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VOL. XXXI.

NUMBER 19

FARM AND DAIRY

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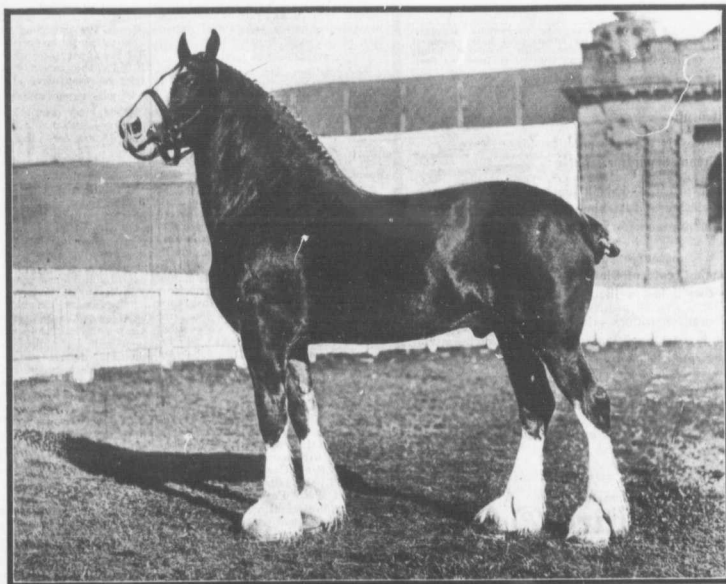
RURAL HOME

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PETERBORO, ONT.

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1912.



DON'T COUNT THE FIRST COST—RATHER LOOK FORWARD TO THE
ULTIMATE RETURNS ON THE STALLION FEES YOU PAY THIS SEASON

DEVOTED TO
BETTER FARMING AND
CANADIAN COUNTRY LIFE

This Large Capacity "Simplex"

**Saves Time
Saves Wear
Saves Work**

**These all spell
MONEY**

to any farmer, and are big points worth considering. There is a growing demand for Cream Separators of larger capacity.

The 600-lb. Simplex Machines are coming to be the favourites.

We Guarantee these larger capacity Simplex Cream Separators to turn practically as easy as a 600-lb. Machine, once the motion, or speed, is gotten up.

The Simplex is the only practical large capacity Hand Cream Separator.

Your wife can turn it, and she'll be glad to have a large capacity Simplex because it'll skim the whole milking so quickly, without undue effort.

SIMPLEX Cream Separators are noted for ease of Running, ease of Cleaning, Simplicity and Durability—they'll last a lifetime.

SIMPLEX Cream Separators skim their catalogue capacity under most adverse conditions; under good conditions they over-run the rated capacity.

Have us prove the superiority of the **SIMPLEX** over all others. We'll do it right on your farm.

Write us for full particulars, and detailed description of the **SIMPLEX**.

D. Derbyshire & Co.

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WE WANT AGENTS IN A FEW UNREPRESENTED DISTRICTS

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June 6**

Our Great Farm Machinery Number will be out June 6th just at the **Heaviest Purchasing Season** of the whole year with our people.

Make sure to-day that your orders cover this issue, which will mean much to our Dairy Farmers, which Farm and Dairy reaches exclusively. Circulation nearly 15,000.



The favorite everywhere it goes. Note its beauty and heavy compact construction. With low-down, handy supply cans only 3 1/2 ft. from the floor.

WHAT THE ONTARIO GOVERNMENT WILL DO FOR AGRICULTURE

A Survey of Agricultural Legislation at the Last Session of the Ontario House Increased Appropriations in almost all Departments. Aid for the O. A. C. The New Stallion Legislation.

ONTARIO Provincial Legislators have again placed themselves on record regarding their attitude towards agriculture. They have voted increased appropriations to carry on the educative, research and demonstrative activities that have been instituted for the benefit of our farmers. It is now some time since they ceased their work. Everyone has had ample opportunity to discuss the merits voted, new bills passed and amendments to already existing Acts. We are now in a better position to form rational conclusions as to the advisability of the increased expenditures than when the House was in session.

Never before have the agricultural appropriations reached the million mark in Ontario. In 1911, the total was \$908,689.00, while in 1912, we have \$1,006,731.55, an increase of practically \$100,000. Nor is this increase caused by any radical move, but a great demand upon capital expenditure, but an analysis of the appropriations shows a substantial expansion of the work of every department.

STALLION LEGISLATION

The Stallion Act is probably the outstanding agricultural legislation of the last session. The use of inferior sires has long been a serious handicap in the improvement of our horses. This Act makes it illegal for any person to stand, travel or offer for use any stallion unless and until the name, description and pedigree of such stallion has been enrolled and a certificate granted. All stallions must be inspected every two years, except those that have reached eight years of age at the time of the first inspection. Certificates must be renewed annually. A Stallion Enrolment Board will be formed consisting of five men, and under their supervision inspectors will be employed—three inspectors forming a committee. The fees are: For enrolment, \$2; for inspection, \$5; for renewal of enrolment, \$1; for transfer certificates, \$1. The Act comes into force August 1st, 1912. Amendments to various Acts have been made. The Fruit Pests Act and the Noxious Weeds Act have been amended—\$1,000 has been voted for the enforcement of the Fruit Pests Act. Special investigations will be conducted with more energy than ever before. Prof. Caesar has been commissioned personally to study the Yellows and Little Peach, and under his direction investigations into the work of other pests will continue. The Act for the protection of sheep has been made more perfect.

MONEY FOR PUBLICITY

The need for publicity as to the great possibilities of the province has been realized, and each county entering a publicity campaign will receive one-third of the monies expended until the total reaches \$1,000. Three thousand dollars has been set aside for this work.

Supplementing the increased Provincial grants comes the Dominion subsidy of \$173,733.32. No definite arrangements have been made as to the spending of this sum, but it is left to a certain extent at the discretion of the Provincial Department. Mr. C. C. James will devote much time to the proper apportionment among the provinces of the total sum voted, and also to the detailed expenditure. This grant will be distributed to the various departments as is required.

MONEY WELL SPENT

Ontario has become better known because of the energy of our district

representatives. At present 21 permanent stations are being maintained, ranging from \$1,900 to \$1,500 a year. Their work is of a most varied character: they give aid and instruction, make arrangements for such to be given in every branch of agriculture. \$36,500 has been granted for expenses only, an increase of \$8,000. The salaries are met by the Education Department.

The work of the various branches of the department is greatly aided by the district representatives. The Farmers' Institutes are all aided, and together with the Farmers' Clubs and Women's Institutes, have received the necessary increases. The agricultural train run by the C. P. was under the supervision of Mr. P. J. Nam, in so far as equipment was concerned. An additional \$1,800 was voted to meet that expense.

Agriculture in New Ontario is a important factor. The grant of \$11,000, an increase of \$8,000, will permit the carrying out of considerable advanced experimental work under the supervision of C. C. Galbraith, B.S.A. the recently appointed district representative at New Liskeard.

FOR IMPROVEMENT OF CROPS

Field crop competitions are most popular—\$2,500 additional for prizes and \$8,000 for judging have been voted. Through the Dominion Seed Division \$100,000 will be expended on competitions for better seed among 170 societies. The result of more spent upon seed work will in the near future be realized far beyond our conception to-day. The Provincial Association, through prolabouring in any direct financial returns, is doing a work which will have its influence upon the workmanship of our farmers—tidier, better tilled farms will result, weeds will be exterminated, tumble down fences will disappear, and the general surroundings will be more inviting. In thousand dollars additional has been appropriated to aid the insurance fund recently formed to protect agricultural societies against stormy weather during their exhibitions.

The increase of \$4,000 given to the Fruit Branch, making a total of \$54,250, will permit of a great deal of aid for the fruit industry. Orchard competitions will be held in the counties of Elgin, Grey, Dufferin, Simcoe, Huron, Ontario, Glengarry, Dundas, Northumberland, and Hastings. The Provincial Apple Show will be enlarged, giving ample space for large exhibits.

As the demand for scientific knowledge increases, so do the demands for the Agricultural College. The present accommodation has been inadequate, not only in laboratories, stables and fields, but the dormitory and dining-room equipment was very unsatisfactory; \$75,000 will be added to the dining-room and kitchen that will accommodate 500 students. The work upon this building is to be commenced immediately. The old-fashioned dairy stable is at last to be replaced by a modern one in which every convenience for college work will be considered—\$15,000 should answer all the demands. The need for larger berths at the college has long been felt, but to maintain them properly more land is needed; 100 acres have been purchased.

EXPENDITURES

Department	Appropriation	Increase
Civil Government	\$ 44,867.00	\$ 1,007.00
Ontario Agricultural	274,566.00	15,592.00
College		

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Only \$1.00
a Year

Vol. XXXI.

FOR WEEK ENDING MAY 9, 1912.

No. 19

HOW TO PROVIDE A FORAGE CROP WHEN MEADOWS FAIL TO CATCH

J. H. Grisdale, B.S.A., Director of Experimental Farms, Ottawa, Ont.

Cases of Bad Catches Discussed. Suggestions Offered as to Mixtures That Can be Seeded to Supplement the Hay Crop of This Year. Late Sown Mixtures the Best

FROM all parts of the country, one year or another, come complaints of meadows being frozen out, or of there being but a poor stand of grass or clover, the winter once over. The causes of this condition are various. Sometimes they are evident, but very frequently one is at a loss to understand why certain fields have lost the whole stand of grass or clover.

The trouble usually lies in the defective catch the preceding spring, due to imperfect preparation, insufficient seeding, too heavy a nurse crop, or the improper covering of the seed once it has been sown. As a rule the meadow depends for its success upon the condition of the soil and the care in sowing at the time of seeding down. Too great attention cannot be paid to the preparation of the soil at this time; a good firm seed bed, with a fine surface mulch in which the grass seed sinks to a reasonable depth, say half an inch or thereabouts, and wherefrom the moisture, although apparently near the top, does not escape freely carried off by every bright sunny day or breezy night.

ADDITIONAL PRECAUTIONS

In addition to the precautions taken at seeding time, care should be taken not to sow too heavy a nurse crop and after harvest to order up a plentiful supply of rain. If this cannot be done, say probably be found to be the case, then rolling the stubble is found to be a useful precaution; anything to break the crust and so conserve the moisture already in the soil from further loss by rapid evaporation on account of the nurse crop having been removed. Where the stand is feeble, due to any of the preceding causes, the treatment outlined will sometimes help it.

If the stand is very light, it would, in many parts of Ontario, be found profitable to scratch in a light seeding of timothy and clover, say three or four pounds of each to the acre, immediately after harvest. A light dressing of straw manure in the fall will help matters very materially by protecting the plants from autumn frosts, by holding the snow on the higher parts of the meadow and by affording protection, in some measure at least, against alternate thawing and freezing, during the late winter and early spring.

In spite of all precautions, however, meadows will here and there be found looking bare in the spring. It is not wise to condemn them until after a nice warm rain and a few days of bright sunshine have come along to give the feeble stand a fair start, and so let it show up to the best advantage. If, in spite of every inducement to grow, nothing worth while comes along, then action is necessary if any satisfactory returns are desired from the field this year and for the next two or three years as well, since any break in the rotation at this juncture is a serious matter. Before taking any action careful consideration

should be given to the requirements of not only this season, but the next, so far as forage crops are concerned. If the field can be treated as best suits the field, and without reference to the forage crop requirements of the farm, then the best plan is to grow some hoed crop on the field and get the soil into good shape for seeding down to grass the succeeding year. If, however, a hay crop of some kind is required of the field



Serving the Noon Day Meal to His Favorites

Mr. W. G. Rennie is here shown amongst some of his chickens hatched last year. Note the size of these birds as they were photographed on June 30, 1911. This York Co., Ont., farmer, has as nice a flock of pure-bred Buff Orpingtons as one would care to see.

—Photo by an editor of Farm and Dairy

this year, then its treatment will have to depend upon the convenience of the owner as to time of working.

EARLY SEEDING CROPS

If it is possible to work the land early, then several alternatives present themselves, by way of crops suitable for hay:

- (a) Oats, four bushels an acre, cut in the milk stage.
- (b) Oats, wheat and barley, equal parts, three bushels an acre, cut in early milk stage.
- (c) Oats and peas, mixed, equal parts by weight, sown three and a half bushels an acre.
- (d) Oats, vetches, two parts oats to one part vetches, sown three bushels an acre.
- (e) Oats, peas and vetches, three parts oats to one part each of peas and vetches, sown three bushels an acre.

LATE SEEDING CROPS

If, however, early seeding is inconvenient or impossible, then later treatment, which by the way is probably the most likely to give good results, may be given, and the field sown down to Hungarian Grass, say 45 or 50 pounds to the acre, during the last days of June; or to one of the millets at a somewhat lighter seeding, sown about the same time. In seeding to either Hungarian grass or millet, very careful and very thorough preparation of the soil is necessary, and the seed should be sown only when the soil is in a nice

moist condition, very fine on the surface and fairly firm in the bottom.

Millets and Hungarian grass must be cut when just coming into head to be of much value. In the case of an early seeding with the oats or other grain mixtures, and also in the case of the late seeding, with the Hungarian Grass or Millet, if these later crops can be cut before the middle of August, it will often be found satisfactory to seed down to grass and clover after the hay crops have been harvested. Providing the field is fairly free from weeds, a good plan is to disk harrow lengthwise and across, sow to grass and clover, harrow, roll and harrow, then with fairly favorable weather conditions, a satisfactory stand can, very frequently, be counted upon for the next year.

CORN SORGHUM, RAPE

As a crop to be handled half-way between the early sown crops as outlined above and the late sown crops, that is millet, Hungarian grass, etc., soiling crops such as corn sorghum and rape might come in. These are especially to be recommended in case a field is not just as clean as it might be. Their use, however, precludes the possibility of the field being seeded down to grass the same year to provide for a hay crop the next year. It is sometimes recommended that grass and clover should be sown with the oats and other grain mixtures to be cut for hay. Such seeding is, however, usually a waste of effort and material.

None of the plans outlined above are absolutely satisfactory, but they are the lines of action that have proven least objectionable in our experience here, which, fortunately, is not very extensive. By carefully observing the requirements of successful grass seeding and the proper handling of the catch or stand after the grain has been removed when necessary, it is only once in a long time that we have had any trouble of this kind.

A Farmer's Opinion.—Perhaps it is because we farmers live in more isolation than our city brethren, and hence have more time to think that we are not so easily reached by false economic doctrines as are the working masses of the city. Our comparative freedom from economic delusions is illustrated by the stand that all of our farmers' organizations have taken on the tariff question. We realize that for a nation such as Canada to try to lift itself into prosperity by the protective tariff is similar to a man trying to lift himself over a six-rail fence by his boot straps — and about as likely to be successful. — E. F. Eaton, Colchester Co., N. S.

I have never attempted to winter sheep without roots. Ensilage affords a substitute, and may be used with good results if fed carefully. Without roots, sheep should have access to water and not be compelled to eat snow. The great advantage of roots is the salutary effect they have on the digestive organs. I should suggest in the absence of roots, the use of a small quantity of ground flax as an aid to digestion and thrift. — J. B. Spencer, B.S.A., Ottawa, Ont.

High Versus Low Grade Fertilizers

John Thomas, York Co., Ont.

Many of the errors that we farmers fall into in the use of commercial fertilizers are due to our poor understanding of just what a good fertilizer should contain. A badly proportioned or low grade fertilizer might not pay. It is regrettable that in spite of the fact that all fertilizer is honestly stamped, there is altogether too much low grade fertilizer used in Canada. This is due altogether to our ignorance of the meaning of the analysis which is stamped on the outside of the bag.

To illustrate: A dealer in eastern Canada is selling a 2-4-5 fertilizer for fruit. Every farmer who knows anything about the chemical composition of the ingredients used in making fertilizers knows that if such fertilizer is made out of high grade material that it will require just one-half its weight of sand to make it. How does he know this? Because high grade fertilizers as they are usually mixed will supply from 18 to 22 per cent of plant food. A 2-4-5 goods has just 11 per cent of plant food. It is not hard to see that if the plant food is cut in two either lower grade material is used or there is an equal quantity of sand added. It makes little difference to us farmers which is done. We will get poor results in either case.

BUY THE BEST

No farmer should buy a fertilizer containing less than 18 per cent of plant food. Some of the well-known, high grade brands extensively used in the United States are of the 2-8-10, 30 per cent plant food variety. The high grade truck fertilizers of the Southern States contain 7-7-7, 21 per cent plant food. The most popular potato fertilizer contains 4-7-11, 21 per cent plant food and a fairly high grade mineral mixture a 10-8 goods, 18 per cent plant food.

Compare these with some common grades on the market—a 2-4-5 fertilizer with 11 per cent plant food or a 1-7-1 with nine per cent plant food or a 6-3 with nine per cent plant food. Surely it does not take much education to say which of these goods have filler in them. Perhaps the fertilizer used by one or two Farm and Dairy correspondents contained so little plant food that it would require a microscope to see the gain which might be expected from its use.

BE CAUTIOUS IN USING HIGH GOODS

The improper use of a high grade fertilizer will sometimes injure the germ of the seed if used in too large quantities or if not mixed thoroughly with the soil. For this reason farmers sometimes prefer goods containing more or less sand as they find that they are safer to use. The idea never seems to strike them that it would be cheaper to mix the sand with the fertilizer themselves if thought necessary rather than have it shipped into the fertilizer factory, and then probably several hundred miles to where it is to be used, without saying anything about the extra teaming.

