

Issued Each Week—Only One Dollar A Year

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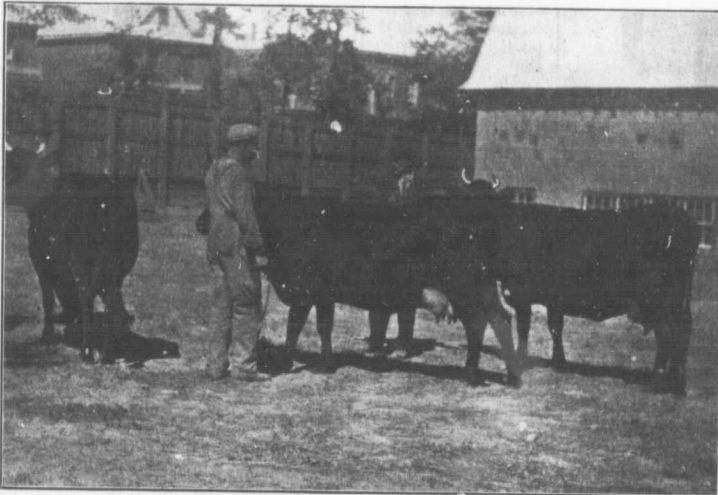
FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

JANUARY 11

1912.



CHOICE SPECIMENS OF A DAIRY BREED THAT THRIVES WHERE ANY OTHER WOULD STARVE

Their hardiness and vigor, which enable them to withstand the most severe conditions, have given the French-Canadian cattle a place peculiarly their own among the dairy cattle of Canada. Originating in Quebec province 200 years ago, this purely Canadian breed is said to be better adapted to the climate and conditions that prevail in parts of that province than other breeds. As economical producers of butter fat they rank high. At the Pan-American Exposition, where they competed with the other dairy breeds, they stood third. Under favorable conditions it is probable that other breeds would outclass them as dairy producers; but under hard conditions the French-Canadian cow is without an equal. The animals here illustrated were shown at the Ottawa Exhibition in 1911, where they were photographed by an Editor of Farm and Dairy.

DEVOTED TO
BETTER FARMING AND
CANADIAN COUNTRY LIFE

There is a Difference in CREAM SEPARATORS

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



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

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

The Simplex Link-Blade

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

D. Derbyshire & Company

Head Office and Works: BROCKVILLE, ONT.
Branches: PETERBOROUGH, ONT. MONTREAL and QUEBEC, P. Q.
WE WANT AGENTS IN A FEW UNREPRESENTED DISTRICTS

\$50,000,000 Just Half as Much as our great Dairy Industry!

Last year in Canada Poultry produced a revenue of \$50,000,000.
Here pro-fucose Profits of 100% annually when properly cared for. They return several hundred per cent on the investment.
Each week we recognize this very important industry. We give it a whole page weekly. Then, each February—first issue in the month—out comes our Poultry Annual, wholly devoted to Poultry.
The 8% of our people who actually keep Poultry are now looking forward to our 4th ANNUAL POULTRY NUMBER, to be out FEBRUARY 1st.
While our people are reading the Poultry Number, Feb. 1st, and every time they refer to it during the next 30 days, that's the time for you to come before their notice.
Last Farm Class Saturday, January 27th. No increase in rates.
Page, 847.04; Half-Page, 525.52; Quarter-Page, 311.76

Adv.: Dept. FARM AND DAIRY Peterboro, Ont.



"THE FARMER FEEDS THEM ALL"—AND THEY ALL FATTEN OFF OF THE FARMER

Land speculators, monopolists, tariff protected interests, railway and express corporations and combines, thrive by forcing farmers, and the laboring classes in the cities, to pay excessive prices for necessities. This is why we have millionaires springing up all over while the average farmer often finds it hard to make ends meet. And still people ask why 100,000 people have left the farms of Ontario during the past 10 years! They say that we must help the "poor" farmer by giving him better roads, and by teaching agriculture in our schools. Bosh! What is needed is that we farmers shall do our own thinking. When we do we will soon find a means of dealing with those people who are growing fat at our expense. Read the series of articles on this subject now running in Farm and Dairy.

DAIRY PRODUCTION IS STILL ON THE INCREASE

Exports of Butter and Cheese \$1,000,000 Ahead of 1910. An estimated Total Increase of \$2,000,000. Eastern Ontario Dairymen in Convention at Campbellford

DAIRYING is going ahead in Canada. Mr. Ruddick considered excellent. There will be no danger of over-production for many years to come.
In Canada. In spite of the unfavorable conditions that existed in many of the dairy districts of the Dominion last season, the Trade and Navigation Returns for the year ending November 30, 1911, show an export trade in dairy products valued at \$24,716,967, as compared with \$23,831,536 for the 12 months previous. The largest increase was in the export butter trade, the exports this year being valued at \$2,669,828, as against \$863,846 in 1910. The increase in the export trade, however, does not give an adequate idea of the real progress dairying is making. The home consumption of cheese, butter, milk, and cream must be worth \$80,000,000, an increase of \$26,000,000 in 10 years. An estimate of the total production for both home and export trade shows a total increase of \$2,000,000 over 1910. Such was the report of Dairy Commissioner, J. A. Riddick, at the annual convention of the Eastern Ontario Dairymen's Association, at Campbellford, on Wednesday to Friday of last week.

Mr. Riddick, in speaking of the export trade in cheese, laid particular stress on the necessity of providing better cool curing facilities in our factories. The advent of New Zealand cheese on the British market during our season of non-production has caused a more immediate consumption of Canadian cheese, and green cheese does not find as ready a market as in former years. The

outlook for dairying in Canada, Mr. Riddick considered excellent. There will be no danger of over-production for many years to come.

BETTER SALARIES FOR INSTRUCTORS
The resolution passed last year requesting that the salaries of dairy instructors be increased to \$1200 was again carried at the convention this year. The resolution was moved by Mr. John McGregor, Alexandria, and seconded by Mr. Wm. Olmstead, Bearbrooke. Speaking in favor of his resolution, Mr. McGregor figured the expenses of an instructor at \$606, leaving him \$394 to clothe himself and keep a family. It was first proposed to ask for an increase to \$1500, but this was modified later to read \$1200.

Since the last meeting of the Association, Mr. Jas. Whitton, for many years connected with dairy work in Eastern Ontario, has been removed by death. The dairymen showed their respect for this old associate in many words of appreciation and a resolution carrying the sympathy of the members to Mrs. Whitton. Another resolution was carried conveying to Mr. M. K. Everitts, of Smith's Falls, who is retiring from dairy work, their best wishes for happiness during the remainder of his life.

OFFICERS ELECTED
Hon. presidents, Senator D. Derbyshire, Brockville; John R. Dargavel, M.L.A., Elgin; President, J. H. Singleton, Smith's Falls, Ont.; 1st

(Continued on page 3)

Issued Each Week

Vol. XXXI.

Every Cow in t

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C. F. Whitley

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CONTRACT 1

11 cows (Lansda
Average yield, 5
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13 tons, 131 lbs.
Total yield, 47,7
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136 lbs. fat.
12 profit per cow

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Issued
Each Week

FARM AND DAIRY & RURAL HOME

Only \$1.00
a Year

Vol. XXXI.

FOR WEEK ENDING JANUARY, 11, 1912.

No. 2

HOW MUCH MILK SHOULD A COW PRODUCE TO BE PROFITABLE?*

C. F. Whitley, In Charge of Records, Ottawa

Every Cow in the Herd Must Produce 4,000 lbs. of Milk to Pay for Her Feed Before She Starts to Yield a Profit--An Easy Way to Find the Cows That are Not Making Money for Us

It is now fairly generally understood that one fundamental principle of cow testing is that each cow in the herd shall be known to make a profit--surely a most reasonable proposition.



C. F. Whitley

If each does not pay where lies the fault? Possibly a paraphrase of a poetic line explains: "The fault, dear Brutus, lies in ourselves, not in our cows, that we are profit-^{less}." If in ourselves, the remedy is obvious. Surely we are sufficiently alive to our own interest to give cow testing a trial, to profit by its numerous advantages.

Probably we are apt to magnify the effort needed to weigh and sample. The milk from two cows can be weighed in one minute, less than 10 minutes a month for each cow will serve to take samples and keep the records of weights.

FIRST DECISION--THEN SUCCESS

The avenue of success lies through the gate of decision and along the main road of endeavor and persistence. The outlook is so bright for every initiate that our mental vision of the plan should be keen, not hazy; our mental ear un-stopped and alert to this call of modern, common-sense, progressive dairying.

What is this paying basis for a cow? If we agree that it takes \$4 to feed a cow, then with milk at \$1 a cwt. the mature animal must give over 5,000 lbs. before she returns a profit of even one cent. Do all your cows give over 4,000 lbs.? On examining the records of 1,600 cows for last year, I found that 35 per cent. gave less than 4,000 lbs., that is, seven out of every 20 cows scattered over several counties could not be said to yield any profit above the cost of feed.

TABLE 1

CONTRAST BETWEEN TWO ONTARIO HERDS	
11 cows (Lambark).	5 cows (Oxford).
Average yield, 8,794 lbs.	Average yield, 12,066 lbs.
3 test, 131 lbs. fat.	3 test, 400 lbs. fat.
Total yield, 43,737 lbs.	Total yield, 60,340 lbs.
126 lbs. fat.	2,003 lbs. fat.
\$9 profit per cow.	\$80 profit per cow.

Note that the five cows gave nine tons of milk and a quarter of a ton of fat more than the five cows.

Every time the 11 cows filled one factory milk can the five cows filled not one but three similar cans.

The 11 cows gave a large profit over cost of feed, averaging only \$5, but the five cows gave an average profit of \$80, thus one good cow equals 16 of the poorer kind.

These poor cows are the type of cows on which good human energy is being sacrificed. They make huge and quite unnecessary demands on the

*An address before the Eastern Ontario Dairymen's Association at Campbellford last week.

charity of the most generous fellow in the world--the average dairyman.

WHAT DOES YOUR MILK COST?

For a moment notice the loss entailed by keeping these poor cows. The economic instinct imbedded in man cries out against waste; it warns us not to let poor cows waste good feed that better cows with more suitable temperament can convert into milk at a cost of 65¢ a cwt., while others under the same roof run the cost up to \$1.20. What does your milk cost? A little more fuel in the stove than what serves to keep it just light means more heat production, so a little more feed often means more cow comfort and a heavier milk production. Don't save at the epigot and waste at the bung-hole.

Surely dairymen can critically and wisely observe conditions in the business world. A manufacturer knows exactly the cost of his products. But two neighboring milk manufacturers find the cost is 65 cts. one side of the fence and \$1.20



'Notice the Money Maker on the Right

The farmers who will suffer least this winter from lack of feed are those who have well filled silos. Among the fortunate ones is Mr. F. Leeson of Eglon Co., Ont., whose barn and silo may be here seen. All our best dairy farmers appreciate the merits of the silo.

-Photo by an editor of Farm and Dairy.

on the other. Can you possibly conceive a similar situation in the manufacturing world? Would any two makers of paint, bricks or flannel rest satisfied with such a state of affairs if they compared notes and found the goods of one costing practically double as much as those of the other? If such variation did occur, would you not be the first to exclaim: "Something must be radically wrong; the raw material, the machinery or the manager must be woefully astray somewhere?"

DOES THE SHOE FIT?

Take it even in the next stage of handling your own product, milk; imagine three cents a pound for making at one factory, and six cents on the next concession! There would soon be a rebellion! Cow testing is of grand immediate value, because for one thing it enables us to individualize, to detect unerringly the useless animated machine that does not produce milk economically. We don't want the kind that only turns out 25¢ worth, while in the next stall is one kept up to the tune of \$80 or \$100.

In studying economy of production we need to

think if it will cost more, or less, to produce 24,000 lbs. milk from three cows or eight.

BRING IT TO THE INDIVIDUAL

We can therefore grip the present value of cow testing, because one main purpose is the determination and then the improvement of the dairy value of each individual cow. That is indefinite, economical, productive power. This record system ensures more intimate and analytical examination of cows. The unit of measure of value is thus transferred to its rightful place from the herd to the individual. Then with the joyful departure of the unprofitable servant that has worked the confidence trick just a little too long, with the selection of young stock of individual merit from parents tried and tested, there must follow a demand for healthier, better class stock, thus better milk and more of it will be provided. And such milk happily will be produced more cheaply. Our older men are desirous of such results; our younger men are eager to speed the advent of that day.

And still more cordial relations between farmers are being encouraged. This demand for better cows further emphasizes the value of practical cooperation, particularly in the purchase of pure bred sires, and in that matter let us beware of the blind worship of cheapness. We need the best available, for the investment is safe. In this social age we need to act together, to pool our energies. Yet as society is only the one man multiplied, individual action must lie at the base of all great movements. Every citizen is ruler over his own particular self-territory. So when we have whole regiments of reform marching towards the goal of public good let each dairyman join the ranks; cooperate.

GOOD OR GOOD FOR NOTHING

But with these poor cows are there not also serious loss of product? Does each one of your cows give you a generous 6,000 lbs. of milk? Are your good cows or only good for nothing? It has been my privilege to address this convention on this topic of cow testing for seven consecutive years. May I point out that, had the initial remarks been heeded, if indeed only three years ago, any dairy farmer might now be keeping cows giving at least 300 lbs. of butter or 6,000 or 7,000 lbs. milk.

That has been accomplished in many instances where men have awakened to a knowledge of what rich freight this argosy of cow testing brings for their unloading. Some men only hope vaguely for such results, making but puny efforts towards their achievement. The grass grows long in the cemetery of feeble aspirations; we have to be up and doing to make cow testing of present value.

30,000 MILK CANS WASTED

There is another serious waste that has been almost entirely ignored. I refer to the fearful waste of human energy in handling these poor cows. Taking the one operation of milking, 10 hours a cow for 10 months, then, so as not to make out too staggering a case, cutted down that 35 per cent. of poor cows just mentioned to only 20 per cent., it means that there is a waste every year of the stupendous total of 30,000,000 hours just in milking these profitless cows.

This is hard to grasp, so let us digest it this (Concluded on page 4)

FORCES THAT SQUEEZE BOTH THE MIDDLEMAN AND THE FARMER

ARTICLE 6.

MOST farmers think that the "middleman" gets too large a proportion of the price that the farmer's products sell for to the consumer. So he does. But he is unable to keep the money after he gets it: It is squeezed out of him in turn by influences that are working away quietly but effectively in the background. These influences are squeezing both the middleman and the farmer.

We farmers sell our beef for 5 cts. and 6 cts. a pound. We see the best parts of that meat retailed in the cities at 18 cts. to 25 cts. a pound. We sell our milk in winter, if we can get the chance, for 4 to 5½ cts. a quart. We see it retailed by the milk dealers for 8 to 10 cts. a quart. We sell our eggs for 25 to 30 cts. a dozen: We see them resold for 40 to 60 cts. a dozen. And thus it is with practically all forms of our farm produce. Naturally we conclude that the middlemen who, as a rule, handle our goods for only a few hours, are getting too large a proportion of the final selling price. This view has been fostered and encouraged. Some farm papers as well as government officials, have repeatedly led in attacks on the middlemen. In Ontario, especially, a great deal has been made out of the fact that one large establishment was shown in the courts to have made profits that ranged over a series of years, from 30 to 120 per cent. This circumstance has been used for more than it was worth.

The large concern referred to is an exception. While it has succeeded dozens of others have failed. It is never safe to judge by exceptions. It has succeeded only because it has done an immense volume of business on a very low margin of profit on the cost of handling the goods it has sold. This margin of profit, while it is large on the relatively small paid-up capital of the company, is extremely small on the millions of dollars worth of goods handled by it in the course of a year. Let us illustrate:

HOW BIG BUSINESS IS DONE

Merchant A has a paid-up capital in his business of, say, \$60,000. We will assume that he handles nothing but eggs and that his expenses, including rentals, wages, railroad rates, agents' commissions, cold storage charges, the cost of buying the eggs, etc., amount to \$25,000 a year. Suppose, also, that it costs him 30 cents a dozen to buy his eggs, and that he is able to re-sell his eggs at 50 cents a dozen. Thus he would have a margin of 20 cents a dozen on each dozen of eggs. But! he would have to sell 1,250,000 dozen of eggs to pay his expenses. He would not have a profit at all until he had sold that quantity. After that he would have to sell only 150,000 dozen eggs more at the same rate to enable him to make a profit of 50 per cent., or \$30,000 on his paid-up capital of \$60,000. But notice what a large amount of business he has to handle and the risks he has to run before he can make any profit.

Let us now suppose the case of another merchant. We will call him Merchant B. His paid-up capital is \$300,000. His expenses because he does business on a larger scale, although larger, are relatively not so large as those of Merchant A. Merchant B's expenses are \$1,000,000 a year. But he has worked up a trade which enables him to handle 10,000,000 dozen eggs in a year. Thus, all he requires is a margin of 12 cents a dozen on the large volume of business he handles to enable him to earn the \$1,000,000 required to pay his expenses and leave him \$200,000 a year profit. This is equal to 66½ per cent. profit on his paid-up capital of \$300,000. But notice this fact: Because of the large volume of business he does he is able to make a handsome profit and still sell his eggs on a margin of 12 cents, or only 42 cents a dozen, while his competitor has to charge 50 cents a dozen to break even or make a profit. He makes his business grow and prosper, not, as many people suppose, by advancing prices to the consumer, but by lowering them until he is able through underselling his competitor by eight cents a dozen, to draw trade away from him, and thereby still further increase his own volume of business. Should his competitor strive to meet his competition—as many are forced to do—by dropping his selling price also to 42 cents a dozen, instead of making a profit on the 1,400,000 dozen eggs he handled, he would have a loss of \$82,000 on the one year's operations. This is not a theory. It is a cold, hard business fact that has worked the ruin of hundreds and hundreds of business concerns. How long do you suppose the little fellow can stand up against the big fellow under such circumstances? Notice, also, that while the margin of 20 cents a dozen the first man has may seem large, his ability to make a profit handling eggs, even on that margin, depends on the volume of business he is able to do.

