

FARM AND DAIRY

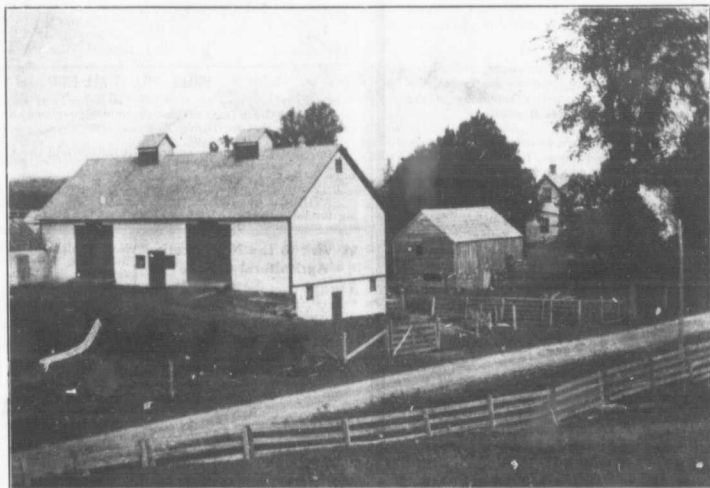
AND

RURAL HOME

PETERBORO, ONT.

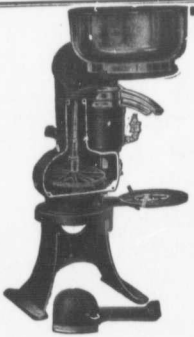
NOVEMBER 14

1912.



MUCH CREDIT IS DUE THE NOVA SCOTIA FARMER FOR HIS SPLENDID FARM BUILDINGS. The farm barns that characterize the better farming sections of Nova Scotia are always a pleasing surprise to the visitor who is accustomed to the bare, unpainted structures that are found in the very best farming sections of some of the other provinces of Canada. Most of the barns are short shingled on sides as well as roof and attractively painted in red or white. The steading here illustrated, that of Foster Gamble, Colchester Co., N. S., is typical of the steadings of the province. The low price of lumber in Nova Scotia; may account in some degree for their superior farm buildings. But an even greater factor is the pride taken by the Maritime farmer in the appearance of his homestead.

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WHERE WILL IT ALL END?

BOY—"Daddy, they say that because Germany is spending \$50,000,000 on her navy Great Britain must spend a bigger sum, and Canada must help her. Is that so, Daddy?"

FATHER—"Yes, my son."

BOY—"Well, if Germany spends \$100,000,000, will Great Britain and Canada have to spend \$100,000,000 too?"

FATHER—"I suppose so."

BOY—"But suppose Germany spent \$200,000,000, what would we do?"

FATHER—"Oh, run away and don't bother me. These things are too big for little boys like you to understand."

A Visit to the Nova Scotia Agricultural College

The growth of the Nova Scotia Agricultural College during the few years of its existence is indicative of the re-awakening interest in agriculture that is in evidence on every hand in Nova Scotia. When the college was established eight years ago, the students enrolled in the regular classes numbered only 60. Now, more are numbered in the regular classes than in the first short course, and the short courses in 1912 had an enrollment of over 300, the largest short course in agriculture held in connection with any college in Canada. When the population of the area on which the Nova Scotia College must depend for its attendance is considered, we find that the N. S. A. C. has a larger proportionate attendance than has the O. A. C., established almost 40 years ago. When on a visit to his home in Nova Scotia recently, an editor of Farm and Dairy paid a flying visit to the college to renew old acquaintances, and to take note of the progress that is there being made.

The demands of the work have entirely outgrown the buildings originally provided. Two years ago a new dairy building, splendidly equipped for demonstration and lecture work, was erected near the main building. This year, a horticultural building is being added. The main building itself, which previously provided accommodation for every department, is quaintly enlarged, in fact, almost doubled in size.

LIVE STOCK RECEIVE FIRST ATTENTION

The end that receives first attention at this Maritime college is the stock end, and rightly so, as all who are acquainted with agricultural conditions in Nova Scotia and the other Maritime provinces must agree that the only successful and permanent agriculture on the rather light soils of

Nova Scotia, must have as its basis live stock. The farmers of the province are giving their first attention to dairying and this is the branch of animal husbandry most emphasized on the college farm.

We found our old friend, Billie Cottle, still in charge of the cattle barns, and perfectly certain that the herd under his charge was making just as much money as the best herd in Ontario. The college has a splendid herd of Holsteins that has an average production probably as high as that of any other herd in Canada. Their Ayrshire herd must also be ranked with the best, and the Jersey is well represented in the college stables. A few Shorthorns and Herefords are kept, but these do not rank in importance with the dairy breeds. The stables have been recently remodelled and fitted in the most up-to-date manner, and their capacity considerably increased.

A splendid new horse barn, costing \$7,000, was in course of erection. The college has done much for the horse interests of the province and many of the pure bred animals found through Nova Scotia are either bred at the college or imported by the college authorities. Draft horse breeding is a line that is advocated for the Clydesdale breed were seen in the stables. Stallions are also kept representing the Hackney, Thoroughbred and Standard Bred breeds.

WORKS OF THE COLLEGE FARM

The season in Nova Scotia, as in the rest of Canada, has been exceedingly wet. The soil on the college farm, however, is quite sandy, and they harvested the best crop of grain threshing out well over 60 bushels to the acre. Roots also were in splendid condition when we saw them, but the corn crop was almost a failure.

Much of the progress of the college (Continued on page 11)

Issue Each

Vol. XX

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FARM AND DAIRY & RURAL HOME

SOME FUNDAMENTAL REASONS FOR THE DEPOPULATION OF OUR COUNTRY DISTRICTS

By H. B. Cowan, Editor-in-Chief of Farm and Dairy

Rural Depopulation Continues to Increase in Spite of Efforts to Prevent it. So Called Remedies that Do Not Work. The Real Reasons.

Our System of Taxation at Fault. How Speculation in Land Keeps People Off the Land. The Effect in Country Districts. The Remedy.

WHAT are the main causes of rural depopulation? Why is it that in spite of all the money that is being spent to encourage immigration to this country, to extend the work of our departments of agriculture and of our agricultural colleges, to establish experimental farms, demonstration orchards, seed growers' associations, as well as the appointment of district representatives and other similar lines of activity intended to benefit the farmer, the rural population of Ontario has decreased by upwards of 100,000 during the past 10 years?

SUGGESTED CAUSES

Some say that we need better roads, and free rural mail delivery. This, however, cannot be the explanation, for we find that rural depopulation is even more pronounced in those European countries and in the Eastern States where there are the best of country roads and where rural mail delivery is practically universal.

Others say that we need better country schools. These abound in sections of the United States where modern consolidated schools have been established successfully, and in which the teaching of agriculture is emphasized, but rural depopulation continues in these sections with alarming rapidity just the same.

Some blame the middleman, but we now know that practically without exception modern business is conducted on a basis where the profits are made by doing a large volume of business on a low margin of profit on each article handled. This is what has made it so difficult for cooperative enterprises by farmers to succeed, and explains why thousands of small business concerns fail.

THE REAL CAUSES

For ten years I have been interested in this subject. For the past four years I have been giving it special study. During this period I have examined the effect of proposed remedies where they have been tried, as well as into conditions as they exist not only in different parts of this country but in the United States and other countries as well. As a result of these investigations I have come to the following conclusions:

Rural depopulation in Canada is due in part to certain tariff regulations which bear with undue hardship on the farmer:

It is due in part to the monopolization of our great natural resources, such as our coal mines, timber limits and water powers, the monopolization of which has enabled small classes in the community to enrich themselves at the expense of the many, including the farmer:

It is due in part to the partial control of our great transportation systems, with their enor-

mous and often inflated capitalizations, which unduly increase the cost to the public of doing business:

But above all it is due to our system of taxation which both in the city and on the farm encourages men to hold land idle for speculative purposes while it discourages men from putting it to profitable use.

Partly as a result of our system of taxation, land in portions of our cities, like Toronto and Montreal, has increased in value until it is worth from a few thousand to several million dollars an acre, depending upon its location. These enormous values have so increased the cost of doing

a barn or a milk house his taxes will not be increased thereby.

The farmer has nothing to lose and everything to gain from such a policy. While he holds large areas of land it is of low value when compared with the value of iron and coal lands, timber limits, water fronts, railway rights of way, water powers and valuable city property. The land in the city of Winnipeg alone, it was recently announced, is worth more than all the farm land in the province of Manitoba. United States Government statistics indicate that while the farmers of the United States own considerably over half the land in the United States, this land represents only one-tenth of the land values in the United States.

A GENERAL AWAKENING

All over the world a general awakening to these conditions is taking place. Great Britain, Germany, New Zealand and Australia are leading the way, but our own western provinces are playing an important part. In Alberta and large portions of British Columbia, including the cities of Vancouver and Victoria, all taxes have been taken off improvements and placed on land values, and the people are wonderfully well satisfied.

In Ontario this week there is meeting a special committee of the Legislature to consider two Bills, one introduced by a Conservative and one by a Liberal, which propose to give municipalities, by a vote of the ratepayers, the power to lower and eventually abolish all taxes on improvements, while increasing them on land values. Should either of these Bills be adopted much will have been accomplished to decrease rural depopulation.

LAND SPECULATION EXPLAINED

Rural depopulation in the United States has reached such proportions it is creating a serious condition of affairs. Several states have appointed commissions to investigate and report on these conditions. More and more these commissions are being led to study the prevailing systems of land taxation. Far reachings results are likely to follow.

A few months ago Mr. I. S. Heron gave evidence before the Nebraska Rural Life Commission. Mr. Heron is the editor of the Nebraska Farmer, a farm paper that has among its subscribers some 40,000 of the best farmers in that section of the United States. The subject of land values, as they apply to the farm, was dealt with very fully by Mr. Heron, and in such an able manner, that I take pleasure in drawing a portion of it to the attention of the readers of Farm and Dairy. After drawing attention at considerable length to the decreasing rural population, the increasing size of the farms, the diminishing productivity of the land, and the great growth that was taking place in the number of tenant farmers in the state, Mr. Heron proceeds in part as follows:

"I am here to say that the reason for the exodus from our farms may be found in the price of

Something to Think About

Every person who has the cause of agricultural depopulation is interested in the question of rural depopulation. We would all like to know its cause. Many explanations have been given. Most of these are being discarded, because it is becoming apparent that the real reasons lie deeper than has been commonly supposed.

In the article that appears on this page, an effort has been made to draw attention to some of these reasons. The subject is a broad one. Lack of space makes it impossible to deal with it more fully. We trust, however, that enough has been said on it to lead the readers of Farm and Dairy to look into it more fully, and with open minds, for themselves. If they will, we venture to predict that ultimately they will come to the conclusion that the principal causes of rural depopulation have been here set forth.

business in our cities that it affords the main explanation of the great difference between what the farmer receives for his produce and the price the city consumer pays for it. The greater part of this difference does not go to the middleman, as we have so often been led to suppose, but to the country who own this high-priced city land.

In our country districts the man who improves his farm by erecting better buildings or planting an orchard, has his taxes increased, even when he has had to borrow the money used to make these improvements, while the man who permits his buildings and farm to run down has his taxes reduced.

THE REMEDY

The remedy will be found in a gradual shifting of taxation from improvements to land values. This will discourage the holding of land idle, both in the city and on the farm, and will encourage the making of improvements, as the manufacturer will then know that when he erects a building for a factory he will not be taxed for so doing just as the farmer will know that when he erects

land. It is the eternal land question that Moses dealt with centuries ago. The speculative value in land is what is forcing it into larger holdings, and crowding young men out. Let me explain:

"Prosperity is always reflected in the price of land. This is a matter of such common observation that I need scarcely dwell upon it. For instance, if the price of alfalfa goes up to \$10 a ton from \$5 a ton, and stays there more or less steadily, the price of alfalfa land will go up in proportion. Increased prices for any product of the land is reflected at once in increased land prices. It has been urged that a good cooperative elevator ought to be established in every town, because it would increase the price of land. Anything which tends in any way to increase the profitability of farming is immediately reflected in the higher land prices.

BASIS OF PRICE

"But generally when land increases in value it goes a little beyond the figure warranted by the increase in earning capacity. Let us look at this matter of the price of land a bit. The price of land is based primarily upon what it will produce annually. Thus if a piece of land is capable of producing a return of \$5 per acre over and above the cost of cultivation, then if the going rate of interest is 5 per cent., the land is actually worth \$100 per acre on the basis of production, because it will pay 5 per cent. interest upon that valuation.

"But supposing that the man who owns the land chooses to credit nearly the whole crop to the land and does not get labor and other expense proper credit. Then the credit of the land would be more than \$5 per acre, and the value of the land would be placed above \$100 per acre.

"In Nebraska, and everywhere throughout the country, we have a way of crediting nearly all the return of a farm to the land, allowing almost nothing for other investment, such as machinery and equipment, or for labor, and capitalizing our land values upon that basis. In the case of land giving a return of \$5 per acre over and above a reasonable allowance for all expenses of operation the return per acre is sometimes made to appear larger by falling to credit labor and other items properly. Thus the return appears to be \$6 per acre instead of \$5, and upon that basis the land is valued at \$120 per acre. This is inflated value. A great deal of Nebraska land is inflated in price just in this way.

SPECULATIVE VALUE

"Finally, while a piece of land is producing a return of only \$5 per acre annually, the owner may look forward ten or twenty years and see a time coming when owing to increased population, that makes for higher prices for produce, or because of expected agricultural improvement, the income producing capacity of his land will be more than \$5 per acre annually. So he shows up the price on this future possibility. This is speculative value pure and simple. When there is an active demand for land for use or speculative purposes, this speculative value in land becomes very great. Nearly all Nebraska farm land is loaded down with it now, as evidenced by the fact that farmers everywhere are declaring that upon present valuations for their land they are

not making a fair rate of interest, especially if they allow any reasonable amount for their labor and that of their families, and a reasonable rate of interest on investment in equipment.

"The December Crop Reporter, published by the United States Department of Agriculture, contains some figures which illustrates the trend of speculative land values very nicely. According to investigations made by the bureau of statistics at Washington the produce of the average acre of farm land in the United States in 1910, would buy 54 per cent. more of the things purchased by



This French Canadian Horse Presents a Most Pleasing Study

There is a wide diversity in the type of the French Canadian horse. Some are nearly the type of the Standard Bred. Of the latter type is the stallion here illustrated, which was exhibited by Arène Denis, Berthier Co. Que., at Three Rivers this year. Notice the splendid conformation, attractive carriage and great constitution (an indication of endurance) of this representative of our own Canadian breed.

farmers than the product of an acre in 1900. Thus it could be said that between 1900 and 1910, owing to a more rapid increase in the price of farm products than of other commodities, the farmer became 54 per cent. better off. This would warrant an increase in land prices of 54 per cent. Did it occur? Yes, and more too, and that is the point I want to make. While the prosperity of farmers in the United States was increasing 54 per cent., the price of land in the United States, according to the census bureau, increased 109 per cent. Thus the price of land increased more than twice as rapidly as the actual return from the land. The difference between 54 per cent. and 109 per cent. was speculative, based not upon an actuality, but upon future possibilities.

REFLECT OF SPECULATIVE VALUE

"I say it is this speculative value in land that is driving people from the farms. It is very generally agreed that at the present capitalization of land in Nebraska farmers are not making interest upon their investment if they allow themselves decent wages, and do not credit the whole crop to the land. If this is true, then how can the poor young man buy land and pay out on it? It is frequently said that it is as easy for a young man to buy land now and pay out on it as it was years ago. I do not think so. I believe that the increased demand for land that has come about through the exhaustion of the free land supply has put more speculative value into land than it had then. In so far as the increased price of land represents increased capacity for annual returns it would be as easy as it was when the land was very cheap; but when a large portion of the selling price is not based upon actual or possible present returns from the land, but upon future possibilities, then it becomes a different matter, and makes the burden of buying it too great for the poor man.

(Continued on page 20)

Loss to Corn from Shocking

Henry Glendinning, Ontario Co., Ont.