I remember one experiment that a farmer conducted for me when I was conducting cooperative fertilizer experiments that illustrates the point. Although I told him to be careful as he was using high grade chemicals he would not pay any attention to me, with the result that he burnt up all his tomatoes, and less than one-half of his potatoes came through the ground. At another time I was selling fertilizers in Indiana and did not have as good a brand of fertilizer listed as my competitor. Two neighbors were going to use the fertilizers as a test which would give the best result, and I had very little hope of winning. One never can tell, however, but that Providence in the shape of a hailstorm or something else may help one out, so I went into the test and decided to make the best of it.

In order to decide the matter definitely, both men used a heavy application. My competitors'

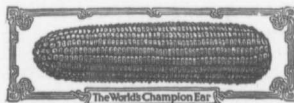
goods being stronger burnt the germ of the corn so badly that only a fair crop was produced, while my fertilizer not being so strong, did not injure the seed at all. As there was a liberal application my man had a record crop. The result that though the other fertilizer was worth from four to six dollars more than mine, the next year hardly a ton of it could be sold, while carloads of my fertilizer are sold. A large quantity of high grade fertilizer, unless it is thoroughly mixed with the soil, may injure the crop by burning the germ of the seed or injuring the tender roots.

In one of his experiments a Farm and Dairy correspondent states that he used a dressing of stable manure, but does not state how much nor what analysis of fertilizer was used. Practical men find that when using a highly nitrogenous fertilizer like farm manure, that it is a good policy to cut out the expensive nitrogen in the fertilizer and to apply only the mineral ingredients that are much cheaper, such as a mixture of acid phosphate and potash.

Notes on Planting the Corn Crop

Geo. Fitzer, with Commission of Conservation, Ottawa

Best results are obtained when corn is planted in hills, the distance apart to be gauged by the amount of work put on the crop and the quality



The ear of corn here illustrated is as nearly a perfect ear as has ever been shown at a seed fair. This ear is a world buster. It shows the type one should work for.

of the soil. The hills may be from 36 to 42 inches apart each way, and from four to five grains to the hill.

In the eastern part of Ontario the majority of farmers sow with the ordinary grain seed drill. The distance of the rows apart can be regulated by blocking the feed-runs to suit. Care must be taken to have the rows at equal distances for convenience in cultivating. Don't fail to sow plenty of seed and to thin it out when the plants are about eight to 12 inches high, leaving a good strong plant, every eight to 12 inches in the row.

VARIETIES TO SOW

Each farmer will have to be governed according to soil and climate in choosing the variety to sow. With corn, as with other grains, the farmer should experiment. In Western and Southern Ontario a later and larger variety can be grown than can be in the Eastern and Northern parts of the Province. It is useless to grow a variety for silage that will not come to the glazing stage by the 30th to the 30th of September.

The first varieties are earlier than the dents. For Northern Ontario, where corn is grown for the grain crop and the stalks for feeding, I would suggest Quebec Yellow; when grown for ensilage I would say Longfellow or Compton's Early. All these are flint sorts. In Eastern Ontario the above named varieties with the exception of Compton's Early, will give excellent results when grown for grain. When corn is grown for ensilage Leaming will come to the glazing stage in most seasons. Later varieties, such as Mastodon and Red Cob, have been tried, but cannot be depended on for making the best quality of silage.

Our Special Articles

The 19th of our special series of articles will appear in Farm and Dairy next week.

Inter-Provincial Prize Farms Competition

Arrangements for the provincial prize farms competition that will be held this summer are the leading prize winning farmers in last year's contest in Ontario, and also for the interprovincial prize dairy farms competition that will be held this year between Ontario and Quebec, were completed last week at a meeting of the prize farms committee held in Toronto. The members of the committee present were Messrs. G. A. Gillespie, of Peterboro, Simpson Remm and W. G. Ellis, of Toronto, and H. B. Cowan, of Farm and Dairy.

For the provincial competition in Ontario this year, it was decided to allow the first three prize winners in each of the three districts of Ontario in which a contest was held last year, to take part. These include Messrs. W. F. Bell and T. G. Graham, of Britannia Bay, and J. E. Calder of City View, all in Carleton Co., representing District No. 2; R. E. Gunn, of Beaverton, and S. A. Northcott, of Taunton, Ontario Co., and Chris. Howson, of Keene, Peterboro Co., representing District No. 3; and W. A. Patterson, of Agincourt, and J. C. Bales of Lansing, York Co., and Isaac Holland of Brownsville, Oxford Co., compete. Messrs. J. W. Richardson, of Chatham, Haldimand Co., E. Terrill, of Wooler, Northumberland Co., and O. D. Bales, of Lansing, and D. Duncan, of the Don, York Co., will also be allowed to compete. These last five farmers won the second, third, fourth, and fifth prizes in the provincial contest held in 1910. The committee decided that they should be given as other opportunity to compete for the provincial championship should they so desire. Should a compete there will be thirteen competitors, and five prizes will be offered. Should less than eight enter, three prizes will be awarded.

INTERPROVINCIAL HONORS

It was realized that great interest will be taken in the inter-provincial contest this year between Ontario and Quebec. For this reason it was decided to make the contest as open as possible. From Quebec the competitors who will be allowed to compete are the first three prize winners in the contest held by Farm and Dairy in the province of Quebec last year, Messrs. R. R. Nesbitt of Hawick; Alex. Youniss, of Tullochgoran, and J. W. Logan, of Howick Station. In addition there will be allowed to compete any farmer in the province of Quebec, who has won a gold medal in the prize farms competitions held by the Quebec Provincial Government; providing only that they comply with the rules of the competition held last year by Farm and Dairy, which stipulated that they must be dairy farmers, that they must be milking a certain number of dairy cows and that they must be practical farmers. By opening the competition in this way, it was felt that the province of Quebec would be enabled to enter its very best farms.

From Ontario those who will be allowed to compete will be all who take part in this year's provincial contest, and also Mr. R. A. Penhale, of St. Thomas, who won the provincial dairy farms competition in 1910. Both provinces have some magnificent farms and the competition in their provincial contest promises to be very keen. The judges will be appointed, one for Ontario and one for Quebec. They will judge the farms during the first week in June. In the event of their being unable to reach a decision between two certain farms, they will be permitted to call in a third judge. The rules of the contest will be the same as governed last year's competition.

Rank growth of alfalfa in the spring may be checked and the seed crop prospects enhanced by pasturing or clipping the clovers not later than the 5th of June.—T. G. Reynor, Selkirk, Branch, Ottawa.

Salesman

One Saturday forenoon I was out for a walk on the University of Toronto campus. I was interested in a few of the buildings. I saw a large building with a sign that read "Salesman". I thought I should go in and see what was there.

Here they were not going to sell anything. I looked at the shapes and sizes of the things. I thought I should go in and see what was there.

About the



The disk placed; the disk with the soil row is by the square I

the rest. I eyed farms were piled in a paper sacks

Soth and arranged absolutely from home little lady in color. On card saying were some three dozen name written

She had They were to size or price than more.

This girl! go home with the d back and

Salesmanship that Brings more Sales

By Edward Dreier

One Saturday, some time ago, I was at Brantford. Of course I went to the market. Being from the United States, it was something new to me, and certainly was most enjoyable. Being interested always in the marketing of farm produce, I carefully inspected every stall and watched the selling methods of a great many people. And when it was all over and I was on the train I thought the thing over. I came to the conclusion that the farmers of Canada—many of them—were missing a great opportunity to make money.

Here they were in touch with the consumer and were not giving as good service, in many cases, as was the middleman. For instance I came to a stall where a lady was selling eggs and vegetables. I looked at the eggs and they were all sizes, shapes and colors. Many of them were dirty. Much of her garden truck was in the same condition. I then inspected other stalls and found them much the same on their particular line of goods.

About three-quarters of the way around the

had, so that I might talk with her. I found out that she studied the magazines and read papers. I asked her what part of the magazines she read first and she said, "I always read the advertisements first, for I get new ideas of things that are going on. Then I read the women section and after that the stories." Then I asked her if she got her ideas from the advertising pages and she said that some of them she worked out herself, "because I figured that if these big companies could get inquiries through the magazines and sell their goods, we might be able to sell to a regular line of customers if we brought our name before people and gave them good service."

A WOMANLY WOMAN

And I talked with that girl for over an hour—an hour that was filled with a big education for both of us. She was frank and a womanly woman. She told me of her home and how much she got out of it. She also told me what she wanted to do. She didn't want to go to the city to work—strange, isn't it? She didn't care to wear silks and satins and ride in fine carriages and be up in society. She wanted to learn how to do things worth while. She wanted to get out

She was amiable and those who came to buy one thing usually carried away more than they went after. When there were many packages to go she provided the customer with market baskets and asked them if they would kindly return them the next Saturday. Her gentle courtesy brought back every one. She told me that in the entire year she had lost but two baskets, and one man stopped one day and handed her a quarter because his little boy had broken the one he had taken home. As the cost of the basket was very slight she found out this man's address and sent a basket of supplies to the house. That man to-day is one of her best customers.

What a wonderful thing Canada's markets would be to-day if every farmer would try to give such service as this one girl. It is a great object-lesson to the thousands who are dealing direct with the consumer. I know that every consumer—or at least 98 per cent of them—would be willing to pay a little extra if they knew that what they were getting could be used without any waste. They would be foolish not to pay the cent or so higher, for they would lose more than that if the materials were the same as they would ordinarily get—dirty, odd-sized eggs, cabbages with the green leaves on, etc.

So the next time you go to market suppose you have your eggs sorted as this girl had—suppose you fix your stall neater than the rest and then give to your customers real service, so that the following week they will single you out from the rest of the market and buy your produce. Try it and advertise the fact.

Why Not More Potatoes?

A. C. Schun, Waterloo Co., Ont.

Potatoes are \$1.50 a bag. Two hundred bushels would therefore yield an income of \$200. From my experience I estimate that it does not cost more than \$35 to grow an acre of potatoes. Excepting the cost of harvesting those 200 bushels of potatoes, there is left to us a profit of \$165. This looks good to me and I believe it would to most farmers. And still we are importing potatoes. Irish potatoes now control the market, and Ontario potatoes can scarcely be had at any price.

It may be objected that prices for potatoes are abnormal this year, and that profits such as I mention are impossible in 19 years out of 20. Well, let us suppose that potatoes were down to one dollar a bag, and we would still have a profit of almost \$100 an acre. At 50 cents we can calculate on a profit of over \$80, and that is a whole lot better than most farm crops.

I am not talking theory. I have grown lots of potatoes, and found them the most profitable crop on the farm. I am not advising Ontario farmers to over-do the potato proposition, but I believe that all of us would find it profitable to put in from three to five acres of potatoes each year and give them the best kind of attention.

In some experiments made at Cornell University, to test the comparative yield from the stem and seed end of potatoes, it was found that, as an average of 22 varieties for two years, the seed end gave a yield of 180 bushels per acre, while the corresponding yield from the stem end was 151 bushels per acre. It would seem from this, that it would be good farming to feed the stem ends to the hogs, and plant only the seed ends.



Preparation of a Good Seed Bed is Easy When One Has the Right Implements

The disk harrow is only one of many implements designed for making soil cultivation easy. All are good in their place; the disk harrow has a place on almost every farm. For working tough sods into shape, for incorporating manure with the soil and for bringing corn land into condition for a crop of grain most cheaply and economically, the disk harrow is by many considered indispensable.

—Cut courtesy I. H. G. Service Bureau.

square I came to a stall that was different from the rest. It was presided over by a neat, bright-eyed farmer girl. On the table in front of her were vegetables neatly cleaned of all soil. Cabbages were cleaned of all green leaves and neatly piled in a basket. In front of the basket were paper sacks to put the cabbages in as they were sold. Other vegetables were fixed in neat bunches and arranged neatly on the table. Though I had absolutely no use for them, being about 400 miles from home, I almost bought some eggs. This little lady had her eggs separated as to size and color. On a card in front of each basket was a card saying when the eggs were laid. Then there were some pasteboard boxes to hold one, two or three dozen eggs. These boxes had her father's name written on the cover and also the address.

She had some apples too—and I bought some. They were carefully wiped and arranged according to size. The big ones brought a slightly higher price than the small ones and they were worth more.

This girl had all her produce sold and was ready to go home before the others were half through with the day's business. Before she left I went back and bought the few remaining apples she

—and have her people get out of the rut that the usual farmer all over the world falls into. She wanted to be able to produce for a line of good customers a line of farm produce better than the average and delivered in packages which would attract attention. I was so interested in her plans that I forgot to ask her name. I should like to know how she makes out. I believe that she will carry out her dreams and as she succeeds I am sure that others at that Brantford market will take heed and do likewise.

AHEAD OF THE MIDDLEMAN

This girl was giving better service than the middleman. She tried in every way to please. She not only sorted her eggs, but she told the purchaser just when they were laid. She did not charge her customers for parts of the cabbage they couldn't eat. She weighed the part that was valuable. She gave the customer his value when she sold him some apples. Her onions were sorted and sized in neat bunches, her lettuce was clean and crisp. It was so good that she got rid of it in short order. Then her method of selling showed careful study. She sold the things which would sell early in the morning before the sun had a chance to get to her.

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We have spent years in the manu-
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rically by using low prices. Don't be
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HORTICULTURE

Apples Profitable in N.B.

A. M. Bennett, Sunbury Co., N. B.
We are leading down here in New
Brunswick that apples are one of the
most profitable crops that we can
grow on our farms. The re-awakened
interest in horticulture is due
largely to the work of our provincial
horticulturist, Mr. C. Turney. His
demonstration orchards are opening
the eyes of our farmers to the possi-
bilities of our province in horticultur-
ing.

Especially good results were ob-
tained from the demonstration orchard
in this county. This orchard, con-
taining 500 bearing trees of Wealthy
and Duchess varieties, was previous-
ly in the neglected class. The total
expenditures on the orchard amount-
ed to \$191.35, and the revenue to
\$237.50. This means a net profit from
one and two-thirds acres of \$34
or \$55.89 an acre, which represents 14
per cent. on a valuation of \$400. In
York Co., N. B., the owner put a valua-
tion on his orchard of \$150 an acre,
and the Department by up-to-date
methods returned him on this valua-
tion profits of 59 per cent. Similar
returns were obtained in demonstra-
tion orchards all over the province. In
the case the profits amounted to 50
per cent. on a \$500 valuation. Is it
any wonder that we are taking more
interest in horticulture?

Points on Potato Fertilizing *

Green clover land is the best that
can be used for potato planting, but,
of course, clover land is suitable only
to the planting of late potatoes, un-
less plowed in the fall, turning under
the second growth, for spring plant-
ing.

The addition of barnyard manure or
commercial fertilizer will enrich any
soil. Even a clover field will be bene-
fitted by an application of barn-yard
manure, applied in the proportion of
eight or 10 loads to the acre.

Closely cropped land or land that
has been intensely farmed will require
a more liberal dressing of manure as
well as commercial fertilizers.

Where manure is the only fertilizer
used, it should be applied in large
quantities, 15 or 20 loads to the acre.

Commercial fertilizers are highly
recommended for potato growing. In
the Eastern States, where they have
been used quite extensively, they have
proven very beneficial.

Potash fertilizers are generally
beneficial for potatoes. But it is most
important to remember to buy only
the sulphate form, which should be
spread before plowing, not drilled in
afterwards.

One of the chief advantages of com-
mercial fertilizers is that they can be
prepared according to the require-
ments of land and crop.

Experience has proven that a com-
mercial fertilizer prepared according
to the requirements of the land on
which it is to be used will give bet-
ter results than a fertilizer bought
ready prepared.

For applying manure the use of a
spreader is strongly advised. In the
first place a spreader is a big saver of
time and labor. Then, too, it re-
lieves the drudgery of this disagree-
able part of farm work. And it
spreads the manure in a layer of uni-
form depth.

It cannot be too strongly impre-
ssed

*These notes are from "Money in Potatoes," an attractive little booklet issued by the Canadian Potato Machinery Co., Galt, Ont. This company will send a copy of this booklet to all our readers who apply for it, mentioning Farm and Dairy in their application.

that manure must always be plowed
under. Manure merely spread on top
of the land is wasted. And the same
applies to commercial fertilizers.

The best results are secured by the
use of both manure and commercial
fertilizer.

Asparagus the First Season

The very best asparagus plants are
strong one-year-olds. About the only
advantage in using older plants is to
wait until they bloom so as to distin-
guish it from the females and
select males which are the strong-
est and best producers.

After being thoroughly worked up
the ground should be laid off in fur-
rows six to eight inches deep and from



Handy Potato Cutting Device

The device here illustrated always
brings the seed potatoes close to the hand
of the operator. The blades are attached
solidly to the frame, and the operator
uses both hands in cutting the seed.

four to six feet apart. The best time
for planting is early in the spring.
The plants are set about two feet
apart in the furrows and where they
are placed in the ground is often
moulded slightly. The roots are
spread out carefully and the earth is
filled to two or three inches over the
plants or "crows." As growth pre-
ceeds the ground is cultivated in until
the furrows are finally filled. Thorough
cultivation should be continued
during the entire season and in late
fall the tops should be cut off and
removed from the field and be burned
to destroy disease germs and insects.

No one has yet been held down who
is bound to succeed.

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Farm is costing now or what you are
losing in crops through not clearing

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MONTREAL, P.Q.

