and many others, or write nearest branch house for catalogues.

CANADIAN BRANCHES—International Harvester Company of America at Brandon, Calgary, Edmonton, Hamilton, London, Montreal, North Bayfield, Ottawa, Regina, Saskatoon, St. John, Weyburn, Winnipeg, Yorkton.

International Harvester Company of America (Incorporated) Chicago USA

IHC Service Bureau The Bureau is a clearing house of agricultural information. It aims to learn the best ways of doing things on the farm, and then distribute the information. Your individual experience may help others. Send your problem to the IHC Service Bureau.



There was a fair trade doing in dressed hogs, fresh killed abattoir stock being quoted at \$10.00 to \$10.50 a cwt.

EXPORT BUTTER AND CHEESE. Montreal, Saturday, Aug. 12.—There is no diminution to the activity displayed by the cheese market of late. The demand for export this week has continued strong, and prices at country markets here have also shown strength, and still further advances have been recorded at some points. The prices paid generally this week ranged from 12-14c to 12-15c, the bulk of the cheese offered selling at 12-15c to 12-17 1/2c. The stored cheese at most points commanding a premium over white. The strong market is entirely due to the fact that supplies in all the producing countries is less than the average owing to the dry weather that has prevailed all over the world this summer. The English make is estimated to be almost 10 per cent. less than it was last year, and as our own make is from 10 to 15 per cent. behind what it was up to this time last year, the quantity available for distribution in Great Britain has not so much less than prices naturally advanced owing to the keen competition for supplies.

The shipments this week are a fair average, although the actual figures are not to hand, yet, and the receipts into Montreal are expected to show a decline from last week, and will probably be 15 per cent less than they were during the corresponding week a year ago. The market for butter is strong and active, there being a particularly good demand for export, which is causing a steadily advancing market here. Quotations show considerable strength on the part of the dealers, who were asking 24-12c to 24-4c for finest Township creamery, with ordinary finest Quebec at 24c to 24-1/4c. Underneath were offered in small lines at 23-1/2c to 24-1/4c a lb.

CHEESE MARKET

Madoc, Aug. 9.—555 cheese boarded, 250 boxes sold at 12-3/4c; balance at 12-5-1/2c. Campbellford, Aug. 9.—325 boxes at 12-1/2c; 450 at 12-1/4c; balance at 12-1/2c. Valcartier Hill, Aug. 10.—1,150 white and 200 colored at 12-7-1/2c. Brockville, Aug. 10.—2,635 colored and 1,065 white. The sales were 200 white and 300 colored at 12-7-1/2c and 140 colored at 12-5-1/2c. Ottawa, Aug. 11.—528 boxes boarded and all sold at 13-3/4c for white and 12-7/8c for colored. Napawan, Aug. 11.—560 colored and 800 white were boarded; all sold at 23-1/2c and 17-1/2c. Inouquois, Aug. 11.—653 cheese boarded. All sold at 12-3/4c. Kempenfelt, Aug. 11.—542 boxes boarded. 32 sold for 13c. Pictou, Aug. 11.—1,098 boxes, all colored. 26 sold at 12-1/2c, 343 at 12-7-1/2c; balance unsold. Cowansville, Que., Aug. 12.—711 packages of butter and 56 boxes of cheese; 403 packages of butter sold at 24-3/4c; 258 packages butter at 24-1/4c. Cheese all sold at 12-1/2c. London, Ont., Aug. 12.—1,589 boxes of colored. Hitting: 12c to 12-7/8c; 1,014 sold at 12-7/8c to 12-7-1/2c.

St. Hyacinthe, Que., Aug. 12.—6-1/2 packages of butter sold at 23-1/4c, and 506 boxes of cheese sold at 11-1/4c.

Bellefleur, Aug. 12.—265 white cheese offered. Sales, 455 at 12-7-1/2c and 890 12-3-1/2c.