RELENTLESS COMPETITION

The foregoing is a crude illustration. It serves to illustrate, however, the heartless "dog-eat-dog" principle that controls the commission and produce business in Canada and elsewhere. Everywhere the big fellows are driving the little fellows out of business. They are doing it not by making a large profit off each hog, steer, case of poultry or dozen of eggs they handle, but by handling such an immense quantity of this produce at such a low margin of profit off each that the little fellows can't compete with them, in spite of their apparently large profits, and are forced to the wall. We doubt if there is any other line of trade in Canada where the competition is so merciless and unscrupulous, and where the margin of profit, off the goods handled, is so small, as in the produce business. Even were it granted, however, that some few of the large firms have made apparently excessive profits: What about the scores of little fellows that fall miserably every year, because they can't make ends meet? It is foolish to forget them. Because one or two succeed, we must not jump to the conclusion that all the rest are doing equally as well. They are not.

There is practically only one condition under which the big fellows are likely to prove dangerous to the community. That is when, as the beef trust did for a while in the United States, they are able to gain control of the railways and other public utilities and by means of secret rebates and combines, drive the little fellows out of business. That such a condition exists in Canada has never been suggested. If it did, our Dominion Railway Commission would soon set things right. Another possible condition is that under which a few of the large concerns might eventually unite, and, by enhancing and depressing prices where competition appeared, thereby strangle such competition. There is no real indication that that condition has been reached in Canada. It would be particularly difficult to achieve in the produce and provision business where no great capital is required to buy and slaughter animals, or handle farm produce for local consumption.

THE STRUGGLE FOR EXISTENCE

Among the little fellows the competition is just as keen. In our towns and cities, small butcher

shops and grocery stores, which re-sell most of the produce the farmer raises, can be found every few corners. Because the volume of business they do is necessarily small, the competition between them is cruelly keen and failures numerous. This condition has been intensified during the past few years. The big packing concerns have established dozens of branch retail stores in our larger cities. These branch stores have ruined many of the small independent concerns. Again, they have not done so by getting large profits on the goods handled: Instead, they have forced the margin of possible profit so low the little fellows have been unable to compete and exist, and, therefore, have been forced to give up the unequal struggle.

THE REAL CAUSE

Farm and Dairy holds no brief to defend the middlemen. We have only one object in view in doing so in this case. We believe that the farmers are being misled when we are told that the middlemen, as the term is commonly used, to cover all classes of middlemen, are growing fat at our expense. While it is true that they receive high prices for our products, they have to or they could not exist. This, again, is because the cost of doing business in our cities is so enormous it makes the payment of high prices necessary. The real "blood suckers" of the farmer are not the middlemen, for were their profits on the average excessive, the bitter attacks that have been made against the middlemen periodically for years, would have brought about an improvement long ago. Instead, they are mainly those economic forces concealed in the background that suck from us farmers and others the money we earn by forcing up land values in our towns and cities until in some instances they equal millions of dollars an acre. They include, also, excessive railway and express rates. These excessive land values and charges burden not only the middlemen, by increasing to them the cost of doing business, but all other classes of the community as well. Next week we purpose showing more clearly how this is done.

How Much Milk Should a Cow Produce

(Continued from page 3)

It means that enough energy, enough man power, is being put into just that one operation of milking poor cows in Canada to equal the work done by horses plowing 375,000 acres of land. It is appalling that there should be this burdensome tax on human endurance, and the strangest part of all is that many view this matter so indifferently and complacently. Our energy, above all things, needs conservation and turning to profitable account. There is a limit to our natural resources, therefore we wisely seek to conserve them, but of infinitely more value is human energy (which we unthinkingly squander), because knit with human ingenuity it has to guide and direct the wider conservation. Cow testing has been the first to point out this huge expenditure of muscular and nervous force. Such sheer waste must be stopped, human energy must be conserved. We want no spendthrift nation.

BEST PASTING PROPOSITION YET

Our results establish cow testing as one of the best time-saving and labor-saving propositions ever placed before Canadian dairymen. For investment of one little dollar in scales men are now receiving \$20 through the increased production, besides the intense satisfaction of knowing that they are milking none but profitable cows.

Farm and Dairy is the best dairy paper that I ever read. It is encouraging for young men to read and find out what others have done and how well they have gotten along with little or nothing to start with.—F. J. Cook, Essex Co., Ont.

Dr.

An attack more serious than another animal to the one which, in its size and system are sufficient dry food or suffers from

Indigestion from a large and indigestible takes place freezes up work. The digestive tract when horses meagre to readily. A grain ration Cases of winter animal in comparison months, some necessities pare his teeth gives a very fast and steady too many can

Stomach maturation bolts his food of diseased of the animal

Weakness debilitating gestion, and constitution the greatest against attacks interval news.

Some kindr retically cald are found in for instance, is found to causing purp

Buty or are common Green foods, put on them enlargement.

The present hay crop, will largely on straw taken to amount of str mixing a lot thus coaxing with very ind fed by itself as for mu Very little that in treati

Indigestion in the Horse

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

An attack of acute indigestion is likely to prove more serious in the case of the horse than in any other animal on the farm. This is due in part to the comparative smallness of the stomach, which, in the horse, is smaller in proportion to its size than in any other domesticated animal.

With rare exceptions diseases of the digestive system are due to errors in feeding. When horses are sufficiently and not over-abundantly fed with dry food of a proper quality the stomach rarely suffers from disease.

CAUSES

Indigestion is often caused by a sudden change from a liberal and nutritious diet to coarse, poor and indigestible fodder. Such a change often takes place at this season when the ground freezes up and the farm horses are thrown out of work. The opposite condition may produce digestive troubles, as for example, in the spring when horses are put to work the change from a meagre to a liberal diet is often made very suddenly. A sudden increase in the quantity of the grain ration often produces sickness.

Cases of this kind are not uncommon in the winter among farm horses. Often after standing in comparative idleness for some weeks or even months, some sudden emergency will arise that necessitates a hard day's work. In order to prepare his team for the extra exertion the owner gives a very much larger feed of oats for breakfast and starts out on his journey only to find, in too many cases, that he has a sick horse.

POOR MASTICATION CAUSE

Stomach trouble may also arise from improper mastication of the food, as where a ravenous horse bolts his fodder too greedily, or where, because of diseased or worn-out teeth, it is impossible for the animal to properly chew his food.

Weakness of the stomach resulting from some debilitating disease is sometimes a cause of indigestion, and occasionally animals are born with a constitutional digestive weakness. In such cases the greatest possible care is necessary to guard against attacks, a grain ration at rare or irregular intervals being almost sure to produce sickness.

DANGEROUS GRAINS

Some kinds of food good in themselves and theoretically calculated to be proper for the horse are found in practice to be dangerous. Wheat, for instance, which is a highly nutritious food, is found to derange the stomach of the horse, causing purgation, laminitis and even death. Barley also, while not so dangerous as wheat, is not a suitable food for horses unless mixed with oats or bran. Any kind of cooked food ought to be used with great care and fed in small quantities for a time till the stomach becomes inured to its use. Bran also, so useful when combined with other foods, or as an occasional mash, if given in large quantities is very likely to produce stomach trouble.

Musty or over-ripe hay or any kind of straw are common causes of digestive derangement. Green foods, particularly when animals are first put on them or if given too abundantly, produce enlargement and bloating.

A CAUTION ABOUT STRAW

The present season, due to the shortage of the hay crop, will likely find many horses being fed largely on straw. While most horses will do very well on straw with some grain, care ought to be taken not to induce the horse to eat a large amount of straw by the quite common practice of mixing a lot of cut straw with a little meal and thus coaxing the animal to overload its stomach with very indigestible food. The meal should be fed by itself and let the horse be its own judge as to how much of the straw it will eat.

Very little reflection will convince most men that in treating an attack of acute indigestion

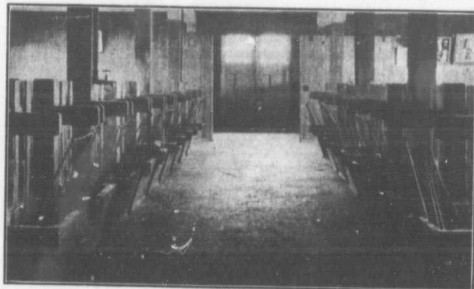
little or no good results come from administering medicine into the stomach. The stomach is for the time being inactive. There is no assimilation of its contents taking place. Consequently the medicine simply lies there and is not assimilated by the system at all and, with the exception of some drugs that might have a slight chemical action, do neither good nor harm. It will be seen how useless it is for any man to try and successfully treat the disease without having the means of administering drugs hypodermically injected under the skin.

A farmer ought to avail himself of all possible knowledge in the way of feeding and caring for his horses in order to avoid having cases of the kind. If he should happen to have a case, the wisest course he could pursue is to send at once for competent veterinary assistance.

The Health of the Herd Bull

E. Watson, Huntingdon Co., Que.

"I wonder what is the matter with my bull. He seems to be absolutely useless." So spoke a



These Mangers can be Regulated to Suit the Length of the Animal

The mangers in the stable of Mrs. Wm. McKenzie, Victoria Co., Ont., here illustrated, can be moved so as to vary the length of the stall to fit the animal. Three different lengths of stall can be made. There are several other good points about this stable. It is light, well ventilated and clean. Just the kind of a stable in which cows will do their best work at the pail.

—Photo by an editor of Farm and Dairy.

French farmer to some more days ago. And I told him without any hesitation.

That farmer did not realize that exercise is essential if the herd bull is to do good service. His bull was never out of its stall from year's end to year's end, except occasionally for service. Not getting exercise, it had lost ambition and vitality. And vitality, outside of good breeding, is the most important quality in a sire.

And the bull was not fed well. True, it looked as if it were in fine flesh, but that was due to lack of exercise. Hay was about the only food it got to eat.

I have found that if we are to get satisfaction from our herd headers it is absolutely essential that they get lots of exercise, and be well fed. We have a strongly fenced paddock for our bull, and he is there every fine day, winter and summer, for a few hours at least. The fresh air and exercise keep his vitality at high liberal ration. And he makes good use of a fairly liberal ration of grain feed in addition to hay and roots.

I believe that the trouble with many of the unsatisfactory bulls in the country is due to one or both of these causes. I do not know whether my French neighbor took my advice as to the care of his bull, but I do know that all who follow my practice are not troubled with unsatisfactory sires.

A man in North Carolina who did much for the cause of education used to say, "Educate a boy and you educate an individual; educate a girl, and you educate a whole family."

We Can Control the Feed Supply

Henry Glendinning, Ontario Co., Ont.

We farmers cannot control the elements. Can we control the feed supply? The past summer was exceptionally dry. The catch of clover in 1910 was not good, and in 1911 we had the worst spring for killing out clover that I have ever known. Alfalfa survived better than the clover, but it was not at its best. Pastures were very poor. And we were not responsible for the weather conditions that caused this.

There was one crop, however, that was not short. Indian corn was excellent. It has been the case for years that corn is a success when other crops fail. My solution of the feed supply problem is to grow more corn; corn for winter feeding and for summer feeding as well.

OUR MISTAKES WITH CORN

I do not believe in growing the large, mammoth southern corn. It does not reach a proper stage of maturity and has but little food value. We are making a mistake also in cutting the corn and spreading it in the pastures for the cattle to eat. This is unprofitable. My idea is to grow silage corn only, put it into the silo and feed each day in the year. If we have the summer silo we are never caught by a dry season. When fed in conjunction with pasture grasses, silage makes an excellent summer feed.

Milk contains 3.6 per cent. of casein. This casein or protein is the most important element to be looked for in foods for milk production. If on analyzing a food we find that it is rich in protein we can almost take it for granted that that food is a good milk producer. That it is low in protein content.

WHERE SILAGE IS DEFICIENT

Here is where many have fallen down in their use of silage. They have fed corn silage alone without making up the deficiency in protein. Silage is bulky, succulent, palatable and cheap, but we must add the protein.

We want some protein food that is cheap. Alfalfa has supplied that want. We grow both corn and alfalfa in abundance, and the farmer who does that does not need to "call the king his uncle." We can produce from five to six tons of alfalfa hay to the acre. We can put it in the barn at a cost of less than \$4 a ton.

Alfalfa, corn and the silo; with these three we farmers can control the weather, decrease cost of production and make dairy farming profitable.

An ample supply of ice on the farm is of great economic importance. The work of harvesting and storing is done at a season when it will cost very little, as help and teams are usually less remuneratively employed during the winter than during the summer months. The cost of constructing ice houses and refrigerators is small in comparison with the economic returns and the comfort which they afford. Ice is of greater economic importance in the country than in the city, yet few who have the opportunity avail themselves of this luxury.—E. C. Dunn, York Co., Ont.

Good planning always precedes success.

FARM MANAGEMENT

Best Use of 30 Acres

Have recently purchased a farm of 100 acres. About 20 acres of this is high almost 50 acres in rough pasture, leaving only 30 acres of arable land. I plan to make this into a dairy farm. How would you advise me to handle the arable land possible?—A. C. Peterboro Co., Ont.

With so much pasture, you will not need to have pasture in the rotation, and we would therefore suggest that a three-year rotation on the arable land would meet your conditions best. We would suggest that you divide the land into three fields of 10 acres each and practice a three-year rotation.

The rotation would be corn, mixed grains seeded down, and a third year, clover. For the first year, plow deeply in the fall, ridge up, and cultivate

well the following spring. Plant the corn in rows three and a half feet apart and thin out the stalks to nine inches apart in the row. If the land is well cultivated when in corn, it will not be necessary to harrow or putting in a crop of grain the next spring. The disc harrow will do the work. A mixture of equal parts by weight of timothy and alfalfa is a good seeding where the grain is to be fed to dairy cows.

Economy in the use of the seed is poor economy indeed. We would suggest that you seed six to eight pounds of red clover, two pounds of alfalfa, six to eight pounds of timothy per acre, and those of the Sarnia Fence Co. Even at present prices, this is cheaper than a small seeding. Cut the hay one year and then corn again, and so forth. This will give you a maximum amount of feed for the small area at your disposal.

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

THE STEEL COMBINE TO CONTROL PRICES OF WIRE FENCE

The Sarnia Fence Co.'s Plan to Prevent it

The London Free Press, on Dec. 28th, published an announcement to the effect that Hamilton is to be the Steel centre for Canada, that the Steel Corporation of Canada, which is composed of iron manufacturers who recently merged their interests under the above name and who are endeavoring to control the prices for Canada on all steel and iron products. This gigantic combine is rushing to completion at Hamilton, new buildings and plant and spending millions of dollars on their equipments. We are told that the Steel Corporation of Canada have assurances from the Borden Government at Ottawa, that they will be afforded protection either in the form of a duty or a bounty on steel and iron products. We cannot believe that this is so, particularly in view of the fact that free fence wire was given, and in spite of the protests of the iron manufacturers, but if by any possibility such change should be made you may rest assured that you will have the privilege of paying the duty or bounty as the case may be.

One of the items which is of very great importance to the farmers of Canada, is wire fence. For a great many years, the sizes of wire used in the manufacture of this form necessity have been admitted free of duty, but a duty of 15 per cent was retained on finished fences. The Canadian fence manufacturers formed a combine of their own in order to pocket for themselves the full protection of this 15 per cent. In fact they came to look upon this 15 per cent protection as a legitimate addition to their ordinary profits.

Three years ago the SARNIA FENCE CO. opened a plant at Sar-

nia, and in compiling their prices, they based their profits upon a reasonable return for the money invested, leaving out of their consideration, the matter of duty or protection. The result was a very decided difference in the price of the fence combine, and those of the Sarnia Fence Co. Needless to say that many threats were made by the combine, methods fair, and otherwise were resorted to in order to prevent the Sarnia Fence Co. placing their fence on the market. After practically three years' fight, the Sarnia Fence Co. came out on top with the largest and most modern fence plant in Canada, and 25,000 Canadian farmer customers at their backs. Now that we, with the assistance of the farmer, have made the existence of a fence combine in Canada impossible, shall the present Government hand over to the Steel Corporation of Canada a weapon in the form of protection on fence wire, which undoubtedly would be used as a club to knock more dollars out of the farmer. By the placing of a duty, or by the giving of a bounty on wire, or fence wire, we will be deprived of the right to purchase in the open market, which assures us of a fair price on wire. We will have to look to the Steel Corporation of Canada, who will not permit us to purchase wire at a price, which will be any competition to them in the finished fence.

They ask the Government for protection in order that they may be able to control the market and compel the consumer (which in this instance the farmer exclusively) to pay the highest possible price.

Are you, the farmers of Canada, going to stand for this? Let every farmer write his member, or call upon him personally, and protest against the giving of a bounty or the placing of a duty on fence wire. This means dollars taken directly from your pocket and is worthy of your most vigorous protests. You are a voter and if the farmers stand together they can head off such an outrage. We, the Sarnia Fence Co., ask for no protection. We can stand on our own feet. The farmers of Canada take to protect their interests and Canada against a fence combine providing the Government will not yield to any such unfair demands from the iron and steel interests and refuse the Steel Corporation of Canada an unfair advantage in the Canadian market at the expense of the farmers of the Dominion.

The Sarnia Fence Company will from time to time keep the farmer posted on the action of the Government in this matter and we ask your assistance and support.

Yours very truly,

THE SARNIA FENCE CO., LTD.

Good Use for Paint

L. B. Durrin, Halton Co., Ont.

Paint might be used with great profit by all farmers who are contemplating some part of their implements. We do not use implements very long before the new look disappears, and the price at which they are sold does not compare with the utility value of the implement. At a sale which I attended recently a neighbor got around this in a very noisy way. He found a good market for some parts of his profitable returns for the time that took him to apply it. All of his implements that needed it were repainted. They looked as good as new and sold for better prices than would otherwise have been the case. This is the best market for paint that I know of.

Even if we are not having a sale, I believe that it would pay us to keep our implements painted. Farm wagons, for instance, will last much longer if covered with a good coat of paint, and there is a whole lot more satisfaction riding into town on a well painted wagon than on one of the old rusty kind that we usually have. A little paint used in this manner also prevents rust of the metal portions of machinery and will more than pay for the time expended and the cost of the paint.

Why Milk Cows in Winter?

There are important advantages to be derived from winter dairying besides the much higher price for milk which prevails during this season of the year. Cows have a rule which yields more milk when they calve in the fall than when they calve in the spring. This is partly accounted for by the fact that the cows are bothered less by flies and heat while naturally in a stage in which they yield the best flow of milk. While no one questions that part of the shrinkage of milk during the summer is due to the irritation and annoyance which cows suffer from flies and heat, the full extent of the loss suffered from this source, we believe, is generally underestimated.

During the winter months the flies are bad the best of feed will fall to maintain the flow of milk and the heaviest milkers or the freshest cows are usually the ones that suffer most.