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POULTRY YARD

Some Poultry House Fixtures

E. C. Calback, Cumberland Co., N.S.
We have been using a type of open front poultry house for some years that we find very convenient. We are sending diagrams to Farm and Dairy showing how this house is constructed. They may be of some benefit to other Farm and Dairy readers who may be thinking of erecting a poultry house this coming summer.
Figure No. 1 will give an idea of



Fig. 1.

the construction of the roosts, dropping board and nests, which are located at the back of the house. At first is a barlup curtain, which can be raised up and hooked to the top of the house during the day time, was not used, but we have found that with our cold nights here, the temperature sometimes dropping to 30 degrees below zero, some protection was necessary in an open house such as ours is. Of course during warm nights, the

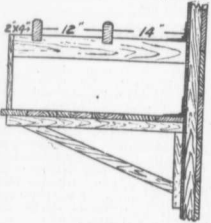


Fig. 2.

curtain is not dropped but on cold nights the birds are quite comfortable in their roosts protected by the curtain. The house has an A shaped roof, the eaves at the front being three feet from the ground.
As will be noted by figure No. 2 the perches can be lifted out of the grooves made for them and the whole thing swung back against the wall. This gives an opportunity to get in around the nest boxes easily when cleaning them.

Cooperation Looks Easy

Mrs. J. P. Whiteside, York Co., Ont.
Here are the cooperative egg circles going in Peterboro and Ontario counties. We are very much interested in the success of these cooperative trials of which we have read in Farm and Dairy. It is a simple thing to gather eggs from the nests, take them to the grocery store and trade them for supplies for the family. Anybody can do that, and we all know that the price we get is the lowest that is being paid. We in Canada should have some system of marketing our eggs which will bring us more of the consumer's dollar, even if it does require a little more intelligent cooperation between neighbors.
Cooperation seems to be the spirit of the age. I have been reading with interest in farm papers and city maga-

zines, and even in the city newspapers, of the cooperative enterprises that are meeting with success elsewhere. Why cannot Canadian farmers cooperate? It looks simple to me for a bunch of neighbors to get together, agree to collect their eggs twice a day, market them twice a week, ship direct to the dealer in the city, and hence get the highest price for the quality product. The mere would make it worth while even did we not get one cent of premium. We would like to see this cooperative movement, experimented with more widely in Canada.

Poultry Pointers

When buying stock eggs, for hatching, or anything connected with the poultry business, it always pays to get the best.
The early hatched chicken is the most profitable whether it is sold for the table or kept for laying next winter.
During warm weather there are many bad eggs placed on the market. These bad eggs may be dirty, broken, incubated, shrunken or held, rotten, or moldy and bad flavored. These bad eggs are largely the result of condi-

tions that could be improved by careful management.
Ducks and geese should have plenty of bedding; leaves and clean straw make good material for the purpose.
Some of the causes of dirty eggs are insanitary conditions about the poultry house; lack of litter in the house; an insufficient number of nests; small nests; poor nesting material; allowing hens to roost on nests; and not gathering eggs often enough.

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FOR SALE—Iron pipe, Pulleys, Belting, Rails, Chain Wire Fencing, Iron Posts, etc. All sizes, very cheap. Send for list, stating what you want. The Imperial Waste and Metal Co., Dept. F. D., Queen Street, Montreal.

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R.C.W. Leghorn Eggs, Ontario Agricultural College bred-to-day strain. Per 15, \$1.00; 50 or more, \$5.00 per 100.
ORASCA PRODUCE FARM, Ashburn, Ont.
CHOICE SINGLE COMB BROWN LECHORN EGGS
Famous Boeker and Gurney Strains, \$1.50 per 15.
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This is not a mere claim. It is the actual experience of all owners of Sharples Mechanical Milkers. We don't ask you to take our word, nor their word, for this. We stand ready to prove it on your own cows or no sale. Mr. Henry Fielden, Supt. Branford Farms, Grotton, Conn., where some of the highest priced Guernsey cows in the world are milked with a Sharples Milker, writes:

"Two men with the Sharples Milker milk 60 cows in from fifty-seven minutes to an hour and a quarter. The cows take to the machine readily and seem much more contented than when being milked by hand. It is one of the most profitable investments we have ever made on this farm."

THE SHARPLES MECHANICAL MILKER
has the "Teat Cup with the Upward Squeeze," which pushes the blood back with each pulsation, overcoming the stumbling block of all former mechanical milkers. It leaves the teats in a perfectly normal condition, the same as after hand milking. The cow is treated so gently she enjoys it, and fears no injury, no abuse. She stands perfectly contented giving down her milk more readily and more freely than when milked by hand. The yield is increased—your dairy profits grow. Read this letter from Hon. Wm. C. Sproul, Chester, Pa.

"The Sharples Mechanical Milker seems to be entirely comfortable to the cows; in fact, our cows are in much better condition now than they were when the milker was started, and the quantity of the milk has increased about ten per cent. Altogether, I consider it about the most satisfactory investment about my dairy."

Fill Out the Coupon—Send for Catalog Today
Let us tell you how we will put a Sharples Milker in your dairy and guarantee it to give you perfect satisfaction or no sale. We prove it does the work to your satisfaction. We give you ample time for trial. Send the coupon now for catalog. Guaranteed by a company that has been making high-class dairy machinery for 31 years.

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The Sharples Mechanical Milker has few parts, is easily cleaned, and produces milk of the lowest bacterial content. It milks the cow cleaner than the average hand milker.



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Milking Machine a Success

If "the proof of the pudding is in the eating," the milking machine stands approved as an indispensable part of the equipment of the modern dairy. The following are a few conclusions reached by J. B. Carney, of Morristown, Indiana, after using two machines for a year on 40 to 45 cows, as reported in the "Indiana Farmer":

"Labor of milking was reduced about one-third.

"Time of milking was reduced about one-half.

"A more sanitary milk produced, contained no dirt, bad tastes, or odors.

"All of the drudgery of hand milking removed.

"The labor problem solved, as it is much easier to get help if you use the machines.

"A larger number of cows can be kept with the same amount of labor.

"Do not have to sell some of your best cows because of short teats hard to milk or mean to kick.

"By comparing records the cows do equally as well as by hand milking.

"Can see no effects physically upon cows.

"The cows like the machines and stand better while being milked.

"During the hot weather we were comfortable while milking, as we were not stuck down under and between the cows where we could get no refreshing breeze.

"With the proper precaution and care the machines work well during the extreme cold weather. It is not necessary to commence milking as early in the morning or evening as still get through as early or earlier than we used to.

"In a pinch one man can milk 50 or 60 cows by himself; therefore not so dependent upon the hired man.

"The owner, if he operates the machines himself, will become a better dairymen, will care for and feed his herd better, will improve it by breeding out the unprofitable ones and breeding up from the good ones, because, if he is to succeed with the machines, he must give his attention and make a close study of each animal, and will therefore learn which are unprofitable and why."

Width of Potato Drills

E. P. Eaton, Colchester Co., N.S.

In reading Ontario farm publications I have been astounded to see writers claiming to be successful potato growers advising that the drills be at least three feet apart. Why is it necessary to waste so much space on a row of potatoes?

On looking up the chemical analysis of potatoes I find that a crop of 200 bushels would remove from the soil 28.4 pounds of nitrogen, 13.44 pounds of phosphoric acid, and 52.3 pounds of potash. A corn crop on the other hand, which I understand you plant three or three and a half feet apart, would remove from the soil 123 pounds of nitrogen, 45 pounds of phosphoric acid, and 99 pounds of potash with a crop of 15 tons an acre.

The potato crop removes from the soil only about one-third as much plant food as does the corn. Therefore, a row of potatoes does not require as great an area to draw on for plant food as does a row of corn. Down here in Nova Scotia we think we have potato drills far enough apart if there is a clear space of two feet and the size of the crops that we get would indicate that our method is the right one.

Alfalfa as a Weeder

W. O. Morse, Halton Co., Ont.

Alfalfa is a most effective and economic weeder. One of my fields was thoroughly well-seeded with ryegrass. I have cleaned this out by means of the alfalfa. The first crop of alfalfa is always cut before the dry seed matures. Never having an opportunity to seed the daisy soon becomes extinct. This applies to all other weeds as well. I do not know of a single species of weed that matures its seeds before we cut our alfalfa the first time.

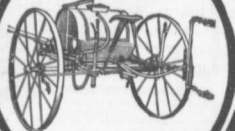
This doesn't apply, however, to the alfalfa the first year. We should put the alfalfa in possession the first year by thoroughly cultivating the land up to July at least. Once let alfalfa get a good start and it will look after the weeds in future years.

Items of Interest

Mr. J. R. Terry, formerly assistant, poultryman at the O.A.C., Guelph, Ontario, and since January 1st, 1911, Provincial Instructor for Ontario and British Columbia, has been appointed Chief Poultry Instructor for that Province. The vacancy caused by Mr. Terry's promotion has been filled by H. E. Upton, who for the past two and a half years has been poultry instructor under Prof. W. A. Brown, at the University of Maine, Orono, Me. Mr. Upton is an ex-student of the O.A.C., Guelph, Ontario, Canada.

A Warning.—Dr. C. Gordon Hewitt desires to warn readers of Farm and Dairy that tent caterpillars will probably be very numerous in Canada this year. All who do not wish to see their trees defoliated should make an effort to destroy the webs in which the caterpillars live by means of burning or cutting away the branches. The best time for destroying the webs is early in the morning or late in the afternoon.

CANADIAN FOUR ROW SPRAYER



sprays any width of row.

O.K.

is a money-maker and a crop-saver

You know how the ordinary sprayer works—"it doesn't work at all". It's always getting clogged or the pump stops and you have to go over the rows again.

Now, with the "O. K. CANADIAN", you waste no time and skip no plants. The Pump is reliable. It works right along—and the Relief Valve regulates the pressure as you want it.

The Agitator (for keeping spray thoroughly mixed) is run by a crank attached to the shaft and is a positive mixer. Arsenate of Lead and other heavy

substances won't settle in the barrel while this sprayer is in motion.

Then, there's the convenience of the "O. K." SPRAYER. The nozzles are fastened to the discharge pipes and may be arranged to any width of row—and also turned backwards, forwards or sideways. You sit in an easy position to reach the shut-off valve, which shuts off the pressure and retains it in the pump until ready to start the next row.

The whole sprayer is built for service and will give years of satisfaction.

Write for name of dealer in your neighborhood who carries the "O. K. CANADIAN" line of Potato Machinery.

Have you read our book "Money In Potatoes"? It tells you how to make your own sprays—how to use them—and how to plant, spray and dig potatoes. Write for a free copy—and Catalogue P.

CANADIAN POTATO MACHINERY Co. LIMITED, - - GALT, Ont.

A Talk

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A Talk on Demonstration Farms

The Agricultural Branch of the Dominion Commission of Conservation, of which Dr. Jas. W. Robertson is the chief, are rapidly putting into operation their plan for a series of demonstration farms throughout Canada. Mr. John Fixter, who recently resigned his position as farm foreman at Macdonald College to take charge of this branch of the Commission's work, called in at Farm and Dairy's office recently and gave the editors an outline of their plans.

"We want one man in each district to run his farm according to our recommendations," said Mr. Fixter. "We want the people of the sec-

agement. The average man will look at them all and say, 'Oh, yes, all very fine, but we haven't got the money.' On the Conservation Commission contend that each farmer on his own farm can grow as good crops as they do either at Guelph or Ottawa if he followed the same system of cultivation and management."

Speaking more explicitly of the work they will do, Mr. Fixter said: "We are going to improve seed grain. In the first place we will show our demonstration farms, how to clean grain thoroughly. The fanning mill is one of the earliest machines on the farm to run right, and very few people understand its operation. On these farms the farmer will select and clean

Gains More \$ \$ for You Because Skims Closer

The difference in using a separator that skims to 10 per cent. and the



Standard

CREAM separator which skims to 61 per cent. amounts to \$27 in one year with a herd of 20 cows. In other words, the Standard cream separator gains 27 more dollars for you than the other machine, because the Standard skims that much closer. The amount of this gain is not guessed at by us. We have the figures to show you, the correctness of which are certified difference between .10 per cent. and .61 per cent. looks small on paper, but it amounts to the big haul of dollars at the end of a year. Very even under the most favorable conditions, where the Standard Cream Separator has averaged 10 per cent. tested under various conditions. In fact, adverse conditions have been found to affect the Standard very little. Its records at dairy schools and agricultural colleges show that it is indeed a remarkable separator. You may have to pay a little more for the Standard than for other machines, but the Standard soon makes up the difference by the extra dollars it gains for you by its closer skimming.

FREE BOOKLET

Write for it. It shows tests of the Standard under various conditions, and gives the figures referred to above proving the Standard's gain over others to be 27 per cent. Also get catalogue explaining construction of the Standard in detail.

The Renfrew Machinery Co., Limited

Head Office and Works : RENFREW, ONT.
Sales Branches: Winnipeg, Man., and Suxsex, N. B.



The Stand of Trees in the Old Wood Lot may be thickened

Trees planted in the wood lot this spring will in a few years develop into trees worth money to you. In the illustration appears a replanted area in the wood lot of H. R. Nixon, Brant Co., Ont. Mr. Nixon is seen standing beside a four-year-old black locust tree. The smaller seedlings, hardy ashlar, are white pine.

(Photo by an editor of Farm and Dairy.)

tion to select the man themselves. I will plan to visit these farms occasionally and recommend the crops that I consider would be best suited to the climatic and soil conditions of that locality and give advice on the farm management.

"A lot will depend on the man," continued Mr. Fixter. "He must be a general, good-hearted fellow, who will make people welcome on his farm and be glad to explain to them the system of crop management that he is conducting under our supervision.

"There are thousands of farmers who go to Guelph and Ottawa each year to see the Government farms there. They see the good crops, good cattle, and the evidences of good

his own seed grain. We will, if necessary, stay with him a day or two to show him the best way to do it.

"Another reform that we will endeavour to accomplish is in the method of seeding meadows. There is not one farmer in 10 who seeds heavy enough. Yesterday morning a farmer asked me to have a look at his clover field seeded last spring. We jumped the fence and inspected a large field, and in my opinion the stand was not one quarter thick enough. That farmer told me that he had seeded four pounds of clover seed to the acre; that was all.

"On our demonstration farms the plan we have now in mind will show us something like this: We will ask that man to seed say 14 pounds of clover seed to the acre, and we will pay him the cost of the extra 10 pounds of seed. In this way the whole neighbourhood will have a demonstration of the value of heavy seeding.

"Very few of our farmers understand the best methods of selecting seed corn. We will show our demonstration farmers how it is done."

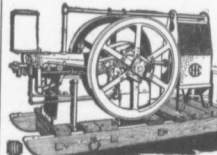
What The Ontario Government will do for Agriculture

(Continued from page 2)

Ontario Vet. Col.	33,670.00	1,182.00
Agricultural Societies	154,250.00	32,745.00
Live Stock	41,500.00	
Farmers' Institutes	40,700.00	1,117.00
Dairy Branch	63,850.00	1,200.00
Fruit Branch	64,250.00	4,230.00
Statistics Branch	5,500.00	
District Representatives	10,000.00	9,000.00
Farm Forestry	10,000.00	
Immigration	107,728.55	7,128.55
Demonstration Farm	11,000.00	3,000.00
Miscellaneous	37,750.00	2,500.00
	\$910,731.55	\$72,824.55
Capital Account	96,000.00	35,250.00
	\$1,006,731.55	\$108,074.55

—W. R. R.

I H C Engines Furnish Ample Power at Lowest Cost



An engine that develops more than its rated horse power, with the lowest possible expense for fuel, needs only one other feature to make it the best engine a man can buy. That feature is durability. The engine which combines these three qualities, ample power; low fuel cost, and durability, is an

I H C Gasoline Engine

In an emergency, an I H C engine will develop from 15 to 30 per cent more power than it is sold for. Because of its scientifically correct mixer, it uses less gasoline to develop that power than is required by any engine not so equipped. It is durable because the best material is used, put together with the precision of a high-priced watch. For work on farm or estate, in mill, shop, or factory, wherever reliable, dependable power is required, an I H C engine is the one best buy.

I H C engines are made in every style—horizontal and vertical, air and water-cooled, stationary, portable, and mounted on skids, to operate on gasoline, kerosene, distillate, or alcohol; sizes 1 to 50-horse power; kerosene-gasoline tractors, 12 to 45-horse power. Saws, spraying, pumping, grinding outfits, etc.

The I H C local agent will show you the good points of the I H C engine. He will explain why an I H C engine is durable. He will show you how simple it is. He can give you good common-sense reasons for buying an I H C engine in preference to any other. Get catalogue from him, or, write the nearest branch house.

CANADIAN BRANCH HOUSES

International Harvester Company of America (Incorporated)

At Brandon, Calgary, Edmonton, Hamilton, Lethbridge, London, Montreal, North Bay, Ottawa, Quebec, Regina, Saskatoon, St. John, Weyburn, Winnipeg, Yorkton.

I H C Service Bureau

The purpose of this Bureau is to furnish, free of charge to all, the best information obtainable on better farming. If you have any worthy questions concerning soils, crops, land drainage, irrigation, fertilizer, Bureau Harvester Building, Chicago, U.S.A.



THE ENGINE THAT COSTS NOTHING TO RUN



The wind furnishes the "fuel" FREE, and you get all the power you need when you have a

Canadian Airmotor

Investigate. Learn the cost and the advantages of wind-power. Write for our FREE book.

ONTARIO WIND ENGINE AND PUMP CO., LIMITED

Winnipeg TORONTO Calgary

SYNOPSIS OF CANADIAN NORTH-WEST LAND REGULATIONS

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

Five-to-six months' residence upon and cultivation of the land in each of three years. A homesteader may live within five miles of his section or on a farm, or at least 30 acres, acutely owned and occupied by him or by father, mother, son, daughter, brother or sister.

