

Issued Each Week—Only One Dollar A Year

VOL. XXXI.

NUMBER 20

FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

MAY 16

1912.



IT IS A WISE FARMER WHO PLANTS A GOOD ACREAGE OF INDIAN CORN

Practical profitable experience has made Indian corn one of the most widely grown and most universally popular crops of the Ontario farmer. There's a reason. Indian corn produces more pounds of digestible food an acre than any other crop commonly grown. It is the surest crop in a dry season. It affords one an opportunity to clean the land of weeds and at the same time produce a profitable crop. Made into silage it affords a most palatable and succulent feed. For supplementing short pastures, corn silage is invaluable. Progressive dairy farmers do not hesitate to put one-quarter or even one-third of their arable land in corn.

—Photo taken in Huron Co., Ont.

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BETTER FARMING AND
CANADIAN COUNTRY LIFE

Price of Advt.
Dairy & Cattle \$1.00
Per Col. 50 Cts. per line

There Is Money For You

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"SIMPLEX"

It Will Pay You
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This Large Hand Separator



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

—the new "Simplex," a most striking feature of which is that it is **light running**.

The 1,100-lb. size "Simplex," when at speed and skimming milk, takes no more power than the ordinary 500-lb. Hand Separator of other makes.

The new large capacity "Simplex" cuts the labor of skimming more than in two, because it **turns easier than most other Hand Separators**, regardless of capacity, and because it **does the work in half the time**.

The large capacity "Simplex" Cream Separators, like our other "Simplex" machines, are the **very embodiment of simplicity**.

All "Simplex" Separators have only two gears, have Self-Balancing Bowl.

All "Simplex" bearings are of the highest grade, same as are used in the best automobiles.

All "Simplex" Separators have the famous Link-Blade Skimming Device.

"Simplex" Cream Separators are noted for ease of cleaning, remarkably clean skimming, ease of running, durability —they last a life-time. Learn more about the "Simplex."

Write us for descriptive matter, giving the full information you want about this peer amongst Cream Separators.

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Head Office and Works: BROCKVILLE, ONT.

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

Prospects Are Bright

THE season, though late, has opened with a gratifying suddenness, and every indication is evident that all will be well with the crops again this season.

There will be again the usual big demand for supplies, mowers, rakes, spreaders, cultivators, harvesting machinery, etc., and paints, roofing, and those many other things which farmers buy in June.

Get your share of the good business going amongst our 15,000 Dairy Farmers by being in FARM AND DAIRY weekly now with your advertisement. Be sure to number **Farm Machinery, out June 6th** be in our next big number

SELLING

To produce is easy, to sell is more difficult—to sell at a good, fair profit is work at which we farmers may well learn to be more efficient. This Department of Farm and Dairy is conducted by a Sales Expert. Ask Farm and Dairy Questions about your selling problems; answers will be given in this column.

Making and Selling Butter

By Edward Dreier

When we lived on the farm in northern Wisconsin mother used to make butter. Mother's butter was different than mine. It had just the right taste. I was too young to know much about it then, but whenever I get home and get talking "butter" with any of the neighbors they always hold mother's as the best they ever had. One thing I can remember though, and that is the spring house where the milk and churn was kept. That place was so clean and sweet that you could not find a clean white cloth on the walls or floor and you couldn't get so much as a smut mark on it. Perhaps that was one reason why the butter was so good.

Mother used to take great pride in her butter and always had a steady market. In fact she couldn't supply all the people who wanted it. And mother got 10c more a pound than the market price. One customer paid her 40c a pound year after year, and butter sold then as low as 18c. When dad drove Dick and Dime to town some storekeeper would usually spot him before the ferry landed him on the town side of the river and would get the entire supply of good things he had from the farm. And I believe the credit will have to go to mother's butter. Dad never had to bring back any farm produce he took to town, but instead always brought his old leather wallet filled with bills—then from somewhere down in the boxes of good things he brought from town he would bring out a couple of paper bags of candies set to our youngsters by the storekeeper.

THESE ARE A REASON

There are more pure unalloyed, large, juicy curd words said about butter than about most other edibles. There are several kinds of butter, but the three principle kinds are good, bad and indifferent. There is more good than bad, but of the indifferent kind there is an enormous quantity. Butter causes a lot of trouble in homes and in business. The good wife gets some butter from her grocer or from the market and buys it in good faith. She puts it on the table and perhaps she has company for dinner. The butter is tried and there is little used. The good wife tries some and finds out that the butter is awful.

The next morning she sallies forth to visit the marketman and gives him the device for sending bad butter. He in turn blames it onto the farmer who brought it in and that, of course, is a mighty poor explanation. So the marketman loses a customer and he, in turn, refuses to buy any more butter from the farmer who sold him this particular lot, and there is a loss all around.

The farmer who makes and sells butter should be mighty sure that the butter is of the good kind before he ever attempts to place it on the market. If it is bad, for goodness sake use it at home for something. Don't try to get rid of it to someone, thinking that you are going to waste it. If you sell it 10 chances to one you will lose a customer, and the loss of that customer may mean the loss of others.

Make good butter. There is no reason why you shouldn't. And when you make good butter, make better butter. Improve your product and make it better than any other. Best home we used to pay about five cents more a pound for creamery butter than we did for "dairy" butter. One day we got some butter from a grocer that had any creamery butter "skinned a mile." We found out who made it and became a steady customer. Our custom brought others, and those people made a small fortune every year out of their butter.

SUIT THE CUSTOMER

People who make butter should specialize. They should work make butter that will sell to the customer, and trade like mother's butter old years ago. When butter is poor the maker certainly knows it. They try to sell it even as cooking butter. Use it yourself. Make and sell only good butter. Get a reputation as a good butter maker and you will find that you can sell mostly any of the farm produce without any special trouble.

And Le clean. I have talked with travellers who meet farmers every day and they tell me that some of the dairy arrangements they have seen are something fierce. One man has his separator in an empty stall in the same stable with all his cattle. He sells his cream to Toronto. I don't ask his name. These same men have told me that they have seen other cases almost as bad. No wonder the butter is bad and indifferent. Absolute cleanliness is necessary to make good butter.

About packing butter. Make it the usual "squares" if you can and get these paper packers used by creameries. Have some made with your name on and have a place to show where the butter was made.

WHY? FOR QUALITY

There is a man down in Libertyville, Illinois, who has a dairy farm. I understand it is one of the best, but not the best dairy farm in the world. A Scotchman by the name of Swift owns it. He has as fine a herd of Jersey cattle as you would care to see. Swift makes butter and lots of it, but Swift cannot begin to supply his trade. He has orders amounting to hundreds of pounds every week that he cannot fill. He serves the rich and poor alike. When his regular customers are supplied it is "first come first served." And Swift builds up his own reputation with butter. He doesn't advertise in the papers and magazines. He doesn't need it for every customer he has is worth more to him than a page of display in the big dailies of Chicago. His customers advertise his butter.

There is no reason why you shouldn't have your butter advertised in the same way. Make good butter, better than other people, and your trade is bound to grow. Make your butter so good that you can ask a higher price than is ordinarily asked for dairy butter. There is always a market for better butter and it doesn't cost enough of this better butter to supply every one. Try it and visit your trade grow.

The Canadian Pacific Railway is going to take the farmers of the West what mixed farming really means. In the three prairie provinces they establish 25 farms of 160 acres each. On each there will be provided a stable, dwelling, a milk granary, and dairy, well, and, if thought desirable, a silo, as well as the requisite farm implements, for the growth of much wheat, oats, root crops and forage as may be deemed desirable for the purpose. The farms will also be stocked with the requisite number of high grade cattle, pigs and chickens.

Issued
Each Week

Vol. XXXI.

New Different Strains of Alfalfa

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FOR WEEK ENDING MAY 16, 1912.

No. 20

A TALK ON HARDY STRAINS OF ALFALFA FOR ONTARIO*

Professor C. A. Zavitz, C. A. C., Guelph

How Different Strains of Alfalfa Originated—Tests Prove a Wide Variation in the Hardness of Different Strains of Alfalfa Under Our Conditions—Strains of Tried Merit Recommended by Prof. Zavitz.

THE whole number of species of alfalfa is quite limited. Only two need to be mentioned; viz., the common alfalfa, *medicago sativa*, and the yellow flowered alfalfa, *medicago falcata*. The common alfalfa has been grown extensively in many of the countries of the world in which the climate is not too severe. It possesses plants of an upright growth, flowers which are violet in color, and seed pods which are in the form of coils or spirals. The yellow flowered alfalfa grows wild in a number of the countries of Europe and Asia. Its use as a cultivated crop has been limited. The plants have a spreading habit of growth and are considered to be quite hardy. The flowers are yellow in color, and the pods are in the form of a crescent or a sickle.

average results of the different plots of each of these varieties show the following yields of hay per acre in each of the past two years:

Varieties	Number of Plots	Tons of Hay per acre		Aver.
		1910	1911	
Sand Lucerne	19	3.2	3.3	3.75
Grimm Alfalfa	4	3.3	2.4	2.85
Canadian Variegated Alfalfa	2	3.5	2.1	2.80

AVERAGE IS FIVE TONS AN ACRE

Owing to severe weather conditions, the yields of alfalfa hay were comparatively low in each of



VARIATED ALFALFA

Alfalfa plants are naturally cross-fertilized; hence, if plants of the yellow flowered alfalfa are grown in the midst of or in near proximity to the common variety, there is a natural crossing or mixing of the two kinds of alfalfa. The apparent use of which with natural cross-fertilization takes place explains the reason for the existence of different kinds of alfalfa plants that vary more or less in their characteristics, particularly in their color of flowers and in their evident hardiness.

Doing Two Men's Work the Easiest Way

W. H. Millar, Lennox Co., Ont., who may be here seen on his sulky gang plow, believes in saving the skin of a man and a horse when he can; especially in rush seasons of the year such as the present. In the background may be seen Prince Edward County

the two years, the average for the past 14 years being about five tons of hay an acre per annum at the Ontario Agricultural College. It will be seen that the three noted varieties of hardy alfalfa have given very similar results. When we take into consideration the results of the variegated alfalfa in both the United States and Canada, it will be another that it has made an excellent record.

Another table is here presented which gives the detailed results of the different kinds of alfalfa obtained in the United States, of the three Canadian alfalfas, the exact sources of which are known, and of the one sample of alfalfa from South America.

ALFALFA OR LUCERNE, O. A. C., 1911

Country	Strain	Tons of Hay per Acre	
		1910	1911
Peru	Peruvian	2.6	4
U.S.	Grimm, Minnesota	3.6	3.7
	Texas	2.3	5
	Utah	2.6	4
U.S.	Colorado	2.1	4
	Nebraska	2.6	4
	Montana	2.4	1.9
U.S.	Variegated, Kansas	2.2	1.2
Special	Wheeler, S. Dakota	3.1	2.5
	Variegated, Ontario	3.4	2.0
	Common Violet, Ontario	3.2	3
Canada	Variegated, Ontario	3.6	2.2

In the tabulated results here presented, we see the great difference in yields between the Peruvian and the Grimm varieties of alfalfa. Here we have a comparison in the results of a tender southern alfalfa and a northern hardy variety.

The Peruvian alfalfa, with the exception of a few plants, was all killed out in the severe winter of 1910-1911; while under similar conditions, the Grimm alfalfa survived the winter with almost a perfect stand of plants.

HARDEST ALFALFA

Of the five different lots of common alfalfa obtained in the United States, from Texas in the south to Montana in the north, the results show the influence of the winter killing to a very marked degree. The Montana alfalfa, which withstood the winter the best of these five lots, is considered to be one of the very hardest of the commercial strains of the common western alfalfa.

The two lots of alfalfa, from Kansas and South Dakota, have been noted for their hardiness in those states in which they have been tested. The sample from South Dakota gave particularly good results at Guelph, displaying hardiness to a marked degree.

CANADIAN VARIATED DESIRABLE

The three lots of alfalfa from Ontario show very interesting results, the two variegated lots coming in the same class for hardiness as the Grimm alfalfa of Minnesota and the Wheeler alfalfa of South Dakota. The two most important points, however, in connection with this experiment appears to be the superiority in hardiness of, first, the Canadian variegated alfalfa over the common violet alfalfa of the United States, and, second, the Canadian variegated alfalfa over the common violet alfalfa of Ontario.

Taking into consideration the results both in the United States and in Ontario, we have much evidence to show that the variegated Canadian alfalfa is very hardy and is worthy of special attention in the province of Ontario.

How Best to Improve the Herd

E. Leidlau and Sons, Elgin Co., Ont.

Should a man who wishes to improve his dairy herd grade up gradually or sell out and invest in pure-bred animals only? In reply to Mr. W. Payne's question in Farm and Dairy we would answer that it all depends upon the man's circumstances. If he has plenty of finances it might be best to sell and buy good pure-breds. A man in limited circumstances had better creep before he walks.

In any event we would recommend disposing of half of the poorest ones (as the average is not very high) and replacing as many with good pure-breds as circumstances would permit. If the man is just going into the business for the producing end of it he can grade up with good pure-bred bulls to get just as much milk as would be possible with registered stock.

There is in this scheme one danger. He might breed a few more poor ones in the grades. There is always danger of animals reverting back to some of the defects of their mongrel ancestors, even after several generations. With a good prepotent sire of good official record ancestry, however, the most of the offspring should do well. In our own experience with grades one bull we had never left us a poor heifer.

EXPERIMENTS CONDUCTED AT THE O. A. C.

Several series of experiments with different varieties and strains of alfalfa are at present being conducted in the experimental grounds at the Ontario Agricultural College. One series has been running for seven years, another for four years, and another for three years. As all of the particular varieties and strains which we are considering at the present time are included in the experiment which was started in the spring of 1909, the results here presented will be confined to that experiment. In this experiment, 19 plots of Sand Lucerne, 4 plots of Grimm alfalfa and 2 plots of Canadian Variegated alfalfa were included. The

*Extract from an address at the Ontario Provincial Fair at Guelph.

THE REFORMS THAT WOULD REMEDY EXISTING CONDITIONS

ARTICLE No. 19

The preceding articles in this series have been designed to show that no matter how much wealth the people at large may produce the greater part of the wealth so produced flows, by indirect but none-the-less-certain methods, into the pockets of the few. The many who create it do not profit by it except to a very limited extent.

We have discovered how to increase our production of wealth. We have not as yet discovered how to so regulate our laws that they will ensure the wealth thus created being retained by the many who create it. By means of the monopolies they enjoy and the "special privileges" they possess, "the few" are enabled to exploit "the many." From time to time they advance "rents" in our trading centres and the prices of the articles we buy. In this way the cost of living increases just in proportion as we increase the production of our farms and as the wages of our working people are advanced in our cities. This is the cause of "the high cost of living." Each increase in the "cost of living," when traced to its source, reveals this fact. Thus the reward of their labors is taken from "the many" by "the few."