ADVANTAGE IN FEEDING

Fall calving also makes possible more uniform feeding, especially where silage is available. When cows calve in the spring they usually have pasturage enough for a good flow of milk until about the middle of July or the first of August. At this time pastures are short and about and cows' milk yields rapidly fall off in milk. By the better fall feed is available they have dropped off so much as to make it impossible to bring them back to a fair flow of milk even with good feeding. The result is a reduced yield of milk and an early drying off of the cows.

Winter dairying will help to distribute the flow of milk more evenly throughout the year. It is an important advantage to be able to do most of the milking and feeding (especially the feeding of calves) when other farm duties are at a minimum. During the winter there will be plenty of time to keep milk and butter fat records of the individual cows of the herd as well as to keep breeding and calving records, all of which are too commonly omitted.—Exchange.

About the Farm

During inclement weather profitable hours may be spent in the work shop doing odd things. Of course, you have a tool house, lighted with room enough to work.

The principal cause of sore shoulders on horses are over-work, over-feeding and ill-fitting collars. Milking qualities in sheep are

characteristics transmitted from generation to another.

A collar that fits properly will prevent the horse from providing the driver sees that the face of the shoulder is not allowed to "scald."

It appears from observation on experiments that cows with the most highly strung nerves are, as a rule, the best milkers.

It has been found beneficial to work the land after every rain, using the harrow or the cultivator, according to the quantity of moisture on the ground.

Not maximum yields, but maximum profit, is the commercial end of good farming.

A Great and Unusual Offer

For a number of years we have been looking for a veterinary book treating of the diseases of horses, cattle, sheep, swine and poultry, which we could present our readers, which we have great need for such a book. At last we have an edition of a great veterinary book, which has been on the market for some years, and the book we are offering to our readers, as advertised on page 11 of this issue.

This book is clear, concise and accurate and presents the approved methods of veterinary science in a plain and direct way that the knowledge given may be grasped by every reader.

Other than the description given of this book in the advertisement on page 11 we would say that two of our editors have had this book available for some time, one in Ontario and the other in Nova Scotia, for a number of years, where it occupied a prominent position on the book-shelf and was consulted with much profusion. Including drenches, salves, liniments, ointments, plasters, poultices, etc., will be found to be of a special value.

HORSE TRAINING AND PAIING

Part two of this book deals with practical horse training. The information it contains about the breaking and training of colts, the lad habits of the horse and how to control them, and the information about other things that every man who owns a horse should know, is invaluable and worth many dollars to have.

This book is not for sale. We have placed it before you for you to get it at no cost to you other than a very little of your own time. For two new subscriptions for Farm and Dairy, each at our rate of \$1 per annum, we will send you free this great horse doctor, postage paid.

SPECIAL OFFER TO OUR PEOPLE

In order that our regular subscribers may more readily obtain a copy of this work, we are offering it to them in return for their own renewal subscription sent in now and one new subscription for Farm and Dairy taken at our usual low rate of only \$1 a year. No matter when your subscription expired, send in your renewal now and it will be credited to you. In return for your renewal sent now, along with one new subscription, we will send you the book.

BARLEY in most sections is not fit for use this year. Only 20 acres of O.V.C. No. 21 Barley is first-class. It averaged 47 bushels per acre. If good seed and the best in barley appeals to your requirements, please, satisfaction, or your money back.—

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

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Cows' Milk

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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.

Cows' Milk for Foal Feeding

Have half a dozen spring colts. Would it be advisable to feed cows' milk to these foals to push them along this winter?—A. C., Ontario Co., Ont.

Cow's milk can be used to good advantage in feeding foals. Too much milk should be avoided, as in feeding foals we do not try to force them to maximum growth as we would a hog. They are intended for quite a different purpose.

Milk, however, is palatable and rich in muscle and bone-forming foods, and moderate amounts will give satisfactory results. Whole milk is too valuable to feed to your foals unless they are of the highest class of breeding and will sell for big prices. For forcing, use the show milk is particularly valuable.

The foals can be taught to drink separator milk by moistening the

Pointers on Milking a Cow

There is an immense difference in milkers. One milker will get 20 per cent. more milk from a cow than would another. Do not excite or worry a cow by loud talking or abuse of any kind. Milk quietly and as quickly.

Get all the strippings. The first milk may contain as little as one per cent. of fat, and the last six or 10 per cent.

In milking use the whole hand, closing first that part of the hand next the spinner muscle by closing the remainder of the hand.

Wetting teats is a dirty, filthy habit. It also allows the teats to chap and sour in bad weather. If there is difficulty in milking a cow dry, a small amount of vaseline may be rubbed on the hands. It is more sanitary than wetting the teats.

The future of many a promising dairy cow has been ruined by improper milking soon after calving.

Water Powers of Canada

The importance of retaining control of the water powers in Canada for the benefit of the general public is strong-

PEERLESS - PERFECTION



Real Fence Service Guaranteed

Peerless Wire Fence is built to give absolute fence satisfaction and makes good. Best quality wire galvanized to prevent rust and securely held together by the Peerless Lock combined with fence experience compose the Peerless Fence.

PEERLESS WIRE FENCE

That is the kind you should use on your farm and have expense and worry. Peerless Fencing Service guaranteed. Gates are unexcelled. Try them. Agents wanted in unorganized territory.

Write for Our Catalog Today

Barwell Hozie Wire Fence Co., Ltd., Winnipeg, Man., Hamilton, Ont.



PERFECT

Maple Evaporator

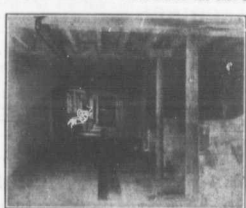
Price low—quality high—product the best possible—the kind you like syrup—it retains its maple taste—all unnecessary expense and middlemen's profits cut out. Sold at a price the poorest man can buy. Every one guaranteed. Write for pamphlets and recommendations. Do it now!

Steel Trough & Machine Co., Tweed, Ont.

GET RID OF YOUR BARN DRUDGERY

A BT LITTER CARRIER will lift the entire burden of your barn work with the expense amount. With a BT in your barn, what once the most distasteful bit of slavery in the day's work, becomes a mere pastime and the effect is a big and immediate reduction in the cost of the hired help.

The BT Litter Carrier carries the manure from the gutters to the shed or pile in a fraction of the time it takes the old style. No matter how many cows you keep or what it costs you with the pickfork and wheelbarrow system to clean the barn the BT will save you half the expense.



The first step in financial success is to cut out unnecessary trimmings from your expenses. In the business of farming, the BT Litter Carrier with the whole BT Equipment is planned to increase profits by reducing the stable expense.

THE BT LITTER CARRIER

is so simple in its construction that there is nothing on it to get out or other carrier is such a guarantee given. In fact, most of the firms change their carrier every year, and they will have to keep on changing, for they simply cannot get around the patented points on the BT Carrier.

More BT Litter Carriers were sold in Canada last year than at other makes combined. Here are some of the reasons why: The BT Carrier has double purchase in lifting. It elevates easily. There are no worn gears to wear out. The Carrier is made of a crank wheel. There is no noise or rattle as with a chain lift. The bucket is made of 1 1/2 gauge galvanneal steel—four gauges heavier than others. The track is two inches in depth—he nest deepest is only 1 1/2 inches. It will carry a much heavier load than any other, and is much easier to erect. It costs no more than others. There are many other reasons which you should know. Get our catalogue and learn them all.

It will pay you to write us now. Fill out the coupon and mail it to-day. You will be surprised how cheaply you can put in a BT Litter Carrier.

BEATTY BROS.

Fergus, 1610 Ontario

Kindly send me (free) your book on Litter Carriers and prices.

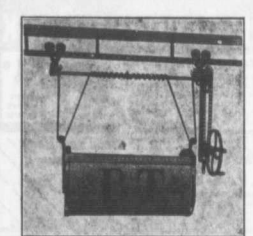
I will need about _____ ft. of track, and expect to put in a litter carrier about _____

Will you need any Steel Stalls or Stanchions this year? _____

Name _____

Post Office _____

Province _____



BEATTY BROS., Fergus, Ont.

We also manufacture Steel Stalls, Stanchions and Hay Tools

Alfalfa Hay Compared with Bran

Dairymen have learned the necessity of feeds high in protein, and are paying good prices for bran for this purpose. The composition of bran and lucerne hay are practically the same.

To emphasize the importance of lucerne as a feed for dairy cows an actual feeding test was made comparing bran and lucerne hay. The cows used in this experiment were divided as nearly equal as possible according to production. Both lots were, of course, kept as nearly as possible under the same conditions. The basal ration for both lots was made up as follows: Clover hay 6 lbs., corn silage 30 lbs., corn meal 6 lbs. In addition to this one lot was fed eight pounds of lucerne and the other lot eight pounds of bran.

The final results show that the production of both lots was practically the same. The cows receiving the lucerne hay produced slightly more milk, thus indicating that lucerne hay is equal to or a little better than bran for milk production under conditions which are the same as those existing on most dairy farms. It should be noted that the cows receiving the lucerne were in better physical condition than were those receiving bran. If all dairymen fully realized that a ton of lucerne hay was worth a ton of bran as a feed for dairy cows, many more would be putting forth every effort to learn how to grow and care for this crop properly. — Wilbur J. Fraser, Chief Dairy Husbandry, University of Illinois.

ly emphasized in "Water Powers of Canada," a new bulletin just published under the direction of the Dominion Commission of Conservation. We have been in the habit of regarding the water powers of the Dominion as capable of developing unlimited power. The report shows that, after a thorough survey of the whole field, the amount of power available in Canada is just about half of what was supposed to be. Too large a percentage of the available water power has already passed under private control; for instance, one half of Canada's usable share of Niagara Falls' power is in private hands.

In a chapter dealing with water in relation to agriculture the importance of a subject little considered is strongly brought out, namely, that of the conservation of ground water. In the first 100 feet of soil is 17 feet of water. Attention is called to the fact that it is possible by injudicious use to so decrease the amount of underground water for the use of plants that agriculture will be seriously affected. Poor arrangement of large drainage ditches, for example, would not only deplete the store of soil moisture but also cause the water in the region are already suffering from the loss of their underground water supply and the commission proposes to investigate this subject thoroughly.

The pure bred Berkshire boar which you ordered sent me from Mr. Joshua Lawrence, of Dixie Centre, Ont., for securing six new subscribers to Farm and Dairy, came to hand on the 21st inst. and I am highly pleased with him. He is a very fine pig.—Clarence L. Gowdy, Brant Co., Ont.

THE "BAKER" BACK-GEARED WIND ENGINE



is Built for Heavy Duty, Heat and Compact in Design. Do Perfect Work, because they are Built on Principles that are absolutely Correct, and the Easiest Running Mill Made.

The wheel is built on a hub revolved on a long stationary steel spindle. As a result, there is less friction, and the hub will never become worn and cause the wheel to sag toward the tower.

"BAKER" wheels have large numbers of small sails, without rivets, as compared with other makes.

The small sails develop the full power of the wind and enable "BAKER" mill to pump in the lightest breeze.

The engine is so constructed that the tower cannot wear out of shape.

All working parts are covered with a coat from shield, thus protecting same from ice and sleet.

We make a full line of Steel Towers, Dented Steel Tanks, Pumps, Etc. Write for Catalogue No. 8.

THE HELLER-ALLER CO. WINDSOR ONT.

Well DRILLING MACHINES

Over 75 sizes and styles, for drilling either deep or shallow wells. Any kind of soil or rock. Mounted on wheels or on skids. With engines or horse power.

Strong, simple and durable. Any mechanic can operate them easily. See our catalog. WILLIAMS BROS., ITRACA, N.Y.



Walls and Ceiling For the Kitchen

It is impossible to keep the ordinary kitchen walls clean—smoke discolors them, dirt and grease sticks and stains so readily—very unsanitary, a regular brooding place for vermin. Why not have a bright, clean kitchen—cover the walls and ceiling with

METALLIC

It is both sanitary and artistic. Metallic is the ideal ceiling and wall covering for the kitchen—doesn't fall in the food—no vermin. Keeps out the rats and mice, and is always fresh and clean. See our free booklet "Interior Decorations in Metal," tells you all about ceilings and walls, write for it now. Those Parkdale box

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10 TORONTO & WINNIPEG

FREE-FARM ACCOUNT BOOK

Know How Much You Make This Year

Now shall you pay a cent for Bickmore's Farm Account Book. It is the best of a crop never demanded before. It is the best money in the bank. This book is arranged to keep all accounts in simple form—more simple, and certainly more precise than the ordinary book—shows what to charge against production, has a laborer's time record, and section for personal accounts. 666 pages for 10¢ per month. Not a cheap affair. It is meant for business. Its quality is known.



BICKMORE'S GALL-CURE

A remedy that cures, and has been used all the time. Users keep it in their stables for their own use. It is always ready for Horns or Saddle Galls, Chink, Horse-cows use it for Sore Teats. Don't buy a substitute. Look on getting Bickmore's Gall-Cure for the sake of your horse's health. Buy now for Bickmore's Farm Account Book. It is ready for you. No cost. Send your name and address—that's all.

WINGATE CHEMICAL CO. 225 West 12th Street St. W. Montreal, Can.

Send Your Name on This Coupon or on a Postal Card

Send me a Copy of Bickmore's Farm Account Book, 666 pages for 10¢ per month. Name _____ Address _____ Farm and Dairy and Rural Home

HORTICULTURE

Commercial Fertilizers

W. C. McCall, Lincoln Co., Ont. In some places in the United States too much importance is attached to commercial fertilizers by fruitmen and vegetable growers and not enough to manure and green fertilizers. Stable manure is of great use to the soil by warming it up and making it spongy. Added to this, it contains all three elements usually deficient in the soil—nitrogen, phosphorus and phosphoric acid. Sometimes, however, if we apply manure to obtain phosphoric acid, we will have too much nitrogen. You can regulate this state of affairs. I make use of a cover crop of clover, adding farmyard manure, an supplement it with commercial fertilizer. Nitrogen costs about 15 cents a pound, phosphoric acid six cents and potash less than five cents. It will thus be seen that by using clover or other cover crops, and by the use of nitrate and augmenting by the use of the cheaper elements, economy is exercised. If we use a low grade fertilizer, and are not careful to get our humus back, we will in time let our land run out.

Some of the fertilizers used contain nitrate of soda, sulphate of ammonia, dried blood, bone hair and hoof meal, treated bone, etc. When you buy fertilizers containing these substances it is hard to find out the exact percentage of nitrogen, etc., contained in them, and it is almost impossible to use them intelligently.

TIME TO APPLY

In applying the fertilizers, potash and phosphoric acid can be placed on the ground in the spring so that

they can be carried through the soil. If it is a dry year, a good deal will be taken up by the plant that year, but will be lost next year. Do not apply when the ground is frozen.

No one who is engaged in farming and who is difficultly in getting manure can afford to ignore commercial fertilizer. Again, we cannot afford to buy it, and not know something about it. When growing our crops we can experiment with fertilizers on part of the field, and find out for ourselves what is best for our land. We should read literature on the subject, and study the conditions of our soil, and what our various crops need. If we do this we will find that rightly used fertilizers will give as good results as any investment upon our farms.

Treatment for Potato Scab

Now can I treat seed potatoes to kill the scab? I do not wish to carry the disease over from one part of my farm to another. C. C. Simons Co.

Potato scab is caused by the growth of the tubers of a parasitic fungus. There are several methods of treatment. The one now generally considered is as follows:

Take one-half pint formalin to 15 gallons of water. Formalin is a fluid which can be purchased in most drug stores. It is not poisonous and can be safely handled. Potatoes which have been treated should not, however, be used as food either by man or animal.

In preparation for treatment it is best to wash the potatoes, provided much earth adheres to them. They should then be soaked one and one-half or two hours in the mixture of formalin and water. The same solution is reported to be effective just how many times is not known.

A convenient method of treatment consists in putting the water and formalin in a barrel, the potatoes in an open woven basket or tray and suspending them in the barrel so they will be completely submerged. This should be shaken so as to insure that all will be reached by the solution. This treatment will not injure the taint of potatoes which have not sprouted. If much sprouted, the tips of the sprouts are likely to be burned. Fresh sprouts will, however, start.

Combating Insects in a N.B. Orchard

G. E. Babbitt, Queens Co., N.B. My orchard is small and young, consisting of about two dozen trees that have been bearing from four to 10 years. The land has not been cultivated since they began to bear fruit. Every three years I give the soil a rich top dressing of barnyard manure. Wood ashes are also frequently spread over the ground.

I try to keep the limbs from becoming too thick and interwoven, and if I find it necessary to saw off a branch of any size the unprotected stub is always covered with paint to keep the sap from evaporating.

INSECT PESTS COMPEL SPRAYING

Until very recently the trees were never sprayed. The bud moths and the apple caterpillars are become so numerous, however, that it is now absolutely necessary to do so. My orchard was sprayed twice last spring, with lead arsenate in the proportion of two pounds to 25 gallons of water. The first spray was applied when the buds were opening, and the second as soon as the petals had fallen. I find, however, that these two sprays are not sufficient to prevent the larvae of the bud moth from doing considerable damage. One or two more applications are necessary to successfully exterminate the pest, where it is as abundant as it is in my orchard. Strong soap suds was the chief

means by which the tent caterpillars were destroyed. This is effective, but can be prepared in small quantities, much easier than the arsenate. It also seems to make the bark smoother and cleaner.

BURN THE FALL BUDWOODS

The fall webworms threatened to enclose large portions of the branches on some trees, but I burned them with a torch when they were small. This is much better than cutting off the limb and then burning it and the web together, as the latter readily catches fire and the limb is saved in this way.

People of the other provinces of Canada have not considered New Brunswick as having horticultural possibilities, but in my opinion many parts of the St. John Valley are well adapted to fruit growing. If our citizens were more enterprising and aggressive it might become as well known as the famous Annapolis Valley of Nova Scotia.

APICULTURE

About Feeding Bees in Winter

Miss Ethel Robson, Middlesex Co., Ont.

A colony requires at least 30 lbs. of stores to carry it through the winter, about half honey and half sugar syrup, two parts sugar to one part syrup gives the best results. The bees store the syrup in the centre of the hive and use it for winter stores, for which it is much safer than honey because the bees are left for brood-bearing in the spring. There are many excellent feeders to be had, two-quart jars with either a muslin or perforated top are very satisfactory. These can be filled and inverted over the cluster; but almost any vessel that will hold the syrup will answer the purpose. To feed the bees, you empty a paper in the keep, and in this your dish filled with warm syrup, and over the syrup a good handful of long grass. See to it that the grass reaches to the top of the tin, so that the bees will have no difficulty in getting out, and if it is a good colony it will easily take down all the stores it will need in one night.