It is certain that a homesteader in good standing may pre-empt a quarter section alongside his homestead. Price \$1.00 per acre. Duties—Must reside upon the homestead or pre-empt five months in each of three years, or on date of homestead entry (including the time required to earn homestead patent) and cultivate fifty acres.

A homesteader who has exhausted his homestead right and cannot obtain pre-emption, may enter for a purchased homestead in any of the following ways: per acre. Duties—Must reside six months in each of three years, cultivate fifty acres and erect a house worth \$300.00.

W. W. O'BY,
Deputy of the Minister of the Interior
N.B.—Unauthorized publication of this advertisement will not be paid for.

See your friends about subscribing to Farm and Dairy.

THE FENCE MAN

Sells direct to buyers at factory prices. Iron and Wire Lawn and Farm Fence, all styles. Gates; Barbed, Colloid and Plain Wire, Staples, Fence Hooks, Top and Special price cardinals. I save you big money, give you best fencing and quick service. Here are sample prices:

All No. 8 Fence, 3 strands 3c
3 Strands 2c
per rod, etc. (Seventeen years Canadian experience.)

Spurred matter explains my method. Write today.

DYER THE FENCE MAN
TORONTO
Ask for Folder "L"

NEWVERMIFUGE

The best and most effective remedy for Hogs and other worms in hogs. (Guaranteed by the Farmers' Home Remedy Co., under the Pure Food and Drugs Act, June 30, 1906, Serial No. 3371.) It is guaranteed to kill and bring from the body dead in from 12 to 24 hours all pin worms and bots.

It is absolutely harmless and can be given to marrows in food before the eighth month. Practical horse owners have written us Newvermifuge has removed between 200 and 300 bots and worms from a single horse. An animal whose stomach is infested with bots and worms or help being obstinate. Send for free to-day. Beware of imitations.

5 capsules, 13c; 15 capsules, \$2.00
Farmers' Home Remedy Co., Dept. A4,
192 - 7th St., Milwaukee, Wisconsin.

SWINE DEPARTMENT

Our readers are invited to ask questions in regard to swine. These will be answered in this department. If you desire to receive helpful suggestions or relate experience through these columns, please write to the Editor.

Rape for Pork Production

High prices for all grain feeds and the failure of clover on many farms have caused a large number of feeders of hogs to look for forage crops which, with a light grain ration, will produce fairly rapid gains at a moderate cost. Investigations at the Ohio Experiment Station have shown rape to be one of the very best crops for this use if clover is not available.

Six pigs, weighing about 45 pounds each at the beginning of the test, were kept on slightly less than one quarter of an acre of rape for 11 weeks. During this time the pigs received 825 pounds of a mixture of nine parts, by weight, of ground corn to one part tankage, and gained 360 pounds in weight. Another plot, with fertilizer by the acre, yielded an even more luxuriant growth of rape, and showed a larger carrying capacity.

The rape from the better plot showed a replacement value of over \$48 an acre when the gains produced and concentrates consumed by pigs, some receiving corn alone and some receiving corn and tankage, on the rape and by similar pigs fed corn and tankage in dry lot were compared. In this calculation corn was valued at 36 cents per bushel, and tankage (60 per cent. crude protein) at \$48 per ton. At Canadian prices for corn and tankage, rape for hog feeding would have a greater value than \$48 an acre.

Feeds for Hogs

Is there anything other than rape I could sow this spring and have it ready for hogs in July, or 10th? Which of the following feeds would you recommend a farmer to buy for pigs to be fed in connection with hay shorts, rice middlings, \$28; low grade flour, \$18.00 - W. E. W. Ontario Co.

Among the crops that can be sown in the spring and utilized for hog pasture the same year, rape is undoubtedly the best. There are, however, several alternatives, amongst which might be mentioned a mixture of peas and oats, equal parts by weight, sown at the rate of four bushels an acre; peas, oats, and vetches, equal parts by weight, at the rate of three bushels an acre; peas, oats, and vetches, equal parts by weight, with 10 pounds sorghum per acre, the first-mentioned mixture sown at the rate of about 3 1/2 bushels an acre. These crops should all be sown about five weeks before required for use; or if the soil is not very good, then six or seven weeks before needed for use.

Of the feeds mentioned at the prices given, I would say that middlings at \$28 a ton is the best and would undoubtedly prove to be the most economical. If the price is small, however, it will be found advantageous to buy a few hundred weight of low grade flour and mix this with the middlings for the early part of the feeding period, say for the first six weeks. To begin with, the mixture might consist of about three parts middlings to one part flour, gradually changing it to one part flour, gradually increasing it to two parts middlings to one part flour.

If during the last part of the feeding period it were possible to get some good barley or corn to mix with the middlings more or less, the results might be anticipated than if the

middlings were fed alone. The production of oats and barley at \$1.40 a cut, is not likely to prove profitable. The best results in the feeding operations might be expected if the middlings and low grade flour were fed as indicated. It is probable that low grade flour was done away with an equal amount of barley or corn meal substituted and the proportion gradually increased to one of barley or corn to 10 of middlings, the beginning up to one of barley or corn to two of middlings during the last two or three weeks of the feeding period. An increased quantity of middlings kept confined and a small amount of green feed given them will be in their pens.—J. H. Grisdald, C. E. F., Ottawa, Ont.

Moisture Conservation First

The study of so-called "dry farming" has led to a new irrigation process, has during recent years brought about considerable modifications of the ideas formerly dominant in relation to the purposes of tillage. While no less importance is attached to the breaking up of the soil and reducing it to such "tilth" as shall facilitate the absorption of plant-food by the growing crop, and while the destruction of weeds remains one of the important objects of tillage, more emphasis is to-day laid upon such a treatment of the land as shall best conduct the supply of moisture, hinder evaporation, and keep "the water gifts of the skies" in the soil until they shall have been fully utilized in crop production.

DISKING ADVISED

It is estimated that this latter end will be most effectively served by the use of the disk in the spring and harrow on fall-plowed land, to pulverize the surface and thus break the continuity of contact, among the soil particles, which promotes the capillary ascent and evaporation of moisture. A finely-divided surface not only affords a good seed-bed, but, as a protective mulch, it conserves the water by the growing crop. The Director of the Reclamation Service of the United States, declares in a recent article—it is really upon the adequacy of the water supply, rather than upon the quality of the land, that success in agriculture depends. He shows that we have in America enough cultivable land to support two billions of people; but the water supply is sufficient only for one billion; so the latter figure is set as the limit of population which can be supported on our continental domain. Hence the importance of methods of cultivation that first of all conserve moisture.

Homeseekers' and Settlers Trains to Western Canada

Via Chicago and St. Paul, April 16th, 23rd and 30th, and every second Tuesday thereafter until Sept. 17th, inclusive. Tickets will also be on the Northern Navigation Company's Special train will leave Toronto 10.30 p.m. on above dates for Edmonton and points in Manitoba and Saskatchewan, stopping at all points on Grand Trunk to the destination of the trip. Through coaches and Pullman Tourist Sleepers will be carried fully equipped with bedding and porter in charge. Berths may be secured at exceptionally low rates. This is an exceptional opportunity for those wishing to take advantage of the remarkably low one-way Settlers' rates or round trip Homeseekers' excursions through the West. No change of cars. Secure tickets and berth reservations from any Grand Trunk Agent, or write A. E. Duff, District Passenger Agent, Union Station, Toronto.

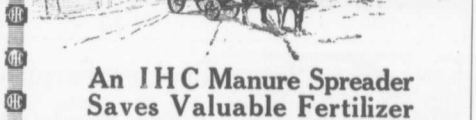
Our Veterinarian

WORMS—Collie member of the Board of Health for the district area near the city. Give him two of his weight. Give half an ounce.

INDIGESTION—A cow prostrated, and was badly bloated. Give her one ounce of medicine. Operation became lessened and she lay in the barn for 12 days. This was a case of indigestion in a pig which would have been cured by the use of the medicine.

Well A The farm building cleaned and well worth nothing to the eye. She then also began to cough and was treated with a remedy to irritate and soothe the lungs. The cough was severe. Give her one ounce of medicine. The pig was full of worms. Give her one ounce of medicine.

Don't wait to bank the bank. Buy you the large investment you ever had. Don't wait until before you die. Don't think that you are the best. Ever had on your mind. Don't fail to money you have your own out of an account of wet. Don't think that you are a ditch into it. Don't think that you are a ditch into it. Don't think you are a ditch into it. Don't think you are a ditch into it.



An IHC Manure Spreader Saves Valuable Fertilizer

THE farms of Europe have been worked for centuries, yet the average production of wheat from those farms is nearly 30 bushels per acre; more than double the average yield of American farms. What is the reason for this tremendous difference?

The reason is that European farmers know the value of stable manure as a fertilizer. The average European soil is not as fertile as the average American land, but the European grows heavier crops because the fertility of the soil is kept up constantly by the liberal use of stable manure.

While there is not so much stable manure in this country, what there is can be used to far greater advantage when an IHC manure spreader is used to distribute it.

IHC Manure Spreaders Corn King, Cloverleaf

make one ton of manure go as far as two tons spread by hand. By pulverizing the manure and spreading it in an even coat, light or heavy as needed, all over the land, they insure a perfect combination of the plant food elements with the soil. There is no over fertilizing in spots, to produce an uneven stand of grain. Each square foot of ground gets the same treatment.

The superior mechanical construction of IHC spreaders is the reason for their effectiveness. They solve every problem of correct spreading. Light draft is secured by the proper construction of wheels and correct principles of gearing. When IHC spreaders are thrown in and out of gear the beater drive chain is not shifted.

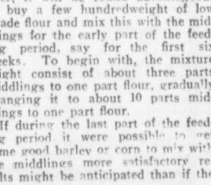
The advantages of this construction are: Positive traction—the chain engages nearly half the teeth on large sprockets instead of only a few; chain wears on one side only instead of on both sides as in other constructions; simple, effective chain tightener instead of a complicated, troublesome one. These all add to the durability of the spreader.

IHC spreaders are made to order. See him and get catalogue and full information, or if you prefer, write to

CANADIAN BRANCH HOUSES INTERNATIONAL HARVESTER COMPANY OF AMERICA

(Incorporated)
At Brandon, Calgary, Edmonton, London, Montreal, W. R. Killford, Ottawa, Quebec, Regina, Saskatoon, St. John, Yorkville, Winnipeg, Yorkton

IHC Service Bureau
The purpose of this Bureau is to furnish, free of charge to all the best information obtainable on better farming. Write for a list of worthy questions concerning soils, crops, land drainage, irrigation, fertilizer, etc., make your inquiries free of charge to IHC Service Bureau, Harvester Building Chicago, U.S.A.

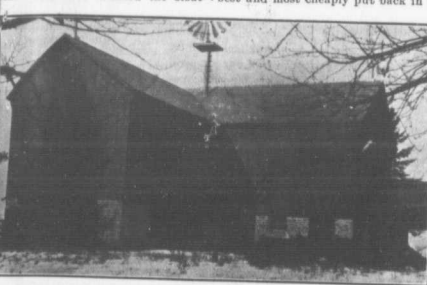


Our Veterinary Adviser

WORMS—Ottie puppy has worms.—Subscriber East for 12 hours, then give a dose of area unit in a little new milk. Give him two grains for every pound of his weight. In four or five hours give half an ounce castor oil.

INDIGESTION IN COW—Cow got sick, was prostrated, she breathed heavily and was badly bloated. We gave her mustard, castor, soap and croton oil. When the medicine operated the fever and bloating became lessened. This is the fourth time and she is not quite right yet.—J. N. Saltburn Co., Ont.

This was a case of indigestion accompanied by bloating. You should have given her two ounces oil of turpentine in a pint of raw linseed oil, which would have reduced the bloating.



Well Adapted to the Purpose for which they are intended

The farm buildings of Mr. Hugh Bertram, Peterboro, Co., Ont., are conveniently placed and well suited to their purpose—the needs of a small dairy farm. After worth noting is that these buildings are well painted and hence attractive.

—Photo by an editor of Farm and Dairy.

ing them she should have been given 1-2 lbs. Epsom salt, and one ounce ginger to cause purgation. Your treatment was rather heroic. It was so irritant and its action upon the lining of the stomach and intestine so severe. Give her now 1-2 pints raw linseed oil and feed on easily digested food. If she bleats again give one ounce of turpentine mixed with one pint raw linseed oil. If her appetite has failed give her a tablespoonful of the following three times daily, viz.: Equal parts sulphate of iron, gentian, ginger and nuxvomica.

Tiling Don'ts

- Don't wait until you have money in the bank to tile your house. It will pay you the largest interest of any investment you ever made.
- Don't wait until you are ready to tile before you haul your tile.
- Don't think that it costs money to tile. It is the best money maker you ever had on your farm.
- Don't fail to figure how much money you have lost if 10 acres of your corn out of 40 fails to mature on account of wet ground.
- Don't think that all you have to do is to dig a ditch and throw the tile into it.
- Don't think that your ground is too flat to tile.
- Don't think your outlet is not good enough; make it good.
- Don't think that you have to have two or three inches of fall to the road to make the water run.
- Don't try to get a cheap job by hiring a cheap workman.
- Don't let your man tell you that the water will run over an eight inch rise in the ground.

Don't think that by tiling you will cause it to quit raining on your land. Don't think that you don't get the benefit out of your tile in the dry season, for you certainly do. Don't think that you can raise a crop on low wet ground next year because you did this year.—C. C. Branaman, Drainage Engineer.

Cows Our Salvation

(De Laol Monthly)
East, west, north or south, there are hundreds of broad acres whose soil fertility, at first called inexhaustible, is now almost abandoned, all on account of a farm system which raised but one crop, and that sold off the land. Thousands of dollars are annually paid out for commercial fertilizers that fail to fertilize simply because of the lack of what is called humus in the soil, a thing that can be best and most cheaply put back in the



KILLS BUGS AND SAVES FRUIT

"Vanco" Lead Arsenate is instant death to Codling Moths, Canker Worms, Potato Pugs, Cabbage Worms and all other leaf-eating insects. "Vanco" Lead Arsenate is made in Canada—and is guaranteed in strength and quality. Won't burn the leaves.

FERTILIZERS—Murate of Potash, Sulphate of Potash, Nitrate of Soda, Acid Phosphate—all straight Fertilizing Chemicals, of guaranteed analysis.

Write for the "Vanco" Book. 52
CHEMICAL LABORATORIES LIMITED,
142-158 Van Horne Street, Toronto.



Milk Cooling Tanks

THIS TANK of our making is perfect as a milk cooler. It enables you to deliver milk to the factory in the very best of condition. The tank is strong, light; never gets water soaked; is

clean, sanitary and durable
can be moved from place to place or stored away; or used for other purposes. Makes a good storage tank for sap. Note construction. Send for price list.
Steel Trough & Machine Co., Ltd.
5 James St. TWEED, ONT.

Hay Tools, Litter and Feed Carriers Stanchions, Etc.

Get Our Prices Before Buying
R. DILLON & SON
SOUTH OSHAWA, ONT.



Extra Money

You can earn money in leisure hours, or when you go to town to the blacksmith, creamery, by spending your friends and neighbors about Farm and Dairy and getting them to subscribe. We pay a liberal cash commission for each new subscriber you get for us. We'll pay you to get busy on this proposition first time you are out.

THE RURAL PUBLISHING CO., Peterboro, Ont.

Cheesemaker Experienced. Will pay \$20 for season, board included. Apply P. O. Box 190 Campbellford, Ont.

YOUNG MEN WANTED to learn VETERINARY profession. Catalogue free. Grand Rapids Veterinary College, Dep. 16, Grand Rapids, Mich.

MONEY can be made easily by showing Farm and Dairy to your friends and getting them to subscribe.

WANTED AT ONCE

First-class butter maker to take charge of butter department in modern creamery, state lowest wages and low season cost, year round job.

Ideal Creamery Co., Portage la Prairie, Man. W. F. DAVEY, Manager

First Annual Sale

of registered stock under the auspices of the
Beauharnois Live Stock Breeders' Association
will be held at
Ormstown Que., June 14, 1912

There are already consigned
100 Registered Ayrshires 50% Imported
30 Registered Holsteins
20 Registered Clydesdales

Watch for Future Announcements

Catalogues will be ready May 15 and may be had by applying to the Sec'y-Treas.

J. P. CAVERS, Chairman Sales Committee
NEIL SANGSTER, President

J. G. BRYSON, Secretary - Treas.
ORMSTOWN, QUEBEC

and more feed an acre from such medium sized varieties as Leaming and Longfellow than from the larger varieties so frequently recommended.

Due to the efforts of Mr. R. B. Whyte of Ottawa, a Potato Growing Contest will be conducted in Carleton County, Ont., this year for boys between 12 and 18 years of age. Mr. Whyte is donating prizes varying in

XXVIII

President Lloyd Lott, of the Regal Fence and Gate Co., of Sarnia, Ont., in a recent interview, gave testimony to how their BUSINESS has been BUILT ON ADVERTISING, which greatly REDUCED the OVERHEAD COST OF SELLING, resulting in profit mutually to his company and to the consumers. He said: "I was first in a position to note the good points of the direct to the consumer plan through my connection with the Sarnia Wire Fence Co., manufacturers of their well known Royal Brand of farm fence. "The ultimate success of such a policy is assured, only when a manufacturer, financially strong, offers to the public that which he can guarantee first-class in every particular.

"By a careful compilation of figures I know positively that it costs me in advertising through papers five times less to market my fence than it would if I sold to dealers through agents.