Instead of cutting and shocking corn, why don't we put it in the silo? Experiments carried on at the Ohio Station show a loss of 37 per cent. in feeding value from the time the corn is cut until it is fed from the shock. That is if we cut \$100 worth of corn, we feed only 63¢ worth. If we were to borrow \$100 from a neighbor and he were to charge us 37 per cent. interest, we would call it extortion. But we are wasting money in just the same proportion when we refuse to invest in the silo.

Even when corn is put in a silo there is some loss. Not only does the corn deteriorate at the surface, but there are chemical changes taking place in the silo. But this loss only amounts to about 10 per cent.

The plant food that goes to feed the corn crop is thus made into starch in the leaves, which is then turned into sugar and carried to all parts of the plant, and finally it is made into woody fibre. Here it is that the big loss comes in shocking corn. This life process continues to go on in the shocked corn and valuable food is changed into indigestible fibre. In the silo this process is carried on also, but to a very limited extent.

The Work Horse in Winter

J. McLaughlin, Ontario Co., Ont.

The hard outside work of the season is now over, both for ourselves and our horses. During the past few months great demands have been made on the energy of our horses. These demands have necessitated good feeding, and we have given it. We used to take care, however, that the work slackens the feed is slackened also. If we were to continue feeding this month as we have been accustomed to doing we will be giving more food than the animal can make use of. Its system will get loaded up with nutriment, and this will turn to poison and have a most detrimental effect on the animal's system. Constipation, which is so common with farm horses of this season, is due almost altogether to this excessive feeding.

There is danger, too, in going to the other extreme. I know of farmers who, the minute work stops, cut the grain ration down to the vanishing point and make timothy hay the main feed for the rest of the winter. They forget that the horse's system has been accustomed to liberal feeding, and that the sudden change is too great a shock to the digestive system.

Excessive feeding now or any sudden change in feeding is particularly detrimental to mares due to foal next spring. With them we exercise the greatest care in changing both the food and the exercise. We would make work for them rather than slacken up suddenly.

We curvy our horses almost as regularly in winter as we do in summer. On too many farms the boy's driver is the only horse that gets treated right in the matter of cleaning. A clean, healthy skin is as needful to the horse as it is to its owner.

Then there is the cesspool into which the sewage is drained and allowed to seep away. This method is probably the cheapest, although aside from this factor it has little to commend it. There is great danger of the cesspool breeding disease or contaminating the water supply in the well. Then, too, if there is much grease in the sewage there is danger of the walls of the cesspool becoming so thoroughly coated as to prevent the escape of the water, and thus to cause its overflow. Lye may be used to cut the grease from the walls, but even then there will be difficulty, since solids will deposit in the cesspool and they must be removed on occasion.—T. R. James, Middlesex Co., Ont.

Management

R. R.

In this line of management as to most of the things that a more living farm hand laborer should than other labor and needs to be round to mind of farming, there is content. In city milk more of our breeding and to keep up breeding end to see that every cow and a leading way best cow. The interesting and using the season occasionally, the best very material.

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It is now the best of the with the best milk a leader of the population. His driving and, the new as the most famous Prize P and Dairy, and the competition

Management and Feeding for City Milk Production*

B. R. Ness, Chateauguy Co., Que.

In this line of dairying, city milk production, as in most other lines of business, the management makes all the difference between a profit, a mere living, or a loss for one's hard labors. By hard labor, I do not wish my readers to understand that this line of farming is any harder than other lines. We admit it is more binding and necessitates closer attention all the year round to make it a success than most other lines of farming. As a recompense for our attention, there is continually something coming in return.

In city milk production, we should all breed none of our own cows. Too many have discarded breeding and rely on buying in cows when needed to keep up the supply. We have found the breeding end most profitable to us, and I feel sure that every farmer, even with good grade cows and a pure bred dairy sire, could make breeding pay by keeping the females from his best cows. This part of the work is most interesting and instructive, and will be found by using the scales daily and the Babcock test occasionally, to increase the yearly returns of the herd very materially.

MANY ADVANTAGES FOR FALL FRESHENING

We should plan to have our cows freshen at a time of year when milk is highest in price. This has been our practise for some years. We have found it very suitable in many ways to have all our cows, if possible, freshen in September and October, as our milk price rises on October 1st, and we get seven months of high-priced milk from our cows. We also find that we can keep our cows up to a full flow better for these seven months than cows freshening in the spring. When our fall calved cows come to grass they will do almost as well for two months as will those freshening in the spring. Another point that leads us to favor fall calving is that we get our cows dry at the time of year when flies and dry grass would hinder them from doing their best. We then have all hands to turn to farm operations, haying and harvest, when extra help is very scarce and expensive.

Let us then look well into our equipment and surroundings. It pays in every case to have our stables commodious, well lighted, well ventilated, roomy, and convenient in all respects. We should have our stables an attractive place that we enjoy being in in order that we may take comfort and pride in doing our work. Such stables are almost necessary in the production of a good product for city consumption and to the health of our herds.

SOME PRINCIPLES OF FEEDING

To make sure of our profits, the feeding of a good dairy herd requires much study and attention. The scales should be used, both at milking and feeding time. The values of the different foods must be taken into consideration to arrive at what feeds to use. For roughage, where corn can be successfully grown, no food equals silage, followed with roots and clover or alfalfa. (With alfalfa has not yet been successfully grown.) In the actual feeding, we have found it best for the production of a good article to do most of the feeding after milking, particularly in the use of ensilage, as milk will take in odors or taint while being drawn, and thus flavor and keeping qualities are spoiled. We try to have it all times as part of our grain ration some good fresh wheat bran, and when we make meal it a reasonable figure we are never without it.

Mr. B. R. Ness, the writer of this article, is one of the best successful dairymen in Canada. He is credited with the best milk that reaches the Montreal market. A breeder of Ayrshire cattle, he has a nation-wide reputation. His opinions on all subjects relative to dairying are, therefore, well worth considering. Mr. Ness was the most successful competitor in the International Prize Farm Competition conducted by Farm and Dairy, and this is one of the essays that the rules of the competition required him to write.

but present prices, however, are almost prohibitive. For a mixture with these feeds, we like oat chop. We have been using for four or five years Schumacker Stock Food, a kiln dried preparation manufactured in Peterboro, which we have found a very safe and satisfactory feed.

Why Form a Farmers' Club?

By A. D. Wilson

There are three things that the farmers' club does, any one of which makes it worth while.

First, it encourages and provides a means for social intercourse. It brings the people of the community together, which always results in kindlier feeling in the neighborhood. It affords food for thought and discussion at home among members of the family.

Secondly, the farmers' club is a strong educational factor. It is safe to say that there is more information in a community than any one individual in that community has. An occasional farmers' club meeting will tend to make general the information of each individual. It will consequently increase the fund of information in the community. Taking part in these farmers' club programmes stimulates study on the part of club members. Talking over any of the problems of rural betterment always stimulates a desire in all members for something better.

IT GENERATES COOPERATION

The third important function of the farmers' club is its relation to the financial betterment of a community. It is the first step in cooperation. It gets people into the habit of working together, and affords a medium through which many things that have been done individually may be done cooperatively. It makes it possible for a number of small farmers to have the same advantages in business transactions enjoyed by large farmers, because cooperatively they do a large amount of business, and consequently it

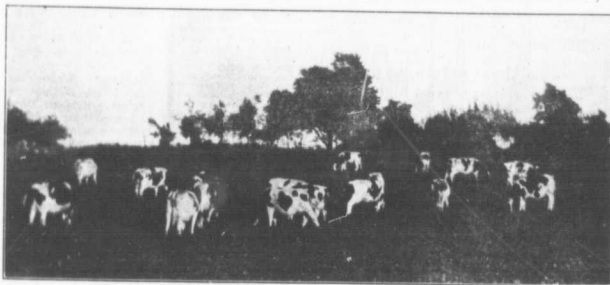
Feeding and Management of Farm Horses*

Jas. Bryson, Chateauguy Co., Que.

I stable my horses in the fall after the summer and fall work is over and feed them liberally on clover, hay, roots and oats or some chopped grain. I find that in the months of November and December the horses that have been st work on the farm doing the fall plowing need a good deal of care at this time of the year. Some farmers seem to think that when a horse is not working he does not need to be fed or cared for, as he is not earning anything. After the summer and fall work horses need to be cared for as well as any other time of the year. A little extra care at this time makes them ready for any kind of work that you may have to put them to in winter.

In winter we do not feed our horses as much grain as we do in the summer, as our work is not so heavy. We always keep what hay or clover they will eat clean and a feed of oats morning and noon and in the evening. We give them a feed of roots, bran, or chopped grain. To breeding mares we do not feed so much grain; they get more bran and roots or chopped grains. We always try to give brood mares a good deal of exercise at slow work. If we have not some slow work for them to do, we let them out on fine days in winter to take exercise. In seed time we always work our brood mares right up to the time of foaling, but do not do any work with them after foaling, as we think that the mare has enough to do to raise her colt.

Work horses should be groomed every day. After plowing, or any work at which they have been sweating, we rub them down and brush them. When plowing or working in wet weather or on muddy roads, their legs should be rubbed down, especially in the fall or cold weather. A little extra care at that time of the year may save a good deal of work when winter comes, as



An Improvement that Pays Its Own Way and Its Owner's Too

The owner of the splendid pure-bred Holstein herd here illustrated is a thorough believer in the value of that dependable triplet, "corn, clover and cows." The herd of B. W. Walker, Ontario Co., Ont., here seen on clover pasture, are of the kind that make their owner thoroughly satisfied with the business of dairying. Notice what deep, strong cows these are. Just the kind for which we are all looking.

is worth the while of a business man to make some concessions to get their business.

We firmly believe that the farmers' club, which will lead to closer cooperation among farmers, will be one of the strongest factors in maintaining the family-sized farm, because it will enable the small farmer to do business on a business basis, which he cannot do individually. We urge, therefore, that every community give serious thought to the matter of a farmers' club organization.

I consider that drains should not be less than three feet deep, and if they were four or five feet deep, I believe it would be better for the land. The water level in the soil would be lowered, the drains would draw further, and fewer drains would do the drainage desired.—Jas. Marshall, Wentworth Co., Ont.

some horses are apt to get scratches or cracked heels. That these ailments are a bad thing to get on horses in winter very farmer knows.

A woman may expect the little busy bee to gather honey for her at an average yearly rate of 61 lbs. to the colony; that stings may be subject to her will; stickiness also; that hard work, heavy lifting, perspiration, and disagreeable odors must be borne with fortitude; that careful attention to detail is imperative; and that there are many things in bee-keeping that are calculated to make it attractive and enjoyable, and also a profitable occupation for women.—Miss M. Treverrow, Peel Co., Ont.

*This is one of the three articles that Mr. Bryson has written on his farm practise for Farm and Dairy as required of him by the rules of the International Prize Farm Competition in which he was a successful competitor.

\$5.00 to \$25.00 Christmas Money

If you want to earn \$25.00 in your spare time before Christmas, as several of our readers have done; or \$5.00, \$10.00 or \$15.00, as many others have done; write for our Christmas offer.

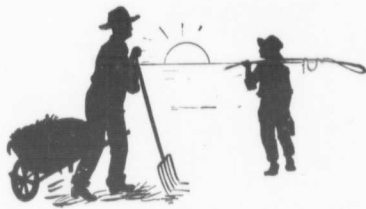
FARM AND DAIRY

**MERCHANTS
PRODUCE CO.**

Butter Eggs Poultry Honey
Beans Apples Potatoes, etc.

Our constantly growing trade demands large supplies of choice farm produce. We need you. Write for weekly market letter.

57 Front St. E., Toronto
Established 1850



"Hello, Tommy! Chores done already?"
"Yep! Aint you seen our new Litter Carrier?"
It's a cinch—You should write to
Dillon's for their book—same as Dad did."

You can if you work hard enough, and if you have the time and patience, keep stables perfectly clean with the help of fork, broom and wheel barrow.

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Stable Cleaning by the Dillon Method can be cut down to less than half the time, and a quarter the labor formerly required.

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Your stock is valuable—then give them cleaner and healthier surroundings.

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Dillon's sell direct to the Farmer. There are no Agents and no Agents' profits. The price is the same to all, and lower than you would expect for such substantial and well-built equipment. DILLON'S BOOK ON CLEAN STABLES gives you an exact idea of what you can accomplish for a small outlay. Write for a free copy.

R. DILLON & SON
OSHAWA, ONT.



FARM MANAGEMENT

Clearing Fields Made Easy

What does it profit a man to plow around, harrow around, mow around and reap around a stone pile or even a stump in the middle of his field, when an hour's work and a few sticks of gunpowder will remove any impediment to easy cultivation? This is a question that we have been asking ourselves ever since we attended a blasting powder demonstration held on the farm of Mr. R. A. Wilson, near Peterboro, recently. The demonstration was conducted by Mr. S. B. Baptist, of the Canadian Explosives, Ltd., Montreal, and was an eye-opener to the most of us in regard to the power of blasting powder.

We congregated at Mr. Wilson's barn, and when all had arrived he conducted those of us who had come to see the demonstration right out to the centre of his corn field to several large boulders that seriously interfered with easy cultivation. The first stone that Mr. Baptist tackled was a big one, fully five feet long, and three or four feet in diameter. It was of a character that would have been very hard on dynamite, and some of the farmers present estimated that it would be the work of a forenoon to drill it for dynamite. But it was only three-quarters of an hour from the time we reached the field till the stone was lying around in pieces conveniently large to be hauled away.

Mr. Baptist first took a long auger specially made for the purpose and drilled a hole in the earth under the stone. Into this hole he pushed six cartridges, the last one being connected with the fuse. We noticed that Mr. Baptist took great care to tramp the cartridges in tightly so that the air would be excluded. The hole was then filled with earth, the fuse lighted, and we retired to a safe distance to see what would happen. The stone came up all right.

Several of the visitors afterwards looked as if they considered themselves almost foolish in having plowed around the rocks in their own fields so long when they could have been removed with so little labor and at comparatively little expense. The cartridges cost only seven and one-half cents a piece, and the fuse and caps would come to two cents more. That is, 60 cents would cover labor and all.

STILL ADDITIONAL PROOF

Right near this first stone was a stone almost as large again, and it seemed almost incredible to one of the spectators that a stone of this size could be removed without drilling into it. Mr. Baptist did not intend to leave doubt in anybody's mind, and in exactly the same manner he inserted eight cartridges under the rock, and in half an hour it too was lying around in small pieces.

The rest of the afternoon was given over to blowing up stumps. The method of procedure was the same. A hole was drilled under each stump, two or three cartridges inserted, discharged, and the stump immediately removed.

One thing that impressed us about this blasting powder was its safety. Mr. Baptist had absolutely no fear of it and it threw it around almost as if it had been sticks of wood. "Yes," said he, when we remarked on this property of his powder, "it is safe, but it is absolutely safe. It does require some care. It is, however, much slower than dynamite. On account of its safety we get much better freight

rates than can be secured on dynamite." "Any farmer," said Mr. Baptist, "can use this powder himself and get just as good results as I have this afternoon. In fact, he can get better results, for he will be able to see thoroughly acquainted with his own land and know just what it requires. I find a special sugar a very convenient thing to have for drilling, but most of those who use our powder use a crowbar and get just as good results. As we were leaving we noticed in Mr. Wilson's barnyard a large pile of cordwood that he had collected from the stumps he had blown up. The wood was reduced to a good size by the furnace, and yet there was not a mark of a saw or axe on it. "That's the result of using powder," remarked the stump out but it makes it into wood for you."

Silo on Small Farm

Do you consider a silo advisable for a herd of 20 head, including young stock and horses? Is there any way of reducing the amount of manure needed for cutting the corn and filling the silo? You could put up a 60 ton stave silo for about \$100, but it would require a lot of extra profits to pay for the cutter, blower and engine. Is the same machinery needed for putting clover in the silo?—J. O. S. Y. Niagara Falls, N. Y.

A silo would be a most valuable addition to the equipment of a farm with a stock of the size mentioned.