OUR STATESMEN ARE AWAKENING

These conditions are becoming so apparent the leading statesmen of the world already recognize the need for action. The national governments of Great Britain and Germany have both passed laws recently that place a limited tax on land values (not on land) and thereby take back for the benefit of the many a portion at least of the millions of dollars of wealth "the many" create but which hitherto has been appropriated by "the few." In the United States, the National Government is prosecuting the trusts and combines, and the Republican candidates for the presidency, Taft and Roosevelt, are each denouncing the other as being allied with the "big interests" instead of being on the side of the people. In the United States also the Democrats, who are pledged to tariff reduction, now control the House of Representatives.

CONDITIONS IN CANADA

In Canada, Premier Borden realizes the need for legislation that will protect the interests of the many from the greed and power of the few. Speaking recently to the members of the Associated Press, at their annual banquet in New York, he said:

"It must be admitted that the vast increase in wealth that has taken place during recent years has been attended with an enormous and alarming inequality in its distribution. It cannot be denied that this inequality in its distribution is attended with a certain amount of danger or even menace to the existence of democratic institutions in their present form. No democracy is built up on an enduring foundation that fails to endow its citizens with equality of opportunity 'so far as that may be humanly possible.'"

Throughout the provinces of British Columbia, Alberta and Saskatchewan, the principle of the taxation of land values is widely in force. In Ontario, Premier Whitney, while opposing local option in taxation, has admitted that a portion at least of the land values, as they increase by millions of dollars in our towns and cities, should revert to the people at large who create them. He has said that it should be possible to pass laws that would ensure this result. Having made this admission, Premier Whitney, whether he recognizes it or not, has admitted the justice of the whole argument for the taxation of land values. Hon. Adam Beck, also, is endeavoring to regain for the benefit of the people their rights to the water powers of the province which in a measure have passed out of their control. The enthusiastic support he is receiving shows that the people of Ontario are with him in his fight.

THE CAUSES OF EXISTING CONDITIONS

In Article Number 19 it was stated that the power of the few to tax the many was due to five main causes: First, their control of land in our trading centres, the towns and cities; Second, their control of the great natural resources of the country, such as our coal and iron mines, oil wells, water powers and timber limits; Third, their control of our great public utility companies, such as our transcontinental railway systems and express companies; Fourth, by means of combines and mergers that form behind our protective tariffs and gain control of the production of many lines of manufactured articles; Fifth, by means of watered stock which helps to disguise the enormous profits made possible by the preceding four methods. We might have added a sixth method, namely, the control of our great chartered banks, twenty-five of which now, through their boards of directors, are enabled to a large extent to control and direct the wealth of the nation. This condition, also, however, like the fifth, is largely an outgrowth of the first four and will go far to right itself when the first four have been remedied.

THE REMEDIES—WHAT THEY ARE, HOW THEY SHOULD BE APPLIED

The remedies for all these conditions are being widely advocated. They have been adopted by the three great farmers' organizations of the west as a part of their platform. The Dominion Congress of Ontario has also endorsed most of them as did the great farmers' deputation that went to Ottawa in December, 1910. They are as follow:

The monopoly in land and in natural resources can be broken by a direct tax on land values. Farmers have nothing to lose and everything to gain by such a policy. Under it the people who are now making fortunes by their control of land in our cities, of our water powers, and of our coal and iron mines, would have their monopolies broken. Such land would pay more taxes than all the farm land in the Dominion. One acre of land in the business centres of cities like Toronto and Montreal, one valuable water power, one great coal, iron, or nickel mine, would then pay as much taxes as thousands and even hundreds of thousands of acres of farm and. This land and such resources could then no longer be held idle or be only partly worked to the loss of the public and the benefit of the few.

The power of our great transportation companies to exploit the people can be controlled by taxing their road beds in proportion to the value of the monopolies they enjoy through the special privileges and charters they have received from the public. As the taxes they would pay would be based to some extent on the rates they charged they would be forced to lower their rates to escape what otherwise would prove excessive taxation.

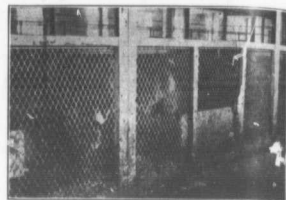
Our combines and mergers can be controlled by removing the tariffs from which they derive their strength. All tariffs in every country benefit the few at the expense of the many.

The watering of stock can be made a criminal offense and heavily penalized.

How I Plant Field Corn

Thos. Totten, Essex Co., Ont.

Clover sod well fertilized and plowed in the spring, as early as possible, is the best possible preparation for the corn crop, especially on clay loam, which we consider soil for corn. We can be destroyed better on spring plowed land the roots of the corn will go deeper, and the ground will not pack with heavy rains. When plowing for corn it is best to plow for half a day.



Stalls that are Light, Airy and Sanitary

In a wide stable, the stalls in the centre are apt to be dark, and hence unhealthy, if heavy wooden partitions are used. Our illustration shows how the difficulty is overcome in the large stable at the Ontario Agricultural College, Guelph, Ont.

—Photo by an editor of Farm and Dairy

roll the ground to hold the moisture, and then go over it with a light drag harrow in the same direction as the land was plowed. It is better to go over the land twice with the drag, going the second time in the opposite direction, and repeat if necessary.

Hand planting of the seed corn is the best way to do it; omit, but when we have many many acres of corn to plant we have to use the horse plant. Four kernels to the hill is about right with good seed.

WHY HILLS ARE PREFERRED

We prefer to plant in hills rather than in drills as we find that it takes much more work to drill than to plant in hills. Immediately after planting, if the weather is dry, we harrow, then roll the ground. When harrowing we turn at the end so the harrow will cover all the foot prints made by the horses.

If one is trying for some coveted prize for corn in the field it is better to transplant than to plant the hills that are missed. To do this we plant a few extra rows between the other rows with the hand planter. Transplanting is done with a spade. The cultivator will take out all the weeds that are not needed.

Use Cement in Road Culverts

O. D. Leach, Halton Co., Ont.

The floods here this spring have certainly tested the merits of various styles of road culverts of good shape. Our experiences have proven the merit of the cement culvert to a nicety. Wood and culverts everywhere have been washed out or partially broken down. And the cement culverts are almost invariably as good as they ever were.

We prefer round cement tile for culverts when only a small amount of water is to be handled, but where there is a large stream in the spring of the year the concrete arch will give the best satisfaction. Either of these styles may be a little more expensive when first installed, but, judged from the standpoint of usefulness for a period of years, there is no question as to their superiority.

Another phase of the culvert question that should not be forgotten is that a municipality is liable for damages if a man or horse are injured when passing over a bad culvert. With the old wooden style of culvert there is danger of a horse getting its foot down and breaking a leg.

This is a cement age, and municipal councils can make good use of cement when it comes to making good culverts on country roads.

Swarm Hives

Chas.

These suggestions who knows it they might be get two or three

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Swarm Hints for the Amateur Beekeeper

Chas. Blake, Frontenac Co., Ont.

These suggestions are not intended for the man who knows it all. They are written in order that they might help some boy or girl who has or can get two or three hives of bees.

When a swarm comes off place the new hive with swarm in beside, and close up to the old hive. Cover the new hive with an old sack, though not too tightly, for a few days until the new swarm gets settled. On the seventh day after the swarm came out remove the old hive to a new stand. This will stop second swarming and the old hive will build up for winter.

The new swarm will give much more honey when handled in this way, especially if care is taken to remove the old hive at a time of day when the most young bees are flying, which is generally at one or two o'clock on a fine day. All these young bees will go into the hive containing the swarm, and this is the skip that gives us the crop.

My Experience with Tile Drains

P. W. Scott, Huron Co., Ont.

The cost per acre of laying tile drains varies according to the situation of the land to be drained. On low flat land formerly a black ash swamp for which I first procured a good outlet I placed drains 100 feet apart, and as they were 62 rods long, could only get about two inches fall per 100 feet, starting at three feet four inches and coming up to 2 feet. These drains cost for labor, 18 cents

such an acre, as they can be made along the boundaries of farms or fields at the edge of the rising land, thus preventing the surface water from the higher levels overflowing.

As to depth of tile drains to give best results, considerable difference of opinion exists, some preferring drains close, say two rods apart, and only 18 inches deep, others three feet to three and a half feet deep and four to eight rods apart. Possibly both are right when difference of soil is considered.

In my experience, drainage has fully doubled the output of part of my land, and materially increased the production of all that I have drained. I therefore say, "Underdrain the soil where it is wet or springy, and it will pay big dividends."

How I Handle Mares With Foal

S. M. Bird, Wellington Co., Ont.

I feed my brood mares hay three times a day, clover, timothy, or mixed, but not very much, just enough to keep them eating for about an hour to an hour and a half, if they are fast eaters an hour will be plenty. A carrot is given twice a day, and oats enough to keep them covered with a fair coat of flesh.

If I have no work for the brood mare I turn her in a field once or twice a day. If the field gets soft I have a yard ready for them. Some horse men say that brood mares should not be turned out when weather is rough, but I turn them out in the greatest storm if it is not rain-

draining three and four times a day for several days. Always see that the navel looks dry and black before stopping treatment. Other points of importance are to see that the colt starts to suck and that the black manure balls come away in time.

Feeding Cows in R. of P. Tests

Andrew McInnes and Sons, Queens Co., P. E. I.

"How do we feed our cows in record of performance test?" To make a good showing the cow should have at least two months of a rest and be in very high condition at the time of freshening. We feed from six to 10 pounds of meal a day per cow when dry. If not on pasture we feed 50 to 60 pounds of turnips and what clover hay she will eat. The meal is made up of two parts oat and barley chop, one part bran and one part oil-cake meal. About two weeks before calving we drop the oat and barley chop, which is partly replaced by bran.

When the cow freshens if she is fat, as she should be, we do not feed much meal the first two or three weeks, but feed liberally of roots with a little bran and cotton seed meal. Our object is to get the cow to start some of her "surplus fat" into the pail. We do not, however, like her to get at all thin, but gradually bring her up to a meal ration of about one pound of meal to every three pounds of milk the cow gives.

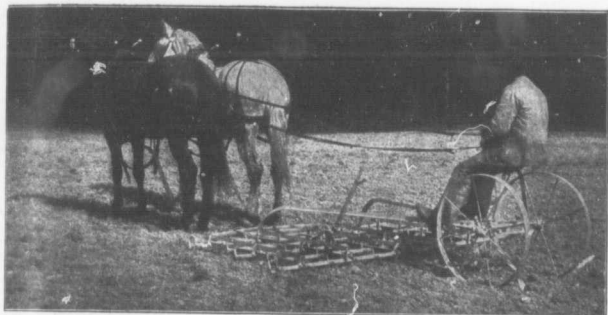
THE RATION THAT MAKES MILK.

The meal ration we use is generally made up of mixed ground grain two parts, bran two parts, oil-cake one part, and cotton seed meal one part. These proportions are varied to suit individual cows. For instance, if we see a cow losing flesh we increase the grain and lessen the bran, or if she appears to be gaining flesh, we increase the bran or cotton seed meal and reduce the grain. Our succulent foods are principally turnips and some mangels for April and May, this being the first year we had ensilage. In the morning we give the testing cows a pail of water, then milk, then feed the meal along with 25 to 30 pounds of pulped roots, then fill up the manger with straw for them to pick over. We let the cows out for a short time in the middle of every fine day when they get water, but not ice cold. There is a small feed of hay before the cows when they go in. In the evening they are milked and the same amount of meal and roots are fed. Then they get all the hay they will eat clean; clover is preferred.

When cows are milking heavy we milk three times a day, and when pushing them for a short time we divide the meal in three feeds. We consider that the most important items in making good records are regularity both in milking and in feeding and making changes either in feed or other conditions very gradually.

It has been estimated that at the present market value, there is about \$11,000,000 worth of nitrogen over each acre of land. Why should we purchase commercial nitrogen at the rate of 15 to 20 cents a pound, when we can replenish this element at a cost of about three cents a pound by growing leguminous crops?

The Wisconsin Experiment Farm has made investigations as to the comparative cost of storing feed in silos and barns. The ordinary hay mowed in a barn costs \$10 a ton of storage capacity to build. Their 100 ton concrete silo costs \$293 or \$3 per ton capacity. A ton of hay equals 21-2 tons of ensilage in feeding value, or to store the ensilage equivalent to a ton of hay would cost \$7.50, a saving of \$2.50 in favor of the silo for every 21-2 tons.



Another Important Operation Being Performed the Easiest Way

The light smoothing harrow might well be used more largely than it is. For "fining" the seed bed and for creating a fine surface much after the roller. The sulky device also is good and does not add appreciably to the draft. Out courtesy I. H. C. Service Bureau.

and for tile, 18 cents—total, 36 cents a rod, not counting hauling and load of men, costing about \$10 an acre, besides drawing tile.

On higher ground surrounding this swamp I put drains 50 feet apart, and an average of two and a half feet deep at about the same cost per rod. To the above in my case should be added the cost of the main drain, which, being of large tile, graduated from four inches to 12 inches at outlet, would probably be two-thirds of the cost of the branch drains. The land I have drained will, all told, average \$18 an acre.

QUICK RETURNS

I have been fully repaid for the cost of tiling by the increased crops of one year in some fields, and at further three years.

Except in a gravelly or sandy subsoil I consider all our land here benefited by drainage. Drained land stands dry weather much better than undrained. For large areas of flat, swampy land free from springs, open drains to carry off surface water do very well, and do not cost very

ing. Of course I don't keep them out long; just time enough to take a good run.

WORK FOR THE MARES

I groom my mares a little nearly every day. In winter I work them at all kinds of work, heavy and light, but I take care that they do not slip too much. In spring the brood mare will help to do all kinds of work. I have hauled manure all day with a mare and the colt come all right at night. It will not hurt the in-foal mare to work 'right up to foaling time if they are not driven too fast. We all know that a mare with foal is not so long in wind as another horse.

Before and after foaling I see that the mare has a good box stall with no holes in the manger or walls where the mare or colt could get caught, and that there is plenty of straw on the floor. After foaling I tie the navel cord and cut it off if it has not torn off of itself. I would sooner see it off when I come than to cut it.

I dress the navel with a dressing of one part of carbolic acid to 20 parts of water. I use this

Better Feed, Cheaper Feed More Milk, Larger Profits

with an

Ideal Green Feed Silo



The most prosperous and experienced dairymen all over the Dominion agree that a good silo is a necessary part of the dairy equipment of any cow owner who wants to realize a reasonable profit from his herd.

A little investigation must convince you that it will pay you to erect a silo.

The next question is, "What Silo?"

You cannot afford to experiment.

You want a silo that by many years of use has proved its worth.