"It is nothing like printers' ink, providing always that your article is exactly as represented in your advertisements."

"It is for this reason that we are able to offer the Canadian public a first-class ornamental wire fence at only about half what others, who sell through dealers, charge.

"So you see that both the consumer and manufacturer is benefited, and if we are to judge by the orders we receive daily through our advertisements the further fact that our plant is running night and day to keep up with these orders, we can safely say that the consumer appreciates the good points of our selling plan as much as we do."

"As a manufacturer it is a great privilege to be able to talk through the press to the people you want to reach.

"Supposing we came to you and said, 'Sir! We have just hired a great hall and we have seated in that hall the heads of 14,236 families who live on dairy farms.

"We have arranged for you to have a place on the platform, to stand up before that vast audience and tell your business story." You would jump to grasp the opportunity!

THIS IS YOUR PRIVILEGE today! You can talk to these prosperous, progressive Dairy farmers of ours and make them your audience through Farm and Dairy.

AND YOU WILL BE IN GOOD COMPANY ON THE PLATFORM," since in Farm and Dairy we absolutely refuse Electric Belt, Patent Medicine, Liqueur, and all questionable advertising, and Farm and Dairy is

"A Paper Farmers Swear By"

value from \$15 to \$4, for the boy growing the best one-tenth of an acre of potatoes. Silver medals will accompany the first three prizes. Mr. Whyte deserves credit for the effort that he is making to interest young Canadians in better farming methods. Public spirited men will see in Mr. Whyte's scheme a way in which they, too, may assist in promoting, in the minds of young Canadians, enthusiasm and interest in better farming methods.

Hints to Help Solve the Labor Question

H. A. Macdonell, Director of Colonization, Toronto

One of the most urgent needs of the farmers of our Province is an adequate supply of farm labor. The Colonization Branch has been endeavoring to meet that demand by bringing men from Great Britain and Ireland and placing them with farmers in this Province. During the past few years several thousands have been brought out and placed in this way. Instead, however, of the demand lessening, it seems to be increasing.

Our observation and experience convince us that while there may be many explanations of this regrettable fact, the one outstanding reason is the practice of employing men for six or eight months of the year and then turning them out to find situations elsewhere for the balance of their time. This works out in such a way that the men who have been employed on the farms now seem to gravitate to towns and cities in the winter months and remain there, with the result that the farmer is compelled to start over again the next spring in his efforts to secure help.

"I would make the following suggestions, the adoption of which would go a long way toward relieving the stringency that exists at the present time:

CONTINUOUS EMPLOYMENT

(1) First and foremost the one who attempts to employ a man by the year, especially if able to supply a house and a piece of land, is the farmer who has the least trouble over the help problem. It is the better way for the man as well as for the farmer. If you feel your work does not warrant the employment of a man the year round, you might be well advised to consider the question of taking up a few more ranches of farm work or handling additional live stock, and in this way we feel satisfied you would more than make up the extra cost of the help.

(2) Do not be too exacting about getting an experienced man. Experienced farm laborers are rare at the present time, as there is a large demand for them in the Old Country as well as on this side. If you take an inexperienced man, recognizing that he is unfamiliar with the conditions and methods in this country, and devote a little attention to training him for a few months, you will find, in nine cases out of 10, that he will prove very satisfactory to you. Being reasonably generous in the matter of treatment and wages is essential if hired help is to be retained.

We feel satisfied that if these suggestions are acted upon, the results will redound to the mutual advantage of the farmer as well as to the prosperity of the Province.

We all know that dead seed does not produce a crop. But there are lots of us who still persist in using dead corn because we do not test it to find out.

DE LAVAL CREAM SEPARATORS

Their Great Simplicity

DE LAVAL CREAM SEPARATORS EXCEL ALL OTHER separators not only in thoroughness of separation, sanitary cleanliness, ease of running and durability—but as well in their great simplicity.

THERE IS NOTHING ABOUT THE operation, cleaning, adjustment or repair of a modern De Laval Cream Separator which requires expert knowledge or special tools.

NOR ARE THERE ANY PARTS which require frequent adjustment in order to maintain good running or to conform to varying conditions in the every-day use of a cream separator.

THERE IS NO NEED TO FIT and adjust parts to get them together right. They are so carefully and accurately made that they cannot help go together right. All bearings and bushings are easy to replace. There are no complicated springs, keys, ball bearings or other fittings, that only an expert can properly adjust.



Complete gearing of the De Laval Separator as it would appear if removed in intact form from the frame of the machine. Note the remarkable simplicity of construction.

IN FACT, SO SIMPLE IS THE CONSTRUCTION OF A De Laval machine that a person who has never touched a separator before can, if need be, take a modern De Laval machine completely apart within a few minutes and then put it together again as quickly. This is something which cannot be done outside a shop with any other separator.

THERE IS NOTHING ABOUT THE MACHINE THAT cannot be taken apart, removed or replaced by any one who can use a wrench or screw driver. In fact, the only tool which is needed in the use and operation of a De Laval Cream Separator is the combination wrench and screw driver illustrated below.

THE ONLY WAY TO PROPERLY UNDERSTAND AND appreciate De Laval superiority to other separators, is to look over, and better still to try, a 1912 De Laval machine. Every De Laval agent is glad to afford prospective buyers the opportunity to see and try a De Laval Separator.



Combination Wrench, furnished with each De Laval machine, which is the only tool required in setting up, taking down or using the De Laval, the most simple cream separator ever built.

DE LAVAL DAIRY SUPPLY CO., LIMITED
173 WILLIAM ST., MONTREAL 14 PRINCESS ST., WINNIPEG

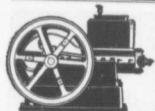
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Again we announce our popular offer of a pure bred pig, eligible for registration, which we will give you free as a premium in return for 9 new subscriptions to FARM AND DAIRY, each to be taken at only \$1.00 a year.

You may have choice of either sex, smooth, Berkshire or Yorkshire. We have been sending out hundreds of pure bred pigs. We will send you one, a real dandy, for the little time it will take you to get these new subscribers. Write us tonight about the kind of pig you want and get busy new subscribers.

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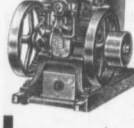
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Laid under the new improved specification make an "absolutely Lightning-proof-roof" the only roof that you can afford to buy. Now, we want you to do us a favor. If you want you to write for a free copy of a book which fully describes the new Preston Specifications for Lightning protection. Read it carefully. Consider the facts impartially. Then drop us a note telling us exactly what you think, whether you are in the market for a roof or not. Your opinion of this book will be highly valued.

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This Engine Runs on Coal Oil



Every farmer can afford an Ellis Coal Oil Engine. They give far more power from one gallon of engine than from gasoline. They are safe, as well as cheap; no danger of explosion or fire.

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

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

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3 to 15 horse-power
We pay Duty and Freight
Ellis Engine Co., 90 Mullett Street
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Creamery Department

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

The Effect of Pasteurization and Starter on Cream*

Geo. H. Barr, Chief, Dairy Division, Ottawa

All the cream received at the Renfrew Creamery delivered in individual cans, a good deal of it coming in by train. This enabled us in our experiments conducted there last summer to select almost any kind of cream we wished to experiment with. As the cream was being delivered by the patrons, the kind of cream we wished to experiment with was selected and put into one of the creamery vats. After being thoroughly mixed, it was drawn off into 10-gallon cream cans, each experimental lot containing 160 pounds of cream. Pasteurizing, cooling and ripening were done in these cans in a wooden tank in the creamery.

In every case, the pasteurizing temperature was 150 degrees. This temperature was maintained for 20 minutes, and then the cream was cooled to ripening temperature as quickly as possible with water and ice. The cream was usually cooled to churning temperature between six and eight o'clock in the evening.

THE STARTER USED

The "starter" used in all the experiments was made from skim-milk powder manufactured by The Pure Milk Products Co., Toronto, Ont. Ten per cent of starter was used. In ripening and churning, we tried to adjust the temperatures and other conditions to suit the different lots of cream, so that the very best results would be obtained.

The butter was scored by the writer and Mr. J. G. Bouchard when about two weeks old, at which time it was taken out of the creamery cold storage and shipped to the Ottawa Cold Stores, where it was kept at a temperature of 10 degrees. The creamery cold storage was kept at about 42 degrees. On October 20th, the butter was shipped to London, Ont., and there scored by Messrs I. W. Steinhoff and J. B. Muir, extensive buyers of butter and cheese and also expert judges, also by Messrs Fred Dean and D. McMillan, Creamery Inspectors in Western Ontario. The score shown

*This summary of the experimental work conducted by the Dominion Dairy Division at the Renfrew, Ont., Creamery in summer is taken from the address given by Mr. Barr, before the E. O. D. A. Convention at Campbellford.

opposite November 1st in the following tables is the average scoring of these four gentlemen.

CONDITION OF SWEET CREAM

Three experiments were made with sweet, clean flavored cream. In these three experiments, the average temperature of the cream when received at the creamery was 63.3 degrees, the average per cent acid .30 and the experiment, sufficient cream was put into a cream vat to make eight churnings.

Four lots were drawn off as soon as the cream was received, then ripened and churned the following day, the dates being June 1st, 8th and 15th. The balance of the cream was kept in the cream vat for 24 hours longer at the average temperature of 55.0 degrees and then treated exactly the same as the other lots. The average per cent acid at the end of the 24 hours was .55. These churnings were made on June 2nd, 9th and 16th.

TABLE I—AVERAGE SCORE ON THE FLAVOR OF THE BUTTER FROM CREAM CHURNED THE DAY AFTER WAS DELIVERED.

Age of Butter	Raw Cream	Raw Cream 10 per cent Starter	Pasteurized Cream 10 per cent Starter
2 weeks	42.56	45.16	45.00
Nov. 1st	39.06	40.77	40.86
Difference	3.50	2.89	2.10

TABLE II—AVERAGE SCORE ON THE FLAVOR OF THE BUTTER FROM CREAM CHURNED TWO DAYS AFTER IT WAS DELIVERED.

Age of Butter	Raw Cream	Raw Cream 10 per cent Starter	Pasteurized Cream 10 per cent Starter
2 weeks	41.83	42.25	43.10
Nov. 1st	38.94	39.17	39.77
Difference	2.89	3.16	3.14

It will be seen from the foregoing tables that in every case the raw cream scored the lowest. In no case does the ripened with starter score as high as the two lots of pasteurized cream. There is very little difference between the scores on the two lots of pasteurized cream, nor is there much difference between the scores on the cream churned the day after delivery, and that churned two days after delivery as shown in the following table:

TABLE III—AVERAGE OF ALL THE SCORES ON THE BUTTER CHURNED THE DAY AFTER DELIVERY AND THAT CHURNED 2 DAYS AFTER DELIVERY.

Churned	Acidity in Cream when received	Raw Cream without Starter	Raw Cream with Starter	Past. Cream without Starter	Past. Cream with Starter
1 day after delivery	.30 per cent	40.79	41.86	41.87	41.92
2 days after delivery	.35 per cent	40.64	41.85	41.75	41.79

The sweeter cream scores slightly higher in every case, but the total difference is very small and would indicate that when the flavor of the cream is clean, a difference in the acidity as here shown at time of delivery has little effect on the flavor of the butter.

Dairying in Saskatchewan

P. M. Brett, Live Stock Commissioner for Sask.

The dairy branch has done much to stimulate the live stock industry in Saskatchewan. Their success is shown by the great growth of the Government creameries. In 1905 the total output of our creameries was 65,000 pounds and in 1911 over 700,000 pounds, and from all creameries over 1,000,000 pounds. Winter dairying has been encouraged and is increasing.

Dairying is going ahead faster than other lines of live stock. In 1905 there were in Saskatchewan 30,000 dairy cows; in 1910, 224,745. In the same period the number of beef cattle increased from 210,000 to 827,000, a percentage increase. The quality of the milk cows is improving as well.

Iced Butter Car Service

Commencing Tuesday, May 14th, and until further notice, an iced refrigerator car service will be established for the carriage of butter only to Toronto and Montreal, also shipments for export forwarded via Montreal or Quebec; the intention being to have the car arrive at Outremont (Montreal) Friday so that the contents may be delivered Friday afternoon or Saturday morning. The service will be four cars weekly, as follows:

(1) Friday afternoon car every Tuesday on "Way-Freight Extra." This car will leave London by "Way-Freight Extra" Wednesday a.m. and will leave Toronto on Thursday night. Shipments from intermediate main line stations west of Toronto will be loaded in this car. Shipments from Port Burwell, Ingersoll, and St. Marys Subdivisions should be warehoused to Woodstock for transportation to iced car from Windsor.

(2) From Goderich, iced car every

Wednesday on "Way-Freight Extra" connecting with Train 902 at Kings Junction. Shipments from Listowel Subdivision should be way-freighted to Linwood Junction for shipment to iced car from Goderich.

(3) From Owen Sound iced car every Wednesday on "Way-Freight Extra" for West Toronto to be transferred at Toronto, whenever possible, to car from Windsor. Shipments from Walkerton Subdivision iced car every Tuesday on "Way-Freight Extra" to

be consolidated at Owen Sound. Shipments from Muskoka Subdivision should be way-freighted to Bolton for shipment to iced car from Owen Sound.

(4) From Teeswater, iced car every Wednesday on "Way-Freight Extra" running via Orangeville and Streetsville Junction for connection at Toronto whenever possible, with car from Windsor.

Dairy Notes

I have seen the over run of a creamery reduced from 24 per cent to 20 per cent, through the adoption of cream scales for taking the samples.—Mack Robertson, Perth Co.

The cream from each separation is kept in separate pails. In 12 hours then we mix it with the other old cream. We never on any account mix the warm and cold cream. We do not have ice, through the adoption of can keep our cream refrigerated in the cellar of the house.—R. D.

I am sending you in my subscription with the greatest of satisfaction. I will not fail to send you next time the annual subscription and give back the information that I have had while pursuing Farm and Dairy this last year.—J. H. Johnston, Muskoka District, Ont.

May 9, 1912

Cheese

Makers are invited to send questions on cheese making to this department for discussion. Address letters to the Cheese Department.

Good Points

1. Roddick
There is an article about that is our starter frequently to when we are using a

The Agricultural many of the best articles, and are attached: instead of doing it, we are sure, for we are sure with something else. If it does not do other than our milk that are numbers of them that are

700 MUMS
One of the many articles are slow to percentage of food starter should be adding to a milk—if a little better—will be. One nature

WANTED

Highest Toronto price paid for ALL BUTTER PAY ACCORD TO FAT ACCORD TO ENGAGE MAN TO BUY FOR THE FINEST OF THE TORONTO COTTAGE

DAIRY FATTEN

Start the season your cream are slow to We are in a position of milkmaking purp select your shipment We pay by Express Office Money Order, and pay every two weeks on all shipments. Every can of cream and tested upon arrival. Write for cans and

Walkerston Egg & WALKERTON

Cheese Department

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

Good Points About Starter

J. Roddick, Stormont Co., Ont. There is any one thing more than other that is of use to us as cheese-makers, and that actually gets abused is our starters. We should stop frequently to think that we are doing when we are preparing and using starters. There is a vast difference between water and a pure starter. When we are using a starter that is not

good starter is what is needed instead of one only half sour, but by careful observation we can easily see that 30 pounds of good starter at 70 per cent. of lactic acid, will give much more pronounced results all through the process of manufacture than 30 pounds of starter that, if being tested, will be found to contain in many cases from 9 to 10 per cent. of acid.

LACTIC GERMS ARE KILLED. When a starter reaches higher than from 7 to 8 per cent. of acid, the acid begins, in a plain way of speaking, to eat itself, and its strength begins to decrease at once, and at the temperature that our starters are usually kept at this stage, they become a seeding ground once more for undesirable germs to set up their work. The result is our starter is off in flavor before we realize it. Then we

Ideal Green Feed Silos

An "Ideal" on your farm means

Better feed, cheaper feed, more milk, larger profits

The most prosperous and successful dairymen in Canada all agree that one of the first and certainly the most profitable investments that a cow owner should make, is the erection of a good silo.

Leading dairymen also testify that the Ideal Green Feed Silo can be depended upon to give entire satisfaction. It has proved its worth by years of use upon Canadian farms.

The materials and construction throughout of the Ideal Green Feed Silos are of the very best, and everyone contemplating the erection of a silo this year will find it to his advantage to get our specifications and prices before contracting for the erection of a silo.



Write for our new Silo Catalogue

DE LAVAL DAIRY SUPPLY CO., LIMITED

LARGEST AND OLDEST SILO MANUFACTURERS IN CANADA

173 WILLIAM ST., MONTREAL

14 PRINCESS ST., WINNIPEG

Cheese from this Quebec Factory is Sold on a Cooperative Basis

The Agricultural Cooperative Society of Quebec Cheese Makers numbers on its list many of the best cheese factories in that province. The factory illustrated is at Byvia Paquet, Chloisville Co., Quebec. Note that dwelling-house and factory are attached; a style more common in Quebec than Ontario.

often wonder what has happened to our starter. We think we must have made it from a can of poor milk, and the innocent farmer that we got that milk from gets the blame.

A motto that every maker should have is to be observant in all details at all times in the process of cheesemaking.

Advantages of Daily Records

J. A. Ubbelohde, Wisconsin

The greatest benefit that a cheesemaker derives from keeping daily records is that he will soon become more accurate in his tests for acid, more careful in the measurement of his curd and extract, and more careful in examining his curd. We have seen helpers in the factory who hardly noticed the condition of the curds all summer until keeping the records was made part of their duty, and in a few days they developed a special interest, and watched the changes in the curd and developments as closely as though they all depended on knowing the exact condition of the curd.