Always feed just before dark, as it excites the bees and induces robbing if done early in the day.

Sugar Makers Attention

You are not giving your Maple Grove a show to bring you good returns unless you spend twice the amount of time and fuel, and make a poor grade of syrup using primitive methods. Why not try a "Champion" Evaporator and make syrup-making not only a pleasure but profitable? We have a size just suited for your Maple Grove.

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



POULTRY

Points

Turkeys are all poultry; in them in summer up their livings, and in winter they die. If kept to the chickens, to young turkeys they do get them under the tail with cooing. As soon as give the turkey have been run, all summer fat, but they are in an excess on flesh. Feet will eat.

How Best

By a Some of the are so simple should be able to do it frequently. Turkeys in warm to ship half the summer, class once a week realize how good a hot, sunny road may do. The times the express about let places. Brood chickens produce eggs. The primary largely determined in the crates. Used in small lots or grown. Keep a ship them in the boxes. HAVING Have the eggs using clean netting the eggs nearly all eggs. It is necessary attempt to wash the "bloom" of a low rapid evaporation clearer if brush a moist dust. We should care business, be in a manner that situation for our birds. The producer dealer honest turns. The only such a real dealings between rascality is preferable to a firm its reputation, although possible. In fact, every market occasion into closer cooperation. The market of such a period returns are not and most really fully give them cooperate. There should earnest desire for a superior season. The trade by the cause in this the benefit and tional skill of should keep a should where is as abundant as it is in my orchard. Strong soap suds was the chief

POULTRY YARD

Points About Turkeys

Turkeys are the most profitable of all poultry; it costs so little to keep them in summer. They not only pick up their living, but they destroy many kinds of destructive insects.

If kept in too close quarters they are apt to get lice and mites from the chickens. This means sure death to young turkeys if unattended to. If they do get lice and mites, grow them under the wings and around the tail with coal-oil and lard; or dust them with a good insect powder.

As soon as the cold weather comes give the turkeys plenty of feed. They have been running after bugs and insects all summer and have very little fat, but they have large frames and are in an excellent condition to put on flesh. Feed them all the corn they will eat.

How Best to Market Eggs

By a Produce Dealer

Some of the loafs in the egg trade are so simple that any producer should be able to check them. In the first place, eggs should be packed frequently. This is especially necessary in warm weather. It is better to ship half a case twice a week during the warmer months than one full case once a week. Producers do not realize how quickly eggs deteriorate.

A hot, sunny ride from farm to railroad may start the germs. Oftentimes the express companies are careless about letting eggs stand in hot places. Broody hens are a source of mischief.

The producer should grade his own eggs. The price of a crate of eggs is largely determined by the poorest ones in the crate. White-shelled eggs should be packed in one crate and so called. Colored-shelled in another. In small lots one side of the crate can be used for whites and one side for browns. Keep the small eggs home or ship them separately; don't put them in the bottom of the crate.

HAVE EGGS CLEAN

Have the eggs perfectly clean. By using clean nesting material and collecting the eggs once or twice a day nearly all eggs should be clean. When it is necessary to clean them do not attempt to wash them. Water takes the "bloom" from the shell and allows rapid evaporation. They can be cleaner if brushed well or wiped with a moist cloth.

We should endeavor to conduct our business, be it large or small, in such a manner that we will establish a reputation for our goods and our methods.

The producer should demand of the dealer honest dealings and daily returns. The commission business allows such a rate of freedom in the dealings between people that much rascality is present. Before shipping to a firm its business standing and reputation should be looked up, and when possible a personal visit be paid. In fact, every shipper should visit his market occasionally and thus come into closer contact with his agents and the market conditions. Eggs are of such a perishable nature that daily returns are not at all impracticable, and most reliable dealers will cheerfully give them.

COOPERATE WITH MIDDLEMAN There should be cooperation in an earnest desire to establish a demand for a superior article. One of the chief reasons for working up retail trade by the producer has been because in this way he could receive the benefit and appreciation of additional skill and care. The dealer should be the shipper advised as to the best times to ship and the condition of the market in general. A more congenial relationship should ex-

ist between the parties. Demand fair and quick settlement by the transportation companies in case of damage, etc. It is only right that the receiver should tend to this matter and work for the benefit of his shipper.

Upon all occasions the steady shipper should demand the loyalty and support of the receiver and the receiver should use his position as agent to work for and support the shipper.

Poultry Pointers

Consign the surplus cockerels to the flock and leave more room for utility birds and more feed for wintering the layers. It is unprofitable to have star boarders in times of high prices.

As soon as dust is needed in the poultry yard of the heavy land region. Fowls delight in the dust bath and they should have this privilege. When given the dust bath they often rid themselves of lice and mites.

As soon as you find a bird sick isolate it and keep it apart from the flock. It is a good plan to have a quarantine station, a coop, where sick fowls can be looked after until they are well enough to release.

It is more profitable to keep a small flock of fowls on the farm than to keep more than you have facilities to accommodate. Too many fowls is almost sure to result in disease, which soon destroys the profits. A small flock well taken care of is safer.

Dairy Production Increasing

(Continued from page 2)

VICE PRES., G. A. Gillespie, Peterboro; Ed. Vice Pres., Jas. Sanderson, Keptville; 3rd. Vice Pres., Nelson Kempf; Sec., Norham; Secretary, T. A. Thompson, Almonte; Treasurer, Jas. I. Anderson, Mountain View. Executive committee: W. C. Gillespie, Henry Glendinning, Jas. Sanderson, Ed. Kidd, M. P., Nelson Stone, Joe. McGrath, George Leggett and the president.

Directors: T. H. Thompson, Madoc; Willet Farley, Canifon; Chas. Anderson, Overton; Joseph McGrath, Mount Chesney; Geo. Leggett, Newboro; J. A. Campbell, Ormond; John F. McGregor, Alexandria; Neil Fraser, Vankleek Hill; W. J. Johnston, Eamers Corners; W. H. Olmstead, Barbrook; Wesley Willows, McCray; Edward Kinn, M. P., North Grove; Jas. A. Sanderson, Oxford Station, Ont. Auditors: J. A. Kerr, Belleville; J. W. Hyatt, West Lake.

FINANCIAL STATEMENT

The report of the treasurer, Mr. Jas. R. Anderson of Mountain View, Ont., was presented by the auditors, J. W. Hyatt of West Lake and J. A. Kerr of Belleville. His statement showed total receipts of \$4,648.48 and a balance on hand of \$485.32. The principal sources of revenue were: Balance from 1911, \$734.72; government grant, \$2,500; receipts from prosecutions, \$1,021.38; receipts from program advertisements, \$320; Lanark county grant, \$200; membership fees, \$167; town of Perth grant, \$100; interest, \$30.60.

The principal items of expenditure: Perth pay sheet for directors and speakers, \$338.48; advertising and printing, \$500; contribution to G. G. Pub. (expenses trip to Great Britain, \$500. (Of this sum \$172.79 was refunded by Mr. Pub. and will be shown in next year's statement.) Officers' salaries, \$490; speakers' expenses, including district and factory meetings, \$176.70; salaries, \$360 and expenses, \$191; of official prosecutors Whittier and Britton; salary \$360, expenses \$213.35, of official prosecutor Alfred Street; pay sheet, executive committee, Kingston, \$138.45; pay sheet, executive committee, Toronto, \$190; payment to Rural Publishing Co., Ltd., for official or-

gan, \$115.50; contribution to prize farms competition, \$150; stationery, stamps, etc., \$135.00.

SECRETARY'S REPORT

In his report as secretary, Mr. T. A. Thompson, Almonte, stated that the year 1911 had been remarkable in that dairy products of all kinds commanded a higher price than ever realized before in Canada, while the proportion of poor, undergrade goods was never so small. The reports of the official producers appointed by the association showed that the practice of tampering with milk at the farm by skimming and watering is annually decreasing. There are still, however, too many who are guilty of this practice.

A resolution was passed requesting the Department of Agriculture to reorganize the district divisions in some manner that will give the dairymen of Prince Edward county the right to elect a director annually.

PRESIDENT'S ADDRESS

In his opening address Mr. Henry Glendinning, President of the Association reviewed crop conditions in Eastern Ontario. West of Kingston the season was decidedly unfavorable. Cereals, however, had been on record price, and the dairymen were almost as well off as they would have been with better pastures and an average price for their product. He emphasized the importance of improving better cows, feeding them better and thus decreasing cost of production. The increased interest shown in the District Dairy Meetings last fall, Mr. Glendinning believed, was an indication of a more progressive spirit among dairymen generally.

LECTURES

Wednesday was Farmers' Day. Professor Grisdale of the Experimental Farm, Ottawa, in his address on "Crop Production," covered all phases of the subject, such as selecting the crops best suited to feeding the dairy cow, living out the fields, planning the rotation, seeding and cultivating the crops. At the Central Experimental Farm Mr. Grisdale said one of the best uses of manure is in two by using big, labor-saving implements.

In 1910 the average crop on Canadian farms was worth \$15.50 an acre. At the Central Farm the average value per acre was \$43. By adopting the same methods the speaker claimed that any farmer could achieve equally good results on fairly good soil.

(Continued on page 15)

Fowl OF Pure Breeding

Sell better, are better and are a greater satisfaction to have than Fowl of mixed and mongrel breeding



One Pair Given FREE for Only Five New Subscriptions TO Farm and Dairy

Each to be taken at Only \$1.00 a year

Your choice of any of the popular egg or utility breeds most valuable as farm poultry.

A Cockerel of the breed you want for only two new subscriptions.

Get your order in right away while the good ones are to be had.

FARM AND DAIRY PETERBORO, ONT.

Farm Help AND Domestic Servants

Can be had on application to the Salvation Army Immigration and Colonization Dept. Head Office, 22 Albert St., Toronto, Ont. Our men have given satisfaction. We bring out the best class of men and take care in the placing of them.

43 Choice Holsteins

TO BE SOLD AT

Public Auction, Friday Jan. 19th

3 Miles East of Burgessville, Ont.



These cattle have been bred for persistency in heavy milk flow and for symmetry of form.

The great bull Ina Triton 2nds' Abbecker, No. 8107, which won 1st Prize at Toronto and London 1910, is one of the animals in this choice selection.

SEE LARGE POSTERS

MAJOR ALMAS and COLONEL SIPLE

Auctioneers

D. B. COHOE and COHOE BROS.

Proprietors

New Durham, Ont.

EASTERN ONTARIO
Live Stock
 AND
Poultry Show
 Will be Held at
Ottawa, Jan. 16 to 19
 1912
 Exhibits consist of
HORSES
DAIRY AND BEEF
CATTLE
SHEEP, SWINE
SEEDS AND POULTRY
\$1,000.00 in Prizes
PRACTICAL LECTURES
 will be given on subjects relating to the various classes of Live Stock, also to Seeds, Poultry and Alfalfa

AUCTION SALE
 of 50 Pure-bred Beef and Dairy Cattle on FRIDAY, AFTERNOON, JAN. 19

SINGLE FARE RATES ON THE RAILWAYS

For Programme of Judging and Lectures, apply to the Secretary

Peter White, Pres. D. T. Elderkin, Secy.
 Pembroke Ottawa

THE LATEST BOOK
 TO DISCUSS THE
General Care and Management of Farm Animals
Horses, Cattle, Sheep & Swine

MANUAL OF FARM ANIMALS

The author—M. W. Harper, Asst. Professor of Animal Husbandry at Cornell University, gives in this volume of over 500 pages, a practical guide to the Horse, Cattle, Sheep and Swine.

Important Chapters are those treating of the diseases of all these classes of stock.
 Invaluable to any Farmer and Live Stock Breeder. Of immense practical worth—will be worth many times its price to any stockman every year.

PRICE ONLY \$1.15 POSTAGE PAID
Dept. FARM & DAIRY Peterboro Ont.

When \$15.00 Makes \$100

Jos. Armstrong, Wellington Co., Ont.
 Here is a proposition. Is it worth it to feed \$15 worth of grain to get a return of \$100 in increased value through the feeding of that grain?

Everybody says, "Yes." But some of those who say "Yes" are dropping that much money every year just because they can't persuade themselves to part with that \$15.

Here is how we make \$85 that many a farmer loses. We feed our foals well during their first winter. That \$15 worth of grain that we give to a foal that the other fellow doesn't, makes a big, big difference in its value.

BUILDING FOR THE FUTURE

The first winter in a foal's life is the most important period of its existence. It develops its frame and its digestive capacity. It lays the foundations for all its future growth.

What chance has the foal that spends its first winter around a straw stack or trying to live on the miserable feed it is given by a too cautious owner? To make a good horse? Very little. To make a top notcher, none whatever.

We believe that we are well within the mark when we state that \$100 is lost if the colt is stunted in its first winter. We have talked this matter over with other horsemen and they all agree with us that \$100 at least is lost.

Most of us farmers are quick to see a bargain. Giving \$15 and getting \$100 is a bargain of the first water. Let us not miss it.

Examine Cows Before Breeding

Too much care cannot be exercised in thoroughly examining a cow before breeding her for the reason that if a cow is bred and she is not in a healthy condition, it is just a question of time before her infected organs are overpowered by the germs of disease.

A cow whose udder contains any drops of pus or chocolate colored matter is not in a fit condition to be bred. The unnatural discharge indicates that her genital organs are infected, and consequently are not in a healthy, breeding condition.

Cows having a catarrhal discharge are usually indicated by matter being adhered or matted to the tail. These conditions should be given prompt attention and the tail should not only be washed off but the genital organs should be cleaned with an antiseptic solution.

These conditions are often brought about by simple causes such as retention of the afterbirth. If a cow is permitted to freshen in a cold, damp stable, or outside when the weather is very cold, they are very apt to contract sufficient cold to cause them to retain the afterbirth, and whether this be removed by force or otherwise, there is always danger of a portion of it remaining. This sets up a catarrhal condition of the genital organs and the above conditions are brought about, which not only reduces the ac-

tual earning capacity of a cow, but affects her to such an extent as to cause her to be a dangerous animal to have in the herd.—Dr. David Roberts in Kimball's Dairy Farmer.

The Southern Ontario Holstein Breeders' Great Sale

A great many unusually well satisfied buyers and a general air of satisfaction amongst the sellers were present at the great consignment sale of Holstein cattle held at Tillsonburg on Tuesday, Jan. 2nd. Higher prices have been realized at former sales and bulls have generally sold higher than at Tillsonburg last week.

The highest priced animal brought \$600, she being Bessie Texal Pietriete owned by E. Laidlaw & Son and purchased by W. F. Elliott of Toronto.

Most of the bulls sold much below their value, and many should have realized more in private sales when some months ago. There were probably too many bulls in the sale,

farmers could afford and put them in grade herds.—James Rettie, Norwich, Ont.

"On the whole prices were satisfactory. But, like all sales, some went not so high. But things averaged out fairly well, especially females. There were some great bargains in males in the sale, as we are always planning for our second annual sale."

—M. H. Haley, Springfield.
 "A few of the cheapest bulls I ever saw sold. But taking the sale off through it, was a success. And I promise you a better one next year."

—R. J. Kelly, Tillsonburg.
 "Prices for females were satisfactory. Bulls went below value and all purchasers got bargains in them."

M. L. Haley, Springfield.



For One Who Knows How There is Honor in Heres of This Type
 Mr. A. S. Turner, Byekman's Corners, Ont., who bred and raised the mare here illustrated, has had great success as a breeder of horses. This mare, Vera B., he sold recently for \$2,000. Read more concerning Vera B. in the article on page 22.
 —Photo by an editor of Farm and Dairy.

and in fact there were too many cattle in the sale for a one-day event. The attendance was great. A conservative estimate of the crowd would be from 500 to 2,000. Many buyers from a distance were on hand. Col. D. L. Perry of Columbus, Ohio, was the auctioneer.

Everything about the sale was not way of arrangement, but having gained the experience of this, their first combination sale, the Southern Ontario Holstein Breeders will be in fine shape for conducting the event next year to the best possible advantage.

Most of the cattle offered were of a superior lot. Stabled in the big Roll-in-Rink, they were a grand sight and afforded an exhibition more interesting than some large shows.

The general feeling of satisfaction over the sale by those who consigned animals may be learned from the following opinions expressed to Farm and Dairy.

"I consider the consignment sale was a decided success, although many finely bred bulls did not bring the price near what they should. The boys were game, though, and said, 'Let them slide.' Now some people are kicking themselves because they did not get their mouths open and bid. They will know what to do next year and bid in time. Many were wanting stock after the sale was over."
 "This sale company has shown they mean business, and next year's sale should be even better. Any kinks will be straightened out for another sale."
 —Geo. Rice, Tillsonburg.

"The result of our sale shows a great demand for dairy cow of high quality. Prices were good for the seller and not too high for the buyer. Bulls went considerably below their value—a thing that buyers will realize when they get their purchases home. The best bulls went at prices ordinary

good prices in general, and the breeders were highly satisfied with the result, but bulls—all of the real good bulls—went at give-away prices. Some buyers seemed to think four legs and pedigree were all that a bull requires."—E. Laidlaw & Sons, Aylmer West, Ont.

The animals sold, the prices and buyers are given in the following:

- CONSIGNEE BY M. L. HALEY:**
 Jenima Wayne Johanna, March 22, 1904, \$400, T. Logan, New Westminister, B.C.
 Colquhoun Teague Johanna, Feb. 24, 1906, \$250, Dr. English, Hamilton, Ont.
 Bonnie Lindley, March 10, 1905, \$210, T. Logan, New Westminister, B.C.
 Colquhoun Queen, \$200, March 29, 1902, \$130, Dr. English, Hamilton, Ont.
 Queen Bell, April 14, 1905, \$138, T. Logan, New Westminister, B.C.
 Fairy Fairsy, Jan. 4, 1905, \$215, Mr. Harding, Welsford, N.B.
 Madeline McHealdie Jewel, Nov. 27, 1902, \$165, Mr. MacNamee, Stratford, Ont.
 Annie Wayne Poach, April 10, 1906, \$145, Munroe & Lawson, Thorold, Ont.
 Dewardson Johnnie Bell, April 30, 1909, \$155, J. C. Kauffman, Cassel, Ont.
 Homewood Duchess Mercedes, June 10, 1910, \$125, C. B. James, Langstaff, Ont.
 Homewood Mercedes, March 12, 1910, \$205, A. P. Gray, Triton, Ont.
 Lady Blish, Woodstock, Ontario, 1911, \$130, Wm. Pullin, Woodstock, Ontario.
 Sir Homewood Aggie De Kol, Nov. 25, 1911, \$125, R. J. Kelly, Tillsonburg, Ontario.
 Sir George W. B. Bell, Nov. 15, 1911, \$200, Dr. English, Hamilton, Ontario.
 Princes Fayne Calamity, March 10, 1911, \$60, J. W. McInure, Glensora, Ontario.
 Sir Homewood Fayne, March 9, 1911, \$50, James Hagie, Tillsonburg, Ont.