The IDEAL GREEN FEED SILO has been longest on the market. Thousands of prominent and successful owners are thankful for the day they erected an IDEAL GREEN FEED SILO on their farms.

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

Made in all sizes and shipped complete.

Be sure and get our new Silo Book.

DE LAVAL DAIRY SUPPLY CO., LIMITED

LARGEST AND OLDEST SILO MANUFACTURERS IN CANADA

173 WILLIAM ST., MONTREAL

14 PRINCESS ST., WINNIPEG

Some Features We've Told You Little About

In our previous advertisements the big features of the Standard have been emphasized. You've heard a great deal about the Enclosed Dust-Proof Gearing—The Self-Locking System—The Centre Balanced Bowl—The Liberal Space Between Disc Edges and Bowl for Holding Accumulation of Impurities—The High Cap Shaft—The Low-lying Cam—of the

Standard



Cream separator. But there are other features that add greatly to the convenience and satisfaction of Standard owners.

For instance, there's the Wide Open Bowl so easy to get at and wash. No tubes to clog up either. Then there are the Discs which are well washed together on a disc holder in about one minute. They are numbered so they cannot be put together wrong.

Then, too, the Standard Bowl doesn't leak. That's because the bowl shell is tight without screwing down on top of a rubber ring, causing wear on the rubber and allowing the milk to leak through when the bowl is revolving.

Another good feature is the Interchangeable Clutch, which permits the Standard to run down without wear on the working parts. Note: When you stop the crank, the gears all stop and the bowl runs down of its own accord and without wear. The Interchangeable Clutch also enables you to "pump" the handle and start the machine quickly and easily.

But there are other features—many of them—told about in our booklets. Write for them. They are free to all progressive dairymen and women.

The Renfrew Machinery Co., Limited

Head Office and Works : : RENFREW, ONT.

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

FARM MANAGEMENT

Corn or Roots—or Both

N. B. Stuart, Oxford Co., Ont.

Few of us realize what a wonderful plant is Indian corn. Were a reliable seedsmen to advertise that he was introducing a new annual grass which would reach a height of seven to 15 feet in four or five months and produce under favorable circumstances from 30,000 to 50,000 pounds of green forage an acre, of which from 4,000 to 9,000 pounds are dry matter and that this grass, by providing a suitable store room, could be fed in a green state all winter and be palatable and nutritious, we would all be very anxious to give this wonderful forage plant a trial. As we have known it for so long, however, under the common every-day name of Indian corn, we do not appreciate its value as we should.

Indian corn fed as corn fodder or ensilage is the cheapest and best which carbonaceous food that can be grown on Ontario farms. As well as being a cheap food, it is the best crop possible for clearing the farm of weeds as a large acreage can be grown with little hand labor. This, in my opinion, is the great advantage of corn over roots. In these days of high-priced labor, the hand-hoeing connected with the thinning of roots, as well as in harvesting them, makes them an expensive crop when we finally have them in the root cellar. We grow 20 acres of corn and five acres of roots, and the five acres than on the 20 acres.

TWICE AS MUCH FOOD PER ACRE

But corn while being a cheap food to grow per acre, produces twice the weight of digestible nutrients as do roots. An acre of land in such a condition that it would produce 6,000 pounds digestible matter in the form of corn would only produce 3,000 pounds in the form of roots. I do not advocate leaving roots out of the rotation altogether, particularly where corn is fed dry as corn fodder. Roots, either turnips or mangels, have a succulence which is lacking even in corn ensilage. Dairy cows fed a liberal ration of roots always have hearty appetites and that soft pliable skin which indicates that they are just in right condition to do good work at the pail.

The ideal feeding is a combination of either corn fodder or corn ensilage with a small amount of roots. Where hogs are kept as a side line to dairying, mangels are a very desirable feed for pork production. Where the specialties are dairying and hogs, we regard one acre of roots to four of corn as about the right proportion.

Silage Spoils in Silo

I built a new stave silo in 1910 that was filled and kept splendidly until the following April when within four feet of the bottom, the silage developed streaks of very green mold rendering it unfit for feed. We have at present 10 feet of silage in the silo, just beginning to mold. How can this be prevented?—G. V. R., Wellington Co., Ont.

Mold in ensilage is always caused by fungus or bacterial growths that must have air before they can live. If your ensilage started to spoil from the bottom, the only explanation is that the air is getting in around the bottom of the staves.

Moistening the silage at the top would tend to prevent decay. There. As the weather gets warmer it will be necessary to use at least three or five inches a day from the surface of the silage to prevent decay. If it is not possible to remove the ensilage to that

depth from the whole surface, cut down only one-half of the silage at a time. If you wish to carry the ensilage over from now until the period of short pastures in July and August, soaking the first few inches of ensilage with a concentrated solution of salt would reduce loss to a minimum.

Enquiries re Sweet Clover

An thinking of seeding sweet clover this year on our poor land. How can I get about to prepare the seed bed? Will fertilizer help? Is there any danger of its becoming a weed?—P. P., Peterboro Co., Ont.

Sweet clover requires a thoroughly compact seed bed with just enough loose soil on top to enable the seed to be covered. When planted in cultivated fields sweet clover has failed a failure, and the lack of sold seed bed probably accounts for this. If following corn, the disc only should be used. Old spruce soil on fall-ploughed land that has been thoroughly plowed and compacted.

It is not usually necessary to apply any sort of fertilizer to the ground on which sweet clover has been seeded. If the soil is unusually deficient in lime, however, the clover will show the beneficial results of an application of 400 or 500 pounds an acre. Some clover might be better following an application of fertilizer, but always all, it is advisable to hold the fertilizer over for other crops that need it more.

Sweet clover is a biennial and, therefore, not difficult to eradicate as a weed. In those sections, particularly in the Western States of the United States, where sweet clover is almost universally grown, farmers claim that there is no difficulty in finding a field of this crop.

Lime for Alfalfa

What quantity of lime would one have to use on one acre of sandy land to make alfalfa grow?—Subscriber, Simcoe Co., Ont.

If the land is sour or deficient in lime an application of 1,000 or 1,500 lbs. of lime would remedy the acidity. A good way to apply the lime if one has not a special liming machine is to throw the lime on top of the manure in the manure spreader.

It does not necessarily follow that because alfalfa will not grow on sandy field that it lime that is lacking. If the soil is wet or it is lacking decidedly in soil fertility, alfalfa can not be successfully raised. The trouble may be that the land does not contain the necessary legume bacteria.

Valuable Book on Barn Building FREE

Write at once for this valuable book. It contains the latest and most fundamental of correct construction, all give proper construction and arrangements. It describes lighting, ventilation, stable floors and their construction, and contains information about silos, silage, exposure, appearance, cost, drainage, etc. It is a complete guide.

If you are a farmer who has a barn, or who is planning to build one, you will find in this book a number of practical hints and suggestions which will save you a great deal of money and a great deal of trouble. You will also find in this book a number of practical hints and suggestions which will save you a great deal of money and a great deal of trouble. You will also find in this book a number of practical hints and suggestions which will save you a great deal of money and a great deal of trouble.

RETTY BROS., BOX C, FERRO, ONTARIO

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J. R. Westcott
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aria to inoculate the alfalfa. In any case it would be advisable to inoculate the alfalfa seed with the culture that can be obtained for 25 cents from the Ontario Agricultural College at Guelph.

Anent Commercial Fertilizers.

J. R. Westlake, Carleton Co., Ont. "In my estimation any man that cannot keep his land in good condition and fit to grow any crop, he deserves without fertilizer or anything but the manure made at his barn had better hire out with the fellow who has brains."

I take this quotation from an article in Farm and Dairy of April 15, signed by E. R. Candie, Lanark Co., Ont. The inference from Mr. Candie's article is that those of us who



A High-Testing Holstein and a Real Good One

Lula Glaser, 6 years old, milk 4312 1/2 lbs. at 150 lbs. She gave 1,943.3 lbs. milk, 98.83 lbs. butter in 30 days. Her average Holstein herd owned by S. Lemon, Lynden, Ont. Photo taken 5 months after freshening.—(Advt.)

Wisdom on Alfalfa Seeding

Use the best seed obtainable from reliable seedmen, but beware of southern-grown seed to be sown in a northern latitude. Such plants will not, as a rule, survive a northern winter.

Use plenty of seed, don't stint, as a stand of alfalfa naturally tends to get thinner; a good thick stand to begin with is preferable in many ways. Twenty-five pounds to the acre, sown broadcast and harrowed in, is none too large an amount of seed to sow. If the seed is drilled, 15 to 20 pounds is sufficient. Do not sow until all danger of frost is past.

Why Grow Clover?

You can buy nitrogen in the form

a tendency to dry out early in the season, a good plan is to roll the field, provided always the nurse crop is not over a foot high when the leaves are straightened out. This firms the subsoil and breaks the crust, thus helping the roots and preventing evaporation. Clover sown in a cornfield as late as August 1st sometimes comes through in fair shape if the field is in good till.

If S. J. G. means that the July sun burns the young plants after the nurse crop is removed I would suggest rolling the soil as a good practice, provided the soil is perfectly dry and there has been no rain for some time.—J. H. G.

Correction.—An error occurred quoting wire fence at 10c per rod, whereas it should have read 16c a rod in the advertisement of the Imperial Waste and Metal Co., 65 Queen St., Montreal, in Farm and Dairy, Farm Improvement Number, page 9, May 2. The mistake was due to a blurred figure in the original copy.

Homeseekers' and Settlers' Trains to Western Canada

Via Chicago and St. Paul, April 16th, 23rd and 30th, and every second Tuesday thereafter until Sept. 17th, inclusive. Tickets will also be on Northern Navigation Company. Special train will leave Toronto 10:30 p. m. on above dates for Edmonton and points in Manitoba and Saskatchewan, stopping at all points on Grand Trunk Pacific Railway west of Winnipeg. Through coaches and Pullman Tourist Sleepers will be carried fully equipped with bedding and porter in charge. Berths may be secured in sleepers at a low rate. This is an exceptional opportunity for those wishing to take advantage of the remarkably low one-way Settlers' rates or through trip Homeseekers' excursions throughout the American cities. No change of cars. Secure tickets and berth reservations from any Grand District Agent, or write A. E. Duff, District Passenger Agent, Union Station, Toronto.



SYNOPSIS OF CANADIAN NORTH-WEST LAND REGULATIONS ANY person who is the sole head of a family, or any person who has no other available Dominion land in Manitoba, Saskatchewan or Alberta. The following rules appear in person at the Dominion Lands Agency, or Sub-Agent for the District Entry by proxy may be made at any of our offices on reasonable conditions by father, son, mother, son, daughter, or sister of intending householders.

Duties—Six months residence upon and cultivation of the land in each of three stipulations. A homesteader may live within five miles of his homestead on a farm of at least 80 acres solely owned and occupied by him or by his father, mother, son, daughter, brother or sister. In certain districts a homesteader in good standing may preempt a quarter-section alongside his homestead. The homesteader of pre-emption six months in each of three years from date of homestead entry (including the time requisite for each acre area.

A homesteader who has exhausted his homestead rights and cannot obtain his homestead in certain districts a purchased acre area. Duties—Must reside six months in each of three years, cultivate fifty acres and erect a house worth \$300.00.

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

1,000 Apple Trees

115 Acres \$1,600 Easy Terms.

This apple orchard will make you independent; chance to set many more apple and peach trees if desired; all conditions ideal; about 25 tops total; acre house with all of wood; 2-room slate roof shed; store house, sugar house, water shed, store house and barn; owner's built; lots of fitted wood, etc.; and taken now he will throw in complete sugar making outfit, information if this is a 75-acre fruit and potato farm for \$1,600, plus 50. Our Farm Catalogue No. 35, which is chock full of real farm bargains throughout the East. Ask for your copy today. It is free. E. A. Strout Farm Agency, 47 W. 34th Street, New York.

of nitrate of soda, and the nitrogen will cost you 18 cents a pound, or you can buy it as dried blood, and it will cost you about 16 cents a pound. A crop of 20 bushels of wheat, together with the straw, removes about 35 pounds of nitrogen from the soil. To replace this by means of commercial fertilizer, so as to keep up the fertility of the soil, would cost \$6.30 an acre.

Clover, if grown in rotation, once in three to five years, and when cut for hay, will leave enough nitrogen in its roots to keep up the nitrogen content of the soil, replacing all that has been removed by the other crops grown in the rotation; and, in addition, it keeps up the humus content of the soil, and furnishes the farmer with one of the most valuable feeds that can be grown. Field experiments, conducted over long periods of time at different experimental stations, prove conclusively the above statement.

Seeding Clover in August

Our soil is sandy here. The July sun seems to burn the young plants. In seeding clover in August, you would a cover crop be made in the soil that crop should I use. Norfolk Co., Ont.

Clover seed might possibly succeed if sown as late as August 1st; but, unless the season were particularly favorable, results are not likely to be very satisfactory. There would be no advantage in using a nurse crop so late in the season; in fact, on the contrary, it would be a decided disadvantage, as the nurse crop would retard the growth of the clover in August and September. At another time when snow came, would smother the young clover. In any case, judging by our experience here, it is seldom safe to sow clover after July 15. When clover is sown with grain or a nurse crop of any kind, and shows

are using fertilizers in our farm operations have no brains. We do not intend, however, to hire out with the other fellow as, in spite of our "brainless" methods of farming, we are making money. Perhaps making money faster than our brainy neighbors who do not believe in fertilizers.

AS OTHERS USE IT I was recently talking with a Scotch farmer about agriculture in Scotland, and some of the things that he told me about their use of fertilizer was to me an eye-opener. They use it for all their crops, even pasture grasses. They have been using fertilizers for the past 50 years, and they find that they pay and pay well. One did not seem to talk long with this Scotch friend to find out that he had brains, it is strange to say, he believed in fertilizer.

In my judgment the finest contribution to the fertilizer discussion in Farm and Dairy so far has been that of Mr. Hutcheson of Wellington Co., Ont. Mr. Hutcheson experimented carefully and found out that the application of fertilizers paid him. It was not guess work. Now when Mr. Hutcheson endorses the use of fertilizers, after careful experimental work, it is thereby proving his lack of brains? Bellevue Bros. also reported the results of careful experiments in Farm and Dairy and found that they paid. Other brainless ones.

I would prefer to credit with brains the man who, instead of condemning the use of fertilizers, finds something about after careful experimental work, draws his own conclusions. It may take a little exercise of our grey matter to work out a series of experiments with commercial fertilizers, but if we do I believe that we will find that there are few farms in this country so rich that the judicious use of fertilizers will not pay.