We know of nothing that will show a cheesemaker's slack methods more plainly than trying to keep a daily record. These records are a wonderful educator for him to turn to from year to year and will be found a great help in locating trouble that may not have made its appearance for several years at the factory.—Dairy Record.

The Villiers Cheese Factory, formerly owned by Mr. Jas. Ryan, of Villiers, has recently been acquired by a joint stock company, of which Mr. Geo. Robertson is the president. Alex. Wood the vice-president, and Thos. Shearer the secretary-treasurer. The new company has renovated the factory throughout, installing cement floors, a cool curing room, a new boiler, engine, and agitators. It is now one of the best equipped factories in Peterborough. The equipment was purchased from G. A. Gillespie, Peterboro.

instead of deriving any benefit from it, we are adding insult to injury, for we are sure to inoculate the milk with something that should not be there. If the starter is pure, that is, if it does not contain any organisms other than pure lactic acid, we are setting up a fermentation of our milk that will counteract a great number of the undesirable organisms that are already at work.

WANTED—CREAM

Highest Toronto prices paid for Cream Shipped at any Express Office. PAY ALL CHARGES. FREE DELIVERY. PAY ACCOUNTS FORTNIGHTLY. ENGAGE MAN TO COLLECT AT SOLE POINT. JOB NOT ESSENTIAL. Write for particulars. THE TORONTO CREAMERY CO., Ltd., Toronto

DAIRY FARMERS, ATTENTION!

Start the season right by shipping your cream to the Walkerton Creamery. We are in a position to handle an unlimited quantity of Fresh Cream for buttermaking purposes and beg to solicit your shipments. We pay by Express Money Order, but Office Money Order or Bank Money Order, and payments are made every two weeks. Express charges paid on all shipments. Express charges paid on cream carefully weighed and tested upon arrival at Creamery. Write for cans and further particulars to the Walkerton Egg & Dairy Co., Ltd. WALKERTON, ONT.

De Laval Separator

5,000 lb. Capacity. Been used a little, but in good condition. For Sale Cheap. Write at once if you require it and I will give full information. FRANK BOYES, Dorchester, Ont.



\$25 Buys a Sureshut Tilk Machine

either 3 inch or 4 inch size, order surely and make your own estimate for spring use. Capacity depends on speed of the operator, ranging from 300 to 500 litre per day.—Send for literature. WILLIAM JOY, Box 275, Niagara, Ont.

A Close Skimmer and Built to Last

THERE are two features that make a separator a good investment: close skimming and durability. Easy cleaning and easy turning are important, but not as important as the power to get all the butter fat and keep on doing it for many years.

IHC Cream Separators will make good under the most severe skimming test. If you will compare their construction with that of any other separator you will see why. Extra strong shafts and spindles, spiral cut gears, phosphor bronze bushings, thorough protection against dirt or grit getting into the working parts, and perfect oiling facilities, are the features that make these separators good for long service.

IHC Cream Separators Dairymaid and Bluebell

are close skimmers and built to last, and at the same time are easy to clean and turn. The reasons are these:

The interior of the bowl is entirely free from intricate forms of construction. Every part has a plain, smooth surface, to which dirt and milk do not adhere. The dirt arrester chamber removes the undissolved impurities from the milk before separation begins. Accurate designing and fitting of all moving parts, spiral cut gears, convenient crank, and thorough lubrication, make these separators easy to turn.

There are many other features worth your consideration. Ask the IHC agent handling these machines or write the nearest branch house for catalogue.



Canadian Branch Houses International Harvester Company of America (Incorporated) At Brandon, Calgary, Edmonton, Hamilton, Lethbridge, London, Montreal, North Bayshore, Ottawa, Quebec, Regina, Saskatoon, St. John's, Yorkton, Winnipeg, Yorkton

IHC Service Bureau The purpose of this Bureau is to furnish, free of charge to all, the best information obtainable on better farming. If you have any worthy questions concerning soils, crops, land drainage, irrigation, fertilizers, etc., make your inquiries specific and send them to IHC Service Bureau, Harvester Building, Chicago, U.S.A.





SUNSHINE shows things in their right colors. So cheerfulness brings out the true colors of life.

The Second Chance

(Copyrighted)

NELLIE L. McCLUNG

Author of "Sowing Seeds in Dany"

(Continued from last week)

Pearl, the eldest daughter of John Watson, a C. P. R. section man in Millford, Man., receives a sum of money and starts in to educate herself and the rest of the family. She proves a clever scholar but seeing that her small brothers are getting into bad habits in town, suggests moving the family on to a farm. Ever so soon introduced to the children at a country school. Tom Steadman, a bully, is next introduced by Bud Perkins for striking Libby Ann Cavers. The Watsons again take up their education at the country school. At the Pioneers' Picnic, Bill Cavers, father of Libby Ann, gets drunk and is found dead. Sam Braden, the hotel keeper, deeply affected, closes up his saloon in consequence. Mr. Perkins gives his grain with frozen wheat and Bud gets the blame. He leaves home. Mr. Perkins' daughter, Martha is in love with a young Englishman on a neighboring farm, Arthur Wemyss. Arthur is engaged to an English girl, who is shortly to come out and join him in his new home. On the boat she falls in with another young man and they are married. The schoolmaster starts to educate Martha.

CHAPTER XXX.

ANOTHER MATCH-MAKER.

"Music waves eternal wands."

THE days went by pleasantly for the schoolmaster, who became more and more interested in Martha's struggle for an education. He spent many of his evenings in directing her studies or in reading to her, and Martha showed her gratitude in a score of ways. Pearl was delighted with the turn events had taken, and before the month of January had gone declared that she could see results. Martha was learning.

There was one other person in the neighbourhood who was taking an interest in Martha's case and was determined to help it along, and that was Dr. Emeritus Emory, the music-teacher of the Souris Valley.

Dr. Emory was a mystery, a real, live, undiscoverable mystery. All that was really known of him was that he had come from England several years before and worked as an ordinary farm-hand with a farmer at the Brandon Hills. He was a steady, reliable man, very quiet and reticent. That he knew anything about music was discovered quite by accident, one day when the family for whom he worked were all away to a picnic and "Emor" was left to mind the house. One of the neighbour's boys came over to borrow a neck-yoke. "Emor," glad to be alone in the house, was in the parlour playing the piano. The neighbour's boy knocked and knocked at the back door, but got no response. Finally he went around to the front and looked in the window to see who was playing, the piano and there sat "Emor," "rippin' it off by the yard," the boy said afterward, "the smashin'est band music you ever heard."

Soon after that "Emor" left the plough, and Dr. Emeritus Emory began to teach music to the boys of the neighbourhood and of the neighbourhoods beyond, for he was fond of long walks and thought nothing of twenty miles in a day. His home was where night found him, and, being of a genial, kindly nature, he was a welcome guest at many a fireside.

The music-teacher's reticence re-

garding his own affairs exasperated some of the women. There was no human way of finding out who he was or why he left home. Mrs. George Steadman once indignantly exclaimed, speaking of Dr. Emory: "You can't even tell if he's married, or if he's livin'." Maybe she is, for all we know. He never gets no silent George went and asked.

Dr. Emory was equally silent on



A Pleasant Home in old Quebec

This homelike place, the property of A. E. Curtis, a prize-winning farmer in Stanstead Co., Que., is rendered doubly attractive by its flowers and vines surrounding the verandah. Mr. Curtis' farm stood well up in the Farms' Competition conducted by the Quebec Government.

the happenings at the houses at which he stayed. Mrs. Steadman pointed out to Mrs. Motherwell that "if the old lad wanted he could be real chatty, instead of sittin' around singin' his little fiddlin' toons. Here last week, when he came to give Maudie her lesson, he came straight from Slaters', and I was just dyin' to know if they was gettin' ready for Edith's wedding." We heard it had been put off, so I asked him out straight if he saw much sewin' around. "They were sewin' onion seed," says he. He seems kinda stooiped sometimes. But I says to him, makin' it as plain as I could, "I mean, did ye see any sewin' around the house, did ye see any thing in the line of sewin'?" because I know people often put it away, but bastin' threads or somethin' he'd see. "Did you see anything like sewin' in?" "Just the sewin'-machine," says he, thinkin' hard. "I remember dis-

tinctly seen it." Then I just got my dander up, for I was determined to know about it, and I knew very well he could tell me if he'd a mind to. I says, "Do you think Edith is gettin' ready to be married?" and says he, real solemn like—"I thought for sure he was comin' to me some-thing"—says he, Mrs. Steadman. "I believe every girl is gettin' ready for her weddin' sometime. Maudie here is doin' an ocean-wave huckaback cushion now, I see. What's that for, I wonder? I suppose Edith Slaters is gettin' ready. I don't see why she shouldn't, and then he began to lilt a little foreign tune, and I was good and mad, I can tell ye; but ye can't get nothin' out of him. He gits his livin' pretty easy, too, and he ought to be a little chatty, I think."

Dr. Emeritus Emory was not so engrossed in his profession as to be insensible to a good square meal and a well-kept room to sleep in, and so a chart of his peregrinations through the neighbourhood, with the meal-stations starred, would have been a surer guide to the good bread and butter-makers than the findings of the Agricultural Society which presumed every year at the "Show Fair" to pick out the winners, and my young man, looking for a wife would make no mistake if he "followed the stars."

Dr. Emory seldom passed the Perkins home without stopping, and although he had no pupil there since Edith left, he almost invariably planned his pilgrimages so as to be there about nightfall, for a good supper, bed and breakfast and a warm welcome were not to be passed by. If the music-teacher's way of getting into his board and lodging was unique, he had also his own system of getting his laundry work done. Like all systems, it had its limitations; it required a certain understanding on the part of the lady of the house. This sometimes did not exist, and so it

"Martha's a good girl," he said to himself one night as he came to the long Souris hill, "a very good girl. She puts a conscientiousness on the heel of her sock, quiet, and trustive, like herself. Martha's not married she will be married, and gray-haired, and I can see her feet a little, and patient, but when all is said and quiet sad. It is well to live and be free when one is young, but the world is not so good, but the company—all one's own company—one who . . . cares."

The old man suddenly came to himself and looked around suspiciously at the bare oaks and willows that lined the road. Not even to them would he impart the secret of his heart. But some vision of the past seemed to trouble him for he walked uneasily and seemed to be quite insensible to the beauty of the scene around him.

The setting sun threw long shadows across the road, and the bound valley and lit the windows of the distant farmhouse into flame. White rabbit flashed across the road, and the brown cow, with the wind, which had blown all day, had ceased as evening approached and now not a branch stirred in the quiet valley, over which the purple shadings of the winter evening crept.

"It's a good world," he said to himself as if trying to convince himself of its full of beauty and music. I can't see beyond the edge of things, and over beyond the edge of things, a world that is perhaps a little kinder and more just—it must be. It is what it will be.

A flock of prairie chickens now flew rapidly across the river and lit on the other hill. His eye followed their flight—he loved those birds, who stay with us through the longer winter and whose stout legs do not storm can daunt.

Then softly he began to sing a brave song of love and pain and during a song that helped him to believe that:

"At last, far off at last—to all, And every winter change to spring. His voice wavered and trembled first, as if it, too, felt the weariness of the years, but by the time he sang the first verse all trace of sadness had vanished, and he was singing the other bank walking briskly and cover the water.

Thomas Perkins, doing his exercises, stopped to listen at the window as if the old doctor came in white field, then he shook his head and said: "By George, it's well as it is. I'm blessed thing to be born in him. It's great how it comes and get through the world."

"This night, after a warm supper the old doctor sat in the cheerful kitchen of the Perkins home and watched Martha quickly and deftly clean away the dishes. Humming to herself air from "Faust," no one would have thought that he was deliberating, but certain it is that he was busy devising means of suggesting to Arthur what a splendid opportunity between Dr. Emory and Watson as match-makers and Perkins the game perfectly fair, calling for such honest help as the spelling-book and the pages of the Woman's Magazine, and the pieces of the human heart, chose other people for his warfare.

(To be continued)

A man can give more than his life. He can give willing service.



The infant here usually of the late appeared in 20 minutes all of whom did not forget enough safely.

Sugar Cure When the meat is with salt and sugar.

For winter curing, it is better to boil the meat in water. The most reliable recipe is to use a standard recipe of satisfaction. The cure will keep for a long time. It is not suitable if it is not the favor will

A Wise W The day of growing. What you grow goods at a page five of Farm this week is an article of Mr. Edvarding how a Brant is supplying good customers in Branting a fair price this article. It you.

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Saved from the Wreck when the Titanic Sank

The infant here seen in his nurse's arms is the sole surviving member of the family of the late H. J. Allison, of Chonterville, Ont. In Farm and Dairy last week appeared an illustration of Mr. and Mrs. Allison and their baby daughter, who did not forget her small charge in that moment of peril, and brought him to safety.

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OLD COUNTRY DOMESTICS

Capable Scotch, English and Irish maids. Also Danish girls. Parties arriving weekly.

Apply now. The Guild, 71 Drummond Street, Montreal or 47 Penbrooke St., Toronto.

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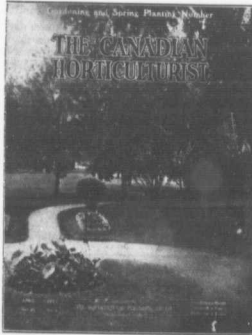
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Do you love flowers, nice lawns, good vegetable gardens? These have a far-reaching influence for good on yourself, your family, and your friends about you. They add to the joy and the worth of living.



We have arranged for you to get a liberal **Free Education** on all things pertaining to amateur Horticulture, the culture of flowers, gardening and fruit growing.

We will send you free for one year The Canadian Horticulturist, a magazine which treats of all these things in a most interesting and helpful manner.

All we ask you to do in return for this premium is to get us only one new subscriber to Farm and Dairy at only \$1.00 for a year.

Now that May is here, how nice it will be for you to have The Canadian Horticulturist right away and coming every month to tell you how to do things to make your place more beautiful, your garden more varied and productive, your fruit trees, bushes and orchard more profitable.

See one of your neighbors or friends right away soon about taking Farm and Dairy for a year. Then send in his subscription, \$1.00, and we will send you absolutely without cost to you, The Canadian Horticulturist.

Circulation Department, Farm and Dairy, Peterboro, Ont.

Sugar Curing Meat

When the meat is cooled, rub each side with salt and allow it to drain overnight. Then pack it in a barrel with the hams and shoulders in the same way, using the strips of bacon to fill the spaces between. Press down high out for each 100 lbs. meat 10 lbs. salt, 2 lbs. brown sugar and 2 ozs. saltpetre. Dissolve all in 4 gals. water, and cover the meat with brine. For winter curing it is not necessary to boil the brine. Bacon should remain in brine 4 to 6 weeks. The most will be sweet and tender. The most will be sweet and tender. If it is properly smoked, the flavor will be good.

The heaven that does not in some way begin on earth is not likely to be seen anywhere.

A Wise Woman

The day of "bargains" is passing. What people want is good goods at a fair price. On page five of Farm and Dairy this week is an article from the pen of Mr. Edward Drier, telling how a Brant county woman is supplying good goods to her customers in Brantford, and getting a fair price too. Read this article. It will interest you.

MAXWELL'S HIGH SPEED CHAMPION JEWEL FAVORITE FOOD CUTTER CHURN

Fastest running and most satisfactory washing machine made in Canada. Can be worked with side crank as well as top lever. Red Cypress Tub and the whole top opens up. Wash day is the easiest day of the week when you wash with the Maxwell High Speed Champion.

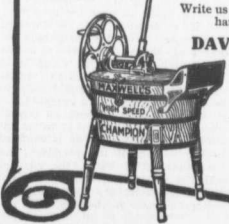
is just what you need for your kitchen. So much easier, quicker and more convenient than cutting up meat, etc., with a knife.

"Jewel" is superior in every way to imported food choppers, and being made in Canada, costs less.

makes the most delicious butter you ever tasted. It's real "quality" butter—that is a pleasure to eat.

Both hand and foot levers and roller bearings, enable a child to churn with the "Favorite". All sizes from 1/2 to 30 gallons

Write for Catalogues, if your dealer does not handle these household necessities. **DAVID MAXWELL & SONS ST. MARYS, Ont.**



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Ask your C.P.R. Agent for rates of "Settlers' Guide"

135 ACRES \$2500, Part Cash

Livestock, Machinery and Tools

Widowed owner sacrifices this fine New York farm, completely equipped, 70 acres luscious fields, brook-watered pasture for 15 cows, lots of wood, 500 sugar maples and outfit, 20 apple trees, 2-story 5-room house, 40-ft. barn, convenient outbuildings, maple shade, sweeping view of valley, horse, 6 cows, hog, all machinery, cream separator, gasoline engine and all tools included if taken immediately; chance of a life-time at \$2500 part cash. All details and travelling directions to see it, page 6, Strout's Farm Catalogue "S." Just out. Copy free. We Pay Buyer's R.F. Fare, copy free. A. Strout, Farm Agency, Station 2471, 27 West 24th Street, New York

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Save you money

Stop all laundry troubles. "Challenge" Collars can be cleaned with a rub from a wet cloth—smart and dressy always. The correct dull finish and texture of the best linen. God has given us "Challenge" meat. If your dealer hasn't "Challenge" meat, write us enclosing money, 25c for collars, 50c for meat. For outfit, we will supply you. Send for new style book.

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Remember the **St. Lawrence Sugar**

Try it—test it—see for yourself—that "St. Lawrence Granulated" is as choice a sugars money can buy. Get a 100 pound bag—or even a 20 pound bag—and compare "St. Lawrence" with any other high-grade granulated sugar.