CONSIGNEE BY M. H. HALEY:
 Aggie of Riverside 2nd, May 24, 1906, \$225, R. Brookfield, Tillsonburg, Ontario.
 Queen of Oxford, March 15, 1904, \$300, A. P. Gray, Triton.
 Albert, June 1, 1899, \$135, J. H. Wrenbly, Smithville, Ontario.
 Artalissa 2nd, Dec. 2, 1905, \$270, W. F. Elliott, Ontario.
 (Continued on page 21)

CITY DE

Milk P

Kindly tell me what you require for your dairy supply. We have a main line of milk cans, galloons for export, contracts, and we are always ready to contract. This considerably—

The dealer... led to pay... per eight-gallon... in the... November 2... \$1.65 deliver... for the same... quantity of... pected to live... though there... ally. To do... however, to... time to hold... tract.
 Producers... ceiving 20c a... city for the... the producer... quantity of m... the shippers... they have on

To Find

Jno. Mich... Those who... prices in da... those who are... business, show... prices at the... strate the mer... they are. This... will gradually... for increased... the products... start are like... they are buye... of an opportu... of your gooda... The man who... of butter will... active custom... has the qualiti... to have an... due to the... sample of the... If the prod... of milk and c... ing will help... the milk is pr... duced, whitea... cows which ar... tuberculous, if... clean, healthy... oughly cooled... is after milkin... all this is cert... insuper, an... patronage is c... such facts ar... lic.

Our Le

Right to Pun

It is allowable... plan a child... school? A tea... child in every... and a quarter... some home at... to the bush as... enough? Can a... he does not liv... but own land... Out.
 A teacher is... reasonable degr... a pupil in order... otherwise propo...

Do You Know That From Cottensed, Meal

Protein can be had more cheaply than from any other feed stuff? Compound your grain ration with

Owl Brand Cottensed Meal!
F. W. BRODE & CO.
 Memphis Tennessee
 Write for our booklet, "Science of Feeding"

CITY MILK SUPPLY DEPARTMENT

Milk Prices In Our Cities

Kindly tell me the prices charged for milk in Toronto. The producers supplying Ottawa by contract receive a maximum price of 30c a gallon for the whole of the year. The contract for each gallon short on the weekly contract, and a reduction in price of eight cents for each gallon in excess of weekly contract. This reduces the average price considerably.—"Subscriber," Carleton Co., Ont.

The dealers of Toronto have decided to pay producers for milk \$1.70 per eight-gallon can delivered at their plants in Toronto for the months of November to April inclusive, and \$1.65 delivered at the Union Station for the same months. The producers are required to guarantee a certain quantity of milk a day and are expected to live up to that amount, although there is no forfeiture or penalty. The dealer reserves the right, however, to ask the farmer at any time to hold back part of his contract.

Producers around Montreal are receiving 20c a gallon delivered in the city for the winter months. Some of the producers guarantee a certain quantity of milk a day. In most cases the shippers send whatever quantity they have on hand.

To Find a Good Market*

Jno. Michels, Milwaukee, U.S.A.

Those who are aiming for high prices in dairy products, especially those who are rather new in the dairy business, should as a rule not ask high prices at the start. First demonstrate the merits of your product. If you are of a high order, consumers should gradually respond to the demands for increased prices rather than lose the products. Too high prices at the start are likely to discourage prospective buyers and thus deprive you of an opportunity to prove the value of your goods.

The man who makes a high quality of butter will have to prove to prospective customers that the butter has the quality which he represents it to have, and it will pay the producer of such butter to furnish samples of the product.

If the producer has a high quality of milk and cream, a little advertising will help to secure customers. If the milk is produced in clean, ventilated, whitewashed stables, and from cows which are regularly tested for tuberculosis; if the milk is handled hygienically, by attendants and is thoroughly cooled and aerated immediately after milking; and if, in addition, all this is certified to by a competent inspector, an increase in prices and patronage is certain to follow when such facts are placed before the public.

Our Legal Adviser

Right to Punish Child in School

Is it allowable for a school teacher to punish a child because it cannot get to school? Is it the right in keeping a child in every recess to make up an hour and a quarter when a mother told her to come home at three o'clock and not go to the bush as the child was not well enough? Can a person act as trustee if he does not live in the school section but owns land there?—D. L. York Co., Ont.

A teacher is entitled to inflict a reasonable degree of punishment upon a pupil in order to enforce obedience, otherwise proper discipline could not

*Extract from an address by Mr. Jno. Michels, Editor of the Butter, Cheese and Egg Journal, before the recent American Dairy Farmers' Convention at Chicago.

be maintained. Such punishment may be either corporal or by detention in the school during recess or otherwise. Either form of punishment, however, constitutes an assault if it is unreasonable, and the question whether the punishment is reasonable or not is for a magistrate to decide. If the parents consider the child is unreasonably treated in any of these respects it is open to lay the information before a magistrate against the teacher and

have the matter investigated. The teacher also has power to suspend any pupil guilty of persistent opposition of authority, habitual neglect of duty, etc., but in such case the teacher should notify the parents and the school board of such suspension, and the parents may appeal against the action of the teacher, and the school board will have full power to deal with such suspension. It is not sufficient that a school

trustee should merely hold property in the section, but he must also actually reside in the section in order to hold office.

The best time to have pigs come in is in the spring, as soon as it gets warm and the grass is growing. I do not like pigs to come unless you have a good place for them and then they do better in the spring.—W. M. Smith, Brant Co., Ont.

HORSES Can You Doctor Them? Train Them Teach Them Tricks?

Would you like to have a good Veterinary and Horse Doctor Book telling about the Diseases of Horses, Cattle, Poultry, Sheep and Swine, and giving the remedies, the cures for all these diseases?

Would you like to know all about Gleason's System of Practical Horse Training?

THEN YOU WILL WANT

Gleason's Veterinary Hand-book and System of Horse Taming

A book of 520 pages (7 1/4 x 5 inches) with illustrations

Which we have arranged to GIVE YOU FREE as described below

Every man who has a horse or other farm animals will meet some day (and it may come soon) when it will be worth many dollars to have at hand a reliable doctor book to which he can refer and be able to cure sickness.



Book Teaches Horse Taming

In order that you may have such a horse Doctor book, we have completed arrangements whereby we can supply you with a copy of Gleason's famous Horse Doctor book at no cost whatever to you. Some of the things this book will teach you are:

PRACTICAL HORSE TRAINING

How to Cure Bad Habits (including Balking, Biting, Cribbing, Halter Pulling, Kicking in the Stall and in Harness Running Away, Shying, etc.)

Breaking and Training Colts

Whip Training

How to make a Horse Trot Square

Training Trick Horses

(How to teach them to waltz, to lie down, to bow, to sit up, to answer questions, to kiss you, to shake hands; etc.)

Hints upon Horse Shoeing.

Short Pointers for Horsemen.

This is a valuable book containing most valuable information. It is not as well bound as we would like, being in paper cover, but it tells you what you need to know.

It is not for sale. We will give it to you free in return for only two (2) New subscriptions to Farm and Dairy, each taken at only \$1.00 a year.

Our regular subscribers to Farm and Dairy may have this book free in return for their own regular subscription sent now, and one New subscription, each at our rate of only \$1.00.

We expect a big run on this Veterinary Book. Every farmer will want it. Every farmer should have it.

We may not be able to hold this unusual offer open after this month. So send in your subscriptions at once.

This great book will then be mailed to you postage paid—absolutely free to you.

If the book does not satisfy you as worth your while or the new subscribers do not like Farm and Dairy we will give your money back.

Get busy at once and get this valuable book. It may be worth hundreds of dollars to you during the next few years.

DISEASES OF THE HORSE

(Over 300 pages describing all the diseases of the horse, telling the symptoms, cause, and giving the treatment or cure.)

Diseases of Cattle.

(74 pages giving full instructions how to cure them, describing symptoms, cause and treatment.)

Diseases of Sheep.

Horse and Cattle Medicines.

Describes the use of over 200 drugs and medicines used in veterinary practice. Gives the doses for each.

Prescriptions and Preparations.

Diseases of Poultry. Diseases of Swine.

Diseases of Dogs. Diseases of Birds.

FARM AND DAIRY

AND RURAL HOME

Published by The Rural Publishing Company, Limited.



I. FARM AND DAIRY is published every Thursday. It is the official organ of the British Columbia, Manitoba, Ontario and Western Ontario, and Bedford District, Quebec, Hairywood, American, Canada and the Canadian Household, Agriculture, and Jersey Cattle Breeds, and other sections.

2. SUBSCRIPTION PRICE, \$1.00 a year, strictly in advance. Great Britain, \$1.20 a year. For all countries except Canada and Great Britain, add 60c for postage. A year's subscription free for a club of two new subscribers.

3. REMITTANCES should be made by post Office or Money Order, Registered Letter. Postage stamps accepted for amounts less than \$1.00. On all checks add 30 cents for exchange fee required at the bank.

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

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

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

CIRCULATION STATEMENT

The paid subscriptions to Farm and Dairy exceed those of any other circulation of such issue, including copies of the paper sent subscribers who are not subscribers in arrears, and sample copies, valued from 1889 to 1898 copies. No subscription is accepted without a return of the subscription rate. Thus our mailing list does not contain any names of persons who have not paid for their subscription. Sworn detailed statement 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 our assurance of our advertisers' reliability. We try to admit to our columns only the most reliable advertisements. Should any advertiser have cause to be dissatisfied with our advertising, we will investigate the matter. If we should find reason to believe that any of our advertisers are unscrupulous, we will discontinue the publication of their advertisements. Should any advertiser be unscrupulous, we will expose them through the columns of the paper. We will not only protect our readers, but our reputable advertisers as well. In order to be entitled to the benefits of our Protective Policy, you need only to include in all letters to advertisers the words, "I am 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 proofs thereof, and within one month from the date that the advertisement appears, in order to take advantage of the guarantee. We do not undertake to adjust trifling differences between readers and responsible advertisers.

FARM AND DAIRY

PETERBORO, ONT.

BAD AIR DISEASES

Such diseases as pneumonia and common colds that give so much trouble and which we have come to regard as winter diseases and connected in some way with the cold weather are simply bad air diseases. One of the most pressing needs in country homes at this season of the year is better ventilation.

In the summertime we keep our windows open and so escape pneumonia and other bad air infections, in the winter the windows are shut down tight, storm doors and storm windows are put on to keep out what little fresh air might find its way into the house, and as a result people die by thousands from these bad air diseases.

We would not think of washing our hands and our face in filthy water. But we are content continually to bathe our lungs in dirty air and thereby make welcome some of the worst diseases that flesh is heir to.

We are getting away from our fear of fresh air. More and more of us are finding out that for our work we are healthier and better able for our work when we sleep with the bedroom window as wide open as we have it in the summer and insist on having the living rooms thoroughly ventilated.

When we have all found the connection between bad air and "cold weather" diseases, good ventilation will be considered a necessity in all country homes. Let those of us who now know the dangers that lurk in the air of close rooms set a good example to those who do not by ventilating our own homes. And let us not be backward in preaching the gospel of fresh air as well as practicing its precepts.

FARMERS ON ELEVATOR COMMISSION

The Dominion millers, at annual convention recently, endorsed the idea of a Government Commission to regulate the running of terminal elevators in Canada. In their resolution they suggested that a member of their association should be appointed as one of the commissioners and suggested the name of the secretary of the association.

Even more interested than the millers in the running of the grain elevators are the farmers of Canada. The proper regulation of terminal elevators means more to them in dollars and cents than to any other class. At least one, and better two, farmers should be included in the personnel of the new elevator commission when it is created. We farmers should make ourselves heard in the securing of representation on that commission both through our farmers' organizations and by our individual influence exerted through the representatives of our respective districts at Ottawa.

IMPORTANCE OF PLANT BREEDING

We do not give enough attention to our seed grain. It has been estimated by an eminent German authority that Germany has increased her crop production in the last forty or fifty years twenty-five per cent. through plant breeding alone. The experience of European countries, such as Germany, should do much to convince us in Canada that we cannot afford to disregard heredity in seed grain any more than we can in live stock. The same laws apply to both.

We in Canada are just beginning to realize how important it is to have "well bred" seed grain. The corn growers of South Western Ontario and the members of the Canadian Seed Growers' Association are making a good start along the lines of scientific plant breeding. Valuable work is being done by all of our experimental farms in the improvement of varieties of field crops.

There is need, however, in every locality of men who will devote themselves to the improvement of the crops for their particular sections. There is here an enticing field of opportunity for men of proper training in the improvement of field crops, and

their labors will result in just as much good to agriculture as have the labors of our breeders of pure bred live stock. And their returns in dollars and cents will be gratifying.

"KILLING THE GOOSE"

Does our system of farming make any provision for returning to our soil the elements of fertility that year by year we are extracting therefrom? If not, we are impoverishing our land, and sooner or later it will refuse to yield further profits. We will then be face to face with the problem of building up a run-down soil.

The problem of conserving the fertility of our soils is the problem that should receive first attention from us farmers. It is by the products of the soil that we live, and to rot our soil of nitrogen, phosphoric acid, potash and the other elements of soil fertility is to rob it of the means of giving us a living. Soil robbery is "killing the goose that lays the golden egg."

The best method of conserving soil fertility is by selling from the farm those products that carry away the smallest proportion of the elements of plant food. This precludes selling all such products as hay, grain or potatoes. The sale of such manufactured products as pork, beef or live stock carries away comparatively little fertility. The dairyman who sends his milk to the cheese factory or his cream to the creamery and makes good use of the by-products, whey or skim-milk, is selling a smaller proportion of fertility than any other class of farmer. When we sell a ton of hay we sell four to eight dollars' worth of fertility. But in a ton of butter there is only forty-eight cents' worth of fertility. Dairy farming is the ideal way to conserve soil fertility or to build up a run-out farm.

The number and efficiency of the machines that are now being placed on the market for doing all kinds of farm work is most

Too Much Wonderful Farm Machinery are coming to realize that an up-to-date equipment of farm machinery is absolutely necessary to get the best results from our farms. There is such a thing, however, as going "machinery mad." We should avoid locking up too much capital in expensive machinery that is used only on a few days in the whole year. We recently came across a farmer who was obliged to sell out to pay his debts; and his neighbors were all agreed that he failed because he had too much money in his machinery. Every new machine that came on the market he purchased it. Quite a few expensive implements he was able to use only a few days in the year. They were not a paying investment. We should figure out just what machines are indispensable on our farms or will yield a good return on capital invested and so avoid over-capitalization in machinery. But we should avoid under-capitalization as well. There is a happy medium.

Good seed grain will be scarce next spring. Due to the dry weather, much of the grain harvested in Ontario was light and chaffy; this is particularly true of oats and barley. If good seed is to be had

for next spring's seeding, it will be necessary for our farmers to use the fanning mill more extensively for the cleaning and selection of seed grain than for many years past. The increased crop that will result from good seed will make it worth our while to spend a few spare hours, or even days, this winter fanning out grain to get the best of it for seed.

It may be necessary for us to earn our bread by the sweat of our brow, but we have not been told that we should earn the bread

Get Full of our people. When you make a dollar value the dollar belongs to you, and no person has a right to take it from you unless he gives in return something equal in value. Many unscrupulous advertisers by their clever advertising sell goods and do not give a fair value for the money they take. Farm and Dairy does not allow such advertisers the use of its columns. See our Protective Policy on this editorial page.

The Oregon Agricultural College will give a short course in highway construction. This course is designed for the benefit of farmers who are interested in improving the highways in their communities. The highway foremen in particular will be urged to take this course. If this move on the part of the Oregon Agricultural College proves a success, it should be adopted in Canada.

A Thought for Hired Men

(Board's Dairyman)

A wise old farmer used to say to us that the first thing he studied in a hired man was the way he "human natured," as he called it. "If his mind and spirit are all right, if he is earnest and willing, I don't care so much about his skill as I do about his aim. That I have always observed," he said, "that a live, good hired man will make a good farmer. I never saw a poor hired man that made a good farmer."

We wonder if hired men ever think of that? These days, while they are working as hired men, are they schooling days. These are the days that make or break their ability to do for themselves. It is just as necessary for a young man to acquire the right habit of thought and judgment as it is to know how to do the work.

"Efficiency" is the word. You can't acquire the habit of inefficiency when you work for another man and then take on efficiency when you work for yourself. You have trifled with your spirit and purpose in life, and such trifling is sure to tell further on.

Look around you, boys, and see if the poor farmers you know were not that kind of hired men? It is the spirit of the man that tells. It tells everywhere in life and in all things. It tells in a horse and in a statesman. Show us the man who has the true spirit of a farmer and we will show you a success whether as a hired man or in after life running his own farm.

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XI

Does business on the "open and above board" appeal to you?

Do you favor THE PRINCIPLE OF THE SQUARE DEAL?

Progressive publishing houses emulate this ideal when they adopt the FLAT rate for advertising.

The intricacies of the old time rate card charging various rates for varying amounts of space has always bred suspicion in the minds of advertisers. They fear that the other fellow is getting an advantage; getting a better rate, by which he obtains advertising at a lower cost.

Another disadvantage: To get the advantage of the lowest rate an advertiser must tie himself up to use a large amount of space within a specified time.

Sometimes this extra space—signed for in order to get the lower rate—represents sheer waste.

Most decidedly this is not in the interest of the advertiser.

To place our business right in the open: To put it on a plane where all can understand: To guarantee a square deal to all, Farm and Dairy has for some years followed the flat rate basis of charging for its advertising space.

As a few advertisers, it would seem, require to be educated up to THE SOUNDNESS OF THE FLAT RATE PRINCIPLE.