CHALLENGE GOLLARS WATERPROOF Save you money Stop all laundry troubles. "Challenge" Gollars can be cleaned with a rub from a wet cloth—smart and dressy always. THE ARLINGTON Lined 54-64 Fraser Ave., Toronto, Can. 2124

RAHSAH PAINTS GOING TO PAINT! (1) Do it the best way (2) In the most economical way (3) Do it thoroughly (4) Do it with paints guaranteed to look well and wear (5) In fact do it our painting With Ramsay's READY MIXED PAINTS. RAMSAY'S PAINTS give a quiet attractive appearance to your house, which stands up to its last dollar. Ask your dealer in your town.

FREE

STYLE BOOK for 1912, of "QUALITY LINE

VEHICLES and HARNESS



Save \$30

Eighteenth Year of selling direct to the User. Our Catalogue will help you to choose just the Vehicle or Harness you require, and save you MONEY. It describes and pictures many styles, gives prices. FREIGHT PAID, and fully explains our method of Selling Direct, and saving you the Middlemen's profit. Remember we pay the Freight in Ontario and Eastern Canada. The Catalogue is Free for the asking. Send for it Today.

INTERNATIONAL CARRIAGE CO.

BRIGHTON, ONT.

Heaves of Three Years' Standing Completely Cured by Fleming's Tonic Heave Remedy

So says Mr. H. B. Burkholder, Lillooet, B. C., writing about Fleming's Tonic Heave Remedy, and adds, "I also find it the best condition powder I ever used."

Heaves is not, as commonly supposed, a disease of lungs or air passages. It is due to stomach trouble, which, through the close nerve connection, causes a contraction of the lung tissues, and labored breathing.

Fleming's Tonic Heave Remedy corrects the stomach troubles, and tones up the whole system. Its cause is, the heaving stops.

As a general condition powder, Fleming's Tonic Heave Remedy has few, if any, equals. Sent, postpaid, for \$1.00 per package.



We believe this is the best heave cure ever printed for free distribution. Proves over 100 Veterinary exhibits, lettering plainly how to regulate the various diseases of the horse and how to cure them. It is free for the asking - write for a copy.

Fleming's Lump Jaw Cure—the first successful Lump Jaw Cure—today the standard treatment. Fleming's Spavin Cure—(Liquid) cures soft and semi-solid swellings without scarring. Fleming's Fistula and Poll Evil Cure—enables anyone to readily cure cases considered incurable. Fleming's Spavin and Ringbone Pastes—one or two applications cure cases of years' standing. If—no one of Fleming's Remedies fail to cure we will refund your money—you be the judge and your word to go. Fleming Bros., Chemists, 63 Church Street, Toronto.

HORTICULTURE

Orchard and Garden Notes

Sow some grass-seed on the bare spots of the lawn.

Spray the fruit trees. It is good insurance for this year's crop.

Have those fruit trees and plants ready to set them out.

Spade up the ground around the shrubs and trees, leaving about two feet of cultivated land about each plant.

Make a thoroughly fine seed-bed for sowing garden-seeds. Good preparation means less work during the summer, and better crops.

A few muskmelon and watermelon seed may be started in berry-boxes or paper cones, and transplanted to the field when danger of frost is past.

Forty pounds of pure Kentucky blue grass, five pounds of solid red top and three pounds of white clover per acre makes a good lawn seed-mixture.

Cut out the dead canes of raspberries and currants, if this was not done last fall. Burn all trimmings at once, as they are apt to contain insects.

A good annual vine, to cover up the porch, is eight-spurts, is the wild cucumber. Treating nasturtiums or morning glories in the same purpose.

Trim out the dead limbs, suckers and branches that are too close together among the shrubs. Shrubs that flower in the spring should not be pruned until they are through blooming.

Why not transplant some ferns from the woods to the north or east side of the house? This can often be done to advantage. If put on the south or west side, the wind and sun soon destroy them.

Harden off all plants before setting from the house or hot-bed to the open ground. This is done by gradually reducing the amount of water, and giving more air. It causes the plant to partly ripen up its wood, and it is thus better able to stand the change to climatic conditions outside. Plants properly "hardened off" have a dull purplish color and firm wood.

Fertilizers for Asparagus

Almost any well-drained soil with plenty of humus in it will grow asparagus, but a good rich sandy loam is best. In preparing the ground for planting it should be deeply plowed and have large quantities of rotted manure worked into it.

The asparagus grower must use whatever commercial fertilizer he has most faith in, because experimenters and growers do not agree as to what is best. Perhaps 1,000 to 2,000 pounds of kainit per acre in midseason is as good as anything. If a complete fertilizer is preferred the following is good: 400 pounds dissolved rock, 400 pounds kainit and 200 pounds nitrate of soda in early spring.

The second year a good coating of stable manure, or 1,000 pounds of kainit an acre, or both, should be applied early in the spring and the entire surface should be plowed four inches deep.

The third and succeeding years a light covering of rotted manure, about five tons an acre, should be given during the winter or early spring every year if possible, or every second year certainly. In connection

with this manure some commercial fertilizer should be used, either a complete fertilizer as mentioned below or kainit 1,000 to 2,000 pounds an acre. If manure is not available then a complete fertilizer must be used in early spring, at least 400 pounds dissolved rock, 400 pounds kainit, and 200 pounds nitrate of soda.

We Have to Spray

N. Stone, Northumberland Co., Ont. We apple growers cannot hope to raise a crop of apples nowadays without spraying. Last year our crop was clean. We had to hunt for a wormy apple. This is the only kind of fruit that commands attention as the best markets.

We use commercial lime-sulphur concentrated spray solution. A lot of our neighbors are boiling their own spray, but we have no desire to. One is never certain of the strength of home boiled lime-sulphur. What is a few dollars for a barrel of concentrate.



Her Fruits of Gardening made ready for Market

This illustration shows Mrs. D. T. N. Mitchell, of Simcoe, Ont., who has her own vines on and manages a small market garden and finds in this a source of health and considerable profit. Mr. Mitchell and her son appear in the picture.

trated commercial solution of known strength, taking a whole crop of apples through the variable home-made solution? Lime-sulphur of any kind is cheaper than Bordeaux.

We spray three times. The first spraying is given when the wood is dormant, one part of concentrated spray solution to 10 or 11 parts of water. The second spraying, just after the blossoms open, is of a strength of one to 35. The other spraying of the same strength is applied just after the blossoms fall. Arsenate of lead is added to control the codling moth.

Growing Two Crops of Celery

J. Justice, Simcoe Co., Ont.

The process is very simple, and also very profitable. The soil is well manured with thoroughly rotted stable manure in the fall, dug deep and left rough. In the spring it is well pulverized with a digging fork and nicely smoothed. This is done just as soon as possible in the spring and drills of spinach sown four feet apart. I make the drills with an eight inch hoe drawing it flat so as to get a wide a drill as possible. The seed is scattered in this and raked in. The crop is immense.

Between the spinach rows I sow a little fertilizer and work it in with a narrow scuffler, going over the ground twice before setting out the celery, which is planted on the bed about the middle of May, or later, oftener later than otherwise. This crop is blanched by hilling up, and is ready for market about the middle of July. The trenches formed by hilling the early celery are fertilized, prepared and planted with late celery. I had some loss this year by the celery running to seed, but it does not often happen. I would be very grateful if someone would tell me how to prevent this.

As soon as the spinach is out the roots and remnants are dug in and rotted before the earth is needed for hilling.

POULTRY

How

The primary object in the preparation of the poultry is to get the very best quality of food.

Mix one part with from 10 to 15 parts of water with this dilution. In such a character to make it of the liquid.

Do not wash the only one the air has to do it with the water.

Pack the egg wooden legs, solution in the eggs. No one was exposed to them.

The packed eggs can be stored them fresh eggs. So for any length of time, and the eggs which are fresh.

Do not wash them. Wash the shell the mucous.

FOR SALE

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ORRINGTONS, Black Minorors, eggs—HARRY

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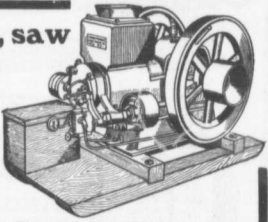
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POULTRY YARD

How to Keep Eggs

The primary principle to be observed in the preservation of eggs is the protection of the interior from contact with the air. The most effective way of doing this is to immerse them in a water solution of sodium silicate, usually known as "water glass." Sodium silicate can be obtained from any druggist at from 45 to 60 cents a gallon. One gallon should be sufficient for about 50 dozen eggs.

Mix one part of the sodium silicate with from 10 to 12 parts of water. Some water glass is so thick that, with this dilution, the eggs will float. In such a case, add enough more water to make them settle to the bottom of the liquid.

SMALL DETAILS BUT IMPORTANT
The only clean water from which the air has been removed by boiling. Be sure that it is cold before mixing it with the water glass.

Pack the eggs in a jar or clean wooden box, and add the preserving solution in sufficient quantity to cover the eggs. No part of the shell should be exposed to the air.

The packed eggs should be kept cool. A cellar is the best place for storing them. Pack only strictly fresh eggs. Stale eggs will not keep for any length of time under any conditions, and they may affect the fresh eggs which are packed with them. Do not wash eggs before packing them. Washing removes from the shell the mucilaginous coating which

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ORPINGTONS, Black, Buff, Golden, Blue, White, Brahma, Dark Brahma, Black Minorca, Hamburg, stock and eggs—Harry Lush, Peterboro, Ont.

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EGGS FOR SALE

S.C.W. Lehigh Eggs, Ontario Agricultural College brood-lay strain. Per 15, \$1.00; 50 or more, \$5.00 per 100. **OSKACA PRODUCE FARM, Auburn, Ont.**

EGGS FOR HATCHING

Pure-bred, White Wyandottes, Guide Strain, and White Leghorn eggs, \$1.25 per full and one Puller and Cockerel for breeding purposes at lowest prices. **HUGH MCKELLAR, TAVISTOCK, ONT.**

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Famous Bookers and Gurney Strains, \$1.50 per 15. **David A. Ashworth, Maple Grove, Ontario.**

WHITE ROCKS, ANCONAS, BLUE ANDAUSTRALIANS.

A limited number of settings of Eggs from my pure bred and heavy laying strains of the above breeds.
Price, \$1.00 per setting of 15 eggs
W. E. PARENHAM, NORWOOD, ONT.

EGGS & BUTTER

Ship your New Laid Eggs and Fresh Dairy Butter to us.
PROMPT RETURNS
EGG CASES SUPPLIED

Established 1858
The DAVIES Co. Ltd.
Wm. DAVIES Ltd.
TORONTO

nature provides for their temporary preservation.

RETAIN FRESH FLAVOR
Eggs preserved in this way retain their original fresh flavor perfectly; they are not discolored, the yolk retains its normal consistency for several months.

Other methods of preservation, though less satisfactory in their results, will keep eggs for from three to four months in such condition that they may be used for cooking purposes. A preserving mixture which has given fair results is made up of 3-4 pounds of fresh lime mixed with 43-4 gallons of water. The whole dissolved in eight gallons of water.

Eggs may also be preserved fairly well for a few months by packing dry in a mixture of equal parts salt and sawdust.—R. M. West.

Exercise for Brooder Chicks

In the rearing of chickens in brooders the best method of feeding is that which will promote exercise. For the tendency with these artificially raised birds is to mope and idle away their time, to eat too much and sleep too much, and not to take nearly enough exercise. The value of exercise is that it develops every muscle of the body and promotes rapid and healthy growth. It also keeps up the circulation and causes the chicks to breathe freely and thus to develop the lungs, and, finally, it strengthens the digestive organs and keeps them in order.

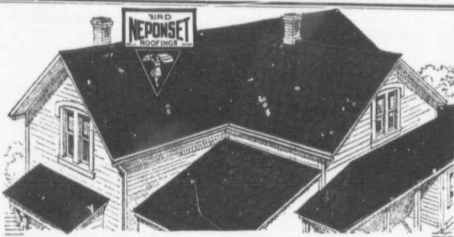
Exercise cannot be taken in the sleeping compartment of the brooder, and the place for it is in the run. This should be ample for the number of chicks. The floor of it should be clean and well littered with a light scratching material, in which the attendant should bury small seeds of various kinds to the end that the chicks may spend most of their time searching. Probably the best kinds of litter are chaff and hay seeds, together with the dirt and the sweepings of the hay lofts. Most farmers have plenty of such materials at hand, and this is the way to utilize them to advantage. The chicks should be fed largely or entirely on dry stuffs, and every particle of this kind of food should be buried in light litter of the kind described or something similar.—Irish Homestead.

Fowls have Indigestion

I have had several hens die through their food not passing out of the crop. Even when not fed, the crop remains full and hard. What is the trouble? What should I do?—A. A., Chateaugay Co., Que.

Your fowls are suffering from acute indigestion in the shape of being crop-bound. A despondent or a state of things. We have had a restoration is more obstinate the bird is made to swallow a small quantity of moderately warm milk; then an effort is made by working the crop to bring up the mass of food. Half a teaspoonful of bicarbonate of soda is administered dissolved in about a table-spoonful of water which often succeeds in causing the food to be thrown up.

If these remedies fail resource may be had to surgical treatment. In that case the food is extracted by means of an incision in the crop, the feathers on the upper right-hand side of the crop must be first plucked off. An incision about an inch in length is then made through the skin and membrane of the crop. This makes it very easy to get at the food. A suture is then made, preferably with silk thread, from inside outward, and the seam is smeared with a little lard. The wound heals in eight or 10 days, during which mash should be fed in small quantities.



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- Here are a few it will pay you to have:
- "Clovers and How to Grow Them," by Thos. Shaw \$1.00
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 - "Farm Dairying," by Laura Ross \$1.50
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 - "Rises, Bindings and Silages," by Manly Miles 50
 - "PROTECTION OR FREE TRADE," BY HENRY GEORGE 5 Cents

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After years of scientific research and experimenting, we have succeeded in finding a preparation that will rid domestic animals of flies, mosquitoes and other vermin that not only worry them but positively injure their health.

Cow Comfort is the most powerful insect destroyer and exterminator lion, ticks, fleas, etc. Its curative effects are simply marvellous in cases of skin diseases, scabs, tetter, etc.

Sold in gallon cans at \$2.00 each, but as the contents of a can are to be diluted with four gallons of water, it makes the price really 50 cts. a gallon.

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FARM AND DAIRY, Peterboro, Ont.



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**Stock of Known and Proven Production
WILL BE SOLD AT PUBLIC AUCTION
At My Farm, near WESTON, Ont.**

Thursday, May 23rd, 1912

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

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

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

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

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

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

THOS. HARTLEY, Downsview, Ont.
 (Downview Station Near Farm) (Two Miles from Weston, Ont.)

Riggs at Central Hotel, Weston, from 9 to 12 on day of Sale. Cars run every 20 minutes between Toronto and Weston.



Audels Answers on Refrigeration (2 Vols. \$4)

This is a well-timed work which explains in plain language the practical selection of refrigerating machinery and the many rapidly extending applications. It gives in detail all necessary information complete with illustrations on the practical handling of the machine and apparatus in use today.