If it is desired to get the best result from the use of a silo, that is, if it is desired to make the best use of all kinds of material in the silo, there cutting box with power to drive it, is an absolutely necessary adjunct to the silo. An expensive cutting box and a high power engine are, however, not necessary. A cutting box suitable for your purpose would cost you about \$150, and the engine capable of driving the same would cost probably from \$300 to \$500. Both of these machines would be of immense use to you in your farming operations apart from their use in connection with the silo. The cutting box would be of great value in cutting straw and hay and the engine in doing all kinds of work on the farm. We would recommend a blower as being the preferable form of cutting box, as it is likely to be more satisfactory in every way than the elevator type.

If clover is to be the principal or only material used in the silo, the cutting box is not necessary, since clover may be put into the silo whole and make very good ensilage. It is worth annualy from \$15 to \$25 for each head of horned cattle on the farm. It is not of so much value for horses, although horses will make of it a good deal, a small amount of ensilage.—J. H. G.

Items of Interest

The Fifth Annual Exhibition of the Westmoreland Poultry and Pet Stock Association, will be held in the Grand Hall, Montreal, N. B., Dec. 17 to 21. The Bateman Manufacturing Company, well known as the makers of "Iron Age" Implements, have taken over the Wilkinson Plow Co. and the Toronto Pressed Steel Company. In addition to continuing the old lines of manufacture they will manufacture "Iron Age" implements in Canada as well.

When preparing the stables for the winter remember that dryness and ventilation are equally important with warmth.

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The Feeders' Corner

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

Roughage for B. C. Cattle

P. H. Moore, B.S.A., Victoria, B.C.
In some parts of our province hay and roughage grow very abundantly. In other dry sections roughage supplies more of a problem. In every section more or less straw is grown. This especially if cut straw, may very profitably be fed in varying quantities, according to the supply of other roughage. Barley straw comes next in order of merit. If chopped and mixed with roots, large quantities are sometimes used at a profit. Wheat and rye straw, on account of their hardness, are not so serviceable.

Wheat, oats and barley grown as grain and cut when the grain is in the milk stage make most excellent hay. Barley should be particularly well in the dry portions where early maturity is desired. Clover, which

dairyman in this province said, "I would not try to produce milk without mangles," and he was talking from experience. Besides the food value they carry, there is that quality of succulence that adds to the ration a milk producing quality not shown by chemical analysis. The different varieties of roots make very little difference in feeding, barring those which have very strong odors like turnips, so the crop to grow is the one we can handle best and from which we can get the largest returns an acre. In feeding it is better to feed them sliced or pulped and to feed rather sparingly than to overload; 30 lbs. a day gives more economical results than twice as much.

Value of Feed Molasses

Is molasses good for horse and cattle? How should I feed it?—R. C. B., Grey Co., Ont.

The nutriment value of cane sugar molasses is about equal to that of corn. It contains 50 per cent of sugar and 12 per cent of gum. The sugar is equivalent in feeding value to the starch of corn and the gums are protein substances. Beet molasses, unlike cane sugar molasses, is bitter and has purging properties. Hitherto much of this material has been wasted, but more of it is now being utilized. In experiments in Sweden as much as 33 lbs. of molasses was fed daily to dairy cows by diluting with twice its weight of water and pouring over the feed. Work horses were fed 2.2 lbs. daily and pigs were successfully fed molasses with skim-milk.

We have fed molasses to horses, pouring it over their oats, and they liked it and seemed to thrive. When the molasses ran out, however, we found it difficult to get the horses to eat their oats without it, and they lost in condition. As we sometimes had difficulty in getting molasses we do not now feed it to the horses owing to the difficulty of breaking them off.

Molasses may be used for preparing animals for show or sale. Its good effect for this purpose is probably due to its palatability, inducing large consumption of the feeding substances with which it is mingled. This substance, fed in too large quantities, is said to be deleterious to breeding animals leading to sterility, especially with males.



Convenient Feed Carrying Arrangement
A simple device for carrying soil such as the one here illustrated would save an endless amount of energy now wasted in many farmers in "lugging" heavy pots and pails. Life is too short for labor of that kind. A barrel mounted on wheels can be cheaply constructed by anyone who can use tools, and many a backache will be avoided.

grows so abundantly all over the province, is, of course, our staple roughage for dairy cows, and should be largely fed. It contains the materials necessary for milk production, and is, besides, not exhaustive to the land, thus making it an economical food. In those high, dry places where red clover grows with difficulty, alfalfa will take its place. Nothing too good should be said of the merits of alfalfa as a dairy food, but it can not be indiscriminately grown over the province. In some very dry places milk may be a very excellent growth, and I ent grow makes a good quality of hay for dairy cows. It is a quick grower, and not too hard on the land. Finally, the most widely known hay of all, although a heavy cropper in dry sections, is not considered an economical food for dairy cows.

In any section where corn will grow and come to any reasonable state of maturity, the silo and the production of silage is a most important question. Care should be taken in selecting the seed corn, for it is unreasonable to expect seed that has been grown in a 120-day season to give good returns in a 100-day season. With close attention given, it can be grown in many places to make us a very cheap and profitable food. Twenty to 30 lbs. in our dairy rations will not only increase the milk but make a great saving on the other roughage. In sections where corn will grow at all well and roots will grow lightly, it is too economical a food to overlook in the dairy industry.

Roots, especially mangles and sugar beets, are second to none as a succulent food for dairy cows. One noted



The Feed That Makes The Cream

Livingston's Oil Cake is the cheapest feed for cows—cheaper than corn, shorts or even hay. Because it actually increases the richness of cream—and also increases the amount of butter that you get out of the milk.

Test your cows before and after feeding Livingston's Oil Cake for a month—and your "butter money" will show its economy.

Livingston's Oil Cakes contain from 5 to 15% of pure linoseed oil—are soft enough to break into small units—and are completely and easily digested. Write us for sample and prices if your dealer cannot supply you. Dominion Linoseed Oil Co., Limited, Baden, Toronto, Montreal.

Livingston's Dairy Oil Cake

INTERNATIONAL STOCK FOOD
Makes Cows Give More Rich Milk.

International Stock Food conquered England, just as it conquered Canada and the United States, by proving to the Dairy Experts that it is the greatest milk producer and health restorer in the world.

The test was made on three cows from the dairy herd of S. W. Hackney, Esq., Leeds, England, Chairman of the Yorkshire Federation of Dairy Farmers. Quantity and quality of milk was tested for a certain time—then "International Stock Food" was added to the regular feed.

INTERNATIONAL STOCK FOOD showed an increase in Milk of 14.2 pints daily, and 123 pounds of butter daily.

This proves that International Stock Food, added to the regular feed will increase the quantity and improve the quality of milk from every cow.

It shows that International Stock Food aids digestion and keeps cows in better condition. It proves that International Stock Food is a money-maker for the farmer—that every farmer who owns one, or a hundred, cows should feed International Stock Food every day.

Make the test yourself—weigh the milk you are getting now—then feed International for a few weeks, and weigh again. Then you'll see how International Stock Food will make money for you. International Stock Food Co., Limited Toronto, Ont. A copy of our \$2,000 Stock Book free on request.



Less Work And A Much Cleaner Barn

A BT MANURE CARRIER installed in your barn does away with all the hard, dirty, disagreeable work of stable cleaning. You lower the big, wide-mouthed bucket right down to the gutter behind the stalls, and easily pitch in half-a-ton of manure. An easy push sends the big load out, along the swing pole, to the pile. You don't have to clean your stable by the old back breaking, plank-and-wheelbarrow method. A BT Manure Carrier does the work in half the time, and all without any heavy lifting on your part.

THE BT MANURE CARRIERS

You can't afford to be without one. Write for our Catalog and prices today. This is the very best time of the year for putting in your Carrier—while your work is slack. There is no reason for delay. Our Catalog gives you complete instructions for erecting the Outfit, and your Carrier will pay for itself in twelve months, in the hard work it saves you. Sit down and write us for Catalog and prices to-day.

BEATTY BROS.

343 Hill Street, FERGUS, Ont.



Send us rough sketch of your stable and get our price on a complete Manure Carrier Outfit

Big Ben



One Big Ben Runs the Whole Farm on Time

Big Ben is made big enough for the whole family to consult about the time. He looms up handsome and impressive across the largest rooms. His broad smiling face and big, honest hands tell the right time plainly. A million families have adopted him. He works for his living—a drop of oil a year is all he asks.

You can buy a clock to wake you up for \$1 or \$1.50, but isn't Big Ben worth two dollars more than that since he wakes you on time and never fails to tell the right time all day long as well as all the night? You don't have to wonder if that clock is telling the right time if he clock is Big Ben. The city man

can ask a neighbor or get the right time by picking up the telephone. You must depend upon a clock. Depend upon Big Ben.

He helps you wind with his big easy-turning keys. He wears an inner jacket of steel, which keeps him strong and makes him last for years. He rings just when you want and either way you want five minutes during ten minutes unless you flag him off. Get him now. And get him Christmas for some friend or relative.

He is sold by 5,000 Canadian dealers—the price is \$1.00 anywhere. If you cannot find him at your dealer, a money order sent him direct, *Windsor, La. Ste. Anne, will bring him to you attractively boxed and duly charged paid.*

THE 9TH ANNUAL
**ONTARIO
HORTICULTURAL
EXHIBITION**
OPEN FROM
10 A.M.
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SINGLE RAILWAY FARES From All Points in Ontario

FLOWERS,
FRUIT,
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THE ANNUAL
SOCIAL EVENT

Prove the "BISELL" by Its Work

Do the gangs on your Harrow crowd together and raise out of the ground if it is hard? They won't do this on the "Bissell." The "Bissell" is so designed that THE GANGS CAN'T CROWD OR BUMP together no matter how hard the ground may be.

Tough soil won't stick to the "Bissell." It stays right down to its work and pulverizes the ground thoroughly.

We ask you to take a "Bissell" into the field and test it beside other Harrows. Then you

will have PROOF THAT IT IS A SUCCESS ON HARD LAND—THAT IT PULVERIZES THE BEST—and that it is the lightest draught.

Post yourself fully on Harrows before buying. We put our name on every Harrow so that you will know it is genuine. Ask your local dealer, or write to Dept. "W" for free catalogue.



T. E. Bissell Company, Limited, Elora, Ont.

HORTICULTURE

Green Delicacies in Winter

Celery may be kept well into the winter by digging the plants so as to leave as large a root surface as possible. Remove a few of the straggly outer leaves and set closely in a cool cellar or in boxes. An ordinary box, good size box from 14 to 18 inches wide and three to four feet long, makes a good package for storing celery. Put a little dirt in the bottom of the box, then set the plants in a row close together, just covering the roots with soil. Place another row next to the one first set, as close to this as the soil will permit, in every case setting the plants about the same depth as they grew in the fields.

Celery stored in this way should not be bleached in the field. If the plants become dry and wilt slightly, they should be watered, care being used not to wet the foliage of the plant any more than is absolutely necessary as this is apt to cause decay. Store the boxes at a temperature as near freezing as it is safe, usually about 35 degrees. If stored at a higher temperature the celery will grow and is apt to decay.

WINTER RHUBARB

Rhubarb for winter use may be dug just before the ground freezes hard in the fall. Leave the plants on top of the ground, slightly covered with hay or something to prevent their drying out, and allowing them to freeze for several weeks. About Christmas time the roots may be taken into the cellar or other dark, moderately warm location, and buried in just enough soil to cover the roots. Water and allow the plant to grow. If rhubarb is grown in the dark, the stalk is tender and very little leaf surface is formed. Plants thus forced are of little value for setting out.

Prevent Rabbit Injury

It is time to plan winter protection for young trees. Thousands of orchards have been injured or ruined through girdling by rabbits or mice. If there is any rubbish in the orchard it should be cleared away from the base of every tree. Rubbish which harbors small animals that girdle trees close to the base is thus removed. This precaution is especially necessary in case oats or other small grains have been used as a cover or catch crop in the orchard. These precautions apply mainly to mice rather than rabbits.

An expert entomologist informs us that he has found a special whitewash an excellent preventive of rabbit injury. It is an ordinary heavy whitewash to which enough dissolved blue stone or vitriol has been added to give a decided blue color. Salt should be added to make the mixture stick. Apply with a brush to the trunk of each small branch of young fruit trees. Apply high enough to guard against

any possible injury. Remember that the snow will enable the rabbits to circle much higher during the winter than they could possibly reach in the fall when you are applying the whitewash.

Storing Spray Outfits

In leaving spraying pumps for the winter, see in the first place that they are stored under cover where they will be kept dry. Clean them thoroughly, taking particular pains to drain out any water which may remain in the pumps and from the jacket of the gasoline engine if power pump is used, bearing in mind that a valuable engine can be practically ruined by water being left in the water jacket and freezing. A liberal application of engine oil to all the working parts of the engine in the fall will do much to keep off rust. Nozzles and hose should be cleaned out and dried. Any wooden barrels or tanks used as reservoirs should be put away from the sun, preferably in a moist place.

If any insecticides are left over, put them on a shelf out of the way, properly labeled. Remember that Paris Green deteriorates by being kept in the open air. Aerate of lead which one desires to keep for the following year, should have a good covering of water to prevent its drying.

The Alexander Recommended

A. McNeil, Chief, Fruit Division, Ottawa, Ont.

The Alexander is a very profitable apple almost everywhere. It is large, fairly prolific, and a reasonably good shipper. It is profitable in the south because it ripens fairly early in September before the rush of other apples comes in and stands shipping well.

It is a particularly profitable apple in the northern sections, because its tree is very hardy, almost among the hardiest, and when grown there comes in as a late fall or early winter apple. It is a particularly desirable apple for Prince Edward Island, where it blooms fairly early in the year. Perhaps the most desirable place for it is where they cannot grow good winter varieties.

Horticultural Notes

Beets should be gathered and stored before the ground freezes.

A light frost does not injure cabbages or turnips, but rather improves them.

Each winter, trees should be protected against gnawing by rabbits and mice.

Be careful and not let squashes become frost-bitten. It will cause them to rot earlier.

Gardens infested with cut worms may be helped by keeping the soil free from vegetation all fall and being all trash.

Unleached hardwood ashes is one of the best fertilizers for fruit trees of all kinds. Thirty bushels an acre is a good dressing, but even more will be beneficial.

Trees in the orchard that have not made much growth should not be manured. Keep every tree growing. An old orchard that is past its prime can be set to work again by manure and fertilizers freely used.—W. F. Halton Co., Ont.

Unsprayed orchards are almost complete failure. Thoroughly sprayed and well cared for orchards are producing bumper crops of fruit of the highest quality.—W. F. Halton Co., Ont.

We like Farm and Dairy better every issue, and would not do without it.—Arthur Gibson, Dept. Co., Ont.

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Thought

The reason birds on so many plants lay prices and some profit



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SPECIAL TR MAINE, F TEUTO

For the acc on Line Stea Portland, Me Grand Tru al train con Coaches, Tor Standard Pulling December 10, Dock at Port 9.00 a.m. Dec servations, tic lars can be ob Grand Tru Duff, D.P.A., to, Ontario.

FOR SALE

Hendon and St rick, one dolla manure. Each Leghorn or Corn Cooker, etc., \$12 each. BATHING SAYER Kinesy

THREE WHITE COCKS, six right—W. B. Petersboro.

FOR SALE—One (straw) 1 Blue bird and 1 White for price.—W. B. Oct.

POULTRY YARD

Thoughts on Winter Eggs

By F. C. Brown

The reason why the bulk of the birds on some commercial poultry farms lay in the season of high prices and thereby return a handsome profit is that they have been

the Dominion is on the farms, and it is these which produce the principal supply of eggs; but it is safe to say that the great majority of the costly eggs sold in the old season of the year come from poultrymen who specialize in the business, hatching eggs from pedigree of performance hens at the right time, and who feed and manage their birds on the best principles. Farmers in general, at least their wives and daughters, find the keeping of poultry a profitable side-

beast, giving up to, say, six gallons of four per cent. milk in a day—an animal much akin to the heavy egg-producing bird—would hardly maintain its great artificial yield unless well fed, sheltered from adverse weather, and treated in a kindly manner.