Last week we were "called" unprogressive by an advertiser, who asked us to give consideration if he placed a 5000 line contract.

Naturally we refused to give other than our low FLAT rate.

In adopting the FLAT rate, which we have followed now four years, we are in line with the policy of the great farm weeklies in the United States. The Orange Judd publications, Pierce's Weeklies, The Farm Journal, The Breeder's Gazette—yes, and several of our leading Canadian publications, including the Montreal Weekly Star, take business on the FLAT RATE, and on the FLAT rate ONLY. This surely is progressive.

Ours will continue to be the FLAT rate.

We will continue this progressive policy and take business on the SAME-PRICE-TO-YOU-AS-TO-THE-OTHER-FELLOW basis.

And we will continue our progressive result-bringing editorial policy, which will make Farm and Dairy continue to be

"A Paper Farmers Swear By"

With every ton of grain sold on the market the farmer sells from \$5 to \$10 worth of soil fertility. When the grain is fed on the farm and the produce is sold in butter, less than five cents worth of fertility is sold.

PUBLISHERS' DESK

Good Things for You This Year

Now that we have begun the New Year, a great many of our people may be interested to know of some of the special things we will have for them in Farm and Dairy during this year of 1912.

More attention will be given to horses in Farm and Dairy this year than hitherto. We have engaged the services of two prominent and well-known veterinarians who will write a special series of articles dealing with subjects pertaining to horses, giving information not generally known, or available to farmers.

HORSE ARTICLES

The articles from this series are already written and are in our office. They deal with such subjects as "Corn Slilage as a Food for Horses," "Fattening Drafts," "How to go about Sizing Up a Horse when you go to Buy One," "How to Administer a Ball," "How to Give a French," A number of the articles will deal with various vices of horses and how to control them, these including balking, cribbing, kicking, halter pulling, etc. Later on, articles will deal with that dread disease of foals, Navel-ill, and How to Hand-raise Foals that have lost their mothers.

PRIZE FARMS DESCRIBED

Twenty-five of the descriptive articles, illustrated, about the prize-winning farmers in the Inter-Provincial Prize Farms Contest of last year, will be published in Farm and Dairy during the next few months. Each of thirty-one prize winning farmers have written or will write for us three essays each on their farms, some of their farm work with which they have been unusually successful. These articles are required of these successful farmers by the rules of the competition. They will shortly appear in these columns, ninety-three articles in all, being published from week to week as space permits.

CARTOONS ON A GREAT QUESTION

We have arranged for a special series of cartoons and have a number of these on hand already, which will appear from week to week, illustrating the points brought up in the special articles now appearing weekly in Farm and Dairy on that great question of "Why Boys Leave the Farm." These articles and cartoons are the result of several years of study of a great economic question in which our farmers are vitally concerned and because of which our farmers and working people are being unduly crushed and kept from their rightful own. Probably many of your neighbors would be glad to know about these articles and to read them. We would greatly appreciate your kindness if you would draw these articles to the attention of some of your friends and neighbors.

ILLUSTRATIONS AND ARTICLES

Our illustrations will be of our usual high quality; reproduced on the fine calendared paper we use, they show up almost as good as original photographs. From our articles we continue to be of that short, condensed, timely, practical nature for which Farm and Dairy is noted, and will be contributed by the most successful farmers in this country.

Space will not permit us to tell you of the many good things we will have for you this year at this writing. We will tell you of more at another time.

1912 Specials.—Beginning with February 1, we will again publish a series of Eight Special Magazine Numbers of Farm and Dairy. The list of these is as follows: Poultry Number, Feb. 1; Orchard and Gardening, Feb. 8; (Concluded on page 14)

DE LAVAL Cream and Butter Triumphs as Usual At National Dairy Show

Cream and butter produced through the use of DE LAVAL CREAM SEPARATORS made the usual clean sweep of all Highest Awards at the great 1911 National Dairy Show (including the annual convention of the National Buttermakers Association) held in Chicago October 26th—November 4th, just as has al-ways been the case since the organization of the National Association in 1892.

WHOLE MILK CREAMERY BUTTER

The sweepstakes or highest award in this case was won by A. J. Anderson, Otisco, Miam., with a score of 97.50, who says: "I have been using De Laval separators for ten years and would not think of using any other."

FARM SEPARATOR BUTTER

The sweepstakes in the gathered cream factory made butter class was won by R. O. Bryce, of the Readstown Creamery Co., Readstown, Wis., with a score of 98.33, this prize winning butter being made from the cream of farm patrons using De Laval separators exclusively.

Mr. Bryce says: "I was raised on a dairy farm, where my father used a De Laval separator, and my own separator experience covers a period of twenty years. I have found the De Laval machines everything that is claimed for them."

HIGHEST PRIZE CREAM EXHIBIT

The highest award for cream was made to Nichols Bros., Bloomfield, Ky., with a score of 98.80, who say: "If we didn't use the best separator we could not have made this record. Our experience has proved the De Laval the only separator that 'delivered the goods.'"

DE LAVAL PRODUCTS ALWAYS SUPERIOR

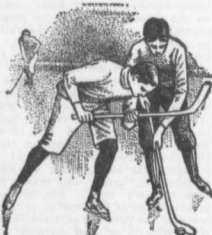
Would-be competitors are naturally forced to make many claims for their separators. But the superiority of De Laval cream and butter, as evidenced by the winning of all highest prize awards the world over for twenty years, is something so overwhelming as to be indisputable and unanswerable even by the most reckless would-be competitor.

THE DE LAVAL SEPARATOR CO.

173 William St. Montreal, Can. 14 Princess St. Winnipeg, Can.

SKATES Given Away Free

to every boy and every girl and every other person too who reads this advertisement and would like to have right now a brand new pair of skates. HOCKEY SKATES OR SPRING SKATES, which do you want? Take your choice of either kind. We will give one pair to you FREE in return for only one new subscription to Farm and Dairy taken at \$1.00 a year.



A better pair of Athletic Skates of extra quality sized and beautifully nickel plated—for only two new subscriptions.

These are elegant skates. You will be proud to own them.

See a friend or a neighbor get him to take Farm and Dairy for one year (including all our Special Magazine Numbers and Illustrated Supplements), send us his subscription and we will send your skates at once. You can have them in a few days.

We'll do our part. Send in the new subscription and get ready to enjoy the fun of having a brand new pair of bright shining skates right now while the skating season is on.

In ordering skates send the size of the boot in inches from the extreme heel to the extreme toe!

FARM AND DAIRY - Peterboro, Ont.

January 11, 1912.

Cheese Department

Makers are invited to send contributions to this department, to ask questions on any of the subjects relating to cheese making and suggest subjects for discussion. Address all communications to The Cheese Department, Box 105, Montreal, P. Q.

Dairy Production Increasing

(Continued from page 9)

address will be given in full in a later issue of Farm and Dairy.

THE BEST INVESTMENT

Prof. W. H. Day's argument for the drains is unanswerable. A canvass of Ontario shows that the drains will increase the value of crops on an acre \$25 or the average. Money can be borrowed from the government on such terms that a payment of \$1.84 an acre for 20 years will pay back principal and interest on the cost of draining an acre of land an expenditure of \$1.84 bringing \$25. Surely good investment. By means of lantern slides the address was given and the Prof. will deal fully with the benefits of the drains and methods of draining and government regulations regarding borrowed money. This address, also, will be given in a later issue.

Senator Darbyshire presided at the first evening session. Dr. C. A. Publow spoke on the subject, "Taking the Bull by the Horns." He placed clearly before his audience some of the great problems that confront the dairy industry. The hardest problems are those that develop from a business standpoint. Dr. Publow has been running a cheese factory himself this summer in Prince Edward county. By studying the business end he was able to clear \$800 more than an unbusinesslike farmer of the same size run in the ordinary manner.

TO REDUCE INFANT MORTALITY

The inspection of dairies where milk is produced for the city trade is being conducted by the Health Board and the infants that die so under one year, and 80 per cent. of those deaths are caused by bad milk. The fearful effects of feeding bad milk to infants extends to country homes.

The pasteurization of whey is another problem deserving of attention. In closing, Dr. Publow advocated that more attention be given to studying the needs of our markets. Dairymen would realize greater profits by supplying cheese of better shapes and sizes and of softer texture to the Canadian trade. Mr. J. A. Ruddlewick reviewed the dairy business of the past season. His address will be given in full.

HOW TO PAY FOR CHEESE

The chief feature of the Thursday afternoon session was an address on "Cheese and Butter Problems," by Prof. H. H. Dean of the Guelph Agricultural College. This paper will be published in Farm and Dairy. Mr. A. Zinfelt, superintendent of the Kingston Dairy School, who was to have given an address on "Butter Making" was unable to be present. This was expected that representatives of the Montreal Board of Trade and Produce Merchants' Association would be in attendance, and speak on the dairy situation from their standpoint. Daily one or two speakers following his remarks a lively discussion took place over the old problem of the best method of paying for cheese. A number of dairymen contended that cheese should be inspected in the factory, weighed and paid for at the roller door. This system is being largely followed in the Campbellford district. It is stated that it is giving satisfaction.

Against this system it was pointed out that the Montreal Produce Merchants had trouble for years through being docked for shrinkage brought by the British buyers. This had led to the making of a list of British buyers had agreed to accept the weights of an official weigher at Montreal. This weigher was appointed and his reports to Montreal, England as well as to the Montreal Produce Merchants when reselling among themselves. It was contended that the farmers also should be weighed to accept of the weight of an official weighing agent of leading dairymen stated that they had shipped cheese to Montreal for years and had received the best of satisfaction from the Montreal buyers. Others said that they had not had that experience and that the official weigher at Montreal should be appointed by the government and not by the Montreal Board of Trade. Nothing definite resulted from the discussion.

WHERE LOSS OCCURS

Three samples of cheese were shown by Chief Dairy Instructor Publow that had been brought out from England. Two were white and one was colored. Samples of official cheese had previously been passed around among the audience to taste. When the audience was asked which was the best cheese the masters showed a wide divergence of opinion. Mr. Publow compared the different varieties of cheese and showed that one, that was dry texture, would be a dangerous would not stand shipment as did the cheese we are now generally making. He claimed that as a result of his trip to Europe he had concluded that we are now making the best possible style of cheese under our conditions and that what we require to do is to improve the average quality of our make.

The next great improvement that needs to be effected is to improve the quality of the milk delivered at our factories. The Guelph reports show that in those sections where the milk is delivered to the factories in the best condition there is a saving of as much as a pound of milk to every pound of cheese manufactured. This is equal to a saving of about a cent a pound on the cheese. Patrons urge, for their own sake, to improve the conditions in which their care for their milk so that this great saving may be made.

EVENING SESSION

At the Thursday evening session addresses were given by A. D. McIntosh of Sterling, by Dr. G. C. Creelman of the Guelph Agricultural College, and by Mr. J. H. Hartington, who is doing the work the college is doing, and by Mr. J. L. Burrell, Dominion Minister of Agriculture, who expressed sympathy with some of the many farmers, told of some of his own experiences as a farmer and promised liberal aid for agriculture. The part of his address was that the convention came to a close Friday noon after an address by Mr. C. F. Whitley, on the "Present Value of Cow Testing," which address is published in Farm and Dairy this week, and after an address by Senator D. Derbyshire of Brockville, who advocated the keeping of cows that will lead a profit not of \$5 each but of \$30 each. Senator Derbyshire claimed that there were herds in the Brockville district that had averaged as high as \$80 a head profit.

CARING FOR MILK ON THE FARM

Mr. J. C. Hogan of Jersey introduced a resolution that patrons to use Mr. Barr's system of caring for milk on the farm. This resolution, which was afterwards carried, led to Mr. Barr's explanation of the system and asked to explain to the platform. Mr. Barr then stated that "Next to increasing the milk production of the average cow," said Mr. Barr, "the next most important problem we must solve is the matter

of giving better care to the milk as it is handled on the farm. It is a simple matter to give the milk good care. Have a tank, man especially for the purpose if possible, in which keep an abundance of cold water. Put your milk can in it and as each cow is milked carry the milk out and put it in the can. Change the water of the tank to insure the milk being cooled 45 to 50 degrees below to mix the morning's milk with it cool it to about 60 degrees and keep them separate as long as possible. A cooler is not required over the can to keep out dirt and dirt."

Someone in the audience asked what was the cause of "yeasty" flavor. Mr. Barr replied, "Dirt." Wherever you have yeasty flavor there are dirty people around somewhere." Mr. Barr stated that when the source of contamination could not otherwise be discovered it would help to solve the trouble were the whey pasteurized. The cost of pasteurizing amounted to 60c to \$1 a ton of cheese.

What Are Best Curing Conditions

J. A. Reddick, Dairy Commissioner, it has often been said that cheese is only half made when they are placed in the curing room. At any rate the best of cheese are seriously injured in quality if exposed to a temperature of 60 degrees, and there is from one to two per cent of unnecessary shrinkage. The texture becomes more or less "mealy" and objectionable, and bad flavors are apt to be developed.

It has been demonstrated that curing, or ripening, will proceed at very low temperatures, even below 32 degrees, but more slowly as the temperature is reduced. Extremely low temperatures are inadvisable, because, while such practice may result in an abundance of cheese, it also has the further negative effect of preventing the development of the characteristic cheesy flavor which is an essential quality of first-class cheese. The ideal cheese house is one that has the further negative effect of preventing the development of the characteristic cheesy flavor which is an essential quality of first-class cheese. The ideal cheese house is one that has the further negative effect of preventing the development of the characteristic cheesy flavor which is an essential quality of first-class cheese.

ICE FOR WARM WEATHER

A curing room with walls slightly insulated, with tight fitting doors and windows, and with a cement floor to utilize their cooling power of the earth, will ensure the proper temperature except in very hot weather. To remove the moisture which exudes from the cheese, and that which results from the reduction of air temperature, and also to ensure a proper temperature, it is advisable to provide a hot air jacket or chamber adjoining the curing room, with a provision for the circulation of air, under control, between the curing room and the ice chamber. The air is thus cooled in hot weather and the moisture which it collects is deposited on the uncovered surface of the ice.


If properly constructed, the ice chamber need be but one-third the size of the curing room in cubic capacity, assuming, of course, that the curing room is no larger than it need be.—"The Dairy Industry in Canada."

Our United States neighbors are determined to have the biggest thing in the world in all times, and now they think they have the biggest thing of cheese; but they are in grievous error. That honor belongs to the cheese makers of Ontario, and to the town of Perth in particular. The cheese that went to the World's Fair at Chicago in 1903 weighed 22,000 lbs. The biggest cheese the United States makes ever made weighed 12,360 lbs. When it comes to making the biggest cheese our Wisconsin brethren might as well go away back and sit down.

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The small trader can connect with possible customers by placing a small advertisement in FARM AND DAIRY. Our rate is 8c PER CENT AN INCL. CUMULATIVE ON SPACE in our classified columns. Send us a word, address and advertisements and send it to-day to Farm and Dairy, Peterboro, Ont.

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WE should treat our minds as innocent children, whose guardian we are—be careful what subjects and what subjects we thrust on their attention.

H. B. Thurston

The Second Chance

(Copyrighted)

NELLIE L. McCLUNG

Author of "Sowing Seeds in Danny"

(Continued from last week)

Pearl, the oldest daughter of John Watson, a O.P.B. section man living in Milford, Mass., receiving a large sum of money from the relatives of a young Englishman she had nursed when ill. She decides to educate herself and the rest of the family. The Watsons are joined by their Aunt Kate, who proves not an unamused blessing. Pearl proves an efficient and clever scholar and has dreams of being a school teacher. She sees that her small brothers are learning bad habits in the town and gives up her ambition to be a school teacher and suggests moving the family onto a farm, to which John Watson agrees. We are introduced to the children at a country school. Tom Steadman, a bully in a game of shanty, intentionally strikes with his club Libby Anne Cavers, for which he is thrashed by Bud Perkins. Libby Anne does not dare to say the blow was intentional, as her father owns Mr. Steadman money. Bud Perkins is angry, but forgives Libby Anne, as he understands the circumstances. In the meantime the Watsons are getting established on their farm. The Watson family begin to attend the country school. Pearl calls on Mr. Burrell, the pastor, and asks him to conduct services in their school house. All attend the Pioneers' picnic.

"I'd like fine to see that faded raincoat of hers," she said to herself, "and Libby's little muslin hat"; but even though Pearl saw her new and fresh, and every muslin hat had a bright and happy little face under it, instead of Libby Anne's pale cheeks and sad, big eyes.

Dr. Clay came over with a bag of popcorn for them, and Pearl told him the cause of her worry.

"They had their dinner all right," she said in a low voice to the doctor, as he leaned over the wheel. "Bill was fine, and do you know, he is real nice when he's sober. I wanted on him, and Mrs. Cavers seemed so happy; it pretty near made my heart stop beatin' every time I thought of it, and how nice it would be if he'd keep straight. Libby Anne had two licorice kittens and a package of gum saved up in a bar, she said she wouldn't eat them to-day, for she was havin' a good enough time when she could see her mother enjoyin' herself so well. Libby is only ten years old, but she knows as much as some grown-up people.

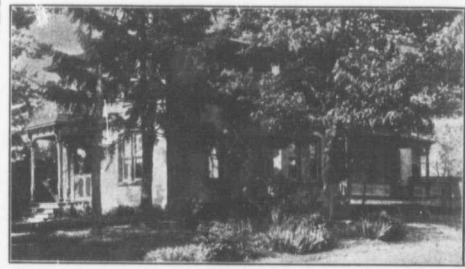
The last I saw of them, they were going up to Mrs. Burrell's to fix up a little before they had the photo taken. I think I'll go and see about them, Doctor; I can't enjoy myself for wonderin' if they're all right."

"I'll go with you," the doctor said, calling Jimmy Watson to come and hold the horse and look after the boys. "Down the almost deserted street the doctor and Pearl went, looking for any member of the Cavers family. Flags hung motionless in the bright sunshine. The trees that formed the arch over the road were beginning to droop in the heat of the afternoon.

The photographer's tent was the first place they went to. A young lady and gentleman were posing for a photo, the young lady all gone to blushes and the young man very gorgeous in tan boots and a red tie.

Pearl did the talking. "Did you take a photo of Mr. and Mrs. Cavers and Libby Anne?" the doctor asked. "What are they like?" the photographer asked.