To make the work an easy guide for careful study and ready reference the subjects are arranged in the form of "Answers," giving in plain language all the information requisite for successfully and economically operating a plant of any size.

Audels Answers on Refrigeration are in every way up-to-date, both contents and the manufacture being generously good. The two volumes contain 300 pages, strongly and handsomely bound in black cloth, with gold edges and titles. They measure 5 1/2 x 8 1/2 inches and the two weigh over four pounds. Price \$4. Delivered to any address. So certain is we that this work will please you, that we will send it subject to examination. We take all risk in pleasing you.

FARM AND DAIRY - Peterboro, Ont., Can.

Notes on Cooperation

Cooperation means the union of the efforts of a number of people for their common good. Successful cooperation just like successful home life, requires, on the part of each individual interested, more or less forbearance and some modification of one's ideas of absolute individual independence, but it is worth while.

Many advantages can be secured, through cooperative breeding, that the individual cannot afford. Better sires can be secured; sires can be proved as to worth, and after a few years of operation only sires of known value need be used.

Cooperation is one of the great forward movements in the country today. The best example we have of cooperation is that of the family. In the family we find all individuals working for the common good. Of course, it is impossible to carry this ideal relation to all of one's neighbors; but the more nearly this same feeling of helpfulness and generosity can be duplicated, the more successful will a cooperative enterprise be.

A careful study of the situation in-

dicates that cooperative laundries in connection with cooperative creameries may reasonably be expected within the next few years. It appears that the total cost of a laundry equipped to wash and dry all of the clothes of from 100 to 300 families need not exceed \$3,000; and that the total cost of operating such a laundry, including 10 per cent depreciation, six per cent interest, fuel, labor and loss of clothes need not exceed \$3,500. If such a laundry were serving 150 families, the cost would be approximately \$24 per family per year, or 50 cts. a week. Subtracting from this the cost of fuel, soap and machines, now used doing the washing on each farm, it would seem that the amount the women of the farms now save by their heavy labor in washing is ridiculously small, only \$10 to \$15 per year for the average family.

Cooperative marketing of eggs is another branch of cooperative effort that has given very satisfactory results. Mr. Alfred Carlstad, of Dassel, in describing the workings of a United States egg association, has the following to say: "I started the association with 60 members; we now have 80. During the first eight months the association has handled 22,000 eggs. It has paid for these \$3,480, or 22 cents a dozen. At the regular market, the same eggs would have brought approximately \$3,500, or 17 cents a dozen; a difference of \$1,540; \$1,300 divided among 70 farmers equals \$20 for each. So each member has received \$22 for going to the small expense and trouble of placing a better quality of eggs on the market."

Why Milk Doesn't Churn

We have great difficulty in churning the cream produced by our own cows? Why is this? How can the trouble be remedied?—M. M. J., Dufferin Co., Ont.

It is a common difficulty where only one cow is kept, not to be able to get butter. The usual remedy is to get butterize, that is, as soon as sufficient cream is collected for churning, set the cream can into another can of hot water, or heat the cream to a temperature of 160 degrees and allow to stand for about 10 minutes, then remove from the hot water, and cool by setting the can into a can of cold water. When cooled to about 70 degrees add one pint of good flavored sour skim milk, or buttermilk, preferably gotten from a neighbor who makes good butter, for each gallon of cream. Stir this well through the cream, cover, and allow to stand in a comparatively warm room for about 20 hours, when it should be ripe and ready for churning. Churn at about 72 to 74 degrees and the butter will usually come alright.

Sometimes it is necessary to give the cow about a pound and a half of epsom salts, in the form of a drench.—Prof. H. H. Dean, O.A.C., Guelph, Ont.

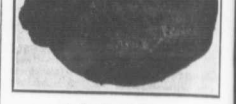
Control of Insect Pests

The Division of Entomology of the Experimental Farms Branch, Ottawa, has recently issued a bulletin by Dr. C. Gordon Hewitt, Dominion Entomologist, on "The Control of Insect Pests in Canada."

An account is given of the history of the war against insect pests in Canada and of the manner in which insect pests have invaded the country and it has been gradually opened up and cultivated. The manner in which the Dominion and Provincial governments are endeavoring by legislative and other means to prevent the introduction of insect pests into Canada and the increase and spread of those pests already here is described. Copies of this publication, Bulletin No. 9 (Second Series) Experimental Publications Branch, Department of Agriculture, Ottawa.

Potato Canker

The introduction of Potato Canker would cause serious loss to the farmers of Ontario. A careful scrutiny of the seed potatoes should enable one to detect the presence of the canker. Badly cankered tubers can be noticed at a glance, as they are misshapen and completely covered with warty excrescences. Badly diseased potatoes, however, are not likely to be



A Cankered Potato

found in the seed, but tubers, which are only slightly affected and which a casual glance appear sound. These may be detected by examining the eyes, which will be found to be slightly protruding and composed of clusters of little nodules. The accompanying photograph shows the disease fairly well developed at one end of the tuber.

Potato canker is now found in England, Ireland, Scotland, Scandinavia, Germany, France, Italy and Newfoundland. On account of the shortage of the potato crop in Ontario last year, large quantities of potatoes are being imported, especially from Great Britain. The danger lies in the planting of imported potatoes infected with the canker. Farmers should make a point of knowing the source of the seed potatoes; they are caring and of making a careful inspection for any signs of canker before planting. Suspected potatoes should be sent to Mr. H. E. Gussow—Botanist, Dominion Experimental Farm, Ottawa, or to the Botanical Department, O.A.C., Guelph, for examination and report. On no account should any suspect potatoes be planted until a report upon them has been received.

The Dominion Government has decided that it will take two men to fill the place made vacant by the retirement of Dr. Rutherford, one of whom the administration of the veterinarian and most inspection branch, and the other the live stock and records branch. Mr. J. E. Brothour, of Burlington, Ontario, is to be appointed Live Stock Commissioner and head of the live stock records branch. The appointment, it is reported, will be made shortly.

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SWINE DEPARTMENT

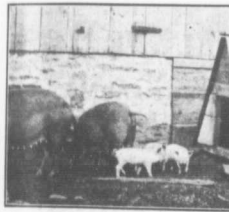
Our readers are invited to ask questions in regard to swine. These will be answered in this department. You are also invited to offer helpful suggestions or relate experiences through these columns.

Facts About Pigs

F. O. Morse, Halton Co., Ont. Common sense is the biggest element in successful pig feeding. No animal has more likes and dislikes than the average pig, and we must cater to them if he is to do well for us.

Keep the hog dry and clean. This is a greater factor than the feeding. I have seen men feed much more than I do, but as the pigs were in dirty quarters they did not thrive. Half the feed will make a better hog in dry, clean quarters. It means comfort, and comfort means gains.

I prefer spare feeding to excessive feeding. If the troughs are not thor-



The Kind of Management that Brings Success with Hogs

Well bred hogs kneed and fed at a minimum of expense are found to be profitable on the farm of W. J. Tidford, Peterboro, Co., Ont., a competitor in the last Farms Competition. Notice the cheap portable hog house. It means little, is easily constructed and makes ideal quarters for either brood sows or growing hogs.

oughly cleaned up at one feeding I would not give the pigs a bit to eat the next meal time, and at the next meal time they will come round hungry and squealing. That's the way to have them. Once pigs are within two weeks of the finish there is little danger of ever feeding too much, give just all they will stand.

In every bunch of hogs there is always sure to be two or three bully pigs that get more than their share of the feed. These pigs, to my mind, explain the unevenness in a litter more than natural tendencies inherited at birth. I would take out the pigs that are too aggressive, and put them in a pen by themselves.

I believe in elevated sleeping quarters both for breeding stock and market hogs. Such quarters have a double advantage. They enlarge the pen, giving full use of the floor space, and the pigs are always dry.

I prefer above all others a cross between the Berkshire and Tamworth or the Yorkshire and Berkshire. Such a cross makes an easy feeder and a good bacon hog.

Don't Overfeed the Pigs

Many farmers who never think of giving their horses or cows more than the animals will eat, and who will, when it comes to feeding the pigs, give them more than they will eat. Of course overfeeding is not good feeding. A pig fed in this manner will soon lose his appetite and thereafter it will not do his best. A safe rule in pig feeding is never to give more than

the animals will eat up clean and quickly. Feed will be saved by this method of feeding and not nearly so much risk will be run.

It is not the amount of food that an animal takes into its stomach that causes a gain in weight, but the amount that is assimilated, and when we overfeed we injure the stomach and a large part of what is eaten is not assimilated by the animal. This excess food is worse than that wasted, for it gives the animal a set-back from which it does not speedily recover.—P.

Be Sure of Title

"There is altogether too much looseness in the methods in which farm lands change hands," said a real estate dealer to an editor of Farm and Dairy recently. "I have had several pieces of farm property on my hands recently that a little investigation showed did not legally belong to the man who was offering it. For instance, one one of the last farms I handled it was discovered that some 10 or 12 years back, the deed of transfer had not been signed by the man's wife. She therefore had a claim

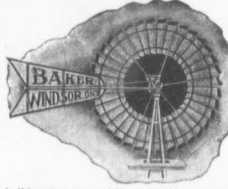
on the farm, and the most recent purchaser, and he was the second or third, had to make her claim good to the extent of several hundred dollars.

"We have come across several cases such as this where, due to carelessness in drawing up deeds, honest purchasers of property have been subjected to a great deal of worry and sometimes to a great financial loss. Before buying property it is wise to be sure that the seller has a clear title to the estate. A few dollars paid to a lawyer for investigating the title, if you are not in a position to do it yourself, is money well spent."

Farm and Dairy is one of the cleanest and brightest periodicals that enters our home. It is full of practical hints and information, and is conspicuous by the absence of trashy and unreliable advertisements.—St. Clair Adolph, Perth Co., Ont.

RELIABILITY

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ball-bearing turntable and self-regulating device. All working parts covered with a cast iron shield, thus protecting same from ice and sleet. We make a full line of steel towers, galvanized steel tanks, pumps, gasoline engines, etc. Write for catalogue. THE HELLER-ALLER CO. Windsor, Ontario

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held according to the new specification make a roof absolutely weatherproof and impervious to the fiercest attacks of lightning. Consider what this means to you and write for your free copy of this book at once. Metal Shingle & Siding Co., Ltd., Preston, Ontario.

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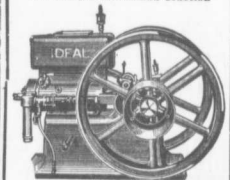
Send me, FREE and POSTPAID a copy of the new edition of "TRUTH about ROOFING," and tell me how to protect my buildings against lightning.

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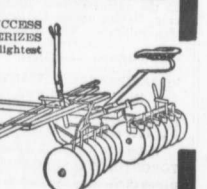
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Do the gangs on your Harrow crowd together and raise out of the ground if it is hard? They won't do this on the "Bissell." The "Bissell" is designed that THE GANGS CAN'T CROWD OR BUMP together no matter how hard the ground may be. Tough soil won't stick the "Bissell." It stays right down to its work and pulverizes the ground thoroughly. We ask you to take a "Bissell" out into the field and test it beside other Harrows. Then you

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

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



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

Dyer's Big Cut in Lawn Fence

Over 100 pickets.
Crimped No. 10 wire, 2 1/2 inches
square mesh, 1 1/2 inches
north. Galvanized finish. Bands
and corner. From per foot
50 in. 71 in. 81 in. 91 in.
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Painted fence, green or white, and 2c. per foot to above prices. Scroll top walk gates to match. \$3.00. Drive gates 26.50. Tripartite fencing for every purpose directed from factory and save you a big money. Satisfaction guaranteed or money refunded. Remit money order (any kind) or registered letter.

DYER, The Fence Man, Dept. 1, Toronto

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Any size with the London Adjustable Silo Curbs. Send for Catalog. We manufacture a complete line of Concrete Machinery. Tell us your requirements. **LONDON Concrete Machinery Co., Limited** London, England. Largest Manufacturers of concrete machinery in Canada.

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Corn's Advantage

W. C. Palmer

Corn has an advantage over the small grains. Its growing period is during the warmest part of the year. The soil is then warmed up. The results in more plant food being made available. The days are then the longest and the sun shines the warmest. All these things are needed by a plant to make growth. From this it becomes plain why corn should produce more food on an acre of land than a crop that does not take advantage of the whole growing season.

Corn has another advantage, and that is that its nature of growth is such that it can be cultivated. Many may think that this is a disadvantage. The cultivation kills weeds and keeps the moisture from escaping. While corn uses as much moisture as a grain crop the cultivation given it reduces the amount of moisture that evaporates from the soil—in this way making the corn crop a moisture saver.

The corn crop has the advantage of season of growth, enabling it to produce more per acre than the grain crops, and the advantage of lending itself to being cultivated, which saves moisture and kills weeds, making it both a good producer and a crop to prepare the land for other crops.

Potato Scab

Potato scab is one of the easiest diseases to keep under control. The method usually employed is to dip the seed potatoes in some disinfecting solution. Two kinds are used, the formaldehyde solution and the corrosive sublimate solution.

THE FORMALDEHYDE TREATMENT
The formaldehyde dip is prepared by pouring a pint of 40 per cent formaldehyde into 30 gallons of water. Dipping the potatoes in this solution for two hours will destroy the scab. Thirty gallons of the mixture will treat about 30 bushels of potatoes. It can be renewed by adding new mixture made up in the right proportion as the old is used up, but it is probably best not to use less than one gallon of the solution to each bushel. Large amounts of mud should not be allowed to accumulate in the barrels. The barrels should be kept covered.

While the formaldehyde solution is somewhat poisonous, if taken internally, it is far less deadly than the corrosive sublimate solution, and is also, on account of its peculiarities, less likely to be taken by mistake. If ordinary precautions are observed, there is very little danger of any person or animal being injured through its use; and from the standpoint of safety, this remedy is vastly more desirable than the corrosive sublimate solution.

THE CORROSIVE SUBLIMATE TREATMENT
The proportions for the corrosive sublimate solution are four ounces of corrosive sublimate to 30 gallons of water. The corrosive sublimate should first be dissolved in about a gallon of hot water before pouring it into the balance of the water required. Dipping the potatoes in this solution an hour and a half will kill the scab on the tubers.

This dip does not lose strength as the formaldehyde dip does; and may, therefore, be used almost indefinitely. The barrels, or whatever solution is used in, should be kept securely covered, to prevent the evaporation of the water from the solution, which would make it stronger, and to prevent animals from drinking it.

DEADLY POISON

Corrosive sublimate is one of the most deadly poisons known. It must be kept out of the reach of children,

and its use must be most carefully guarded, to prevent animals from drinking of the poisonous solution or eating the treated potatoes. On account of the danger associated with the use of this remedy, the formaldehyde dip is generally far more desirable.