Green Foods for Fowls

Mangels are a very succulent food and are relished by the birds during the winter. They should be fed either pulped or whole.

When they are fed freely they frequently scour the fowls. For this reason during some seasons do not feed mangels more than twice a week.

Turnips may flavor the eggs. They are not as palatable as mangels; in fact, some birds will not eat them at all, but at the same time they have considerable food value.

Clover leaves, either steamed or dry, are relished very much, and, upon the whole, are the most reliable winter green food. One hundred hens will eat from a peck to a bushel of clover leaves daily. This food upon the farms is cheap and easily procured, and should be fed more than it is.

Farm and Orchard For Sale

At Athelstan Co. Huntingdon, Que.

150 Acres, 70 in Orchard, balance in Bush and Pasture, House and Outbuildings in good order. About 2500 Apple Trees—Melchou, Russet, Fameuse, Scott's Winter, Arabica, Baxter, also some Plum Trees.

For full particulars apply

SUN LIFE ASSURANCE CO.
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142 Notre Dame Street, West, MONTREAL



It's your duty to your family to get the largest possible profit out of everything you do. If you are trying to work your maple grove without the aid of a "Champion" Evaporator, you are doing them out of their rights.

We can prove to you absolutely that the "Champion" Evaporator will net you a larger profit on your maple products than any other evaporator sold on this continent. The "Champion" captures nine-tenths of the prizes everywhere it's exhibited.

There is a "Champion" made in the size you need, at the price you can afford to pay. Write us today for our new illustrated catalogue free.

The Grimm Mfg. Co. Ltd.

55 Wellington St., Montreal



55 Wellington St., Montreal



Turkeys are Money Makers for their Fortunate Owners This Fall

There is money in turkeys where properly managed. This is the experience of many a farmer and farm wife. Where they can be allowed unlimited range, turkeys can be then, with a little extra feeding at the end of the season, they are like those who own a handsome profit.

bred at the right time and have been managed to advantage. The fact that eggs are so dear in winter points to the obvious fact that the bulk of the birds at the natural season, they lay when nature dictates and take a rest in winter. While a variation in output between summer and winter will always be experienced, there is no reason why the selling price should fluctuate between 20 cents and 60 cents.

The bulk of the poultry stock of

Through Pullman Sleeping Car to Ottawa via Grand Trunk Railway

The Grand Trunk Railway operate a through Pullman Sleeping Car (electric lighted) to Ottawa, leaving Toronto 10.45 p.m., daily.

Both reservations and full particulars may be secured from the nearest Grand Trunk agent.

SPECIAL TRAIN TO PORTLAND, MAINE, FOR SAILING S. S. "TEUTONIC," DEQ. 14th.

For the accommodation of passengers sailing on the White Star-Dominion Line Steamship "Teutonic," from Portland, Maine, December 14th, the Grand Trunk Railway will run a special train consisting of Vestibuled Coaches, Tourist and First-Class Standard Pullman Sleeping Cars, leaving Toronto, at 1.15 p.m., Friday, December 14th, running direct to the Dock at Portland, arriving there at 9.00 a.m., December 14th. Both reservations, tickets, and full particulars can be obtained from the nearest Grand Trunk agent, or write A. E. Duff, D.P.A., Union Station, Toronto, Ontario.

FOR SALE OR EXCHANGE

Hendon and Silver Gray Dorking Cockerels one dollar each, or will exchange for one pair Rose or Single Comb Brown Leghorns or one Rose Comb White Leghorn Cockerels. Also eight Dorking Bantams, \$1.25 each. Eight dollars buys the **BAYBACK COCK AND POULTRY FARM** near KINSEY & SON, PROPRIETORS BAYHAM, ONT.

THREE WHITE WYANDOTTE REGAL COCKS, six Royal Cockerels. Priced right.—W. B. Anderson, R.R. No. 5, Peterboro.

FOR SALE—One trio of Anconas (Apra strain); 2 Blue Andalusian Cocks (Apra strain); 4 White Rock Cockerels. Write for prices.—W. E. Pakenham, Norwood, Ont.

line—that is, if the groceries generally bartered for the eggs are taken into account; but which present is very nothing to that which it could be.

ONE PROFITLESS CASE

A farmer remarked to me the other day that there was no money in poultry—at least, his was not profitable. I interrogated him. He had about 90 of no particular breed; none were under three years of age; they roosted in the trees, and picked up the best part of their living on the back door and around the house, though they were fed wheat in the evening with fair regularity. The eggs were exchanged for groceries, but no idea could be given as to the value of the eggs laid. Although the eggs were not to be given as to what the birds actually cost and what was the exact return from their produce. Under all circumstances it would be surprising if the birds did pay.

It is generally admitted that few if any birds show a net profit after two laying seasons; while to properly protect them from extremes of weather, especially in winter, to keep them in a thoroughly clean condition, and to feed and manage them in an intelligent manner, certainly with as much care as that given with other classes of stock, are essentials which must be observed. Then, to secure eggs in the dear season implies hatching at a special time. The high-type laying bird is not a thing to be treated as though it were a nuisance on the farm—to have dogs "soiled" on it because it is always in the feed-boxes in the stable—but must be looked upon in the same light as other animals on the farm. It is on the farm where eggs should be produced at the cheapest cost.

This implies some understanding of the requirements of poultry, however. In the first place, a proper poultry-house should be erected—not necessarily an elaborate structure—I have seen a very good house constructed out of three-by-twos covered with sheets of corrugated iron. Anything is better than allowing the birds to roost on the back of a dray or on the fence. It has been argued that in roosting anywhere the birds are living under natural conditions. No doubt this is very true, but under the circumstances only a natural supply of eggs may be expected. It may with as much reason be contended that the cow should be treated in the same way; but the heavy-milking

The Charming Winter Resorts of California, Mexico, Florida, etc.

Now is the time to take advantage of a trip to a milder climate and escape the cold winter months. Round trip tourist tickets are issued by the Grand Trunk Railway to California, Mexico, Colorado, Pacific Coast Points and the Sunny South, at low rates, giving choices of all the best routes. Features in connection with this route: only Double Track Line to Buffalo and Chicago; Fast Service; Modern Equipment; Unexcelled Dining Car Service; Palatial Electric Lighted Pullman Sleeping Cars; all elements of safety and comfort. Ask nearest Grand Trunk Agent for full particulars, or write A. E. Duff, D.P.A., Union Station, Toronto, Ontario.

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NO OTHER farm gate made is so good, winter and summer, as the "CLAY" Gate, which can be raised by simple adjustment to lift over snow in winter, or to let small stock through in summer. (See illustration.)

CLAY STEEL GATES

are the strongest of all farm gates—can't bend break, burn, blow down or rot. Will last a life time. Cheapest in the end and most satisfactory, and serviceable always. 30.000 sold in 1911. Send for Illustrated Price List.



Send for 60 days FREE TRIAL. CANADIAN GATE CO. Limited 29 Morris St. GUELPH, ONT.

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SEND US MONEY. This magnificent set of 17 steel tools, which you will be glad to own. If you do not wish to pay for them, we will give them to you absolutely free. If you will mail only thirty cents name of the National Tool Chest Co. to us, we will send you the tools absolutely free. If you will mail only thirty cents name of the National Tool Chest Co. to us, we will send you the tools absolutely free. If you will mail only thirty cents name of the National Tool Chest Co. to us, we will send you the tools absolutely free.

Write for the particulars to-day. We treat you as you would treat a customer. National Tool Chest Co. Dept. T. 199 Toronto, Ont.

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Raise Calves On Less Milk and Make More Money

You can raise healthy, thrifty, vigorous calves at the lowest possible cost by using

CALFINE

The Stockmen's Friend (Made in Canada)

We have used your Calfine for several months with astonishing success. We are feeding several calves for exhibition purposes and they are by far the best that we have ever bred. - F. E. Mallory, Frankford, Ont. July 8, 1912.

CALFINE is a pure, wholesome, nutritious feed for calves. It is made in Canada, and when you buy it you have no duty to pay.

Get CALFINE from your dealer or send us a money order for \$2.75 and we will send 100 lbs. freight paid, to any station in Ontario, east and south of Sudbury.

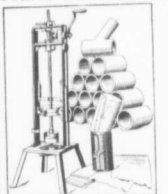
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Make Your Own Tile

Cost \$4.00 to \$6.00 per Hand or Power



WRITE FOR CATALOGUE FARMER'S CEMENT TILE MACHINE CO. WALKERVILLE, ONT.

What Accounts Will Do

J. E. Waggoner, I.H.C. Service

Carefully kept records will be an index finger to point the farmer to loop holes through which the profits are now slipping. He would know where the profitable fields, which are the most profitable fields; which are the most profit producing crops; which cows are boarders, that he may at the end of the season sell such animals to pay their board bills; he would know whether he was utilizing his horse power to the best possible advantage. In this connection it might be said that one of our farmers on a 160-acre farm, equipped with splendid head of work stock, the average daily labor per horse was only a little over three hours for the entire year—a very small average labor record, indicating a lack of efficiency.

We hear a great deal nowadays about maintaining the fertility of the soil. We all know that if grain is sold direct on the market that we deplete the fertility of the land very rapidly. The next best system of farming is stock raising for meat production, and the best of all systems for maintaining the productivity of the land, and at the same time reap profits therefrom, is dairying—not selling the whole milk but selling butter only.

In dairy farming the soil fertility removed is much less than in any other kind of farming—in 400 pounds of butter fat there is less than one pound of nitrogen, two-tenths of a pound phosphorus, and one-tenth of a pound of potassium.

Only by following some system of farm accounting can we know these things and be able to weigh in the balance the returns from each field from each kind of stock and from every farm operation.

Farm Help Underpaid

By A. D. Wilson

The difficulty of getting competent help is one of the conditions which are driving many people from the farm who would, under ordinary conditions, prefer farm life. This condition, it seems to us, is an indication that better things are in store for the farmers of the country.

While cheap labor may be employed in some industries where most labor is under supervision and where each laborer has only one definite type of things to do, the same kind of labor can be used in agriculture on the

ordinary farm, as it is practically out of the question on the farm to give very close supervision to labor. Such labor must be trusted alone with valuable animals and machines, it must possess considerable skill in their manipulation and care. Such labor must further possess an earnest desire to do efficient and careful work without being constantly under the supervision of some overseer or foreman.

WAGES SUITABLE TO SKILL REQUIRED. We believe that comparatively high wages must be paid for the farm labor of suitable quality can be secured. The present scale of wages for this labor is entirely inadequate in view of the demands made upon it in comparison with requirements in other industries. For example: A fireman on a railroad engine receives from \$80 to \$130 a month, while no greater skill is required to fire one of these engines than to feed an untrained good horse. A street car conductor receives from \$75 to \$90 a month, and certainly no greater skill or ability is required for such work than to handle three or four horses and a saddle-binder. A present from \$30 to \$35 a month and board, or a total of from \$45 to \$50 a month, is considered very good wages for farm hands.

If the business of agriculture is to compete with other industries, then agriculture must pay as good wages for the same class of work as is paid by the other industries; and the people who use farm products must pay such a price for them as will enable a farm owner to compete in the open labor market.

Record Class at N.S.A.C.

The Nova Scotia Agricultural College opened its 1912-13 session on Tuesday, Oct. 23rd, inst. The enrollment is 102, which is far in excess of any previous enrollment in the history of the College. At the corresponding date last year, the enrollment was 88, which number was increased to 78, being the highest number of students that had attended the regular course up to that time. The number who are present course promoters to each well up to 125. The Nova Scotia Agricultural College has a limited constituency in comparison with the other agricultural colleges in Canada, and because the course is a two-year course, and the numbers in attendance are not increased by the presence of third and fourth year students. The attendance is, therefore, extremely good.

There is no question that until recently, Maritime agriculturists have been somewhat lethargic in the development of their industry, but of late years a new current has come into the agriculture of the East, and the spirit of progress, which is characteristic of the other parts of the Dominion, has become equally characteristic of the provinces down by the sea.

Coming Events

- Nov. 13 to 15: Woman's Institutes' Convention, Toronto.
Nov. 27 to 29: Alberta Provincial Fat Stock Show, Calgary, Alta.
Nov. 30 to Dec. 7: International Live Stock Exposition, Chicago.
Dec. 2 to 5: Maritime Winter Fair, Amherst, N.S.
Dec. 9th to 13th: Ontario Provincial Winter Fair and Fat Stock Show, Union Mills, Yards, Toronto.
Jan. 8 and 9, 1913: E.O.D. A Convention, Kingston, Ont.
Jan. 14th to 17th, 1913: Eastern Ontario Live Stock and Poultry Show at Ottawa.
Jan. 15 to 16: W.O.D.A. Convention, Woodstock, Ont.

See your friends about subscribing to Farm and Dairy

THICK, SWOLLEN GLANDS

that make a horse Whine, Hoar, or have a thick Wind, or who are slow to get on their feet, and who are slow to get better.



ABSORBINE. It is the best remedy for swollen glands, and also any kind of Swelling. No matter how long it has been on, it will get better. ABSORBINE. It is the best remedy for swollen glands, and also any kind of Swelling. No matter how long it has been on, it will get better.

BOOKS

Now that the long winter days are here it is to improve your time by reading. Get a book for free from

FARM AND DAIRY All Books At Lowest Prices

- DISTRICT DAIRY MEETINGS District dairy meetings will be held in Eastern Ontario as follows: Victoria county, Bobowagon, Nov. 18; Peterborough, Lakefield, Nov. 20; Northumberland, Warkworth, Nov. 21; Hastings, S. Belleville, Nov. 22; Prince Edward, Pictou, Nov. 23; Frontenac, Sydney, Nov. 25; Lennox, Napawa, Nov. 26; Leiston, Westport, Nov. 27; Lanark, Lanark, Nov. 28; Dundas, St. Williamsburg, Dec. 1; Hastings, Fish, Dec. 4; Glenora, Alexandria, Dec. 5; Prescott, Vankleek Hill, Dec. 6; Renfrew, Renfrew, Dec. 10; Carleton Place, Fish, Dec. 11; Russell, Vankleek Hill, Dec. 12; Grenville, Hockton, Dec. 13; Hastings, N. Queensboro, Dec. 17.

Maple Evaporators

To the live farmer our Perfect Maple Evaporator and a sugar bush can be made to produce a revenue when it is most needed. With our Maple Evaporator it is possible to economically convert into the best quality maple syrup. The body of the Perfect Evaporator is made of heavy sheet-steel, thoroughly riveted and braced with steel angle and fitted with cast iron top and frame. The working of the evaporator is very simple—put the sap in at one end and it comes out syrup at the other. Write for literature.



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Ontario Provincial WINTER FAIR

GUELPH, ONTARIO

December 9th to 13th, 1912

THE BEST Horses, Beef Cattle, Dairy Cattle, Sheep, Swine, Seeds and Poultry

Produced on the Best Farms in Ontario will meet here in Competition

And in the LECTURE HALL you will learn how they were produced, from PRACTICAL LECTURES.

Given by Experts on subjects relating to Live Stock, Seed and Poultry

Seed Entries Close Nov. 16th

Live Stock Entries Close Nov. 23rd

Reduced Freight and Passenger Rates on All Railways.

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FREE-MAGNIFICENT PHONOGRAPH-FREE

Here is the most magnificent offer ever made by any available firm. We will give away absolutely free of cost, 100 of these magnificent imported phonographs, complete with your choice of thousands of records, and most popular records.

This is the Chance of a Lifetime.

The magnificent phonograph will talk, sing, recite, play records, and all other things you would expect to find in your home. YOU WILL EXPECT TO FIND IT IN YOUR HOME. YOU WILL EXPECT TO FIND IT IN YOUR HOME. YOU WILL EXPECT TO FIND IT IN YOUR HOME.

Grasp It Now.

Every title is guaranteed to surpass every other title. Every book is guaranteed to surpass every other book. Every record is guaranteed to surpass every other record. You will expect to find it in your home.