"She is a little woman, pale and tired-looking; looks as if she sat up a lot at night," Pearl answered. "I know who you mean, then," he said. "She has been up here with her girl looking for some one,



A Farmer's Success is Reflected in the Attractiveness of his Home

Mr. F. Freeman of Oxford, Co., O., has made a splendid success of his farming. Success in farming, however, should merely be a means to an end—to make the home comfortable and attractive. Mr. Freeman has been successful in this, too, as the above illustration of his

but I do not know where she went from here."

Pearl's heart sank. "He's broke his word!" she said angrily when they were on the street. "He promised me he would not give Bill any liquor until he got his picture taken anyway." Pearl's eyes were throwing off rings of fire.

"Who promised?" the doctor asked.

"Sandy Braden. I told him all about the photos when we went there this morning with the onions and other stuff, and he seemed real nice about it; but it doesn't look as if he meant it."

"I don't know, Pearl. Sandy Braden is not a bad fellow. He wouldn't go back on his word. I'm sure of that. You go up to Mrs. Burrell's and I'll go down to the hotel and see if they know anything about Bill."

The bar-room was full. Even the lacrosse game was not a strong

enough attraction to draw away all the crowd; the products of Walker and Seagram still held their own.

Bob Steele, the bartender, was telling about Bill Cavers going to have his photo taken.

"They got around Sandy easy," he was saying; "but that's one thing I won't let anyone interfere with. As long as he was selling liquor I've never refused to sell to any man, I refuse no one. Every man has a perfect right to whatever he wants to eat or drink—I claim that for my self, and I hold that no one has a right to interfere with another man's liberty."

The crowd in the bar-room gave maudlin approval.

"And so you just bet Bill Cavers got all he wanted. He came in here soon after dinner, and the first man that asked him to drink got turned down. Think of Bill Cavers refusin' good liquor! But when he heard it bubbled in the glass his knee just wobbled—that's the beauty of sellin' our goods, it advertises itself, and works nights and Sundays. I says: 'What'll you have, Bill?' and he said: 'Bill's an honest fellow—he said: 'I've no money, Bob.' But I says: 'That makes no difference, your credit is good here—you've always paid—and so name yer drink, Bill,' and I poured out a glass of Three Swallows; and you bet, by the time Bill was ready to quit he would sure look well in a picture. I was takin' a risk of losin' money, too. Bill's honest enough, but there's a strong chance that there'll be judgment against his stuff this fall. But I've always said that a man has a right to all the liquor he wants, and I'm prepared to stand by it even if I drop money on it. It may be foolish—"

looking around for applause, but his audience were not in the mental condition to discuss fine ethical points.

"Come on, Doctor!" Pearl cried breathlessly. "You found them. You come too!" to Mr. Braden, who will take you both to carry him."

Sandy Braden hesitated, but there was something in Pearl's compelling eyes that made him follow her.

They reached the grassy slope Mrs. Cavers had made a pillow on her coat for his head, and was still bathing his face. The doctor hastily loosened the unken man's clothing, and listened to the beating of his heart. Its irregular pounding was unmistakable, it was making its last gasp for fight.

Dr. Clay took out his hypodermic syringe and made an injection in Bill's arm. Bill stirred uneasily. "I don't—want it—Bob," he said thickly. "I promised—the missus—She's—with me—to-day."

Sandy Braden endeavored to quiet Mrs. Cavers's fears. "It's all right, Mrs. Cavers," he said, "but it'll soon wear off—he'll be all right soon, won't he, Doc?"

The doctor made no reply, but listened again to the sick man's heart, as he was fast asleep.

Mrs. Cavers, looking up, read the doctor's face.

She fell on the ground beside her husband, calling him every tender name as she rained kisses on his livid cheeks, uttering queer little cries like a wounded animal, but begging him always to live for her sake, and crying out bitterly that she could not give him up.

Sandy Braden, who had often seen men paralyzed with liquor, gently tried to take her away, assuring her again that he would be all right soon. She noticed that for the first time in who it was who had come with the doctor, and shaking off his hand, she sprang up and faced him, with blazing eyes that scorched into his very soul.

(To be continued)

Emery powder and oil made into a paste is an excellent mixture to clean steel. Rub on well and polish, after which rub with an oiled rag and then polish up again with a clean cloth—D. E. S.

landed a smashing blow on the bartender's smoking face, blows that sent him crashing into the bottles behind him. He recovered in an instant, and the doctor's quick eye caught the flash of a knife in his hand as he came over the bar to him. With a swift blow the doctor knocked the knife from his hand, and grasping him by the coat collar, he cleared the bar door, and then, raising him on the toe of his boot, landed him in the middle of the mud-puddle that had been left by the morning's rain.

The bartender was just gathering himself up when Sandy Braden drove up to the stable door with his pacer.

Meanwhile Pearl had continued the search for Mrs. Cavers and Libby Anne. She was on her way to Mrs. Burrell's when she caught sight of something like a parol down in the trees where the horses were tied. She ran down to see what was going on, and there, in a grassy hollow, shaded by a big elm, she found the objects of her search.

Bill Cavers, with purple face and wide open mouth, lay breathing heavily. Libby Anne was fanning him with her muslin hat, and Mrs. Cavers was tenderly bathing his swollen face with warm ground-haste, and there, in a grassy hollow, shaded by a big elm, she found the objects of her search.

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"I'll get the doctor," said Pearl. She ran back up the road and found the doctor talking to Sandy Braden at the stable behind the hotel.

"Come on, Doctor!" Pearl cried breathlessly. "You found them. You come too!" to Mr. Braden, who will take you both to carry him."

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OUR HOME CLUB
"Another Hired Man" Knocks Again

Knocking again! Well Well Well! But here it goes nevertheless. I attended a political meeting recently. The candidates were the farmers around here elected to do them out of the United States market, that is the successful Conservative candidate, was around to tell us what fine fellows we were, what a lot he had done for him, and also what a lot he was going to do for us. As near as I can figure it out he thinks he is going to do a whole lot for us; he is going to assist in building up a united country, render safe and sure British connection and (which nobody ever believed were in danger) and incidentally cut us out of the best market in the world for the produce we have to sell. But all this is aside from the question.

What I was going to say is that while this gentleman showed up at the meeting in a long tailed coat, a white vest, etc. etc., most of his audience were attired in the same clothes which they had worn at threshing that day. Just here I must say, that the ladies have been knocking so much, that he did change his clothes, and show up in respectable attire. The most of them, however, might have been taken for tramps, and they lost in their own self-respect because of their poor clothing.

Clothes do not make a man, but they go a long way towards making a man think himself as a man, and they have a refining influence on our actions and our speech. This may seem rather a strange sentiment coming from the lips of a hired man for us are none too strong along that line ourselves, but I am just stating the results of my own observations. Those farmers that, meeting, felt that they were inferior to the well-dressed man on the platform, and were backward about going up and shaking hands with him. Had they been dressed as they could well afford to do, they could have met him on an equal footing, and he would have gone home feeling that he was representing a noble man who would have the sense to put him out of office did he not attend well to their interests. As it was, I can almost hear him saying to his wife that night, "Where was I born?" Oh, just out in the country addressing a bunch of hayseeds." — "Another Hired Man."

Something About Colds

Now that the chilly days have come there is a tendency on the part of many of our farmers and window-dwellers and confine themselves more closely in the house, and in consequence many cases of colds are contracted and the matter does it take colder weather is responsible for this is entertained. The lack of pure air in the dwelling is more often responsible for colds than is supposed by the mass of people. The first and most indispensable requisite of health or even existence is a constant supply of fresh air. How can you do it in a family of four or five persons to consume all the oxygen in a common sized room, if with the doors and windows are closed? The scientist tells us that at every inspiration the cubic inch of oxygen is withdrawn from the air and absorbed by the blood.

Now colds "happen". Yet in any home there is no ventilation whatever and if you suggest opening a window or door much alarm is manifested at the great danger of such a proceeding. The children are shut up in the room with the windows and doors closed and made as nearly

air-tight as possible, often with the under-door, with a tight dress of cutting flannel perhaps and then an abundance of heavy covers. The result is that they soon become too warm, too moist, throw off the covers and take cold. The air in such a room has an offensive odour to one coming into it from the wet air and the fumes of carbonic acid gas wholly unfit to breathe, as it is exhausted material which the tissues have rejected. Persons sleeping in such polluted air have frequent headaches, poor appetite for breakfast, languor and a general feeling of depression.

HOW TO VENTILATE
 The whole house should be well ventilated, but the kitchen and living room has a better chance to have the air changed somewhat by the frequent opening of the doors during the working hours of the day, but in no case is this sufficient. Many of the modern houses are being built with a heating and ventilating system installed, but thousands of other houses must be ventilated by the proper arrangement of windows and doors, and to reduce the danger from colds and pneumonia to a minimum breathe, as far as possible, pure air. It will require more fuel to warm a house that is well ventilated and in which the windows of the sleeping rooms stand open all night in zero weather, but it is far better to invest more dollars in needed fuel than to pay it out for doctor bills.

War

From hill to hill he harried me;
 He stalked me day and night;
 He neither knew nor hated me;
 Nor his nor mine the fight.

He killed the man who stood by me,
 For such they made his law,
 Then foot by foot I fought in him,
 Who neither knew nor saw.

He killed the man who stood by me,
 For such they made his law,
 Then foot by foot I fought in him,
 Who neither knew nor saw.

Lay hot embedded there, and yet
 Hissed home o'er hill and sea
 Straight to the aching heart of one
 Whod' wronged not mine nor me
 —Arthur Stringer.

Where Milk is Sold in Chunks

Editor, Farm and Dairy,—In the recent hot days I was thinking of some other experiences of some years ago when I was housewifery in the early days of Manitoba development. I was caused to look backward by reading the following lines:

"The children in the kitchen, Siberia milk goes to the buyer in a chunk instead of a quart. The people buy their milk frozen, and for convenience it is allowed to freeze about a stick, which is handled, not mine nor me. The milkman leaves one chunk or two chunks, as the case may be, at the houses of his customers. "The children in the kitchen, instead of buying for a drink of milk, cry for a bit of milk. "The people in winter do not say, 'Be careful not to spill the milk,' but 'Be careful not to break the milk.' Broken milk is better than spilled milk, though, because there is an opportunity to save the pieces." In the early days of Manitoba province many a day in winter did I see farmers driving into Winnipeg with a load of wood and on top thereof a chunk or chunks of milk, as it had been frozen in a can. This frozen milk being taken into the city to market.—R. T. Durham Co. Ont.

Farm and Dairy Patterns give satisfaction.

Soup Bone Possibilities

In these times, when we hear so much about the high cost of living, and especially meat, I thought Farm and Dairy readers might like to hear what you can do with the cheap cut you can buy in the meat line—a soup bone.

I always ask my butcher for a soup bone with lots of meat on it, or you might want the whole thing to cover the meat with cold water and boil for about half an hour, and then put it in my fireless cooker. (By the way, we learned how to make it from Farm and Dairy.)

When I build the fire in the evening I take the soup pot from the cooker and place it on the back of the stove, where it will simmer during the evening, and while I am getting breakfast. By this time the meat is usually in shreds. Remove it from the stock, run it through the food chopper, or mince it, add a little of the liquor, salt well, add pepper, press into a deep dish and set away to cool.

When wanted, slice, and behold, you have the best pressed beef you ever tasted! For 20 cents I get three pounds of pressed meat. I grind grates and pneumonia to a minimum, and it is very nutritious.

Sometimes, before the meat is thoroughly tender, I put it into another kettle with a little of the stock, boil it down, add potatoes, and have a nice pot roast with brown gravy. When I want mince pies I take what meat I need from the nice parts. For croquets take the pressed meat, form into balls and fry. For hash take cold potatoes, onion and pressed meat. I form mine into balls and brown them. They make a pretty dish, garnished with parsley.

For rice balls boil rice until tender, or use cold rice. Take square pieces of cheese, cold, place on each one tablespoonful of onion-half tablespoon meat, then another spoon of rice, tie up the cloth, place in boiling water and boil 10 minutes, then take out and remove the pieces of cloth. Place the balls on a platter and pour a tomato sauce over all. This is a very appetizing dish and one would never guess it was made from soup meat. The tomato sauce is made with one tablespoon flour, one tablespoon butter or meat drippings and ¼ can tomatoes. Cook until thick as cream. Add salt and pepper to taste.

Sometimes I make a meat pie. Mince meat and potatoes, form into onion and water, make a nice top crust and bake.

I have not mentioned the nice stock I have usually enough for soup for two days. The first day I have it clear, the next day add a little onion, celery tops and rice. I cook the celery stocks (the outside ones) with the meat, for one can't cook celery too long.

When I remove the meat from the liquor, to press, I skim the fat from the top and use it for shortening or for frying. After skimming the liquor add one onion, one outside cabbage leaf, one carrot, (the celery was cooked with the meat), and half cup rice (I sometimes add oatmeal for a change). I hope some readers will try these economical dishes and report how they like them. One can live well on these cheaper dishes and surely be happier than on the more expensive ones.—Mrs. W. S. Morton, Halton Co., Ont.

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Household Suggestions

Grease spots on a wall may be removed by putting blotting paper on the spot and holding a hot iron against it.

In stitching a hem in a sheet or towel it is much better to turn and stitch back an inch than to tie the threads to fasten it.

Don't throw away your old kid gloves. Cut the fingers off and give to children to slip over the ends of colored crayons which they use at school.

A dainty and inexpensive trimming for lingerie ruffles may be made by alternate rows of hem-stitched

tucks and rows of round eyelets or embroidered dots.

Aprons that are worn thin in front may be made quite good again. Rip off the belt, bib or yoke, cut the apron down the front; hem these edges, sew the other edges together, and put on belt again.

If you sew a waistbone up the back of a tape measure for the first 10 inches you will have a means at hand to rapidly measure skirt lengths and lines for trimming.

Should a poltice at any time be required where no linned meal is available, an excellent poltice can be made by boiling a few potatoes in

their skins. When cooked, place them in a flannel bag the size required, fasten the end and roll them over with the rolling pin. They are then ready for use.

Boil a cupful of rice in two quarts of water for 30 minutes. Let it stand over night and strain through cheese cloth. Soak the iron rust spots in the rice water for four or five hours and rinse in clear water. This will remove iron rust of long standing.

Rust on a stove may be removed with kerosene. Wash well with a woollen cloth wet with kerosene. Use an oil brush on the grooves and ornamental parts. Let the stove stand

a day and then repeat the washing. Finally rub dry with a woollen cloth, then polish.

When the white and not the yolk of an egg is required for use, make a small hole in the shell and let the white run out, and stand the egg in an egg-cup, which should be set in a cool place. The yolk will keep its color and freshness for some days.

Dish cloths do not get the attention they should, and in many houses are dirty and quite unfit for use. After washing up, always soap the dish cloth well and then rinse in hot water with soda in it. Rinse again in hot water and hang it in the air to dry.

THIS FASCINATING DRESS \$6.49

Just one of many wonderful values that the Robert Simpson Co. is now offering in their new **MIDWINTER SALE CATALOGUE**

that is just off the press. If you haven't received your copy, your name on a post card will bring it. But just as a foretaste, order this dress to-day---You'll be delighted with it.

We Pay All The Delivery Charges

Whether you order fifty cents' or fifty dollars' worth of merchandise from us, we pay all delivery charges on everything in this catalogue. And if you're not satisfied with what you receive, send it back in good order within seven days, and we will pay all express charges both ways. This is the Simpson simplified system of shopping by mail.

This dress is SIMPSON MADE, which means that experts designed it, experts made it in the Simpson work rooms, and more important still it was inspected the Simpson way, not one little defect was passed. We bought too many yards of the cloth and want to clear it out quickly, hence the great saving in price to you.

Misses' Sizes

Years	14	16	18
Length	33	35	37
Bust	32	34	36

Women's Sizes

Waist	23	24	25	26	28	29
Bust	32	34	36	38	40	40
Length	38	39	40	41	42	42

Order Number G90581

This attractive dress for women or misses, is splendidly made from richly finished lustrous fabric. The shoulders are made so as to give a dainty kimono effect. The prettily yoked of fine net lace is outlined with a new rolling rever and a square-designed black satin collar comes over the shoulders from the back and continues to the waist-line at front; the lower part of sleeves trimmed to match. Skirt made with correct and graceful lines, fastens at left side of front panel, which is finished with small black satin buttons. Colors, black, navy or green. **Sale \$6.49**
Price



THE ROBERT SIMPSON COMPANY LIMITED.
TORONTO

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Mrs. C. J.
A little will offer labor in not only her, but family frass of all, arrange venient. When the partial keeper miss mabe poverty. A farm should alteration apply to house, the pantry and the kitchen sage for all of heating co

The cost of kitchens be one, equi an ample affording water, and not be g single lab the farme which he another 3 years past his wife's over his o veniences most chop tent egg "wash rag of enamel dozens of lessening it is marv them may or even a much relie over-worked an outlay, husband w

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Capabl Irish n Parties Apply no ment St. Toronto

WIPE



Mud, truck, Gr Dealer will not supply order direct

Onward 1

Women in Farm Life

Mrs. C. B. Barva, Yarmouth Co., N.S. A little planning, a little utility, will oftentimes save a woman's labor...

CONSERVE LABOR INSTEAD

The cost of replacing some wretched kitchens by a decent and comfortable one, equipped with running water, an ample range with a large sink...

What wonder that the thing for which the average farm woman most eagerly craves is "a certain dependable income, however small, for the ever-recurring needs of herself, her family and the household, which can be satisfied only by a cash outlet."

What wonder that she ponders often over plans by which she may "earn money at home," or that she is so often victimized by seductive advertisements of methods by which money may be so earned?

OLD COUNTRY DOMESTICS

Capable Scotch, English and Irish maids; also Danish girls. Families raising twice a month.

Apply now. The Guild, 71 Drummond Street, Montreal, 47 Pembroke Street, Toronto, or 27 St. Utiwa St., Chicago.

WIPE YOUR FEET

Mud, snow, dust and dirt will not be tracked over your floors by the Grab's Foot Scraper. Made in Canada.

Dealer will not supply you, don't be misled. Get your order direct to the manufacturer, FRED. ONWARD MFG. CO., Berlin, Ont.

ing of more money, but for the securing of what one has already earned."