Note the pure white color of "St. Lawrence"—its uniform grain—its diamond-like sparkle—its matchless sweetness. These are the signs of quality.

And Prof. Hervey's analysis is the proof of purity—'99.99/100 of pure cane sugar with no impurities whatever.' Insist on having "ST. LAWRENCE GRANULATED" at your grocer's.

ST. LAWRENCE SUGAR REFINING CO., LIMITED, MONTREAL.

66

The Upward Look

Deceiving Our Own Selves

But be ye doers of the word, and not hearers only, deceiving your own selves.—James 1: 22.

In these modern days there is a growing tendency, in all lines of endeavor, to specialize. Great factories manufacture only some one or two special lines of goods. In their employ are hundreds of men who know how to operate only some one simple piece of machinery. Their lives are devoted to this one line of work and their resultant proficiency makes them more valuable workmen than otherwise would be the case.

The same influences are transforming our farming operations. Year by year we are hearing more and more of special dairy farmers, of farmers who do nothing but grow fruit, of farmers who devote their attention to the breeding of horses or to the cross of one kind or another for which their land may be peculiarly adapted.

Even our churches are now being invaded. In many of our large city churches, choir soloists are replacing the old time voluntary choirs. Teachers in the Sunday schools are often picked for the special training they have had along certain lines rather than for their evident Christian process. Deaconesses are being employed as assistants for our ministers.

While good has followed these efforts towards increased efficiency in church work, evil results also are noticeable. There is a growing tendency among many church members to sit back and leave the work of the church to some one else, presumably more

competent, to do for them. Organization and specialization are being carried so far they are tending to draw a line that is having a more or less direct effect in leading some to feel that the church has no need for their services. And thus the church is made easy for members of the church to become hearers of the word only and not doers, thereby deceiving themselves while the church as an organization is deceived also.

No more deadening spiritual influence could creep into a church or into the life of any Christian. Our religious duties are the one thing which we cannot leave to any one else, no matter how capable, to attend to for us. Whenever we do we deceive ourselves.

In Prof. Henry Drummond's great work, "Natural Law in the Spiritual World," he has shown that there is a law by which it is ordained that if we have a power or faculty and neglect to exercise and develop it we immediately begin to lose it. Thus were we to tie our arm behind our back and leave it there, week after week, our arm in time would become weak and useless.

It would not help us any were we to exempt leave one else to exercise their arm for us. It would deteriorate just the same. And so it is in all spiritual matters. It makes no difference how able our minister may be if we do not train the choir, how efficient the Sunday school teachers are or how much money our church may be giving to home and foreign missions.

If we ourselves are not regularly studying God's word and praying earnestly to Him from our hearts for help and guidance each day, if we do not join heartily in the services of praise to the best of our ability, how can we expect to see and show our Christian love by speaking to and shaking hands with those around us in church and being ready to help willingly in any church work when asked and if we do not contribute to the funds of the church to whatever extent our means permit, then have we become hearers of the word only and not doers, and we are deceiving ourselves. We must abound in our hearts both towards God and man, and when it does we will use joyfully those powers which God has given us. Then a new realization of God's love will come to us as we strive to spend and be spent in his service.—I. H. N.

Electric Light for the Farm

Taking the average of summer and winter days, artificial light is needed, in the majority of homes, not more than four hours a day. This is for the kitchen and living room; in bedrooms it is needed not more than two hours a day. For the whole house, and for the barn, an average of three hours a day for each lamp would seem to be ample, and five lamps will afford much more light than now suffices for all the purposes of the farmstead.

If the householder, then, can divest himself of the idea that, if he introduces electric light at all, he must have clusters or festoons of flashing bulbs all over his premises and if, in addition, he can—through cooperation with his neighbors or otherwise—secure "current" at a cost no greater than that at which it is supplied in most Canadian towns, then the electric light would seem to be within his reach at a comparative, by small expense, more light than now, plant or storage-battery is now installed, the initial outlay is confined to the wiring of the premises and the purchase of bulbs, the cost of which is so small as to be insignificant in the means of almost any household.

Recent tests at the Colorado Ex-

periment Station, with current furnished by the Electric Light Company of Fort Collins, at a charge of five cents a kilowatt hour, showed that the cost of burning a 20-candle power Tungsten lamp for 1,000 hours was \$3.30. This includes the cost of the lamp itself, the life of which averages 1,000 hours. The cost of burning a single lamp for a year, three hours a day, is thus seen to be only \$4.16. It is five more than the cost of a candle power; the lamps used in the Colorado experiment were of candle power; the cheaper 15-candle power is ordinarily used in cities.

Five improvements in the lighting attended with so much satisfaction, that which comes from the substitution of the brilliant and convenient electric light for the barn, the convenience of the electric bulb as compared with the old-time lantern, and the instantaneous appreciation of great are its advantages, that many well-to-do farmers have, at a cost of several hundred dollars, installed plants for the production of the necessary current for the individual use also and now regard the matter as indispensable. What they have gained individually would seem to be worth the reach of any community of farmers through cooperation.

Some Uses for Pork

GRIND THE MEAT

Grind the meat well, and put it plenty of fat, making it fat enough to fry itself." To one gallon of pork meat add two heaping tablespoons of coarse salt, one heaping one-half to one teaspoonful of pulverized sage. Red pepper may be used instead of sage. Mix thoroughly by kneading in a large pan or tub. Then pack as solid as possible in stone jars for immediate use. Always grind before seasoning.

SCRAPPLE

Skin the head and cut off the jawls. Cut up the head, removing the eyes, ears, brain and tongue. Place the bony pieces, tongue, twigs, liver, and other meaty scraps in a large kettle, in the presence of the bones. Take out and cool and grind with sausage mill, using a small portion of the liver. Soak the liquor. After grinding the meat return to kettle with the liquor and add some water, bring to boil and stir in corn meal, as if making macaroni, thickens. Season to taste with salt, an hour or so pour into pans to cool. It may be served with or with vinegar, or sliced and fried. All bloody portions of meat must be allowed to stand in salt water overnight before first cooking.

MIXED-MEAT

Six pounds of ground meat, six pounds of chopped fresh apples, one quart of grape juice, one quart of strawberry juice, three pounds of cranberries, two pounds of seeded raisins, two other rich canned strawberries, one heaping teaspoonful each of lemon and cloves, one large nutmeg grated (or two small ones); sweeten with granulated sugar. Set all the ingredients together, and stir to loll and add more of the juice or a pint of boiled cider, and small quantity of water. Heat to boiling, and boil five minutes, stirring carefully to prevent scorching. Seal in glass cans with sterilized caps will keep indefinitely. When making pies add one tablespoonful of lemon extract or lemon juice to each pie. One quart of this mince-meat will make four ordinary-sized pies.

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Manitoba, Saskatchewan

Special Trains leave TORONTO APRIL 11, 18 MAY 12, 1912

Special rate, including food

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LOW ROUND

Includes and meals \$34 and to return with 100 lbs of goods within 100 miles

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Includes meals, 1st class berth, fully equipped baggage, and 100 lbs of goods

Early application

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DIYOLA

ONE DYE FOR ALL KINDS OF GOODS

CLEAN and SIMPLE to Use. No shade of color the WRONG Dye for the Goods can give. All colors from your Dyaguet or new, BLUE Color Card and 27 ONLY, Booklet 14, The Johnson-Richardson Co., Limited, Montreal.

Vincent's Health Hints

Proper vs. Improper Eating

While not a thing of the highest importance in the plan of life, eating holds a strong position in the mind of most people. As a rule, people think they know how to eat all right; their great trouble is to find the right things to eat. But the fact is if we really know how to eat, we would not need to pay half as much attention to the things we take into our mouths. And yet, you tell a man he does not know how to eat his food, and he will flare up and perhaps say you are a big fool; still, I am going to venture it, even if I get licked for doing it. Very few people do know how to take food properly. If they do, they have a wonderfully poor way of showing it. Not so many months ago I sat down in a big city restaurant at dinner



What Every Country Home Should Have

A fully equipped bathroom in the country home is more fully appreciated in the winter than at any other season of the year, especially by the women of the house. Why not start now a systematic, tactful campaign for one in your home?

time. They had strawberry short-cakes. It was good, no mistake about that, and it tasted good to all of us. But some of the men there just swallowed it whole. One man in particular took the biggest mouthfuls of any man, it seems to me. For a while we eat. The next moment it was gone. And the rest of the folks were about as bad. They did not chew their victuals at all.

No wonder we have appendicitis and all sorts of bowel troubles. And farmer folks are about the same. We come in from our work, tired and hungry. Food tastes good and we just mow it away—bread, potatoes, meat, pie, cake, hot coffee or tea, and cold water. Then we get right up and go to work again, no time to give the food a chance to digest.

The end is sure. For a while we can stand it, but the day comes when we have to step up to the captain's office and settle. Nature will not allow us to put up with such abuse. We die or are invalids for life. All for lack of time to eat. God help us to learn how to eat!

How shall we do it? Use common sense. Just say to yourself when you sit down to the table, "Now, I am here to enjoy this food. I need it to keep my body in the best possible condition. My very life depends on it, and to get the most good out of it, I must not kill myself. I must chew every mouthful till it swallows itself. No matter if there are a dozen things that need attention. If I can't eat all I want, I will eat what I do eat like a man, and not like some ravenous beast." Half the amount taken that way will do us more good than twice the quantity swallowed in chunks. What a burden it must be to the stomach and bowels to take care of such a load!

SPECIAL PATTERN SERVICE

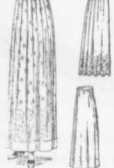
We realize the great interest that all of our readers take in the new spring styles, and have therefore made arrangements whereby we will be able to give many of the patterns in Farm and Dairy than usual during the next few weeks. These will illustrate many of the attractive styles. Should you wish patterns other than you see in Farm and Dairy from week to week write us and we'll do our best to get them for you. When ordering patterns kindly be sure to give name and address, size and number of pattern desired. Address Pattern Dept., Farm and Dairy, Peterboro, Ont.

CUTAWAY COAT, 7282



The cutaway coat is always jaunty in effect and consequently it suits young girls and women of girlish figures peculiarly well. This one is finished with a distinct point and such finish is new and smart. The coat is semi-fitting and takes the straight lines that are so essentially smart this season. For the 16 year size will be required 3.8 yards of material 27, 2 1/4 yards 36, 2 yards 44 or 42 inches wide with 1/2 yard 21 for collar and cuffs, 1/4 yard 21 for banding to trim as shown in small front view. This pattern is cut in sizes for misses of 14, 16 and 18 years.

STRAIGHT SKIRT FOR MISSES AND SMALL WOMEN, 7283



The straight skirt is to be pretty, so generally liked and so practical that the girls will be glad to know that it is to be much worn this season. It is especially well adapted to bordered materials and flouncings. For the 16 year size will be required 1 1/4 yards of material 27, 2 1/4 yards 36 or 42 inches wide; or 2 yards of flouncing to make of bordered material. This pattern is cut in sizes for misses of 14, 16 and 18 years of age.

TUCKED SHIRT WAIST, 7286



The tucked shirt is always a smart one. This model can be made severe and mannish in effect as shown on the figure, or it can be made essentially feminine as shown in one of the small views. For the medium size will be required 3 1/4 yards of material 27, 2 5/8 yards 36, 3 yards 44 inches wide. This pattern is cut in sizes 34, 36, 38, 40 and 42 inch bust measure.

GIRL'S DRESS, 7272

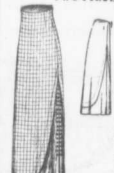


The yoke dress is always a pretty one for little girls. This one is quite novel, for the yoke is closed at the left side of the back while the dress itself is closed at the center, beneath the box. For the 6 year size will be required 3 yards of material 27, 2 1/2 yards 36, 2 yards 44 inches wide with 1/4 yard of banding to trim as shown in the large view, 3/4 yard of all round banding to trim as shown in the small front view, 1/4 yard of braid to trim as shown in the back view. This pattern is cut in sizes from 4 to 8 years.

TUCKED BLOUSE, 7278



The shirt waist that is tucked yet includes a plain yoke is a very new one, very attractive and susceptible of many variations. This model is one of the prettiest. It includes the new sleeves that are round and joined to cuffs and which can be made in either full or three-quarter length. For the medium size will be required 3 1/4 yards of material 27, 2 5/8 yards 36, 2 1/4 yards 44 inches wide with 3/4 yard 27, 1/4 yard 36 or 44 with 1 1/2 yards of insertion and 1 1/2 of edging for the trim. This pattern is cut in sizes 34 to 42 bust. TWO-PIECE SKIRT, 1272



Nothing is smarter this season than the skirt that gives a tonic effect. This one is unusually graceful. It is made in the favorite two-piece style but there are inverted plaits at the sides that provide freedom in walking and which suggest the slashed effect at the same time that the skirt is closed. For the medium size will be required 2 1/2 yards of material 27, 35 or 44 inches wide for the upper portion, 2 1/2 yards 36 or 44 for the lower portion, the width of skirt at lower edge is 2 1/2 yards, 2 yards when the plaits are laid. This pattern is cut in sizes 34, 36, 38 and 39 inch waist measure.

BELETED SEMI-PRINCESSE DRESS, 7285



This dress is more fashionable nor better liked than the one that is made in semi-princesse style. This model includes the overlapped edges that are so new and so attractive and is adapted to an infinite variety of materials. For the 16 year size will be required 5 1/2 yards of material 27, 4 yards 36, 3 1/2 yards 44 inches wide with 1/4 yard 27 for the trimming. This pattern is cut in sizes for misses in sizes of 14, 16 and 18 years of age.

Remember that there is something to be considered besides pattern in the fabric of life. There is fiber.

Pa's Way
Say, my grandma's coming, and you can bet I'm glad, 'Cause she's the bestest one I follow ever had.

For when Pa soils at me, And wonders why I'm bad, Grandma just smiles an' says, Same ways your father had.

And Pa's face turns so red, But he don't dare get mad, 'Cause he knows Grandma knows The kind of ways he had.

GRAND TRUNK RAILWAY SYSTEM

Homeseekers' Excursions

TO WESTERN CANADA VIA Chicago and St. Paul

May 14th and 28th; JUNE 11th and 25th and every second Tuesday thereafter until September 17th.

HENPECK AND RETURN - \$34.00
MONTOUR AND RETURN - \$42.00

Tickets will also be on sale on certain via Duluth and Northern Navigation Company.

Through Pullman Tourist Sleepers will be operated in connection with above excursions, leaving Toronto, 10.30 p.m.

NO CHANGE OF CARS

Full particulars and tickets from any agent and from Agent, or write A. E. DUFF, Chief Passenger Agent, Union Station, Toronto, Ont.

CANADIAN PACIFIC HOMESEEKERS' EXCURSIONS

TO Manitoba, Saskatchewan, Alberta

Special Trains leave Toronto 2.00 p.m. on APRIL 16, 19, MAY 14, 23, JUNE 11, 23, APRIL 25, MAY 6, 20, SEPTE 5, 17

Special train leaving from Ontario stations to principal Northwest points at

LOW ROUND-TRIP RATES
Toronto and return \$34.00, Edmonton and return \$42.00, and to other points in proportion. Tickets good in return within 60 days from issuing date.

TOURIST SLEEPING ON WAGONS
Special train leaving from Toronto, 10.30 p.m. for Calgary via Medicine Hat, also to Vancouver and other points. Fully equipped with bedding, can be used in either direction. Good seats.

Early application must be made. Ask for HOMESEEKERS' PAMPHLET which contains full particulars. Apply to nearest C.P.R. Agent or K. T. MURPHY, Dist. Pass. Agt., Toronto. ONLY DIRECT LINE NO CHANGE OF TRAINS

HOLSTEIN-FRIESIAN NEWS

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

Q. Hallman, of Breslau, beginning his sale, announces for sale Holstein bulls, good one in quality and quantity. Would please send names of Farm and Dairy readers in need of good bulls who will do see these in detail.

Mr. R. B. Secretary of the Oxford District Holstein Breeders' Club, writes Farm and Dairy that the club will hold a convention of High-Class Holsteins at Woodstock, June 12th, 1912. Particulars will be announced later in Farm and Dairy by advertising and reading columns.

LYNDEN HOLSTEIN RECORDS
The Lynden herd of high-testing Holsteins are making good records, and as a result have few equals and no superiors. It is headed by the richly bred bull, Nigger Korndyke De Boer. His dam, Miss Glaser, made 25.7 lbs. butter in one week and tested 4.5 per cent fat. Her sister, Lucretia Borgia, made 21.91 lbs. butter in one week and tested 4.36 per cent fat. Lucretia's dam, Kaatje De Boer 2nd, made 19.8 lbs. butter in one week and tested 4.3 per cent fat at four years old, and her full sister, Kaatje De Boer 2nd, made 19.8 lbs. butter and tested 4.3 per cent fat. Her only daughter, Boutaje Poosh De Boer, made 33.03 lbs. butter and tested 4.3 per cent at two years 11 months old, the largest record two-year-old living in Canada. Nigger's only two sisters on the other side that have been tested are Lucretia Borgia, made 21.91 lbs. butter and tested 4.5 per cent fat, and her sister, Lucretia Borgia, made 21.91 lbs. butter and tested 4.36 per cent fat. Her sister, Lucretia Borgia, made 21.91 lbs. butter and tested 4.36 per cent fat. Her sister, Lucretia Borgia, made 21.91 lbs. butter and tested 4.36 per cent fat.

ter; 500.7 lbs. milk; ave. per cent fat, 3.11; age at time of calving, 4 yrs. Countess Carrie Mercedes—17.33 lbs. butter; 45.5 lbs. milk; ave. per cent fat, 3.65; age at time of calving, 7 yrs. 3 mths. Boutaje Poosh DeKok—16.64 lbs. butter; 33.7 lbs. milk; ave. per cent fat, 3.70; age at time of calving, 3 yrs. 5 mths. 14-day record—32.31 lbs. butter; 72.11 lbs. milk; ave. per cent fat, 3.58; age at time of calving, 2 yrs. 11 mths.