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Vertical text on the right edge of the page, including 'Novem', '\$', 'If you neighbor a price, will be there is', 'If you credit', 'If you do your bring', 'of some blank, and renewal to', 'TOP', 'G', '\$350 H', 'SEC', '\$250', 'TH', '\$280', 'FOU', '\$200', 'SPECIAL', 'Pear', 'SPECIAL', 'Clevel', 'SEN', 'COUNT', 'only one', 'Farm and Enter', 'form, etc', 'form, etc', 'Address

\$2,500 IN Prizes for our Readers

If you don't know of any neighbor who is working for a prize, send in your name. It will be an easily won prize if there is no opposition in the district. No contestants have yet entered from several districts.

Your Renewal Counts

A yearly renewal counts 750 points, if sent before Dec. 1st. Send your renewal now and we will credit it to any contestant. If you don't know of anyone in your neighborhood who is working for a prize, send the names of some one on this entry blank, and tell us to credit your renewal to him.

SOME TOP PRIZES

GRAND PRIZE

\$350 Horse and Buggy

SECOND PRIZES

\$250 Driving Horse

THIRD PRIZES

\$280 Art Piano

FOURTH PRIZES

\$200 Motor Cycle

SPECIAL LADIES' PRIZES

Pearl Sunburst

SPECIAL BOYS' PRIZES

Cleveland Bicycle

SEND TO-DAY

COUNTS 500 POINTS

(Only one coupon counted for any candidate.)

Farm and Dairy,
Send this name in your coupon.
Send sample copies, order forms, etc.

Address

PRIZE CONTEST NEWS

It's The Best Contest Ever Run

That's what the contestants say because every one gets a prize according to the amount of work he does—because the prizes are so fine and the values so great—because it is so easy to get subscriptions when they tell their friends they are working for prizes.

Many well-known farmers, postmasters and factory men are entered, and many women, girls and boys. If you want to help Farm and Dairy get these 5,000 new subscribers, join the contest. The prizes will certainly repay you for the work you do.

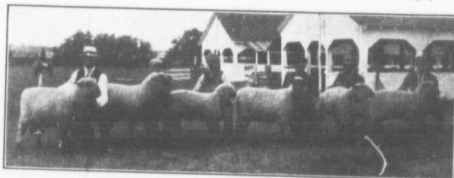
A few districts still open. Although so many persons are entered, still some of the districts have no contestants as yet. There are

more in this contest. We certainly will if every one keeps up the interest with which they started. We want every dairy farmer in Canada to read Farm and Dairy, so we want a contestant in every district. Almost every reader of Farm and Dairy is an enthusiast, and wishes every dairy farmer in Canada to also be a reader. Now is the time to help us while interest in the prize contest is active. Send in the entry blank.

A Visit to the N. S. A. C.

(Continued from page 2)

and the new enthusiasm that is taking hold of the Maritime agriculturalist, is due to the whole-souled and enthusiastic efforts of Prof. M. Cumming, President of the college, and



Sheep are Deserving of a Larger Place in Quebec Agriculture

There are good sheep in Quebec Province. The Oxford Down flock of Arsené Denis, Berthier county, a few of which may be seen herewith, are typical of the kind found in the province. But among the general rank and file of Quebec farmers the sheep is an almost neglected animal. Probably the rapid increase in dairying accounts, to some extent, for this scarcity of sheep. But this is not as it should be. Even on the dairy farm there

many districts between Nova Scotia and British Columbia. It certainly offers a great chance for some one in each district. If you don't know of anyone working in your neighborhood, send your name and earn that prize.

THE CONTEST HAS JUST STARTED. As the contest has six months to run it is really just started, so you have just as much chance as any of those who started a week ago. But enter your name just as soon as you can, for it takes some time to send you copies, order blanks, etc., and you want all the time you can get to work.

MR. ANDERSON, BENEFIT, SENDS FIRST BIG ORDER
We have had many small orders, but the first big one comes from Mr. Anderson, of Renfrew, amounting to over 50,000 points. He had these all ready before even receiving his supplies, so you can see he is one fine hustler. That's the spirit that wins prizes. All he asks is a lot more sample copies, circulars and blanks. He evidently has a number of friends organized to help him.

SEND IN ORDERS EARLY
Don't wait till you get a great big list before sending an order to us. Send in your names so we can get subscriptions started. Then we can keep in touch with you better if we hear from you pretty often and can tell you any new plans to make it easier to get orders. Watch out for offers of special premiums.

ASK ANY QUESTIONS
We hope every contestant or friend of a contestant or reader of the paper will feel free to ask us any questions about the contest. We will gladly answer them so far as we can. Of course we can not tell the standing of any contestants except as it is published in the reports.

5,000 NEW READERS
We want at least 5,000 new readers, and it looks as if we would get even

GRAND TRUNK RAILWAY SYSTEM

Winter Tours to
California, Colorado, Mexico
and Pacific Coast Points

The Grand Trunk Railway is the most direct route from all points East through Canada via Chicago.

FEATURES

Double Track, Fast Service, Finest Roadbed, Modern Equipment, Unexcelled Dining Car Service.
All elements of safety and comfort
TO THE SUNNY SOUTH

No more desirable route than via Grand Trunk to Detroit, thence via Cincinnati to Jacksonville, Palm Beach, Nassau, etc.
Round trip tickets, giving choice of all the best routes, together with full information and reservations, may be obtained from nearest Grand Trunk Agent, or write A. E. Duff, D.P.A., Toronto, Ont.



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UNEXCELLED TRAIN SERVICE
Fast Time to

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October 27th, 1912

Send your Raw FURS to John Hallam

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FREE Our "Up to the minute" Fur quotations and the last Edition of HALLAM'S TRAPPERS GUIDE, a book of 80 pages, mailed FREE.

Write to-day to John Hallam, Mail Dept 3, TORONTO, 111 Front St. E.

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Pigs fetch higher prices and are ready for market three weeks earlier when fed on Mollassine than when fed on any other food. It is the best food known to the farmer for his live stock. It puts the digestive organs in perfect condition and enables the animals to obtain all the nutriment of their entire food. It keeps them free from worms.

Get the genuine made in England
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St. John, N.S. 402 Board of Trade Building, Montreal. Pacific Building, Tor.

FARM AND DAIRY

AND RURAL HOME

Published by the Rural Publishing Company, Limited.



1. FARM AND DAIRY is published every Thursday. It is the official organ of the British Columbia, Eastern and Western Ontario, and Southern District, Quebec, Dairyman's Association, and of the Canadian Homein Association and of the Canadian Dairy Producers' Association.

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

3. REMITTANCE should be made by Post Office or Money Order, or Registered Letter. Postage stamps accepted for amounts less than \$1.00. On all checks amounts less for exchange fee required at the banks.

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

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

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

CIRCULATION STATEMENT
The paid circulation of Farm and Dairy exceeded 14,375. The actual circulation of each issue, including copies of paper sent subscribers who are not strictly in arrears, and sample copies, varies from 13,675 to 13,300 copies. No other editions are accepted at less than the full subscription rate.

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

OUR PROTECTIVE POLICY
We want the readers of Farm and Dairy to feel that they can deal with our advertisers with confidence as to our advertisers' reliability. We try to admit to our columns only those who are reliable advertisers. Should any subscriber have cause to be dissatisfied with the treatment he receives from one of our advertisers, we will investigate the circumstances fully. Should we find our advertisers unreliable, even in the slightest degree, we will discontinue immediately the publication of their advertisements. Should the circumstances warrant, we will expose them through the columns of the paper. Thus we will not only protect our readers, but we will be entitled to the benefits of our Protective Policy, you need only to include the words "I saw your advertisement in Farm and Dairy." Complaints must be made to Farm and Dairy within one week from the date of any unsatisfactory transaction, with proof thereon, and within one month thereafter, in order to take advantage of the guarantee. We do not undertake to advise trifling differences between readers and responsible advertisers.

FARM AND DAIRY

PETERBORO, ONT.

A CRITICAL SITUATION

The election of Governor Wilson to the Presidency of the United States and the sweep into power of the Democratic party places Canada in a serious position. What are we going to do about it? The Democrats are pledged to lower the United States tariff. This means, we presume, that one of their first acts will be to admit Canadian products of the farm to their markets without tariff restriction. This would be awful. It would bring in its train practically all the evils that the people of Canada voted so decisively to protect themselves against only a little over a year ago.

Unless something is done much of our wheat may soon sweep over the international boundary to be ground in the mills of Minneapolis and Duluth, and thus build up United States

industries at the expense of ours. "Eastern live stock, hay, cheese and butter will be marketed in Buffalo and New York;" "Toronto packing houses will have to go out of business;" "East and West lines of travel will be destroyed;" "Western Canada will become the backyard of Chicago;" all this may even lead to annexation.

We can see only one way in which this catastrophe can be averted. Let our Government set a good, stiff export duty on every bushel of wheat, every pound of bacon and every print of butter that any disloyal farmer might be tempted to ship to the United States market. Perhaps, too, it would be advisable to impose an exact duty on certain lines of manufactured goods, which Canada produces to best advantage, such as agricultural implements and steel goods. Almost any measures will be justified in view of the national catastrophe that we now have strong reason to believe is pending. We do not fear these things ourselves, but evidently a majority of people in Canada did at the time of our last Dominion election, and of this course is a country in which the rule of the majority must be upheld.

TARIFF FAVORS NOT NEEDED

Of all industries in Canada that have received lavish treatment from the Dominion Government the steel industry is the most lusty infant in the Government nurseries. In seven years the people of Canada gave to this industry about \$15,000,000 in bounties. One would think that an infant (industry) that has been given such a lusty start as this, would now be able to stand weaning. But apparently not. The bounties that we have for many years been paying to the steel industry have ceased, and in spite of the continued protests of the steel men have not been renewed.

The steel interests now are using every influence in their power to have the bounties renewed or lacking this a higher tariff on all the goods that they produce. They have had private interviews with several ministers of the Government. They make much of the fact that the tariff that they now enjoy is considerably below that on most lines of manufactured goods. They point out that a fairly large proportion of the manufactured steel used in Canada is imported. They claim that they should have the home market to themselves. In fact, they have advanced almost every reason imaginable why they should have greater protection except that they need it. President Plummer has himself made the assertion that they can manufacture steel at his plant in Sydney, Cape Breton, as cheaply as at any other place in the world. That they can do so is proven by the fact that the works at Sydney have shipped manufactured steel all over the world and have competed successfully with the manufactures of other countries on foreign markets. And yet in the steel interests claim that in the home market in Canada they should have protection; that is, the privilege of charging the Canadian consumer

more for Canadian-made steel than the foreigner is charged.

It would seem that our manufacturers have come to regard the tariff as a vested right rather than a special privilege granted them as infant industries that to be taken away as soon as they had gotten off to a good start. It is up to those of us who must pay the taxes, and we farmers pay 66 per cent. of the taxes of Canada, and we in the case of steel goods at least the tariff is not increased nor the bounties renewed. The steel interests can make good dividends without tariff favors. Why should we be taxed to make fortunes for a few steel barons?

THAT NATIONAL HIGHWAY

The building of a great national highway from one end of Canada to the other is a proposal of such magnitude that it attracts attention immediately. It arouses one's enthusiasm. The idea appeals particularly to highway improvement enthusiasts of the automobile driving class. They are pushing the idea whenever or wherever opportunity offers. At the last convention of the Canadian Highway Association at Winnipeg recently, the proposition of building such a highway was again brought forward and one and all expressed the opinion that all governments, federal, provincial, and municipal, should be willing to contribute liberally to the construction of such a highway. We have stated our views on the advisability of such a scheme before, but as the question has again been brought to public notice, a re-statement of our stand will not be out of place.

Were Canada in the first stages of development and without railway facilities the expenditure on such a highway might be well placed. The road might then be used for colonization purposes and for the marketing of farm produce. As it is, however, the railroad is a more economic method of transportation, and it is through the construction of new railways and not of great highways that new countries will be opened up. The only class of the community who would benefit materially through the construction of such a highway would be those who tour the country in automobiles. They are the only ones whose business or pleasure takes them from one centre to another via the public highway.

Were the money to be expended on this highway to be raised by a tax on automobiles, it might be advisable to build it. But we have not yet heard that automobile owners wish to have their taxes increased, even were the money expended on the building of a national highway for their use. If the money is to be raised from the general revenues of the country, as it would be, then it should be spent where it will be of the greatest good to the greatest number. The highways that we farmers wish to see improved are those that lead from our farms to the nearest market, be it city or railroad station. It is these roads that are the most travelled, and it is the improvement of these roads that would be of most use to the com-

OUR GUARANTEE:
We GUARANTEE that every ad we insert in this issue is reliable. We verify the columns of Farm and Dairy within one month after the date of the reading column, and because we protect our readers' interests. Should any advertiser herein deal dishonestly with any subscriber, we will make good the amount of your loss, provided such transaction is reported to us within one month from date of this issue, that it is reported to us within one month after the date of the contract that we find the facts to be as stated. It is a condition of our contract that in writing to advertisers you state: "I saw your advertisement in Farm and Dairy." We will not attempt to adjust trifling disputes between subscribers and honorable business men who advertise, nor pay the debts of honest bankrupts.

If a grand national highway is to be built let those who will benefit by it pay for it. If the money is to be raised out of government revenues, then let it be spent where it will be of most value to the whole community.

SALESMANSHIP IN COLLEGES

Probably in no one thing do our farmers suffer so greatly through our lack of ability to make sales and to find a profitable market as we do in connection with marketing our apples. The fruit division of the Ontario Department of Agriculture and our district representatives have given us most excellent service in showing us the possibilities of our orchards. They have demonstrated to us that we can produce the fruit. We can grow the best of apples, even in our old, uncared for orchards, once they are put in proper shape, pruned, sprayed, fertilized and cultivated. But having produced the apples, what are we to do with them? No provision whatever is made for the sale of the apples. Little information is available as to how we should best seek to market the crop!

Two weeks ago in the columns of Farm and Dairy we advanced the suggestion that some work covering the most vital question of selling be taken up in connection with agricultural colleges. The suggestion has been well received by our people. They realize that the two blades of grass are to grow where one grew before, are of little use to us when we get them unless we can sell them at a profit.

In the business world it is everywhere recognized that to produce is easy. Anyone can manufacture. The real problem is to sell. And this is true also of the farm. It is high time we came to recognize the importance of selling, and prepare the way by giving instruction, at least at our agricultural colleges, in connection with the great problem of selling.

Difficulties of course are in the way of introducing this subject at Agricultural Colleges. It will be a difficult matter to get a suitable man of the proper training to conduct such a department. For the salary ordinarily going to educational institutions, and especially at Guelph, it would be practically an impossibility to interest a suitable man, for he could con-

mand nearly of business. But while worked out, course of at on naring ture to deal ship and it should be secure at their live a few dollars, giving stude their farms, a problems of Such a v study and g result in g

Honesty Business, the Honest. With the characterize pose to go 'ther than we WE GL LUTELY, TO MAKE that may be our people vertisers.

This guar will take tective Polic each week Editorial pa We appr our people SERVED FARM AN FERM contin good-will in this time for To our s assure thro every legi books and ORDS ARD investigation In Farm you turn down all question whatsoever several accu byte in pap

It costs i each year to do this honest best ADVERTIS THIS UP. The adv Farm & D edited as the protect our ways turne loss adver tinent fu Positive P Nov of a fullest conten, and in more than tite you w 'A Paper

mand nearly twice the salary in fields of business.

But while these problems are being worked out, we would suggest that a course of at least six lectures be put on during the college year, these lectures to deal with the subject of salesmanship and farm selling problems. It should be but a minor matter to secure at least six suitable men to deliver a lecture, one each, covering a suitable division of the subject. Such lectures would serve the purpose of giving students, who are to return to their farms, and become the leading farmers, a vision into the most vital problems of selling and salesmanship. Such a vision would stimulate to study and development. This should result in growing qualifications in-

valuable to any farmer, and to any community, in which he might reside.

COOPERATIVE SELLING

"You simply cannot sell apples this year unless you belong to a fruit growers' association," said a Halton county farmer to an editor of Farm and Dairy last week. "There are farmers here with good crops of fruit who cannot sell their orchards. Even when they pack the fruit themselves they have difficulty in disposing of it."