Montreal, N. Y., Aug. 12.—1900 tubs of butter sold at 24-1/4c; last week for 22c. 2200 boxes of cheese at 12-3-1/2c; last week for 12-3-1/2c.

A. S. TURNER & SON'S AYRSHIRES (Continued from page 17) Turner's herd has all been made since that date, which serves to show how rapidly his herd has grown from the front.



A Sister of a Noted Champion Cow

Proof is ever coming forward to substantiate that axiom, "Blood tells." This cow, Aggie Mercedes, a junior 4-year-old, has established the new record for a cow of her age, 27,005 lbs. butter in 3 days. She is a sister to Netherland Aggie Keok, the cow that in 1909 completed the remarkable record of 21,666 lbs. milk in one year. Both cows owned by J. M. Van Patter & Sons, Elgin Co., Ont.

Farms Competition this year. At a later date in connection with the special series of articles descriptive of the prize farms, we shall publish in Farm and Dairy more about these Ayrshires and this farm.

MEETING OF MENIE AYRSHIRE CLUB The Menie District Ayrshire Club have arranged to hold a meeting at Mr. Wm. Stewart's Ayrshire stock farm, Menie, Ont., on Wednesday, Aug. 23rd. The program will include an address by W. P. Stephen at 10.30 a. m., his subject being "How Best to Improve the Ayrshires of Menie District in Type and Production by Breeding and Feeding So That They Will Be Second to None." At 1.00 p. m. Mr. Stephen will conduct a judging class, using Ayrshires to illustrate desirable types of both males and females of different ages. Mr. Stewart and Mr. Alex. Hume's show herds will be used in the competition.

All interested in Ayrshires in the five counties of Northumberland and Durham, Hastings, Prince Edward and Peterboro, and others as well, are invited to be present. The 6.15 p. m. train from Toronto will be met at Board's Station; returning 3.30 p. m. and 7 p. m. Meals will be furnished at 45 cents. Ayrshire breeders and others are urged to attend this meeting without further invitation or notice. The general public are particularly invited for the afternoon meeting. Messrs. R. S. Duncan of Port Hope, A. D. McIntosh of Sterling, A. P. McVannell of Pictou and E. S. Hopkins of Newwood, the local district representatives of the Ontario Department of Agriculture, in the several counties, will be present to assist with the general program of the day.

ANOTHER RECORD BREAKER Mr. E. McDonald, Guelph Agricultural College supervisor of record of merit tests, has recently completed a seven and thirty-day test for J. M. Van Patter & Sons of Woodland Farm, Ayrshire, Ont. Seven cows were entered in the seven-day test. They averaged 597.99 lbs. milk and 20.586 lbs. butter. Six of these cows were tested for thirty days and produced 12700.38 lbs. milk, and 553.269 lbs. butter; an average of 2116.39 lbs. milk and 183.88 lbs. butter. One cow, Aggie Mercedes, No. 7667, a junior 4-year-old, gave for 7 days 622.45 lbs. milk and 27.022 lbs. butter. In 30 days she gave 2042.00 lbs. milk and 110.867 lbs. butter. Her best day's milk was 99.25 lbs. and best day's butter was 4.721 lb. Her record stands

the highest in Canada for 7 and 30 days for a junior 4-year-old. Three of these cows were mature, three were 4 years old and one was 3 years old.—Ayrmer Express.

PUBLIC TO PARTICIPATE IN CANADA BREAD COMPANY, LTD.

Toronto, Aug. 16.—Following on the successful organization here of Canada Bread Company, Limited, the new big company, which will have its modern plants in all the larger cities of Canada, Messrs. Cawthra Mulock & Co., members Toronto Stock Exchange, announce an offering of \$1,250,000 of the 4 per cent. first mortgage sinking fund thirty-year gold bonds of the company at 98 1/2c, the same to carry with them a bonus of 25 per cent.

tin, the vice-president and general manager, to gradually increase the company's output to two million loaves a week, which would make an annual production of one hundred million loaves.