NEED LESS SACRIFICE

"One of the strongest instincts in the heart of every woman is that of self-sacrifice. Therefore, while she is still a bride, she may desire herself a sewing machine, that her husband may purchase the mower of which he is in such need; she boils her clothes in the dish-pans, and strings them by hand, that the price of a boiler and wringer may go to the purchase of tools for her husband's shop; she wears out her very best scrubbing unpainted woodwork, under the impression that it is her first duty to save money toward the final payment on the extra horse that her husband simply had to have; she economizes in a hundred sock-racking, never-wasting ways, of which, to do him justice, her husband is quite unaware; and she does it all in full faith that he will appreciate her sacrifice, love her the better for it, and that he will soon see a lin business as a firm financial basis, be only too glad to make it all up to her. In about one case in a hundred it works out the other way, and the ninety-nine cases represent the average farm household where the housewife, having begun to 'get along' without any conveniences, continues indefinitely to do so. If she would see many a labor-saving device added to the outside equipment of the farm."

The average farmer, when he marries, has no intention of bringing about such a state of affairs. He means to take good care of his wife. But, precedent and the wife's unwilling self-sacrifice make the development easy of selfishness of which he is almost if not quite unconscious. "It is not even hers, and she has as much as my own?" he asks; and he trusts aside Accusation with indifference.

EDUCATE OUR GIRLS

The remedy for these undesirable conditions would seem to lie, first, in such an education of the girl in household economics as shall give her, along with a better equipment of knowledge, a higher appreciation of her own industrial value and of the economic waste attending the doing of work in inconvenient surroundings and without labor-saving tools. Such an education will enable her more easily to impress her husband with the fact that the proper equipment of his home for up-to-date housekeeping means dollars in his pocket; in many cases, even more truly than a fuller equipment of the farm with buildings and machinery. Such an education will also qualify her to enter more understandingly and with fuller sympathy into the plans of her husband for the conducting of "the farm business as a business." Such a position once achieved, she will seldom lack "pin money" or his cooperation in making such betterments in her own special province of housekeeping.

COOPERATION IN LABOR

A second suggestion is the application, to the lessening of the farm woman's labors, of the cooperative methods which farmers are learning to use. In the employment of expensive machinery, in the gathering and marketing of crops, in the improvement of their herds, and in the making of good roads. Why should not a cooperative laundry, for instance, be "run" alongside of the cooperative creamery—a laundry where a few skilled workers, aided by machinery, may do the washing and ironing for a hundred farmwives, thus relieving the woman of what is now one of her heaviest burdens? Why not have a cooperative bakery in the same place, to the saving not only of the woman's labor, but often of cost also, especially as fuel advances in price? A further remedy may be found in the exploitation, through the Farmers' and Women's Institutes, of the improvements in house-building and equipment constantly being made, and the adoption of which by his neighbors may stir the neglectful husband to emulation. Also, the comparison of financial methods and of housekeeping, brought about by the meeting, from house to house, of the Farmers' Club, will have a beneficial effect.

Beautiful Old Women

We occasionally meet a woman whose old age is as beautiful as the bloom of youth. We wonder how it has come about—that her secret is. Here are a few of the reasons: She knew how to forget disagreeable things. She kept her nerves well in hand and inflicted them on no one. She mastered the art of saying pleasant things. She did not expect too much from her friends. She let go whatever work came to her congenial. She retained her illusions, and did not believe all the world wicked and unkind. She relieved the miserable and sympathized with the sorrowful. She never forgot that kind words and a smile cost nothing, but are priceless treasures to the encouraged. She did unto others as she would be done by, and now that old age has come to her, and there is a halo of white hair about her head, she is loved and contented. This is the secret of a long life and a happy one.—McCall's Magazine.

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THE COOK'S CORNER

Recipes for publication are requested. Those regarding cooking, recipes, etc., should be addressed to Mrs. D. W. Henshew, Editor, Farm and Dairy, 27 St. Utiwa St., Chicago.

RICE CUSTARD

Ingredients—1/4 lb. best rice, 1 1/2 pts. of milk, an egg or two, sugar, flavoring. Bake the rice: when done, add to it half a pint of milk, into which an egg or two, sugar to taste, and flavoring have been whisked. Bake very gently for three-quarters of an hour.

STRAWBERRY CREAM

Ingredients—1 pot of good strawberry jam, 3 sheets of the best French gelatine, 1 qt. of cream. Take jam, and pass through a tammy, add the gelatine dissolved in a little milk, then add the cream whipped to a froth, put into a mold, lay on ice to set. When wanted pick up mold in hot water and turn out the cream.

APPLE PASTY

Ingredients—Puff paste, apple marmalade, 1 egg. Lay a disc of puff paste on a round tin, spread a layer (about three-eighths of an inch thick) of apple marmalade over it, leaving a rim an inch wide, clear all round, form a trellis work with them over the marmalade, then put a border of paste all round over the rim. Glaze the top of the border and trellis with beaten-up egg, and bake in quick oven.

ECONOMICAL FRUIT CAKE

Ingredients—5 oz. of butter, 2 lbs. of flour, 1/2 lb. of sugar, 1 lb. of currants, 1 qt. of yeast, 1 qt. of milk to make a thick batter, 1 tablespoonful of powdered cinnamon. Mix the flour, leaving out a quarter of a pound, with the butter cut in small pieces, add the sugar, cinnamon and fruit; add milk enough to form a thick batter, and lastly stir in the yeast. Mix it over night, and set it away to rise; in the morning, add the remainder of the flour, and let it rise; when light, mould it out very lightly; oven-our your pan, and bake it in an oven as hot as for bread.

The Sewing Room

Patterns 12 cents each. Order by number and size. If for children, give age; for adults, give bust measurements for waists, and indicate whether the Pattern Dresser or Tailor is desired. Address all orders to the Pattern Dresser, 27 St. Utiwa St., Chicago.

CHILD'S KIMONO COAT AND MUFF, 7267

Muffs made to match the coats are desired for little tots this season and they are very pretty and as well as thoroughly comfortable. This coat is made in kimono style so that it is very simple and the muff is just a plain one trimmed with fur to match the collar and cuffs. For the 10 year size will be required 4 yds of material, 27, 5 yards 36, 1 1/2 yards 44 inches wide with 4 1/2 yards for banding. This pattern is cut in size for children of 6 months, 1, 2 and 3 years of age.

CHILD'S DRESS WITH FRONT CLOSING, 7276

The girl's dress is cut closed at the front has certain advantages. It may be worn by the wearer to take on and off and it is in the height of style. For the 10 year size will be required 4 yds of material, 27, 5 yards 36, 3 yards 44, 1 1/2 yards 44 inches wide with 1 1/2 yards 27 inches wide to trim as illustrated. This pattern is cut in size for children of 8, 10 and 12 years of age.

THREE-PIECE SKIRT, 7277

Every possible tummy effect is in vogue. This skirt is absolutely new. The adapted to any two contrasting materials and it is overlapped at the left side after a novel and interesting manner. For the medium size the skirt will require 3 3/4 yards of material 27, 4 yards 36, 4 1/2 yards 44 or 53 inches wide with 1 1/4 yards 30 for the trimming portion, width of skirt at lower edge 2 1/4 yards.

This pattern is cut in sizes for a 22, 24, 26, 28, 30 and 32 inches bust.

LONG COAT IN RUG STYLE, 7285

PERFORATED FOR TWO LENGTHS INCLUDING THE PATTERN OF THE BAG

This more useful garment can be found than such a coat as this one. It is available for general use and it can be made from various materials. In the illustration the entire coat is made from one fabric, but reversible rug finished with fringes on the edges, but when cloaking material can be used.

For the 36 inch size will be required 2 3/8 yards of material 56 inches wide or one and one-half yards long and 1 3/4 yards wide.

This pattern is cut in two sizes, 34 or 36, 38 or 40 inches wide for collar and cuffs.



Farming

has become a specialized business



It's no longer a "hit-or-miss" occupation, where "any old way" is good enough. Farmers are buying pianos and automobiles as never before. They're *living* as well as *working*.

The farmer has learned that it *pays* to employ progressive methods. That's why he is ever ready to receive helpful suggestions for improving his crops, his land and his home. It's also the reason that more than fifty thousand Canadian farmers are enthusiastic about our handsome book,

"What the Farmer Can Do With Concrete"

It isn't a catalogue, nor an argument for you to buy something. It is clearly-written, interesting, profusely illustrated. It describes the various uses to which concrete can be put on the farm. Not theories, but facts, based on the *actual experience* of farmers all over the continent. It is the most complete book on the subject ever published, fulfilling the

purpose behind it, which is to help the farmer take advantage of concrete's possibilities. The list of subjects covers every conceivable use for concrete on the farm. The book's actual value to you will far exceed the list price of fifty cents, but if you will send us your name and address at once we'll be glad to

Send it to You Absolutely Free

Send a post card for it---do it to-day. The book will be sent by return mail.

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OUR FARMERS' CLUB

Correspondence Invited

QUEBEC. COMPTON CO. QUE. OCOMPTON, Dec. 16.—Hay does not seem to hold out very well and dealers are beginning to shy...

ONTARIO CARLETON CO. ONT. BRITANNIA BAY, Dec. 27.—An sleighing is all gone, the market is small. Potatoes are \$1.40 a bag...

ASTINGS CO. ONT. CHAPMAN, Jan. 4.—The weather continues mild, with very little snow. They have not had any sleighing yet...

PETERBORO. LAWSDALE, Jan. 1.—Little snow makes thin dull, as this part of the county is taking a lumbering point...

BRANT CO. ONT. FALKLAND, Jan. 4.—We are busy getting in the winter's supply of wood. We have had no sleighing...

HOLSTEIN-FRIESIAN NEWS Farm and Dairy is the official organ of the Canadian Holstein-Friesian Association...

OXFORD CO. ONT. WOODSTOCK, Jan. 2.—We are having very much snow. It has been very cold for a couple of days...

ELGIN CO. ONT. PAYNE'S MILLS, Jan. 4.—The hay growers are going their rounds and the manure is the best yet...

BRUCE CO. ONT. HEPWORTH, Jan. 2.—We have just passed through a very mild December, but it has again turned cold...

You Can't Out Out A BGG STAYIN' PEPPERS ABSORBINE

will clean them of permanently, and it goes into the bladder or rectum the bag. ABSORBINE, R. G. Linnert, for sale at...

sling again. A great many farmers are taking advantage of the late fire in the elevators at Orono...

HURON CO. ONT. BLYTH, Jan. 2.—There has been no sleighing, and many are waiting for snow. There is little lumbering here...

NISSINGUS CO. ONT. COCHRANE, Jan. 2.—The weather during the past 14 days has been cold, the thermometer falling as low as 25 degrees below zero...

BRITISH COLUMBIA SIMILKAMEN DISTRICT, B.C. ALLEN GROVE, Dec. 26.—The winter has been a rather dry one, practically no snow on hillsides...

BRANT CO. ONT. FALKLAND, Jan. 4.—We are busy getting in the winter's supply of wood. We have had no sleighing...

HOLSTEIN-FRIESIAN NEWS Farm and Dairy is the official organ of the Canadian Holstein-Friesian Association...

YONGE ST. BREEDERS' SALE (Continued from last week) D-154 Favorit, 10.67 lb. milk in 11 months...

D-154 Favorit, 10.67 lb. milk in 11 months as a two-year-old, is one of the many good ones in Mr. O. Bales' herd...

Cattle Consigned by J. H. Bates. Mr. J. H. Bates is placing two cows and two bulls in the sale. One cow is Sherwood Favorit Poach...

The aged bull Mr. Bates is putting in the sale will be a two-year-old. He is the bull which at Toronto this past fall was given second place in his class...

R. F. Hicks' Consignment Mr. R. F. Hicks has consigned 15 of the best of his three bull calves...

Amongst the cows that Mr. Hicks is offering is a full sister to a record of 17,559 lbs. milk and 22 lbs. butter in 12 months...

Other cows to be sold are Verelle D Cow. May. Her dam is a full sister to "May Echo," the Canadian champion cow for official yearly work...

Eight of these heifers of Mr. Hicks' offering will be in calf to the \$1,500 bull, "Sir Lyons Hangerfeld Segis."

There is no other bull, it is said, on this side of the line, as yet, to beat this bull Sir Lyons Hangerfeld Segis...

This bull has two full brothers that are in calf to five of them. Pieterie Hangerfeld Segis, whose oldest daughters are two-year-olds...

The aged bull is a four-year-old "Manuel Kornfeld," a grandson of Sara Jewel Hangerfeld...

The aged bull is a four-year-old "Manuel Kornfeld," a grandson of Sara Jewel Hangerfeld. He was bought by Mr. McKenzie from Brown Bros. of Lynn, Ont.

(Continued next week)

HARNESS THE WIND

And make it pump your water, grind your feed and wind, run grinders, drive machinery of all kinds...



NEWMERFIVE

The best and most effective remedy for Both and other worms in horses. (Quarantined by the Farmers' Home Remedies Co. under the Pure Food and Drug Act...)

How to Completely Cure

nearly 100 diseases of farm stock is told in FLEMING'S VEST POCKET VETERINARY A.D.V.I.S.E.R.

Fleming's Vest-Pocket Veterinary Adviser. LUMP JAW. In a safe, quick, easy way. The first successful cure...

BREEDERS' DIRECTORY

Cards under this head inserted at the rate of \$4.00 a line per year. No card accepted under two lines, nor for less than six months, or 8 insertions during twelve months...

MORE MONEY IN FARMING

The Rogers Book Tells The Way FREE

WE want to see you run your farm with about half the work you do now, and at about half the money cost you pay out now. If you can do this, you get more money and live easier.

This Free Book Opens the Way to Modern Farming

That is why we are offering a free book on Portland Cement. We want to see you use hard, clean concrete fittings on your farm instead of wood that decays, burns and destroys itself and the things it shelters. We want you to see how cheap and easy it is to use concrete. This book shows how you can make these fittings and fixtures and buildings one at a time easily in your spare time. Concrete fixtures pay better than anything you can use on your farm.

Follow Big Experimental Farm Methods at Home

But we don't want you to take our word about concrete. We refer you to the Guelph Experimental Farm. Perhaps you will remember the buildings they had. If you compare those buildings with the buildings they have to-day, you will see that nearly all the new buildings are concrete. They have a reason for using concrete. It is just the same reason why you should use it. It is because concrete pays on the farm.

Wood is a Costly Drawback to Economy. But Concrete Supplants Wood

Wood fixtures are costly this way. You have to pay about \$100 to buy timber, boards and carpenter services to make a \$100 improvement on your farm. You pay out this \$100 in cash. Whatever this improvement happens to be it is liable to burn, and may burn by accident. Just by having it, your whole set of farm buildings may burn up—say \$2,000 worth of equipment.

Now, you will see how unwise that is—to put wood on your farm, especially when you have to pay its full cost in hard-earned dollars to get it built. For years and years, you have to keep tinkering at this wood to keep it in repair. Here is a constant drain on your time to keep up your place. This doesn't pay you a penny in profit. It is unwise. It is just waste—not money-making.

But concrete fixtures are quite different. They work for you in just the other direction. You can take the same \$100 wood improvement and plan it for concrete, and the concrete building is still as solid and strong in 20 years as it is to-day.

This Big Book Saves \$8 on Every \$10 Investment

To use concrete instead of wood you only pay out about \$20 for Portland Cement, instead of \$100 cash for a \$100 wooden building. You keep \$80.00 in your bank. This is worth while keeping. It is worth while knowing how to keep it. You build your improvement at a cash outlay of \$80 and you finish a building, say, that has the same size and capacity as a \$100 wooden structure you planned. It is a lot warmer. It is very clean. It is very strong. It has no framework to sag and no underpinning to rot. Once you have built that structure, your work is *absolutely done*. That building is like a rock—it is a rock, one big, solid piece of rock, smooth and warm and perfect. You haven't a better building on your farm.

Your Work is Easier and Lighter Every Day. Losses and Repairs Saved You

This concrete building cuts down the work you have to do in it. No repairing is needed at all. The structure is as good as new after 20 years as when built. Its smooth concrete floor is cleaned or swept in half the time. It cannot harbor rats or lice or disease, such as anthrax or hog cholera.

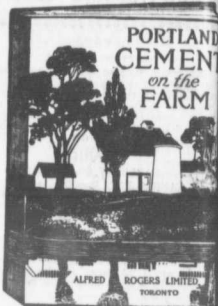
That shows you plainly how concrete can save your daily work, and prevent money loss from fire and cattle disease and vermin.

What a Dollar Will do. It Makes These

A dollar's worth of Rogers Portland Cement (given with every copy of our book) will make one of these things for you:—

- 6 10-foot Posts for 100 feet of fence.
- 40 feet of 6x6 inch Drain Tile (frost-proof).
- 6 Clothes Poles, 10 feet long (clean, strong).
- 1 Partition, 80 square feet (fire-proof, vermin-proof).
- 3 Chimney Caps (permanent fire protection).
- 1 Hog Trough (sanitary, clean, everlasting).
- 4 Door Sills (wear-proof and clean).
- 1 Door Step (permanent, cleanly).
- 2 Hitching Posts (graceful, unbreakable).
- 1 Horse Block (your name on block).
- 1 Hen Nests (clean, vermin-proof).
- 1 Pantry Floor, 40 sq. ft. (clean).

You Can Get Free Regular of Charge Rogers Price Book on Cement \$1.00



We Now Put Concrete at Your Command in This Plain, Easy, Helpful Book

This book of ours shows how, shows the way simply, with many pictures. It is written for you, Canadian farmers, so you can make concrete a build in it without buying a single extra tool. By it, you pay out about one-fifth of the value of an improvement in actual cash, and then do the work yourself in just the right way for permanent service without repairing. You get benefit for many, many years to come.

Send for Rogers Book Today. You Can Learn How to Use Concrete?

The question is, can we send you our book? We want to start you with our book, and ask you to send \$1.00 for it. \$1.00 is not kept by us, but used to buy Rogers Portland Cement, which is given free through one of our local dealers. You can make several practical, useful things of the dollar's worth of free Portland Cement. See the list we give you at the left.

Some of these things are worth as high as \$5.00. That shows you how much more Portland Cement can save you, even if it does not have a single benefit. But it has been that come back to you every day you run your farm. You prevent fire loss. You save money. You get more money into your bank account.

Send us \$1 and we send you the book, on order on one of our dealers for a dollar's worth of Rogers Portland Cement. You get two big full dollars in value for \$1.

This Big Rogers Cement Book opens way to making more money in farming. Send \$1.00 for your copy to-day.

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