Such a condition in the fruit trade is inevitable. Growers, instead of regretting it, should join the nearest association or form an association of their own and participate in the advantages that accompany cooperative selling. Dealers have discovered that fruit sold under an association brand is more reliable than that which they get from individual growers or from apple buyers. They are willing to pay higher prices for association fruit. Even the consumers have come to look for association guaranteed fruit. This year the advantages of cooperative society membership will be even more appreciated than in most years, in that apple buyers having lost money in the last couple of years are very cautious about buying, and the prices that they offer are in most cases extremely low.

We predict that many fruit growers who have hitherto preferred to "plow their own furrow" will now be glad to join in with their neighbors in cooperative packing and selling. Co-operation is the spirit of the times. All of us, fruit growers particularly, will be wise to get in line and share in its benefits.

School Agriculture

Farming now-a-days to be carried on to the very best advantage requires a great amount of expert knowledge of both a practical and scientific nature on the part of the farmer. For many years there has been a demand that this agricultural knowledge be imparted to rural children through the medium of the public schools. One of the great drawbacks hitherto has been the lack of proper text books, books that are simple enough and accurate enough to be comprehended by and of value to the young children.

"School Agriculture" is the subject of a text book on agriculture for rural schools just being pressed. Its author is Milo N. Wood, who for many years has been a most successful teacher of this subject, and understands the school child's needs. Such subjects as soil formation, drainage, tillage, crop rotation, animal husbandry and so forth, are dealt with in a most simple and easily understandable manner. While intended primarily as a text book in the public schools it will be found invaluable by anyone desiring to obtain a general knowledge of elementary and general agriculture. There are few farmers who would not be profited by reading this book. One of the features of the book is the great number of illustrations, there being 186 altogether, with 14 full page plates in color. The book is well bound, has 340 pages, and contains a mine of information for the 90 cents that it costs through Farm and Dairy. Every farmer who has a boy that he wishes to stay with the farm, should secure a copy of this book for him.

AD. TALK

LIII.

Honesty is the only Policy! Business, we believe, flows to the Honest.

With the courage that has ever characterized our Policy we propose to go "Our People" a bit better than we have been doing.

WE GUARANTEE, ABSOLUTELY, from this time forward, TO MAKE GOOD ANY LOSS that may be sustained by any of our people dealing with our advertisers.

This guarantee, after this week, will take the place of "Our Protective Policy" and be featured each week in the heading of our Editorial page.

We appreciate the good will of our people, and their UNRESERVED CONFIDENCE IN FARM AND DAIRY. We will merit continued confidence and good-will more than ever from this time forward.

To our advertising patrons we assure through Farm and Dairy every legitimate service. Our books and CIRCULATION RECORDS ARE OPEN for your inspection. We court your closest investigation.

In Farm and Dairy we assure you of First-class company. We turn down and refuse to publish all questionable advertisements of whatsoever kind, even including several accepted by leading religious papers—one a leading Presby-terian publication.

It costs us a big sum of money each year in immediate revenue to do this thing. We believe you honest people—your HONEST ADVERTISERS WILL MAKE THIS UP.

The advertising columns of Farm and Dairy are as carefully edited as the reading columns. To protect our readers we have always turned away all unscrupulous advertisers. We gladly extend this further safeguard in our Positive Guarantee.

Now of a truth you can take the fullest confidence in our advertisers, and in Farm and Dairy, which more than ever will merit the title you have accorded.—

"A Paper Farmers Swear By"

DE LAVAL
CREAM
SEPARATORS

ARE IN A CLASS ALL BY THEMSELVES

As much superior to other separators as other separators are to laval setting systems.

DeLaval Dairy Supply Co., Ltd.
Montreal Winnipeg

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

GET THE BEST! IT PAYS!
ELLIOTT
Business College

Cor. York and Adelaide Sts. TORONTO, Ont.
It is well known as the right place for superior business and shorthand education. Positions worth \$100 and \$200 were recently filled by us.
Write for Catalogue.

FACTS ABOUT THE SOUTHEAST


FREE ON REQUEST

GASOLINE ENGINES
1 1/2 to 50 H. P.
Stationary Mounted and Tractor



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

GOLD, SHAPLEY & MUIR CO., LTD.
Bradford Winnipeg Calgary



Lump Rock Salt, \$10 for ton lots, f.o.b. Toronto
Toronto Salt Works, 128 Adelaide St. E.
G. J. Clapp, Manager Toronto, Ont.

Farm Lands Average Less Than \$17 Per Acre. Undeveloped tracts sell from \$5 up. Beef, pork, dairying, poultry, sheep and horses make big profits. Large returns from alfalfa, corn, truck, cotton, apples, fruits and nuts. Growers command good local and Northern Markets.

The Southern Railway South & Ohio Railroad or Georgia So. & Florida Ry. territory offers the finest conditions for farms and homes. Plenty of rain, mild winters, enjoyable summers. Promising industrial openings everywhere. The Southern Railway has nothing to sell; we want YOU in the Southeast. The "Southern Field," state booklets and all facts free.

M. V. RICHARDS, Land & Industrial Agent. Room 30 Washington, D. C.

CALDWELL'S MOLASSES MEAL

Is the only convenient form in which pure cane molasses can be fed to animals. The meal is dry to the touch—has an appetite-provoking odor and is greatly relished by the animals.



Caldwell's Molasses Meal is a very economical as well as a highly efficient feed. It practically costs nothing because it takes the place of an equal amount of other feed. It also makes other feed more palatable, digestible and hence more nourishing, and is an excellent preventative and eradicator of worms.

It puts spirit into horses—makes them look better, feel better, live longer and worth more at any stage. The Meal keeps cows fat and contented—hence they give more milk. By all odds the best "conditioner" for steers, sheep, lambs, and hogs—brings them to maturity—their highest market value very quickly.

N. B.—Guaranteed by the Firm, and used by all the larger feeders. Caldwell's Molasses Meal cuts general forage bills by a handsome margin. You can buy the Meal cheaper from us direct, or from your feed store than you can buy the raw molasses alone. Write for money-saving facts! Clip out coupon—mail to us, and we will send you full particulars.

"Farm and Dairy," Peterboro
Please send me booklet and full particulars as to cost, etc. of Molasses Meal.

Name _____
Post Office _____
Province _____

THE CALDWELL FEED CO., LIMITED
Dundas, Ontario

MAIL CONTRACT

SEALED TENDERS addressed to the Postmaster General, will be received at Ottawa until Noon, on Friday, the 13th December, 1912, for the conveyance of His Majesty's Mails as proposed Contract for four years six times per week over Rural Mail Route No. 2 from Peterborough, Ontario, to commence at the pleasure of the Postmaster General.

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

G. C. ANDERSON,
Superintendent.

Post Office Department,
Mail Service Branch,
Ottawa, 25th October, 1912.

WANTED

Cheese Makers and Dairy men to sell our specialties in high-grade Nursery Stock during the Fall and Winter months. Highest commission paid. Exclusive territory reserved. Big demand for fruit trees for spring planting. Start now at the right season. For particulars, write to

STONE & WELLINGTON

The Fonthill Nurseries, Toronto

EGGS, BUTTER and POULTRY

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

PROMPT RETURNS
Established 1854

The **DAVIES Co.**
Wm. **DAVIES Ltd.**
Toronto, Ont.

No More Cranking

No more back-cracking, arm-cramping cranking—no more broken wrists or smashed teeth. The drudgery, danger and exasperation of cranking are eliminated in the

Renfrew-Standard

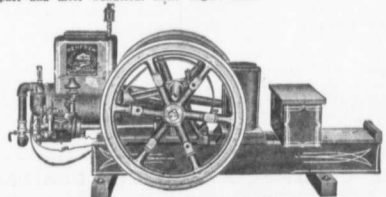
gasoline engine. It starts without cranking, starts easily under all conditions. You can make it easy start the Renfrew-Standard and run it. It's a pleasure to own such an engine. The latest and best type of gasoline engine for sale in Canada. Has frame and cylinder cast in one, insuring at all times perfect alignment. Carburetor is of simple construction and proper proportion to make a perfect mixture. The governor is of flyball type designed in correct proportions to insure close regulation of the engine. The importance of the foregoing points of construction are fully explained in our bulletin. Write for a copy. The Renfrew-Standard gasoline engine is backed and guaranteed by the same organization that build and sell the famous "Standard" cream separator.

THE RENFREW MACHINERY CO., Ltd.

Head Office and Works: RENFREW, ONT.

Sales Branches at Winnipeg, Man. and Sussex, N. B.

Write us about the Gifford 1 1/2 h.p. engine, the handiest, most compact and most wonderful little engine made.



2 1/2 to 8 h. p. Semi-Portable as Illustrated: Stationary and Portable.



The Carrier For You

IN choosing a litter carrier, one should consider all of the equipment necessary for a complete outfit: Carrier, Track, Hangers, Switches, and Swing Pole fittings. Do not place an order before learning of the many distinctive features to be found in Louden Equipment.

LOUDEN Litter Carrier

—is simple in construction, and easily operated. Carrier box is made of heavy galvanized steel, strongly reinforced with angle iron. Worm heating gear insures maximum speed and power. Track is of high carbon steel and is easily installed.

Write today for Illustrated Catalogue.
Our advertising literature will supply free literature.

The **LOUDEN MACHINERY Co.**
Dep. 62 - GUELPH, Ont.

CREAM WANTED.

We furnish free cash and pay express charge on cheeses are boxed every fifteen days and are cashed at par anywhere. If you live in Ontario and milk cows why not ship your cream to the best market? Write for fully particulars. **TORONTO CREAMERY CO., LIMITED, TORONTO, ONT.**

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 Makers' Department, c/o this paper, Brockville, Ontario.

A Milk Room Described

"Builder," Waterloo Co., Ont.
In my travels through the best farming counties of Western Ontario during the past summer I noticed many fine new barns in different stages of



completion. To me the one bad feature of these buildings was that the milk rooms were either right inside the stables or connected with them by a door. I am told that the factory men made no objection to this plan as long as the milk is carried direct from the milking to the room just as soon as it is milked and the room door kept shut. This may be all right, but in districts near Montreal where the farmers ship to that city the regulations regarding the building of the milk rooms separate and in no way connected with the stable are most stringent. For all the difference there is in the cost one might as well build their milk room in the form of a separate building some distance from the stable. If the milk kept in a connected room is not good enough for the city folks then it is not good enough for the farmer or his family.

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COMBINED MILK AND ICE HOUSE

If ice is to be used to cool the milk it will be best to have the ice-house connected with the milk room and both under one roof. A milk shipper near Montreal has such a one built 14 feet wide and 24 feet long, with walls eight feet high, covered with seven-eighths inch matched spruce lumber laid over a 24 inch frame built on stumps. The ice-house is 14 by 14 feet square, and the remainder is for milk storage. This latter part has a plank tank lined with galvanized iron, a Star aerator supplied by water from a tank set above it which in turn is filled from a force pump in the well near at hand. A good set of scales is also kept in the room so all products can be weighed.

This building and aerator cost a trifle over \$800. There has since been a concrete floor put down which, together with painting, will possibly bring the cost over \$125. But the convenience and cleanliness of such a building is worth a lot, and I believe that all farmers should have some such building set at 50 or 60 feet distant from the barn.

Do not allow the cream to freeze in winter.

Dairy Jottings

If a farmer finds that the cheese from his factory has been docked one-half cent he feels awful. Chance are we should dock him two or four cents. There is that much difference in the selling price, but if I should do such a just thing I would not dare to live in Brockville.—Senator D. D. Deshaire, Levis Co., Ont.

We do not make cheese by guess at our factory. The milk in the vats and the whey are tested regularly for fat so that we always know what we are doing. The time for the various stages of the cheese making process



is determined by an acid test. To many cheese makers guess at the test and poor cheese results. Our cheese has always sold for the highest price offered on the Peterboro Cheese Board and lately a large part of it has been used for local consumption.—A. H.

is determined by an acid test. To many cheese makers guess at the test and poor cheese results. Our cheese has always sold for the highest price offered on the Peterboro Cheese Board and lately a large part of it has been used for local consumption.—A. H.



What's The Matter With Your Butter?

Does it lose its flavor quickly? Does it acquire a bitter taste in a few days?

Are you receiving any complaints about the butter not keeping well?

Use the salt that does make good butter every time and all the time—

WINDSOR DAIRY SALT

It is always the same in purity and strength. It won't cake—dissolves evenly—and makes the most delicious butter you ever tasted.

The prize-winners at all the fairs, used Windsor Dairy Salt—that's why they won all the prizes.—172

Creamery

Butter makers... ask questions... subjects for letters to Dr.

Prevent

Moldy butter... infected with... spruce into the precautions are...

If tubs are packing... to be prevented... the financial... market it must... after getting... the mold... more or less... must be borne... sides great... handling it. If... vented at the... saving would... treating tubs... First, by... second solution... and, by paraffin...

THE TUBS

The tubs show strong solution to stand for a... which can be... steamed and... When cooled the... charcoal lined... solution. It... been ready to... in some cream... provided in wh... is submerged... used several times through... and is thorough... day by making... The brine... found fairly e... mould, but man... to paraffine th... lose, thinking... Paraffine sh... should be slight... before cooling... layer that is n... stick to the b... the tub. The... given as 240... of the U.S.A.

ture. Paraffine... the proper tem... several times... bro into the tub... until the inside... cooled. It may... machine design... thoroughly spr... on the inside o...

MACHINE SALES... It makes no... suits which me... the work is p... machine gener... coat of paraffin... quires a differ... other methods... usually most s...

In order to... operators should... well-seasoned... in a dry, well-l... cool store hou... to prevent mold... not. If the tub... refrigerator use... If these precau... danger from n... and the losses... reduced.—Circ...

Creamery Department

Butter makers are invited to send questions on matters relating to the making and to request answers for discussion. Address letters to Creamery Department.

Prevention of Mold

Moldy butter comes from tubs infected with mold spores which develop and grow best on damp surfaces. If tubs are made of well-seasoned wood and stored in dry places so mold is likely to appear until they are filled with butter, but as the tub is usually wet before or during the filling process the mold is then likely to grow even at low temperatures and spread into the butter unless proper precautions are taken.

If tubs are properly treated before using the trouble, in a large measure, can be prevented and thereby work to the financial advantage of the creamery. When moldy butter reaches the market it must be taken from the tub after being thoroughly cooled and the mold scraped off. This means more or less loss of butter which must be borne by the creamery, besides great annoyance to the dealer handling it. If these losses are prevented at the creamery a considerable saving would result. Two ways of treating tubs have been recommended: First, by soaking the tubs in a saturated solution of brine, and, second, by paraffining.

THE BRINE TREATMENT

The tubs should be filled with a strong solution of brine and allowed to stand for at least 12 hours, after which they should be thoroughly steamed and filled with cold water. When cooled they should be lined with parchment liners that have also been soaked in the brine solution, and are then ready to be filled with butter. In some creameries a brine tank is provided in which a day's supply of tubs is submerged and the same brine used several times. The method insures thorough treatment of the tubs and can be used with less expense than by making a new solution each day. The brine treatment has been found fairly effective in preventing mold, but many buttermakers prefer to paraffine their tubs for this purpose, thinking it more effective.

Paraffine should be applied hot enough to slightly penetrate the wood before cooling, giving a smooth, thin layer that is not likely to peel off and stick to the butter when removed from the tub. The proper temperature is given as 240 degrees F. by Rogers, of the U. S. Department of Agriculture. Paraffine, after being heated to the proper temperature, may be applied with a brush, or it may be poured into the tub and the tub revolved until the inside surface is completely coated. It may also be applied by a machine designed for this purpose and thoroughly spraying the hot paraffine on the inside of the tub.

MACHINE PARAFFINING PREFERRED

It makes no difference in the results which method is used so long as the work is properly done, but the machine generally leaves a thinner coat of paraffine on the tub and requires less time to apply than the other methods, consequently it is usually most satisfactory.