Ordinary 50-gallon barrels are convenient for dipping. Any number may be provided, according to the needs. One barrel should suffice for handling from 12 to 20 bushels a day. It is usually most convenient to put the potatoes in sacks for dipping in the barrel containing the solution. Potatoes must be cut and planted soon after dipping. If not, they should be spread out to dry.

Tile Drains—Early Seeding

John Fixter, With Commission of Conservation, Ottawa, Ont.

When I visited Essex County recently the farmers were plowing their well-drained lands. Other farmers in the same neighborhood who have not yet caught the tile drainage fever were sitting around wondering when the water would dry up and allow them to get in their crops.

The beauty of it is that the farmer who has drained land is conserving that moisture for the use of his crops later on when the other farmers were waiting to dry out and be carried away into the atmosphere. We all know that moisture conservation is one of the principal factors in successful crop production. Waiting for soil moisture to be carried away by the sun is certainly poor management.

If the farmers of the more easterly sections had been able to visit Essex early this spring and had seen the advantages of tile draining in earlier seeding, there would soon be tile yards over every county in Eastern Ontario.

Breeding Crippled Mares

All crippled and "heavy" mares should be bred in the fall of the year, soon after the hot weather has passed. This will bring the foaling time of the crippled mare in the fall of the year, and not cause her to carry a heavy fetus through the winter and make it difficult for her to get around. It is usually all a crippled animal can do to skirmish for feed, without having an extra heavy body to interfere with her locomotion. Many horses are loose together during the fall and winter, and if the crippled mare is not active, she is very liable to be kicked or hurt to the extent that abortion would occur. On the other hand, if a mare delivers a colt in the fall of the year, the owner will take care up and take good care of her because it will be profitable for him to do it.

A CASE OF ABORTION

Occasionally a "heavy" mare will fertilize during the spring season and carry the fetus to maturity, but many of them are fatigued during the hot weather to the extent that an abortion is the result. After one of these mares has lost a colt or two it is very difficult to get them to carry a colt to maturity, but if they are bred in the fall, and shown to be in foal the following spring, the owner usually feels that it will be better to turn the mare out to pasture where, if she is not interfered with, she will probably carry the colt to maturity.

There are a lot of crippled and "heavy" mares bred in the spring from two to three times that get absolutely no results whatever. These same mares can be put off and bred in the fall with good results. Some of them will need treatment and be treated with the iodine treatment and turned out to grass, and bred in the fall.—American Breeder.

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Save Time Money and Bother

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Want information as to **BEST FARM LANDS IN CANADA?**

Write the Secretary, Central Alberta Development League, Edmonton, Alberta, for Illustrated Booklet F D descriptive of

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Land sold cheap. Free land in some districts. No irrigation, no "Dry Farming."

INTERNATIONAL HORSE CLIPPING

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Cures Horses While They Work or Rest

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Wherever you find well kept horses you will see a Burman's Horse Clipper. It works so easily and quickly a silk-like finish. It is simple, durable and will last a life time with regular going wrong in adjustment.

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Comes packed ready for use. Clipping plate and shut back for holding clippers. Hand supplied.

Ask your nearest dealer or write direct.

B. & S. H. Thompson & Co. Ltd.
MONTREAL

Cooperation of George Keen Cooperati...

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Cooperation the Economic Hope of the Farmer

George Keen, Hon. Secretary, The Cooperative Union of Canada, Brantford, Ont.

This new land was settled by men who sought to escape the old feudalism; the monopoly in land, the power to tax industry without labor.

Within the last two generations a new land has gradually developed of more far-reaching than the old, the feudalism of money. Vicious as was the old feudalism, it was less dangerous owing to the sense of individual responsibility of landowners and the fixed circumscribed nature of the monopoly.

The new feudalism, on the contrary, is impersonal and therefore, irremediable. It is illimitable in its operations because of its more fluid character. The new feudalism depends for its success upon the elimination of competition and the cooperative activity of a few people who control money and, through the same, every line of industry.

TAKED ON ALL SIDES By an arbitrary authority, alien to his industry, the farmer is taxed on the commodities he produces. He is taxed in a similar manner when he seeks to exchange the value of his produce for the merchandise he needs for his own use. The farmer's money is cooperatively spirited to tax him, by its employment in various ways, for the advantage of "special interests" which seem, at times, sufficiently strong to control legislatures and governments.

If gravitation towards virtual slavery is to be stopped, the farmer will

patriotic work and one in harmony with the best traditions of its great profession.

The Cost of Tile Draining

Jas. Marshall, Wentworth Co., Ont.

I will give the approximate cost of draining one of my own 12-acre fields. The branch drains in most of this field are 25 feet apart in parallel lines. Some of them are 30 feet apart. There are four, five and six inch mains in low places. The branchers are two and a half to three inch tiles. They join the main drains in a slanting direction. There were 2,002 feet of five and six inch main drains that



The Kind of Premiums We Offer

Diotime Cornucopia, the pure-bred Holstein calf here illustrated, was won as a premium by W. E. Watson, York Co., Ont., for securing 45 new members to Farm and Dairy. This heifer calf was bred by C. R. Giles, Heidelberg, Ont. Mr. Watson is highly pleased with his premium.

had been placed in low ground years before the branches were put in. We afterwards placed 18,568 feet of smaller tile, making 21,170 feet of tile drains in a 12-acre field. The last draining was finished between November 17th and December 21st, 1907.

I cannot give the exact cost to a cent, but the labor was from \$240 to \$300, and cost of tile about \$230 for 21,170 feet, or about \$40 an acre. I have several other fields drained like this. Every spring and after heavy rains I find dry strips over every drain. I see no reason why these drains will not continue in working order for ages.

More Live Stock Needed

Prof. M. Cumming, N.S.A.C., Truro, N.S.

In speaking of Nova Scotia and the other Maritime provinces we speak of a country where in many cases the soil has already been exhausted of its natural fertility and we must now depend on live stock to maintain the productivity of our farms; and we need it badly. Last year in a season of drought it was a matter of universal comment that, on live stock farms in the Maritime provinces crops were up to the average, while on others, without live stock, crops were almost a complete failure.

I can recall farm after farm where as a result of adopting a system of farming that included a large number of live stock the annual production had been doubled and trebled. I think of one young farmer in particular who trebled his output in three years. Such facts as these prove clearly that the salvation of agriculture in Maritime Canada depends on more live stock.

WHEREAS PROGRESS IS MADE. Our biggest development in live stock has been in dairy cattle and heavy horses. In dairying we take second place to no part of Canada. The Provincial Government has endeavored to assist the dairy industry by importing dairy sires of desirable breeding. We have found that the cheapest stock we have bought has

*Summary of address before the National Live Stock Convention at Ottawa.

been the highest priced in the first place. As I look back I am sorry that we did not buy high priced stock only.

So well adapted are our provinces to dairy cattle that beef cattle have largely held their own. We are importing more and more beef every year. The reason is plain to be seen. The dairymen are making the most of money. If we are to produce our own beef the first thing needed is an improvement in the milking qualities of the beef breeds.

A Tribute to the Cow

The modern dairy cow, figuratively speaking, is the harbinger of peace and the vanguard of agricultural prosperity. When fed and cared for properly she fails not to yield her monthly stipend, or to replenish the soil with her waste products and thus completes the cycle of perpetual production. She not only clothes and feeds the farmer's family, but she paves the way for the prosperity of future generations; she robs not of soil.

An up-to-date cow is a milk-making machine and requires a special type of machinist for the highest achievement. It is just as necessary to develop dairymen as it is to develop dairy cows. It almost seems at times as if the capacity of the dairy cow has been inordinately developed and the dairymen often suffers by comparison in falling far short in measuring up to his requirements.—Dr. James Withycombe, Oregon.

Edward Charles Ryott

AUCTIONEER & VALUATOR.

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



"Say friend! Ever use a Safety Razor?" "No, I never felt I could afford \$5.00 for one."

"I never could afford to give that much for one either, but I noticed recently that I could get one free from Farm and Dairy. I sent for one, first getting them free by subscriptions to their weekly farmers' paper, and I tell you it's great."

"It's a Gem Junior Safety Razor" and is lightly nickle-plated and off the whiskers.

"And it has seven genuine Damskeened Gem Junior Blades and a combination stropping and shaving handle, so I can keep them sharp and in use for shaving indefinitely."

Brother Farmer! We have a Gem Safety Razor outfit for you in a substantial velvet lined box, just as shown; it will be sent to you postage paid and absolutely free in return for getting us only two new subscriptions to Farm and Dairy at only \$1.00 each.

This is a most useful, satisfying article and will prove a delight to all who use it.

We're glad to be able to offer it to you this way. We think you'll like it and tell your friends about it.

See right away about getting two of your friends to subscribe to Farm and Dairy, and then write us for your Safety Razor.

Plan to-night who you will get to take Farm and Dairy; then see them about this matter first time you can.

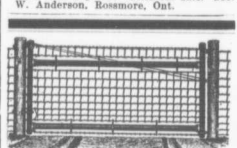
Farm and Dairy
Peterboro, Ont.

Anything to Sell

We want to hear from every reader of FARM AND DAIRY who has anything to buy, sell, or exchange. Have you a FARM FOR SALE? Have you LIVE STOCK for which you want buyers? Have you a CREAM SEPARATOR, BARBECUE TESTER, INCUBATOR, BOOKS, or ANYTHING that you would like to exchange for cash or for other articles of value equal to yours?

The small trader can connect with possible customers by placing a small advertisement in FARM AND DAIRY. Our rate is 25 CENTS AN INCH. Reserve counter space in our classified columns at 2 cents a word. Make out your advertisement and send it today to Farm and Dairy, Peterboro, Ont.

FOR SALE—An At Potato Planter, nearly new, of Aspinwall Mfg. Co. make. Just planted 29 acres of potatoes. The kind used at the O.A.C. I understand it O.K. Have also a potato cutter for sale.—Geo. W. Anderson, Rosmore, Ont.



Making Farms Worth More
HAVE your good steel gates on your farm? Get rid of wooden and cheap iron gates which must be continually fused over and melted.

Clay Steel Gates
Will last a life-time. Will not bend, break or sag; cannot rot, burn or blow down; are always easy to work over snow in winter; keep back brashly stock.

\$1.00 Clay Gates sold last year. Clay Gates sent for 20 days from O. A. Send for illustrated price list.

The Canadian Gate Co., Ltd.
29 Morris St. GUELPH, ONT.

You Bet It's Fine

You can use this razor with safety and comfort.

Once you use it you will never do without it.

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Plan to-night who you will get to take Farm and Dairy; then see them about this matter first time you can.

Farm and Dairy
Peterboro, Ont.

BEARD READY FOR STROPPING RAZOR READY FOR SHAVING

A Gift for you

Test all Seed Corn

There's no use sowing dead seed corn. But that's what many of us are going to do this spring if we don't look sharp.

Last year was a poor one for seed corn. It didn't properly mature. The germinating power of much of it is low. If we plant that poor seed we farmers as a whole stand to lose thousands upon thousands of dollars. The loss to each of us will be more than we can afford.

What is more, it isn't necessary to lose anything. Let us test our seed corn. If it is weak get better. If we can't do that, use more seed per acre. But let us know what we are doing anyway. Test every ear of it.

be compelled to appreciate that the days of competition have gone for ever. The question for him to decide is whether or not the economic policy of the future to be for the farmer's benefit or to contribute, as above described, to the farmer's ruin.

WE MUST WORK TOGETHER

When this one concrete fact comes home to the farmers of Canada, when they learn to eradicate foolish suspicions of each other's motives and contentions, when they are prepared in full confidence and mutual sympathy to act together for each other's advantage, instead of in competition to the loss of them all, they will dawn a brighter day, and they will commence to enjoy a success like of which the world has never seen.

In pointing the way to the grand haven of cooperation, so successfully introduced in other agricultural countries, and the hope of the future in this Dominion, that section of the agricultural press of Canada which is continually devoted to the interests of the farmers is doing a noble and

FARM AND DAIRY

AND RURAL HOME

Published by The Rural Publishing Company, Limited



1. FARM AND DAIRY is published every Thursday. It is the official organ of the British Columbia, Manitoba, Eastern and Western Ontario, Ontario, British Columbia, Quebec, Dairymen's Association, and of the Canadian Holstein, Ayrshire and Jersey Cattle Breeding Associations.

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 50c 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, or Registered Letter. Postage stamps accepted for amounts less than \$1.00. On all cheques add 20 cents for exchange fee required at the banks.

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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 subscription to Farm and Dairy exceed \$3,000. The actual circulation of each issue, including copies of the paper sent to subscribers who are not listed in arrears, and sample copies, varies from 14,000 to 15,500 copies. No subscriptions are accepted for less than the full subscription rates.

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

OUR PROTECTIVE POLICY

We want the readers of Farm and Dairy to feel that they can deal with our advertisers with our assurance of our advertisers' reliability. We try to admit to our columns only the most reliable and best advertisers. Should our subscribers have cause to be dissatisfied with the treatment of any of our advertisers, or if our subscribers will investigate the circumstances fully. Should we find reason to believe that any of our advertisers are unscrupulous, even in the slightest degree, we will immediately discontinue the publication of their advertisements. Should the circumstances warrant, we will expose them through the columns of the paper. Thus we will not only protect our readers, but 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 date of our advertisement in Farm and Dairy. Complaints must be made to Farm and Dairy within the week following the date of our 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

PTERBRO, ONT.

LIGHT ON AN IMPORTANT PROBLEM

Good salesmen secure salaries much in advance of what is paid people of equal ability engaged in most other lines of work—in manufacture and production.

There is a reason for this; it is because almost any one can manufacture and produce, but it is really a difficult matter to sell and to sell at a good fair profit.

As farmers most of us are making at least a fair success of production. In many cases we fall far short of our possibilities when it comes to selling.

Realizing the great need for education along the line of selling, and to meet the thirst, which obtains almost everywhere, for information on salesmanship, Farm and Dairy has arranged to conduct a department under the heading "Selling." To conduct this new department, we have secured the services of an expert on salesman-

ship in the person of Mr. Edward Dreier, until lately connected with the business management of the "Business Philosopher," but now Salesmanager for the Metal Shingle and Siding Co., of Preston, Ont.

The first of Mr. Dreier's articles appeared on page five of Farm and Dairy last week. The second article is on page two in this week's issue under the new department heading.

In order to make this department of greatest value to all our people, our readers are invited to ask us questions concerning their selling problems. Suggestions as to topics for discussion, and all questions, will be welcomed and answered promptly through this new department of Farm and Dairy, which touches a most vital interest on the part of all our readers.

WHY BLAME THE FARMER?

"Farmers are accountable for the high cost of living!" That is an old cry in our cities. The average city dweller seems to be under the impression that we farmers are rolling in wealth. The city editors who know nothing about farming are telling us that we are not producing enough, that did we make our farms live up to one-half their possibilities food would cost only half what it now does and the cost of living problem would be solved satisfactorily—to the city people at least.