Queen Ann Teake Lady—14.9 lbs. butter; 28.6 lbs. milk; ave. per cent fat, 4.20; age at time of calving, 1 yr. 11 mths. These five mature cows, one two-year-old, two three-year-olds, one two-year-old and one yearling, averaged 39.84 lbs. butter and 63.4 lbs. milk each in seven days, and with an average test of 3.93 per cent fat. They are all capable of increasing these records under favorable conditions. I sold to Mr. G. Wyman, of Chate II, Blonduan, Ont., the fine yearling bull, Sir Korndyke De Boer, a full brother to Nigger Korndyke De Boer. To Mr. Roy Hewitt, of Plattville, Ont., Lord Korndyke De Boer, and Spotted Lady DeKok; his dam and sire's dam average 35.56 lbs. butter and 65.93 lbs. milk in seven days, with an average test of 4.54 per cent fat. I have a bull calf five months old of the same breeding yet for sale; also a son of Sveungeline 2nd and Boutaje Poosh DeKok, he being a daughter of Spotted Lady De Boer and a grand-daughter of the famous Boutaje Q. Pieterje DeKok. She is a fine large heifer, and will be heard from when she gets fully developed.—S. Lemon, Lynden, Ont.

THE MANOR FARM HOLSTEINS

For a number of years Mr. Gordon S. Gooderham, Bedford Park, Ont., has been quietly establishing a herd of high-class Holstein cattle on "The Manor Farm," where he produces certified milk, which is sold to hospitals and the general market in Toronto. Occasional purchases, which he has been making during recent years, and the natural increase of his herd has put Mr. Gooderham in possession of upwards of 100 registered pure-bred Holsteins, which he now has in his stables. "The best is none too good" seems to have been the motto of Mr. Gooderham in building up his herd, and as a result he has a great number of very choice animals, many of which are of the richest breeding. During this past winter, while at a big sale in Syracuse, New York, he purchased several top-notch Holstein females and added these to his already fine herd. Some interesting facts about these individuals will be announced week by week in Farm and Dairy through Mr. Gooderham's advertisements.

High testing Holsteins are the specialty being developed by Mr. Gooderham. His record importations are from stock noted for their high testing qualities. Amongst others in his herd, noteworthy because of their high per cent of butter fat contained in their milk, is the cow Cairngorm Anggie, a heifer that has given as high as 48 lbs. of 4.2 per cent butter milk in a day; Cairngorm Starlight Butter Girl, the world record cow for butter production, which cow in 1910, at the Guelph Winter Fair Dairy Test, made over 15 lbs. butter in three days, this being her fourth pounds of butter fat a day, her milk tested 5.2 per cent butter fat, this being her average in this public test.

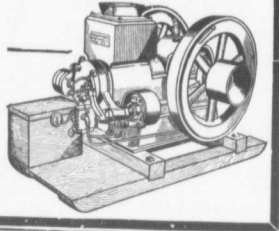
Since 1908 this herd has been headed by Prince Hengerveld of the Pontiacs, the splendid individual, of rich breeding, as illustrated in Mr. Gooderham's advertisement in Farm and Dairy this week. Some excellent young stock from this bull and out of record cows Mr. Gooderham is offering for sale. Breeders and prospective breeders of Holstein cattle will find themselves well repaid for any expense they are inclined on page 25)

Reliable help for the farmer

Farm labour is scarce. Wages are high. All the more need for a Barrie Engine. Soon pays for itself in time and labour saved. Grinds grain, shells seed corn, pumps water, cuts straw, threshes beans, saws wood, drives churns, separators and washing machines. Does many other things too.

Barrie Engines Work Long

hours without getting tired. Very simple in construction. Reliable in operation. 3 to 100 h.p. Stationary or portable. For gasoline, distillate, natural gas, producer gas. Write for catalogue.



Agents wanted. THE CANADA PRODUCER AND GAS ENGINE CO., Limited Barrie, Ontario, Canada Distributors: James Roe, Medicine Hat; Canada Machinery Co., Regina; McCusker Imp. Co., Regina

LABOR SAVING Farm Machinery Number, June 6th



Holsteins 70 Head of Deep Milking

Stock of Known and Proven Production WILL BE SOLD AT PUBLIC AUCTION At My Farm, near WESTON, Ont. Thursday, May 23rd, 1912

The offering includes 20 females from Cornelius Posch, 2250, who won First Prize Five Years in Succession at Toronto, also at London.

10 Heifers from Butter Baron, 9186. The four nearest dams of this sire averaged 4.4% butter fat. His dam, Queen Butter Baroness, is the 3-year-old Champion of Canada.

50 Cows in milk, nearly every one with big weekly and yearly Official Records, also a few Bull Calves from Butter Baron, and out of cows with good big records.

I have always used the best sires obtainable and have gone after high testing stock. Several of my females average above 4% butter fat. They have records from 10,000 lbs. to 15,000 lbs. as 2-year-olds to 19,000 lbs. milk in one year as mature cows.

This is the kind of Holsteins you want for foundation stock or to improve or add to your herd.

Plan to come to my Big Sale, MAY 23rd. Send now for Catalogue. Rigs at Station on day of sale

THOS. HARTLEY, Downsview, Ont. (Two Miles from Weston, Ont.)

The Event of the Season in National Holstein Circles Decoration Day, Russell's Annual Sale May 30, 1912 100 HEAD Special Features 100 HEAD

Every head a female, either officially tested or daughter of an officially tested cow. All absolutely guaranteed without a blemish, and every one a breeder. This is your opportunity to improve your herd or lay a sure foundation for future dairy prosperity.

"From Ohio's Most Reliable Holstein Breeder" WRITE FOR CATALOG T. H. RUSSELL, Geneva, Ohio, U.S.A.

A Favorite with Women

An Agent of ours, who previously sold other makes of separators, says: "The reason I asked for your agency was because



seem to be the favorite with the women of this locality. Before I had Empires for sale, I've known women to go to a town ten miles farther on to get them."

Empire Separators will merit their popularity with women. They run so easily, children think it's fun to operate them.

They don't spatter oil. And the anti-splash steel supply can keep the milk from slopping out. They don't make a muss. They are clean-running machines.

The few, simple skimming de-

VICES are easy to clean. Empires are sanitary separators.

They are not complicated in construction. Nothing puzzling about them. They are simple machines. Easy to put together. Easy to understand.

Surely madam, you will like to realize the pleasure and profit there is in owning a really good separator, therefore ask our agent to let you have one for Free Trial. This will place you under no obligation to buy.

You may have a copy of our latest catalog, too, if you'll just write our nearest office. 34

The Empire Cream Separator Company of Canada, Limited
WINNIPEG, TORONTO, MONTREAL, SUXSEX
Agents everywhere in Canada—Look for the Empire Sign.

Breeders, Here is the Bull that is Heading My Herd



Prince Hengerveld of the Pontiacs

(Photo by an Editor of Farm and Dairy)

Note that as an individual he is all you could wish for. He is in good, low-set, deep and of wonderful constitution. Note how straight he is, good size, and were you in my stable to put your hand on him you would discover him to be an exceptionally good handler. He has that masculinity, which makes him a very prepotent sire.

HIS BREEDING Need I say more than that he is sired by KING have 20 P.B.L. DAUGHTERS. THESE RECORDS BEING MADE AS 3-YEAR-OLDS!

Several bulls and heifers from this grand bull I am offering for sale. While this bull cost me a pretty fair price, I have priced his stuff at a very reasonable figure. It will make money for you. Come to the farm and see my offering, or write. Over 100 Holsteins in my herd to choose from. You are welcome to come any time. Manor Farm is only a short ride from North Toronto, on Electric Cars.

THE MANOR FARM,

Gordon S. Gooderham, Bedford Park, Ontario

OUR FARMERS' CLUB

Correspondence Invited

PRINCE EDWARD ISLAND.

QUEEN'S C. P. E. I.
BAY VIEW. April 29.—Snow is now gone. Clover looks well on new meadows. Prices of all farm produce are good. Oats for seed (to export), 60c to 70c; potatoes, 60c; best fat cattle, 86c; hay, \$13.50; bacon hogs (crossed), \$14; eggs, 28c; butter, \$19.00. Fodder is quite plentiful except in Kings County. Fox ranching is booming still. Record prices are being paid for beat and silver foxes to start ranches. As much as \$21,000 has been paid for a pair of choice blacks with a guaranteed litter of not less than two. A number of big fox ranching companies have recently been incorporated by the Provincial Legislature. There are about 15,000,000 worth of black foxes in ranches here now. Dairy companies are hard at work preparing for another season. Garwick Lecheur, who took the agricultural courses at Guelph and St. Anne De Belle Van, has been appointed seed inspector for the island.

PRINCE C. P. E. I.
RICHMOND. April 26.—Farmers are busy preparing for seeding. The weather is fine and the land springing well. Stock wintered well as there was plenty of feed. There is a good demand for potatoes, which are now selling at 40c a bush; oats, 55c; timothy seed, 85c; red clover, 25c a lb.; other grades accordingly high from \$175 to \$225.—J. D. McI.

ONTARIO.
HASTINGS C. P. O. N. T.
SIDNEY CROSSING. April 29.—Spring is very backward, very little seeding done yet and more rains than desired. Wheat, \$1; barley, \$1; oats, 52c; peas, \$1; rye, \$1.25; potatoes, \$2.10 to \$2.25, the highest ever known; buckwheat, 75c; eggs, 25c; butter, 35c. Fall grain and clover has wintered well, but no growth as yet. Feed is promising. Fruit of all kinds promises to be abundant.—J. K.

PIERREBOIS C. P. O. N. T.
LAKEFIELD. May 2nd.—We are getting some good Holsteins in this part of the country. Several of our farmers, Mr. Ed. Jory, R. H. Little, R. Jory, Wm. Frankish and E. H. Thro, have recently purchased first-class Holstein bull from Mr. Brethen, of Norwood. Things are booming in the dairy line.—E. E.

NORTHUMBERLAND C. P. O. N. T.
WICKLOW. April 24.—Spring is about here, although very little spring work has been started. The land seems very wet and heavy. Feed is likely to hold out, though not very plentiful. Young stock have wintered fairly well for the amount of food on hand. No spraying has been done yet, although trimming has been started.—W. C. H.

WELLINGTON C. P. O. N. T.
MAPLE LANE. April 30.—The weather continues cold, very little seeding done yet. Feed is scarce and prices high and no grass. Taking everything into consideration, stock is looking well. Clover came out of winter quarters in good form and if the weather is at all favorable from now on a good crop may be looked for. Lambs are coming strong.—J. R. P.

ELOHA. April 29.—A fair report for the last few weeks would be "Nothing doing." The weather has continued very backward, with only one or two fairly warm days. The fields are gradually drying off. Last week a few were sowing. No teams as yet, but fine for working the toms. Feed is becoming scarce, but most of our farmers have enough to last two or three weeks, and all hope for some outside by that time. It is a grave mistake to keep cattle on pasture too soon, which I see is being done in some localities. Cattle are still leaving in considerable number, but of poorer quality. Scarcity for the summer is indicated. Prices for cattle and hogs are very high.—W. W.

WENTWORTH C. P. O. N. T.
KIRKWALL. April 15.—Farmers have been making maple syrup during the past week. The season is getting very short this year. The weather is now quite warm and it will be possible to get on the land in a few days. A very heavy electric storm passed over on the evening of April 14th. Seed oats are scarce and high in price. Barley is quite plentiful and is selling at \$1.10 a bush. Feed is very scarce on many farms, and a great deal of farm

stock will go out in poor condition. Poultry are scarce and high in price. Swine are also scarce. Hides are 10c. Hogs are 10c. Bran, 25c; shorts, 27c; butter, 35c; eggs, 28c; hay, \$13.50 a ton.—C. W. W.

WATERLOO C. P. O. N. T.
NEW HAMBURG. April 29.—Many fields are promising only fair but a crop of some are sowing early. Dairy cows and calves killed out. Clover has suffered patchily. Feed is getting scarce. Markets open on Wednesday with fair prospects of milk for the season.—E. G. S.

ONTARIO C. P. O. N. T.
AYR. April 28.—We are having a backward spring. Some on the heavy ground have barely started seeding yet, while others are plowing it up or else drifting along with it. Clover in some instances has not come out good. Feed is getting scarce and we are looking anxiously for grass.—G. C. S.

LAMBTON—THE GARDEN OF CANADA.
How often we are carried away with thoughts of the boundless and beautiful distant fields where brooks continually run with sparkling water through green meadows and the land so undulating that no drainage ever needed—just nature has left it as she found it. The work under the most favorable conditions consisting of a contact with the heavy, tenacious

soil of clay of what the larger part of Lambton is composed. When we think of the miles and miles of local drainage thousands of miles of underdrains are we must put in, we are then led to the question, where will we find the better location?

We find articles in our leading journals speaking of Lambton as "The Garden of Canada." We find reports of leading men who are looking principally to its future possibilities for peach and small fruit in the northern part and the solid farms and plums such as our heavy clay soil produce in all parts of the county. The men of capital are touring the country looking for suitable routes for electric canals to convey help from the town to lands whose products and to get them nearer to the consumer. We may well ask the question, is Lambton (which is composed of the great Sydenham, Valley of Wallaceburg to Arkona) the "some less and pleasant dell, some valley in the west," and also "The Garden of Canada." Two years ago the county council, with the assistance of the local farmers, met, wishing to help the farmer to some more scientific principles, selected E. R. E. Todd, an expert, as District Super-

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entative, who is seeing land the greatest gain has ever seen. Journal of C. H. articles on Mr. King is one of the best. The position of the victor in the main line of C. H. is the mist of all grain sections. What was the greatest success in the soil. Yes, we produce plums, and from peach. Now why we try have we? Well, until we have a hundred and an interest in planting

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...ative, who now says: "I look forward to seeing Lambton the greatest county in the greatest province, in the greatest nation, in the greatest Empire the world has ever seen."

Again, the *Spring Journal of Chicago*, after giving a long article on Mr. Rawling's sheep (Mr. Rawling is one of the largest breeders on the Continent), concluded by giving a description of the vicinity as follows: "Forest, on the main line of the G.T.R., 24 miles east of St. Clair tunnel, is delightfully situated in the midst of the best stock, fruit, dairy and grain section of the Province of Ontario."

But what have we got to boast of? Why, the greatest asset any country can have—the soil. Yet, we have the soil that will produce plums, pears, or almost anything else from peaches to pigs.

Now why are we not further advanced? Why have we not more large orchards, vineyards, and an oil territory. Many had no interest in anything but cutting the throat; planting was scarcely ever thought

of. But this is all past now, the lumberman has either become a farmer, or moved away. Yet we have had a number of fruit growers along the Lake who have proved the value of that section for fruit as they have been in the business for years and have been very prosperous. The oil man was neither an agriculturist nor a horticulturist. Whether he struck oil or not, if he succeeded, his business was to watch the wells, pump, and his bank account. If he failed, then he generally worked for some "oil king." At present we are entering a new era, farmers are changing hands at advanced prices, business men are working for better roads, telephone lines are being erected, under-drains are being laid on almost every farm; in fact, there is an advancement all 'round the line of progress.—D. N. Anderson, Lambton Co., Ont.

SAMPLE DISTRIBUTION OF AMATITE

ROOFING The manufacturers of Amatite ask us to say that they are ready to distribute

samples of their roofing to any one who is interested in the new type of roofings. Anybody can obtain one of these samples by simply addressing a request for it to the nearest office of The Paterson Mfg. Co., Limited, Montreal, Toronto, Winnipeg, Vancouver, St. John, N.B., Halifax N.S.

This sample serves to show the mineral surface of Amatite, which is its great unique feature. By this mineral surface Amatite eliminates the painting nuisance. You lay Amatite on the roof, leave it alone and it will take care of itself year after year. It needs no painting or attention. Of course, this reduces the total roofing expenses considerably, for nobody who has had experience with the ordinary smooth-coated roofing is willing to consider that paint is cheap. It might be expected that Amatite would cost more than the smooth-coated roofings, but its price, in fact, is somewhat lower than that of the old type.

If you are interested in ready roofings Amatite is worth remembering.

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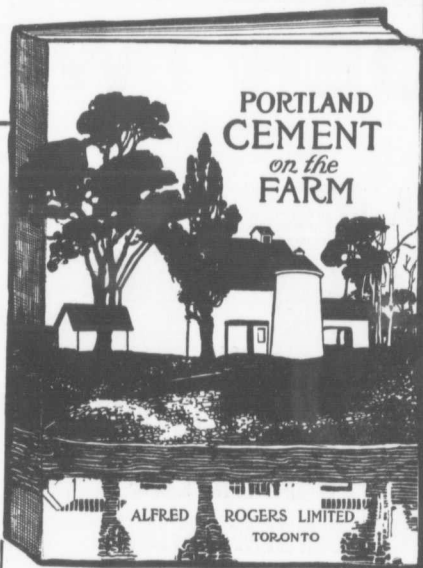
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Flower Boxes	Elevated Tanks
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