In order to prevent mold, creamery operators should buy sound tubs made of well-seasoned material, store them in a dry, well-lighted, and, if possible, cool store house, properly treat them to prevent mold reaching the butter, and then fill and store them in a dry refrigerator until shipped to market. If these precautions are taken the danger from mold will be very slight and the losses from this cause greatly reduced.—Circular 29, U. S. D. A.

Boost Dairy Cattle

That successful dairying depends in a large measure on the kind of cows used, and the raising of better dairy cows is one of the things that the butter-maker should preach to his patrons. We know that this is often uphill work due to the fact that the dual purpose talk is still going the rounds, but the butter-maker should be able to present arguments in favor of the special purpose cow, and do it in such a way that it can leave no doubt in the mind of the patron as to which course to take to get the most money from dairying.

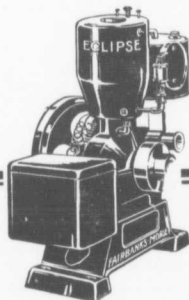
There is an old saying, that anything that is worth doing at all is worth doing well, and this can be

also applied to dairying, and if a man milks cows anyway, why should he not milk good ones, instead of stripping beef cows for the fun of it. It requires as much time and work to take care of and milk a cow that gives 150 pounds of fat as it does to take care of and milk a cow that gives 300 pounds of fat, and who would not rather have the income from the 300-pound cow than from the other kind?

The fellows who advocate the dual purpose cow have a little argument right now, as beef is quite high in price, and the old argument that the dual purpose calf is worth more than the dairy bred calf is also made use of. But, to get at the facts, take a pencil and do a little figuring for

yourself, and see where the greatest net profit comes in. The claim has often been made, and can easily be substantiated, that a farmer can afford to bury the dairy cow when her usefulness ceases, and he will still be away ahead of the fellow who gets fifty to seventy-five dollars for his dual purpose cow when he turns her off.—Jas. Sorensen, in Dairy Record.

Would you hustle if paid well? We want a representative,—a real live one,—for the winter in your district to call on farmers. We will pay you well for work in spare time, or a steady job. Write to-day for the proposition we have for you.—Circular Department, Farm and Dairy, Peterboro, Ont.



This Fairbanks-Morse Farm Engine Free—

to the farmer who suggests the greatest number of practical uses for it on his farm—or any other farm.

It will pump water, saw wood, make electricity, grind feed, cut ensilage, shell corn, pull stumps, run a churn and separator and wash ing machine and operate a spray-pump.

What else will it do? The engine is offered as a prize for the most complete answer.

This contest is open to every farmer in Canada. You do not have to own an engine, or to buy anything from us, to enter it. There is no entry fee or other condition. All you have to do is to tell us what you could do with the engine if you had it on your farm.
We're writing a book—"Uses For a Farm Engine."

Its purpose is to show how our engines can be used to save labor and increase profits. We will do this by describing as many practical uses as possible. We know already of many different uses for the engine, but we feel sure that you can tell us of others. So we're asking you to help us get information for the book.

We'll give this engine to the farmer who gives us the greatest number of practical suggestions.

Mr. C. B. Ailardye, Editor of "The Family Herald and Weekly Star," will act as judge and award the prize.

Now think what you would do with the engine if you had it on your farm. Think of every possible way in which you could use it to do work, that now takes the time of expensive hired help. Think how it could make your wife's work easier. Then sit down and write us.

We have listed above, some of the uses we know about. You ought to be able to think of many others. As soon as all replies to this advertisement are received, we'll go ahead with the book, and will send one of the first

copies of every farmer who enters the contest. Your answer must be mailed not later than Dec. 15, when the contest closes. The engine will be shipped to the winner as soon as possible thereafter, so that he will have it in time to use all winter.

Do not bother about the form of your answer—we want ideas, and practical suggestions, not pretty writing. When your letter is written, cut out the numbered seal in the corner of this advertisement and pin it to your answer.

Address—Farm Engine Booklet Editor

The Canadian Fairbanks-Morse Co., Limited
444 ST. JAMES STREET, MONTREAL

Remember the Contest Closes December Fifteenth





3T is the way in which a man decides little things no less than great ones that indicates what he is made of.—President Hadley.

For Educational Purposes

By ALICE FRINGLE
(Farm and Home)

THE family of John Porter sat at the supper table in the wide, old-fashioned kitchen of the Porter homestead. It was Saturday evening, and Mr. Porter and his brother James, who had been visiting him for a few days, had just driven home from the post-office four miles away, with the week's mail.

Resides a bundle of letters for Mr. James Porter, there was the Grantville Gazette, the regular weekly paper, and a large square envelope for Connie, a slender girl of sixteen. This last was the cause of great speculation, before its recipient, with flushed face and nervous fingers, finally opened it. It proved to be an invitation to attend the exercises of the graduating class in a leading academy. It came from Josie Porter, a cousin of Connie's, and her name was in the list of graduates. The two girls had not met since they were ten, when Nathan Porter had brought Josie on a short visit to the week's home.

The weekly Gazette lay unnoticed while all examined and admired the invitation, and the appetite of at least one member of the family was affected by it.

"You don't seem to have paid much attention to education in your family, John," said James, as he glanced around the table.

"We've done the best we could at the district school, but I haven't been able to send any of them away yet," answered John, meekly, looking first at his plate and then through the window.

"We've had such poor crops these several years now, and consider the sickness and bad luck with the stock, so that I can't get around to it just yet."

"You'd better get around to it pretty soon, John," these boys and girls are growing up fast. A few hundred dollars spent in that way would prove a good investment. You ought to make a scholar out of one of them at least."

John Porter coughed, but said nothing, while Freeman, a sturdy lad of nearly twenty, who was washing his face at the kitchen sink, gave the roller towel a fierce jerk. Any, who sat next to her father, dropped her knife to the floor, and little Jimmie gave a low whistle.

"Yes," said James, reflectively, "they're growing up fast, and now's the time they need it. Nathan's family seem to take to learning like ducks to water. Josie, the one that sends this card, don't look a bit bigger or older than Connie here, and she has finished the academy, a four-years' course. It's astonishing what they can do, if you keep them at it. And she's a fine musician, too."

Connie's lips parted and her face flushed and paled by turns.

"Yes," said John, "Nathan married a school teacher, and I suppose she set more store by book learning, and

naturally the children would take to it."

Mrs. Porter's hand trembled on the teapot as she said: "I never had any learning to speak of, but there's nothing I wouldn't do to give my children a chance."

"You are just as good as buried among these hills here. It seemed



A' Home Indicative of the Prosperity of the French Canadian Farmer

What better evidence could we offer of the prosperity that reigns on many of the farms of our French Canadian citizens than the neatness and comfort of the homes that grace the farms entered in the Farms' Contests conducted by the Provincial Government? One of these homes, that of Mr. Henri Hebert, St. Paul de Nioaux-Noix, Que., is illustrated herewith.

"My sheep range is a hundred miles from anywhere, but I get the mail every day. Have to have it. One of the men gets on a broncho and rides across the country about ten miles and waits for the stage to come along; tosses up a sack, catches a sack that is tossed off, and is back in two hours. There's nothing like a daily mail to keep you cut of a rut."

Then Uncle James looked around and concluded he had touched some family sore spot, and tried to change the subject.

But conversation lagged and the meal was finished almost in silence. Then John Porter rose and walked out in the yard alone. He looked around over the farm that had been his home when a boy; then to the adjoining timber land that had taxed the energies of his family for years to purchase. He had meant to do well by his family, but the conversation of

cord and tassel, the motto, which was in Latin, but which she knew must mean something grand; the list of names.

Then she fell to imagining that the last name in the list was Connie Porter instead of Josie Porter, and let herself be in a seventh heaven of happiness while the dream lasted. Then she came to earth again and shed bitter tears of self-pity for the space of half an hour. Then she felt blaming herself for her selfishness and discontent, and finally went down at the end of another half hour and sat on the back porch in the moonlight and listened to her father and Uncle James talk over events of their boyhood.

In a few mere days Uncle James was gone, and as Connie came in from the gate where the family had gone to bid him good-by she saw a yellow envelope lying on the kitchen table.

On it was written in her uncle's hand, "Constance Porter, for Educational Purposes." Connie felt trembling and held it out to her brother Freeman, who was coming in at the door. He tore it open and found a bank book with a credit of five hundred dollars to Constance Porter, in the Grantville bank.

The family took a vacation the rest

of the afternoon and talked over Connie's prospects. There was some planning and arranging, and congratulations and admonitions to set Connie's heart all a-flutter.

But when her head was on her pillow, all through the long hours of the night, she fought a terrible battle with herself, and in the morning she told Freeman that in the morning she would be his. Uncle James had only put it in her name, but he wanted a solemn made out of one of the family, and Freeman must be the one. Then when he could earn good wages, he could help her through school, and they could help the others.

Her argument sounded very specious, and for a few days Freeman almost concluded to use the money; but it was finally agreed that Connie was the one who should profit by her uncle's gift. And so preparation was begun for her to leave—some early in September, and her father agreed to furnish her wardrobe, which was very simple, and Connie put in all her spare time pouring over her school books.

When the time came to go her father accompanied her to the site and made a visit with his brother Nathan. Her cousin Josie received her kindly and helped her to overcome her shyness at her new surroundings. After a few days her father returned, and Connie was left to tussle with her entrance examinations.

Josie took her to the academy and introduced her to the teachers; then the doctor of the examination soon closed on her and she wrote all day in fear and uncertainty. That night she could scarcely sleep for excitement, and the next day she wrote again. Then there was a all that night and all the next day she waited for her grades. But the time finally passed and she held the paper which would admit her to the freshman class of the academy.

A chance had been coming over Connie while she waited; she had been studying affairs in her uncle's family. She noticed the difference between Josie and herself and rightly attributed it, not to a deeper knowledge of mathematics or philosophy, but to the more intellectual atmosphere of her daily life. She remembered the eagerness with which her father enjoyed the Latin, but which she knew must mean something grand; the list of names.

But when she rose in the morning she thought she knew her duty, and with Connie to know her duty was to do it.

Her Cousin Josie was shocked when she found that Connie had decided to return home, and begged her to remain and improve her opportunity.

"No," cried Connie, "I don't tempt me all as home so much, that I will go back for a while, at any rate."

And so the next train took her back and she was set down at the Grantville station in the forenoon, and rode with a neighbor up to her father's house. She arrived when the family were eating dinner.

They supposed at first that she had failed to pass her examinations, and looked at her pityingly. But her air of energy and resolution did not betoken failure and they waited for her to speak.

After the meal was finished she cleared a space by her father's plate and sat down with paper and pencil.

(Continued next week)

The

Follow

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The Upward Look

Following Vain Things

And Samuel said unto the people, turn not aside from following the Lord, but serve the Lord with all your heart; And turn ye not aside; for then should ye go after vain things, which cannot profit nor deliver; for they are vain. 1. Samuel 12: 20, 21.

The more we study our own hearts and examine our thoughts and motives the better are we able to appreciate the causes which led the ancient Israelites to sin so grievously and so often. Human nature has been the same through all the ages. The same sins of pride and selfishness, as well as an undue desire to have a good time, and which blinded the people of Israel to their duty to God so frequently that we marvel, as we read their history, how they could have done it, led us into sin just as easily and even more often than was the case with them.

Our failures arise from our neglect to live as near to God as we ought. We all know that when we shut our eyes when out walking we soon go astray and get off the path. We do not, however, realize quite so clearly that when we allow our thoughts to wander away from God for any considerable period, we quickly lose the power to keep from sin.

Sin cannot exist in God's presence. When our thoughts are undelayed by a more or less conscious desire to do God's will, Satan flees from us and keeps at a safe distance. As soon, however, as we allow thoughts of our work or of our pleasure to claim an undue proportion of our attention, we soon begin to feel that, somehow or other, things are going wrong. Just as the machinery needs frequent oiling in order that it may perform its full measure of work, so we require to be constantly refreshed by communion with God in order that we may have grace to live at our highest and best.

That is what the prophet Samuel had in mind when he warned the people of Israel not to turn aside from following the Lord, but to serve Him with all their heart. Otherwise, he pointed out, they were sure to go after vain things, which in time of need would be of no avail to save them from their sins.

The same warning comes down through the ages to us. The things of this world, including wealth and earthly blessings, will be a benefit to us only as we accept them thankfully as from God and strive to use them for His glory. It is a lovely thing to walk so close to God that our thoughts are free to commune with Him at any moment. Such is the truly happy life. Until we have attained to it, we have not found what it is to live our lives to the full.—J. H. N.

Be good and you'll be happy.

One Woman To Another

By Mrs. Alberta M. Kepper.

Farm women hold a peculiar and important place in the world. They are creators of new wealth; for by their labors the poultry industry has assumed one of the most important places in the list of farm outputs; millions of pounds of butter annually vouch for their unremitting toil; the home garden, shelves heavy laden with filled fruit jars—all these bear testimony to their thrift. "She look-eth well to the ways of her household."

Primarily, woman's sphere is net in following gainful pursuits, but as the provider of the honey touch that only a woman's hands holds, she cools the fevered brow, she smiles when others sigh, and she that hides anxiety in time of trouble is more of a help to the husband than any material lift affords.

COMPANIONS EVER AT HAND.

Farming life and isolation need not be synonymous, for lonely hours come not to the woman who has learned the joy in the companionship of authors. The whole river of literature flows at her door.

Farm women who were denied an education in youth need not despair. By systematic reading they may acquire a self-cultivation that will serve them well. The world is an educator, get out in it and elbow along.

*Extract from an address before the International Congress of Farm Women, held recently at Ledbridge, Alta.

Getting it into our heads that a career it all has dwarfed many a worker. We should, day by day, advance mentally all we can. Every farm woman should be buoyed in the spirit that the world looks to her for men of integrity, men of clean morals, men of unflinching trust in right from principle. She has better opportunity to keep close to her boy than the mother in the city where so many vile things becom. The whiff of the boys is not the same that hovers over the saloon bordered sidewalk. Our boys are safe with nature as their companion.

Women everywhere should add new beauty touches to the home; the artistic is adaptable to the country as well as the city. Music is not so hopelessly lost in the farm house as in the tenement where none has time to listen.

We must hold up the hands of our husbands, urging them to meet companionship with cooperation that a fair measure of the profits of his toil may return to him, and when it seems necessary to retrench a little here and there, let us accept conditions cheerfully; this is a test of the true wife and mother.

In our little kingdom of home let us pledge our talents for its betterment.

A loaf of dry bread may be made as good as new by dipping it in cold water and setting it in a hot oven for a few minutes.



Come again, Pie Time, and often. For wholesome, digestible "eats" —give us PIE.

At its very best wrapped in a FIVE ROSES crust.

Upsets Pie Prejudice without upsetting the Eater's Insides—FIVE ROSES flour. Great for Pie Crust—top and bottom. And Puff Paste and Difficult Things.

Close-grained—melting—even textured. Flaky, too, and crinkly—crisp yet tender.

Put into your bake things the rare antique sweetness of Manitoba wheat kernels.

All soppy with the rich red juice of the cherry—or lemon pie—or apple—or healthy custard—meat, may be, or mince—

Put the FIVE ROSES "crust end" about 'em. See the hungry wedges fade behind busy milk teeth.

At Pie Time. Use FIVE ROSES.

Five Roses Flour

Not Bleached



Not Blended

MADE OF THE WOODS MILLING COMPANY, LIMITED, MONTREAL



A sound mind in a sound body goes far towards the foundation of a sound character.

The Youth's Companion

Aims to develop in its readers all these essentials to well-rounded manhood and womanhood. The volume for 1913 will be crowded with reading to interest all readers who want the best.

Seven Stunning Serials and 250 Other Stories

The titles below indicate that this is one of the strongest groups of serials ever offered to Companion readers:

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| The Shovel-Man, A Tale of the Panama Canal, | Ralph D. Paine |
| On Misery Cove, A Story of the Maine Logging-Camps, | Holman F. Day |
| The Wilderness Castaways, A Tale of Hudson Bay, | Dillon Wallace |
| Sarah Brewster's Relatives, A Home Story, | Ella W. Peattie |
| The Colonel's Experiment, A Story for Girls, | Edith Bernard Delano |
| The Vision, A Tale of Chicago Business Life, | Gardner Hunting |
| His Father's Son, A Story of "St. Timothy's," | Arthur Stanwood Pier |

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Every new Canadian subscriber who cuts out and sends this coupon (or mentions this publication) with \$2.25 for the 52 issues of The Companion for 1913 will receive

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THE YOUTH'S COMPANION, BOSTON, MASS.