Cannot this line of reasoning be applied to city industries as well? For instance, the cost of woollen clothing has gone up considerably in recent years. Is it not, if the first premise is correct, quite reasonable to state that the high cost of woollen clothing is due to the fact that our woollen manufacturers are not producing as much as the capacity of their factories would warrant. In this latter case our city brethren recognize without any trouble that the woollen manufacturers are producing just enough of their goods to make the highest profit. If they produced goods in excessive quantities, prices would be reduced, profits would go down and the concern would have to close its doors.

The case as it applies to farming is exactly the same. If we farmers as a whole were to produce in sufficient quantities to satisfy our city friends prices would go down to such a level that our business would be even less profitable than it now is. If city people would have us produce more they must pay more for the goods that we produce, for we like all other classes of the community, have to live, and our production of goods is determined by the money we can make out of it. The high cost of living must be accounted for in another manner than underproduction of farm products. The underlying cause of high prices Farm and Dairy is explaining in the series of articles being run on page four each week. Did we farmers and the working men in our cities have a proper understanding of the economic conditions under which we live we would not be so bitter towards each other, but would work together to guard our common interests against

the attacks of what we may call the "financial interests." It is at their doors that we must lay the major portion of the blame for the high cost of living.

NOT MEASURED IN DOLLARS

The cash income from any farm must come from what is sold from it. But we dairy farmers have an additional income that cannot be measured in dollars and cents.

Where the ordinary crops are raised and removed for sale each successive crop takes away a portion of the soil fertility, and be it wheat, corn, or oats, each removal of a crop means the taking away of some of the best of the soil. Where cows are kept and legumes are raised for part or all of their feed, this soil fertility can not only be saved, but, by a careful attention to the details of rotation, actually increased through this process.

The grain-raiser may manage to make both ends meet for a while—it is only a matter of time, and often a very short time at that—until, instead of a fertile farm, he will only have a patch of desert left. We dairymen, who have been surely, though perhaps slowly, increasing our bank accounts, have also made a lasting deposit in that best of all banks, our own farms, which will be an untold value to us and our children.

COUNTY REFORESTATION

Conservation ideas are gaining ground every day.

As a result of the Act passed by the Ontario Government a year ago, empowering municipalities to engage in forestry work, the county of Hastings has taken steps to acquire waste lands for the purpose of reforestation.

Several counties in Eastern Ontario are now undertaking the reforestation schemes. These waste lands were being rapidly acquired by private parties for personal profit, but of late councils have asaken to the fact that these lands might just as well be reforested under municipal supervision and the profits to accrue be retained for the benefit of the whole people.

Public sentiment in favor of reforestation has developed rapidly since Farm and Dairy, beginning with four years ago, agitated for provincial aid in county reforestation schemes. At that time the provincial government refused to consider a proposition for loaning to the counties of Northumberland and Durham money to be spent on the reforestation of the sand lands of the united counties. Now the work is extending to other counties and has the approval of all.

TRAVELS OF A FARMER'S WIFE

A walk of twelve feet and back, across living-room or kitchen, twenty-two times repeated, makes a mile. Repeated thus often every day in the year—as happens with hundreds of farmers' wives—it equals a journey of three hundred and sixty-five miles in length and in the strain it puts on the woman's strength and energies. Furthermore, it is seldom that the wo-

man traverses the distance empty-handed; she carries pails of water, milk, loads of dishes, basket of supplies, often the baby. Supporting her average load on these short trips to the only ten pounds, it amounts in a year to over forty tons. When on these in-door journeys is added the frequent trip to the distant well, still too often demanded, even in the presence of cheap methods for supplying running water in kitchen and bath—the wonder is that the wife and mother 'lasts' as long as she does.

Why not, where such avoidable journeys are endured, try a little planning and re-arrangement—almost always practicable—which may reduce the in-door travel to one-half or even one-quarter the present amount? Why not, above all things, at present about bringing the well-water to the house?

"This is an alfalfa year," writes one of the largest seed dealers in Canada to Farm and Dairy. "Orders already received for alfalfa seed for the whole season last year."

An Alfalfa Year has received in excess of 100,000 orders for alfalfa seed for the whole season last year.

The Ontario Husbandry Department at the Ontario Agricultural College receives more inquiries about alfalfa culture than of any other crop. The editors of Farm and Dairy find that alfalfa is being talked about everywhere they go. More and more farmers are growing this great crop every year. From present indications 1912 will be a banner year in acreage, so number of need farmers seeding and in interest taken in the plant. Now of us can afford to ignore alfalfa long. We must grow alfalfa if we will keep in the running and be numbered among progressive, intelligent farmers.

We can all remember the time when as we asked each other what kind of a crop we had in the orchard, we referred to the hay or grain crop and not to the fruit crop. We did not then realize that a crop of apples takes just as much out of the soil as a crop of grain. We tried to take two crops at once and got poor crops of both. Experience has now taught us that the fertility that would yield a twenty-five dollars or forty dollars an acre in grain or hay, if turned over to the apple trees and supplemented with a little extra cultivation, will return one hundred dollars or more per acre. We farmers can see a bargain as quickly as any one. Those of us who have given the matter any thought now direct all the fertility in the production of one good crop of apples. We know that we cannot try to grow any other crop in the orchard. Those who are still following the two-crop plan are reaping the reward in poor crops and small profits both on the ground and above it.

A Good Crop We did not then realize that a crop of apples takes just as much out of the soil as a crop of grain. We tried to take two crops at once and got poor crops of both. Experience has now taught us that the fertility that would yield a twenty-five dollars or forty dollars an acre in grain or hay, if turned over to the apple trees and supplemented with a little extra cultivation, will return one hundred dollars or more per acre. We farmers can see a bargain as quickly as any one. Those of us who have given the matter any thought now direct all the fertility in the production of one good crop of apples. We know that we cannot try to grow any other crop in the orchard. Those who are still following the two-crop plan are reaping the reward in poor crops and small profits both on the ground and above it.

If you have debts to pay, forget them not until you have paid them.

Cree

(Farm)

A reader sympathizing with provincial government and its rates of interest.

On this opinion the farmers get for that matter and our country that violates government. The farmer's vote has been

You can mer when

He is shirking it is safe to

In this PAGE ADVERTISING

fourth in a FROM A

of pure bred Gordon S.

ford Park, received for alfalfa seed

EACH ISSUES FOR A YEAR.

This Advertiser only \$11.75

Let's ignore Mr. Gooden

His story least 2,000 Holstein can Farm and Dairy

Upwards breeders of thence by

Mr. Gooden steins will over the le Canada, and

He will tory prices he has to se

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develop a sible cause and then to which with

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For this G. Mr. Gooden than the val-

animals—the sales for his his other 10

—Surely vestment!

You, Mr. you, Mr. Bro-

pure-bred I take it unto Gooderham's

Get in a nearly 15.0 reach with

These well-ones with v to do busines

And where is in Farm a

"A Paper F

Credit and Privilege

(Farm and Ranch Review)

A reader berates us for not showing sympathy with the suggestion that the provincial governments borrow money and let it out to farmers at reduced rates of interest.

On this subject we are torn in our opinions because our desire to see farmers get money easily and quickly, for that means our own prosperity, and our dislike of adopting a system that violates more sound principles of government.

The farmers' organizations in the west have declared in favor of the

single tax as a method of raising revenue in place of the tariff, and of course the adoption of the single tax would also tend to make money cheaper by forcing money into legitimate channels instead of being used for speculating in land.

Also a party or organization that advocates the single tax proclaims its opposition to any special privileges and the securing of money for farmers' use by the province would be as much a special privilege for the farmers as the securing of money for the railways upon the credit of the province is a special privilege for the railway companies.

We must make progress in one direction only, and that is toward the single tax or the raising of revenue out of a tax upon the unearned increase in land value, and this will do away with the money scarcity. Any other scheme is only a patchwork. If the government adopts this proposed plan of providing farmers with cheap money it can only be compared to a drop of cocaine in an aching tooth. It will relieve a pain temporarily, but it cannot in the nature of things cure the evil.

XXIX

You can get a tip from the farmer when he advertises.

He is shrewd. When he moves it is safe to follow.

In this issue appears A 1/4-PAGE ADVERTISEMENT, the fourth in a very interesting series FROM A FARMER—a breeder of pure bred Holstein cattle—Mr Gordon S. Gooderham, of Bedford Park, Ont., who has reserved similar space to be used in EACH ISSUE EVERY WEEK FOR A YEAR.

This advertisement in Farm and Dairy in 1/4-page space costs only \$11.76 per issue.

Let's figure what it will do for Mr. Gooderham.

His story will be read by at least 2,000 breeders of pure-bred Holstein cattle, all of whom take Farm and Dairy.

Upwards of 12,500 other breeders of dairy cows will be influenced by his advertisements.

Mr. Gooderham and his Holsteins will become known throughout the length and breadth of Canada, and in the United States.

He will get buyers at satisfactory prices for the superior stock he has to sell.

His advertising, as it proceeds from week to week, will build for him in a cumulative way that will develop a force well, high irresistible causing people to want and then to buy his Holsteins, which will make money for them—the buyers—because other people will want to buy the stock, and it will be ready of sale.

For this great service for a year Mr. Gooderham pays much less than the value of one of his best animals—this to insure profitable sales for his surplus stock and sell his other 100 if he need.

—Surely a wise and paying investment!

You, Mr. Manufacturer and you, Mr. Brother Breeder of good, pure-bred live stock, may well take it unto yourself to adopt Mr. Gooderham's plan.

Get in a weekly appeal to the nearly 15,000 dairy farmers we reach with Farm and Dairy. These well-to-do people are the ones with which it will pay you to do business.

And when your advertisement is in Farm and Dairy it is in

"A Paper Farmers Swear By."

Beware of Loose Collars

Great care should be taken in the selection of the horse's collar. No horse can do its best with a poor-fitting collar. It not only lessens the efficiency, but usually causes sores on the horse's neck.

When you buy a collar for a horse get one that fits its neck as near as possible. Soak the collar in water and work it on the horse while it is wet. This causes the collar to change shape, fitting all the inequalities of the neck. This may have to be done two or three times, as the horse's neck changes shape.

FOR A SORE NECK

If the horse's neck begins to get sore, it may be toughened by washing with powdered alum and water, or oak bark and water, once or twice a day after the collar is removed. If many sores develop they should be treated surgically by a competent veterinarian.

Ointments, as a rule, are not to be recommended for open sores, as they gather dirt and produce proud flesh. Soft swellings appearing on the horse's collar led in the spring are usually filled with fluid and should be opened immediately at the lowest point. Otherwise the form hard swellings difficult to treat.

WHERE DRAFT SHOULD COME

Another important thing is the regulation of the draft. The draft should be at the centre of pressure on the horse's collar bed. If this is too low, it causes the upper part of the collar to rub back and forth, and if too high the lower part rubs, causing soreness. The inside of the collar should be kept clean and the mane prevented from getting under the collar.—Dr. R. R. Dykstra, Kansas Agri. Col.

Seeing the Sights

An observant person sees some funny sights in a grocery store.

He can see "the cod fish," "the brussels sprout," "the tapioca flake."

He may also see "the mince meat," "the tea leave," "the ginger snap," "the stove polish," "the sugar soap," "the yeast cake," "the corn starch," "the honey comb," "the cinamon bark."

And he will observe that the tea is a great "mixer," the coffee gets "roasted" all the time, the cucumber is usually in a pickle, and the sardines are "soused."

DE LAVAL CREAM SEPARATORS

More Than 1,375,000 Now In Use

Those Who KNOW Buy De Laval Separators

Creamerymen—Because they are experts in the handling of cream and know by long experience that the De Laval skims cleanest and wears longest. That is why 98% of the World's creameries use the De Laval exclusively. Experienced Dairymen—The De Laval is the universal favorite among big dairymen. They know that no other separator will give them such satisfactory service. Old De Laval Users—Whenever a man who has used an old model De Laval decides to purchase a later style machine he invariably buys another De Laval.



Men Who Investigate — If anyone takes the time to investigate the merits of the various cream separators, either by finding out from other users what kind of service their machines have given or by testing other machines out against the De Laval, the chances are a hundred to one that his choice will be the De Laval.

More De Laval machines are in use than any other make. There is a reason. Any De Laval Agent will tell you why, or write to the nearest De Laval office below.

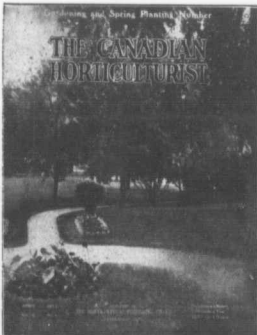
Easiest to turn, easiest to wash, skims the cleanest lasts the longest

SOONER OR LATER YOU WILL BUY A DE LAVAL

DE LAVAL DAIRY SUPPLY CO., LIMITED 173 WILLIAM ST. MONTREAL 140 PRINCESS ST., WINNIPEG

The Garden Beautiful

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



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

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

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

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

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

Circulation Department, Farm and Dairy, Peterboro, Ont.

Creamery Department

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

A Circular to Patrons

Cream grading is no longer an experiment in western Canada. In a circular recently sent to all of his patrons, Mr. P. Pallesen, manager and proprietor of the Calgary Central Creamery, talks to his patrons as follows about his ideas on grading:

"This year I am going to grade the cream closer than ever. The grading system is not an experiment but a strictly business proposition which has worked out to the advantage of both the farmer and the creamery man. I can get the highest price only for strictly Number One cream. If you don't want to take care of your cream, I don't want it; let the other fellow have it. This year I shall be able to pay an extra price right along for sweet cream for city delivery.

Mr. Pallesen expects his patrons to take care of his cream but he makes it worth their while. In the same circular he quotes the prices paid in each month of 1911 for five grades of cream—Extra No. 1 and No. 2. There is a premium of one to two cents between the prices paid for extra and No. 1, and of two cents for extra and No. 1 grade over cream of No. 2 grade.

A BOOST FOR WINTER DAIRYING. All creamery men would like to have their patrons go in more extensively for winter dairying. Here are a

few of the arguments that Mr. Pallesen uses in this same circular to induce his patrons to go in more extensively for winter dairying:

"1. You will receive the highest prices.

"2. You will have a regular income all the year.

"3. You will keep up the fertility of your farm.

"4. You will have better time to milk.

"5. You will have better stock.

"6. You can keep your hired man the year round."

Pretty nearly covers the whole thing, doesn't it? The circular such as this sent out to all the patrons is bound to have a good educational influence. But Mr. Pallesen does not ask his patrons to listen to him all the time. On the back of the circular are extracts from several letters that he has received from satisfied patrons telling him how well they are pleased with the service rendered by the Calgary Central Creamery. This circular idea is capable of wide application.