On the present plants and additional ones that will be erected forthwith Mr. Mark Breslin estimating that the output of the company by the end of its fiscal year should amount to \$250,000, equal to over three and one-half times the interest requirements on the entire bond issue, and with its present capital should steadily expand until its earnings reach over \$500,000 a year, which is equal to over seven times the bond interest. With a view of making the bonds more particularly popular with small investors the company has arranged to issue them in denominations of \$100 as well as of \$500 and \$1,000.

Mr. Geo. Lathwaite, of Goderich, Ont., who has been making arrangements to hold an auction sale of his Jerseys, writes Farm and Dairy that he has recently sold a car load of his Jerseys. His remaining stock will be placed on the market about 15th of September, the date being not yet fixed. He will have 25 pure-bred Jerseys to offer and also 8 horses with colts; 5 sows with litters and 20 other pigs.

There is a report of Black Rust doing serious damage to wheat in the West. It will be too bad to have such a splendid crop injured at this stage.—L. J. N.

It pays to advertise. Try it.

160 ACRES OF LAND FOR THE SETTLER

Large areas of rich agricultural lands, convenient to railways, are now available for settlement in Northern Ontario. The soil is rich and productive and covered with valuable timber. For full information regarding homestead regulations, and special colonization rates to settlers, write The Director of Colonization, Department of Agriculture, TORONTO

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BREEDERS' DIRECTORY. Cards under this head inserted at the rate of \$4.00 a line per year. No card accepted under two lines, nor for less than six months, or 25 insertions during twelve months. SUNNYSIDE HOLSTEINS—Young Stock, all ages—J. M. Montie & Son, Stanstead, Quebec. DR. LEE'S COMPOUND ABSORBENT SPAVIN WIPSTER—Cures. Specially corrected. Write Dr. Lee, Montreal, or Dr. Lee, Toronto, Ont. HAMPSHIRE PIGS—Canadian Champion herd. Best herd handlers. Bown three months and under.—Hastings Bros., Ploverhill, Ont. CIVILIZED—Home of Ann. (Imp.) Holsteins—Home of King Fayne Sigg Holsteins—nearest 7 dams 27 lbs. butter per week, and Broken Welsh Ponia. R. M. Holby, G. T. R. & P.O. Manchester, Ont., Myrtle, C.P.R.

PIGS & CALVES WANTED

Farm and Dairy would like to purchase Yorkshire Boars, Chester White Boars, Ayrshire Heifer Calves, and Holstein Heifer Calves from 6 to 8 weeks old. Write Circulation Manager FARM AND DAIRY Peterboro, - - Ontario giving prices and ages of animals

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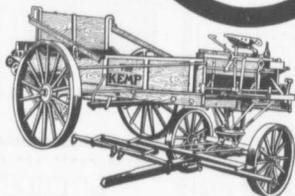
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TORONTO SALT WORKS

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You can only buy one manure spreader with the Reversible, Self-Sharpening, Graded Flat-Tooth Cylinder—and that is the Genuine Kemp.

Because of this Graded Flat-Tooth Cylinder the Genuine Kemp is at least one-third lighter draft than any other spreader.

There is less friction on the Flat-Tooth Cylinder, because the teeth are wide and graded. On that account only one-third as many teeth are required, which reduces the friction when the manure is passing through the cylinder.

The square or round teeth on ordinary cylinders are not wide enough apart and the manure backs up, chokes cylinder, causing heavy draft.

At least one-third lighter draft

# Genuine Kemp

## Manure Spreader

The manure cannot back up against the flat teeth, and because the flat teeth are graded they will handle and thoroughly pulverize all kinds of manure from the clear gum to the strawy material.

There are many other exclusive improvements on the Genuine Kemp. Our big catalog describes and illustrates them fully. Send for a copy and learn some new facts about manure spreaders.

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