C1917

FOR SALE AND WANT ADVERTISING TWO CENTS A WORD, CASH WITH ORDER

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

Edward Charles Ryott AUCTIONEER AND VALUATOR

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

Femininity on the Farm

Mrs. W. E. Hopkins Russell Co., Ont.

Farming is incontestably the divine ideal of man's life upon earth, and those fulfilling that ideal must of necessity live nearer the fundamental principles of right and wrong than others whose lines have fallen less favorably. It is not unreasonable, therefore, to expect that of lines we should find the condition of the sexes nearer that form of equality, mental and material, in which they were first created.

Mrs. W. E. Hopkins

Alas, that the most correctly calculated course should so often lead to a contrary conclusion. In no other condition of life are we offered so great a contrast between the superior advantages of the male and the acquiescent humility of the female, as on the farm. No where else do we find women so negligently provided for, so poorly paid, so complacently considered as only a chattel, a mere machine, a possession valuable according only to her working and child-bearing capacity.

THE VALUE OF A WIFE

And yet in no other condition of life is man so dependent on a woman. The lawyer, doctor, pastor or merchant can conduct his business single-handed; indeed, it is often to his interest and advantage to remain unmarried, but to the farmer a wife is as necessary as a farm. On her capacity and cleverness, on her tact and economy, the success of his farming operations mostly depends. If she be strong and willing, if she will milk and churn, and raise chickens, if she be wise in her contact with his hired help, and keen to look after her husband's business when he is away, if she manages to maintain a pleasing table with very little expenditure, it will mean all the difference between success and failure to the fortunate man who possesses her. She will then shoulder the responsibility of the shores and the farmer's mind and hands will be free for his fields. He will be able to leave home without fear; he will be able to procure hired help; he will be able to take care of his herd and his stock. Yet after she had done it all, after the cooking and milking, after the churning and gardening, and all the rest of it, she is still only the unprofitable

servant; "she has only done that which was her's to do." In any other line of life so fruitful a participation in a man's business would mean a recognized partnership, the profits, or the very least, a stated salary. On the farm it means that the woman gets her "keep," busy as she be allowed to spend the whole of the year in hay, not on herself, oh no, but on the household necessaries, happy if she be even told the selling price of the pet cow, calf or colt of her own raising.

But, if the farmer is unfair to his mate; if he stands as a monument of selfishness; if he is rude and hard-hearted, rest assured that he has reason for it. Do we seek to produce

The Real Thing
LIFE is made up, not of great sacrifices, or duties, but of little things and what smiles and kindnesses and such obligations as habits, and in what win and preserve the heart and secure comfort.
Hamphrey Davy

that for which we have no demand! Barring certain primal instincts man is what he has been educated to be, and ever since the day that Adam absent the forbidden fruit, woman has been a man's educator and guide. Good, bad, or indifferent, man is born and made of woman.

The undoing of the boy begins when he is a baby, for it is then that he is first taught to lord it over his sisters and mother. He is waited upon as if he were a prince. From the hour of his birth it is as an unquestioned understanding that the farm is for him. His sisters? Well, they can catch a farmer with a farm of his own. Meanwhile, they will serve their brothers through the best years of their life for his ultimate profit.

After the servitude of his mother and sisters comes the battery and adulation from the thousand and a hundred girls that cross his path before he finally meets the "fortunate" one that suits his fancy. As the whole aim of woman's life is but to please man, to cajole and tease and seduce him for herself for him, each one that the boy comes in contact with adds her quota to the sum of his selfishness and self-esteem. Mother, sisters, comrades, sweetheart, it is as a complete herd of women that he is to tempt her sex by giving the most and asking the least in return. The wife captives the climax, turning a man into the image of God in the eyes of a prodigal worse than any animal without reason, by lying down under his feet; but by that time his education is so complete that he walks over her with all the unconcern of one not capable to know or feel that she is there.

WOMAN'S WAY OUT

But as no condition can exist without a cause, neither can it do so without the way of a cure. The cure in this case would consist in a readjustment of our estimates of the sexes. If we can only bring ourselves to do justice to the girl, the woman will be in a position to do justice to herself. Under our present system we rob the girl from the first moment that she opens her eyes to the world. We give to the boy, the welcome and the pride, the healthy exercise and the developing freedom, the encouragement and the reward. It is agreement and adulation that she is thrust into in stature and made delicate of disposition; that she is rendered servile and unambitious—she the mother of nations!

And why do we do it? After we are gone will our children be better or happier, because we robbed Peter to pay Paul? Why, instead of feeling defrauded with a family of girls, can we

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UNSEEN DIRT BREEDS DISEASE

Your house—though it looks clean—may be a dangerous place to live in. Every time you sweep with a broom you raise a cloud of dust and germs brought in from the street. You and your children breathe in these germs, and eat the food they settle on. The King Edward Vacuum Cleaner collects dust, and not scatters it. No dirt or dust can resist the powerful suction of the double pneumatics in the

"King Edward" Vacuum Cleaner

- So easy to operate, Place one foot on the board; grasp the lever lightly, an easy gentle motion, leaves the suction, leaving the other hand free to operate the nozzle. Far less tiring than sweeping with a broom.
- Outfit Includes**
King Edward Vacuum Cleaner
8 ft. best non-collapsible hose
1 long tube
1 short tube
1 dust nozzle
1 nozzle for scraps
1 nozzle for corners
1 rubber faced nozzle for upholstery
sterned furniture
1 felt faced nozzle for walls, hardwood floors or any polished surface
- We will send this outfit to you, express paid, on 10 days absolutely free trial. Return it at our expense if not satisfactory. If you keep it, the "factory to you" price is...

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The Geo. H. King Co., Woodstock, Ont.
Gentlemen—Please send me literature regarding the King Edward Vacuum Cleaner.
Name.....
Address.....

AGENTS WANTED EVERYWHERE

The GEO. H. KING CO. Limited Manufacturers of Hand, Electric, Water Motor and Gasoline Power Vacuum Cleaners 7

THIS WASHER MUST PAY FOR ITSELF.

A MAN tried to sell me a horse once. He said it was a fine horse and had nothing the matter with it. I wanted a fine horse, but I didn't know anything about horses much. I said to the man, "I'll tell you, I'll give you \$100 for the horse, and I'll give you \$100 more if you'll let me have it for a month, before they pay for them, just as I would to try the horse." Well, I didn't like that. I was afraid the horse was not all right, and that I had better wait until I had my money if I once parted with the horse, although I wanted it really. Now, this get me this.

You see I make Washing Machines—the "100 Gravity" Washer.

I sell to myself, lots of people may think about my Washing Machine as I thought about the horse, but I never know, because they wouldn't write and tell me. You see I sell my Washing Machines by mail, for a safe sold over half a million that way. So, thought I, it is only fair enough to let people try my Washing Machine for a month, before they pay for them, just as I would to try the horse.

Now, I know what our "100 Gravity" Washer is. I know I will wash the clothes, without washing or tearing them. In less than half the time they can be washed by hand or by any other machine.

I know it will wash a tub full of very dirty clothes in six minutes. I know no other machine ever invented can do that, without wearing the clothes. Our "100 Gravity" Washer does the work so easy that a child can run it almost as well as an "strong" woman, and it don't wear the clothes. It has the "legs" but break buttons the way of all other machines do.

It just takes soapy water clear through the legs of the clothes like a force pump might.

So, I said to myself, I will do with my "100 Gravity" Washer what I wanted the man to do with the horse. Only I won't pay for people to see me. I'll offer first, and I'll make good the offer every time.

Let me send you a "100 Gravity" Washer on a month's free trial. I'll pay the freight out of my own pocket, and you don't pay the freight until after you've used it a month. I'll take it back and pay the freight too. Surely that is fair enough, isn't it.

Doesn't it prove, that the "100 Gravity" Washer can be all that I say it is?

And you can pay me out of what it saves for you. It can save for you one cent for every cent in wear and tear on the clothes alone. And then it will save you 20 to 25 cents a week on soap. And you can pay me out of what it saves you. If you keep the machine another month's trial, I'll let you pay for it out of what it saves you. If you keep it another week, send me 50 cents a week "I'll pay for it." I'll take it back and pay the freight. I'll let you pay the machine itself, earn the balance.

Drop me a line to-day, and let me send you a book about the "100 Gravity" Washer that washes clothes in six minutes.

Address—
F. J. MORRIS, Manager, 1900 Washer Co., 53 Yonge St., Toronto, Canada.



5 times more light at 3 the cost

200 candle power of pure white brilliant light costing less than 3c per hour. No smoke, or noise. No greasy oil lamps. No flickering. So simple a child can operate it. Cannot explode five years. An ornament in any home.

Write to-day for Circular Dept. P.
RICE-KING LTD.
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Capable Old Country DOMESTICS

English, Scotch and Irish.
 Party arriving November 14th and fortnightly after.

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

THE PLAYTIME WASHER

Means a saving of money to the farmer and his wife. The time and energy spent over the wash tub could be employed more profitably in some other way. It might mean more and better butter, poultry, fruit and eggs. The "Playtime" is adapted to either hand or power operation. In either case it eliminates the HARD work of washing and saves wear and tear on the clothes.

See how easy to clean for the "Playtime" is to use. (Full instructions on page 10)

Cramer-Dewell Ltd., Hamilton, Ont.

33 a Day Sure

Get your address and we will show you how to get 33¢ a day

Write us and we will send you the "33 a Day" when you like. Send us your address and we will supply you with the "33 a Day" when you like. Send us your address and we will supply you with the "33 a Day" when you like.

Address—
1139 WINDSOR, ONT.

Remember the St. Lawrence Sugar

Try it—test it—see for yourself— that "St. Lawrence Granulated" is as choice a sugar as 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. Hersey's analysis is the proof of purity—99.99 to 100% of pure cane sugar with no impurities whatever. Insist on having "ST. LAWRENCE GRANULATED" at your grocer's.

ST. LAWRENCE SUGAR REFINERIES LIMITED, MONTREAL

not have them taught and trained exactly as if they were boys? Who are we that we should circumscribe the area of a girl's activity? To my mind, children should be brought up alike, given equal privileges and rewarded without regard to sex.

It follows from the preceding that if women want to better their position, they must begin to reform their own sex. They must earn their own value; they must combat their unselfish propensities, they must teach themselves that a woman cannot be a man's slave and his business partner at the same time. She must have the spirit of masculine gallantry and the glamour of courtesy have somewhat added the chains but beneath the gilt the condition is really the same; that on the farm is seen in all its crudity—the man the master and potentate—the woman the unpaid servant, existing only for the good of his pleasure or profit.

Institutes That do Things

Mrs. E. Snyder, Dist. Pres. South Ont. W. Women's Institute.

Our institute has a membership of about 50 ladies. We meet every second Thursday and usually hold our meetings at the homes of the members.

We have printed topic cards and in this way each member knows a year ahead just what the programme is for each meeting, who will speak and the subject of their paper. After a paper is read we always have a few minutes for discussion. This gives us an opportunity to exchange ideas and we find these discussions very helpful. We have our Summer Series meetings every summer and the special work then taken up is demonstrations on sewing, cooking, etc., etc.

I will give you a brief sketch of the work we are doing in our little village of less than 50 families. About two years ago we decided to organize a public library. We first held a garden party and ever and above all expenses, cleared \$50. The county and township council granted us \$75. The "Playtime" is adapted to either hand or power operation. In either case it eliminates the HARD work of washing and saves wear and tear on the clothes.

ALL ARE DOING SOMETHING.

Other branches in this district are doing outside work such as helping the poor, giving to the Sick Children's Hospital in Toronto, or helping to buy furnishings for their churches. One branch bought a piano and placed it in their library room where they hold their institute meetings. Another branch has fixed up the institute.

The different branches have different ways of raising money. Some hold little socials or "At Homes" and serve refreshments, charging a small fee. Others have garden parties. One branch has bought a vacuum cleaner and they are renting it. After paying for the vacuum cleaner they are using the money to buy little necessities for the church. Others are making quilts and distributing them where they are most needed.

I have recently received a letter from the secretary of the Children's Shelter at Woodstock, asking for help in this noble work and requesting me to bring the matter before the different branches throughout the district, which I expect to do as I visit them during the year. I certainly believe that the Women's Institute is one of the best organizations in Ontario.

I received my premium dinner set for securing six new subscribers to Farm and Dairy, and am very much pleased with it.—Florence Cook, St. Malachie Co., Que.

The Sewing Room

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

PLAIN BLOUSE OR GUMPEE, 7525

Such a perfectly plain blouse as this one make the best possible model for lace and fancy materials. It can be made of any material throughout and worn as a blouse, or it can be made of lawn or similar plain material and faced to form a yoke to be worn beneath another waist, serving as a guimpe, quite as well as it can be utilized for a blouse.

For the medium size, the blouse will require 3 1/4 yards of material, 27, 2 yards 36 or 4 inches wide and 1 1/2 yard 36 for the peplum.

GIRL'S FIVE-GORED PETTICOAT, 7561

This petticoat can be cut perfectly plain at the back, in habit style, or a little wider and laid in an inverted plait, and it can be trimmed with embroidery and lace to be very dainty or it can be made very plain with only a hem as finish.

For the 10 year size, the petticoat will require 1 1/2 yards of material, 36 or 38 or 3 1/2 yards 44 inches wide, with 2 1/4 yards of embroidery, 4 inches wide. A 7/8 yards of insertion and 3 1/4 yards of lace edging to trim as illustrated.

This pattern is cut in sizes for girls of 8, 10 and 12 years.

FIVE-GORED SKIRT, 7562 AND SMALL WOMEN, 7564

The skirt made with envelope finish is a favorite one and this model shows one of its latest and prettiest variations. The right side is perfectly plain and the left side can be finished with or without the plaited panel, but plait used in this way are new and smart and in every way to be commended.

For the 16 year size the skirt will require 4 1/2 yards of material, 27 or 36 or 2 3/4 yards 44 inches wide for the plain skirt and 5/8 yard of any width for the plaited panel.

This pattern is cut in sizes for misses of 14, 16 and 18 years.

SACQUE NIGHT GOWN, 7527

Here a gown that may be made with high neck and a round collar, a yoke in front and back, long sleeves and a pocket to give a very plain, practical effect, or may be made with square neck and three-quarter sleeves finished with banding and frills to give a dainty, somewhat more feminine result.

For the medium size, the gown will require 6 1/2 yards of material, 27, 5 1/4 yards 36 or 4 1/4 yards 44 inches wide with 1 1/2 yards of banding and 2 1/4 yards of edging.

This pattern is cut in sizes from 34 to 46 inches bust measure.

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According to the way you handle cement, you use more or less of it and vary the cost. The Rogers New-Way cement book gives lowest costs.

Every structure in cement reduces the fire and lightning danger.

Cement tanks can neither rot nor rust, and make tight water containers above or below ground. By the Rogers New-Way book made about as easy to build as other fixtures.

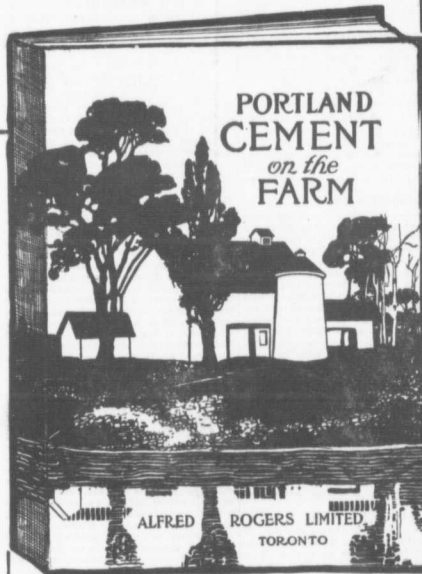
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