Make Scales Compulsory

Alex. MacLachlan, Northfolk Co., Ont.

Why should this exist? Why not make it compulsory to use scales and put every one on the test sheet who they properly belong, and give every patron the proper amount of butter fat contained in his cream. With the pipette more overrun is obtained, and in this every patron shares alike. But why have so much overrun? Is it not better to give the proper test and not have so much overrun? If all creamery men would adopt the scales for testing I think it would do away with a great deal of this dis-

satisfaction which we hear of from patrons, and particularly the ones who are producing rich cream.

Let us get away from this pipette method, which has been weighed in the balance and found wanting. Get the method that will do justice to everyone. The pipette is as much behind the scales for fairness to patrons as the oil test is behind the Babcock or for getting the quality of cream as the individual can as compared with the tank system.

Pasteurization and Starter

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

(Continued from last week)

I am aware that the quality of the cream at the Renfrew Creamery is better than at many cream gathering creameries, and, for that reason, we were perhaps not able to get as bad cream to experiment with as some buttermakers handle. Some of it was, however, as bad, I think, as anyone would care to receive. On three occasions, we selected the worst flavored sample delivered to the creamery.

The flavor on the different lots selected might be classed as stale cream, bitter, cowy, rancid. The average temperature of the cream was received was 67 degrees, and the acidity .54 per cent and the fat 28.16 per cent. The following table shows the average score on the butter from different methods of treating this cream at the creamery:

TABLE I—AVERAGE SCORE ON THE FLAVOR OF THE BUTTER FROM TAINTED, RICH CREAM, CHURNED MAY 18th, JUNE 26th AND JULY 12th.

Age of	Raw		Pasteurized	
	Butter 3 weeks	Cream	Butter 10 per cent Starter	Cream 10 per cent Starter
Nov. 1st	49.59	41.46	42.08	42.19
	39.32	37.44	38.58	39.58
Difference	4.38	4.02	3.50	3.54
	Average of all 4 Scores.		40.75	41.30

These figures show that there is a decided advantage in pasteurizing tainted and sour cream, and a further advantage in using a starter in the pasteurized cream, as the pasteurized and starter cream butter is almost as good in flavor on November 1st as the raw cream butter was when two weeks old. None of the raw cream butter scored above 36.5 points in flavor on November 1st. None of the pasteurized lots scored under 38.5 on the same date. One lot from pasteurized cream, with starter added, scored 40 points on November 1st.

YIELD OF BUTTER

In making a comparison of the yield of butter, the same cream and exactly the same weight was used in the lots compared. The work was done as carefully as possible so the results should be fairly reliable.

In 18 churnings each of cream without starter and cream with 10 per cent starter added, there was practically no difference in the yield of butter. In the same number of churnings of pasteurized and unpasteurized cream, the loss in pasteurizing was .78 per cent. In nine churnings each of pasteurized cream with and without starter, the loss in the lots with 10 per cent starter added was 1.04 per cent.

In six churnings each of pasteurized sweet and sour cream (.27 per cent and .51 per cent acid) the loss in pasteurizing sour cream was 1.01 per cent.

MOISTURE IN THE BUTTER

The following table shows the average per cent moisture in cream treated in four different ways, nine churnings in each lot.

TABLE V—MOISTURE IN THE BUTTER.			
Raw Cream	Raw Cream	Pasteurized Cream	Pasteurized Cream
15.94 per cent	10 per cent Starter	14.32 per cent	10 per cent Starter
	15.90 per cent		14.10 per cent

Why Test Daily?

By F. Odell

When a creamery taking composite samples with a dipper takes the same amount of cream at every delivery, regardless of the amount or thickness of the cream, and then tests these composite samples every two weeks or once a month, does it not show lack of good business management?

You may ask why. The answer would be: In the first place, the samples taken are wrong. Where a creamery takes a sample of cream with a dipper the sample taken each time is the same amount, regardless of the large or small amount delivered, and regardless of the thickness or thickness of the cream. Then, your sample is wrong; and does the buttermaker patron for a certainty whether the patron receives pay for the correct amount of butter-fat he delivers?

In the second place, these composite samples are usually kept in tin-top sample jars, and in mostly every case they are kept two weeks or one month on a rack or shelf in the receiving room. The evaporation which samples are kept in this manner is very great. This fact is due to the escape of moisture from the sample. After the samples are taken they receive proper care until they are tested. The reliability of the test depends just as much on the care of

the samples as on the proper way of sampling.

CONDITIONS THAT ARE WRONG What do you find in creameries where composite samples are taken? In warm weather the sample jars all mold on the inside. In winter, during the extreme cold weather, samples freeze solid. In either case how is the sample in question going to give accurate results?

Where sampling is done in this manner it is a question whether the buttermaker can acquire his proper amount of overrun. One per cent evaporation means about three per cent loss in the overrun. Two per cent evaporation would mean about six per cent loss. Experimentations have shown that where samples are kept in tin-top jars in the receiving room, where they are exposed to the air and high temperatures, they will evaporate from two to six per cent.

We believe the buttermaker should know what he is doing each and every day. He should know how many pounds of butter-fat he receives and how many pounds of butter he makes from it. The dairy industry is developing more and more each year, and the rising scale points to the time when it is necessary for the buttermaker to do these things—as necessary as for a bank to know its daily transactions. Is not the creamery business as much important as any other business? It would seem that daily testing is the most reliable method to follow.—Creamery Journal.

The first rule in the handling of dairy products is cleanliness; the next is coolness.

Cheese

Makers are I believe the best cheese making school in the Cheese

Early Ch

Mr. Hiram B. H. (Oxford County) has been the Canadian cheese maker in Oxford County, Ontario. It was in Oxford County that the cheese making was established in Oxford County. It was in Oxford County that the cheese making was established in Oxford County. It was in Oxford County that the cheese making was established in Oxford County.

THE PIONEER

The pioneer of the cheese industry in Ontario was Mr. Harvey Fairbank of Norwich, Ontario, who began making cheese in 1803. He was the first to make cheese in Ontario, and he was the first to make cheese in Ontario. He was the first to make cheese in Ontario, and he was the first to make cheese in Ontario.

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Making an Extra Profit

Like other keen farmers, you are after extra profits. Rich land pays you an extra profit over poor land. It pays well to keep cows on wheat, fruit and other farms to enrich the land. High-producing cows pay you an extra profit over average cows—and the high-producing

SHARPLES Tubular Cream Separator

will pay an extra profit on every separator can pay. This is because Tubulars have twice the skimming force, skim twice as clean and produce the finest velvety cream. This extra Tubular profit appeals strongly to three dairymen and business men. One instance, out of many, is the Free Masons' Home shown above, which is located at Windsor, Nova Scotia. Reverend J. B. Merrill, superintendent of the home, while treasurer of a well-known creamery, discarded a disk machine for the Tubular. The simple, sanitary Sharples Dairy Tubular, which contains no disks, is the machine which does the work for this well-known home and its guests.

Remember that the oldest separator concern on this continent positively guarantees Tubular forever. Write at once for Catalog 293 and learn about the extra TUBULAR profits.

The Sharples Separator Co. Toronto, Can. & Winnipeg, Can.

A COWPEA THRESHER

Threshes Canada Field Peas, Cowpeas and Soybeans from the mow vines, breaking less than 2 per cent. Also threshes Wheat, Oats, etc. "The machine I have been looking for 20 years!"—V. F. Massey, "The Canadian Farmer," meets every demand"—Prof. H. A. Morgan, Tenn. Experiment Station. Nothing like it.

Booklet "The Free" Koger Pea and Bean Thresher Co. Morrystown Tenn., U.S.A.

WANTED—CREAM

Highest Toronto prices paid for Cream delivered at any Express Office. FURNISH CASH FREE. PAY ACCOUNTS fortnightly. ENGINE MAY NOT COLLECT AT SOME POINTS. IF NECESSARY, Write for particulars.

THE TORONTO CREAMERY CO., Ltd., Toronto

Cheese Department

Makers are invited to send contributions to this department as to cheese-making and relating to cheese-making and to suggest subjects for discussion. Address letters to The Cheese Maker's Department.

Early Cheese Making

John A. Crawford, Oxford Co., Ont. (Oxford County, Ontario, has the honor of being the pioneer county in the Canadian cheese making industry. It was in Oxford County that cheese making was first brought to a science. It was in Oxford that the Dairymen's Association was first organized. And it was in Oxford that a resolution was passed at the Dairymen's convention asking the Provincial Legislature to establish a dairy school in connection with the Agricultural College at Goshp.

A NUMBER OF PIONEERS. Mr. Hiram Ranney, who settled here in 1833, began to make cheese from a herd of three cows a few years later, and continued until he had a herd of 100 cows. Mr. Ranney was a large and successful exhibitor in the fifties at the provincial Exhibitions held at Toronto, Hamilton, Brantford and London, where his cheeses were noted for their fine quality.

About 1860 there were a number of makers of Oxford who were successfully engaged in home cheese making. In 1862 Mr. George Galloway, James Harris and John Adams began to make cheese on the associated co-ops. This is getting milk from their neighbors and making the cheese at their home dairies.

THE PIONEER CHEESE FACTORY. The pioneer factory was built by Mr. Harvey Farrington in the Township of Norwich in the County of Oxford and commenced to make cheese on June 20th, 1864, and made ten tons that year. Mr. Farrington continued in the cheese business for many years.

The second cheese factory to commence business in Canada was built by George Galloway, West Oxford, and commenced to make cheese on the first day of May, 1865. The factory was operated for many years. There were three other factories built in Oxford the same year and all commenced making cheese early in the season of 1865. There were then five factories in Oxford and one at Farmington, Quebec. The ones in Oxford were the Pioneer, built in 1864, West Oxford, Ingersoll, Salford and East Nizorra, built in 1865.

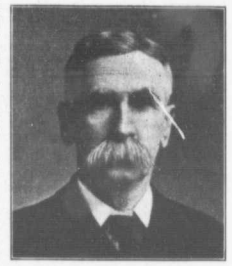
AN INDUSTRY OF IMPORTANCE.

Cheese factories were built in many parts of the country. Cheese making increased by leaps and bounds from that time on, and it was only a few years until Canada was exporting 300,000 boxes of cheese annually. In the summer of 1866 Mr. James Harris, proprietor of the Ingersoll cheese factory, made the mammoth cheese weighing 7,000 pounds. It was the product of three factories, West Oxford, Ingersoll and Salford, brought to the Ingersoll factory and pressed in a steep hop made for that purpose. It was shown at Saratoga and Buffalo, also at Toronto, Hamilton and London. It was afterwards sold to a firm in England.

EARLY CHEESE BUYERS. Mr. Hiram Crawford, of Ingersoll, was the first man to buy cheese for export in the County of Oxford and surrounding counties. Mr. A. A. Ayer came to Montreal in 1866 and exported Canadian cheese for others there. He began in 1867 to export Canadian cheese on his own account and has continued to do so up

to the present time. Cheese sold in 1878 and 1879 for five and six cents a pound, the lowest price ever paid in the history of factory cheeses. The highest price ever paid for factory cheese was paid last year, 1911, when 14 3/4 cents was paid for many of the factories and in a few cases 16 cents was paid.

DAIRYMEN'S ASSOCIATION. The idea of forming the Dairymen's Association was first introduced to the makers of Oxford in 1869 by Mr. Harvey Farrington, of Norwich,



The Oldest Cheese Maker in Canada.

James A. Crawford, Woodstock, Ont., has been making cheese longer than any other man in Canada. He has been personally connected with factory dairying in Canada since its first inception. Read his history of dairying in an adjoining article.

proprietor of the Pioneer cheese factory of Canada. He pointed out to the dairymen of Oxford the benefits to be derived from such an association.

The first meeting to organize the association was held in the Town Hall, Ingersoll, on July 31st, and at a meeting on August 1st, 1867, representatives were present from many parts of Canada, about 300 altogether. Charles E. Chadwick was the first president of the association and Mr. James Noxon, secretary.

Precautions in Pasteurization

Pasteurization should begin as soon as possible after the first whey reaches the tanks to prevent the development of acid and labor advantage of the temperature of 88 degrees before it begins to cool. Care must be taken that the temperature does not rise much above 160 degrees. A higher temperature will precipitate the albumen and cause the whey to be flocculent and slimy. A uniform temperature of 155 degrees each day will give good results.

If possible to avoid, small or large quantities of whey should not be left over in the tank from day to day as this will eventually become sour and act as a culture in the new whey, rapidly raising the acidity.

The boiler should be large enough to furnish economically the steam required. Inexpensive results cannot be obtained otherwise. The tanks should be close to the boiler and the pipes insulated to prevent condensation of steam before it reaches the whey.

Pasteurization of whey is advocated for the purpose of overcoming many of the difficulties of the whey question, and not as a panacea for the evils of improperly cared for milk, rusty, old, or carelessly washed cans. The wash water should not be run into the whey tank, as it dilutes the whey and introduces undesirable bacteria. Septic tanks or other means should be employed to dispose of wash water and other factory refuse. The patrons should cooperate with

the maker in emptying the tank each morning so that only the fresh whey will be in the tank from day to day. One of the methods adopted at many of our larger factories is to have a man hired to measure out the whey each morning; cost about 50 cents a day.—Bul. 188.

We Need Good Roads

R. J. Rennie, Stormont Co., Ont. I notice that Farm and Dairy is making itself very much interested in the subject of larger cheese factories. It seems that we down here in Eastern Ontario and even some in Western Ontario are away behind the times when we permit small cheese factories to exist in the land.

Probably you are right. The whole tendency nowadays is towards concentration. But isn't it a discouraging proposition to try to haul milk to cheese factories three, four, and five miles off with roads such as we now have. I would just drop a suggestion to Farm and Dairy that a good roads propaganda is needed before we start in for larger cheese factories.

Where Others Are Ahead

G. G. Poulton, Chief Dairy Instructor E. Ont.

The need of better curing of our Canadian cheese was very forcibly impressed upon me in the Old Country last summer when comparing the quality of our cheese with the English and New Zealand. Very few of the cheese from these countries are placed on the market under the age of two months and as a result are much better cured, and give better satisfaction to the trade in general and demand about two shillings a hundredweight more in price. English and Scotch makers pay considerable stress on having their cheese in best condition for the market before having them shipped, and this is one of the factors which enables them to get a higher price.

A number of merchants complained of our cheese being too heavy. They are not particularly anxious for cheese weighing more than 80 pounds. That weight seems to be the most popular. Some merchants prefer a lighter weight cheese. I also found a few merchants who are anxious for cheese weighing 100 pounds, but they are usually wanted for window advertising purposes, and cheese intended for this purpose require to be particularly well finished and to have clean sound rinds. Many of our cheeses are lacking in this respect and complaint was made that they did not strip well.

Our best farmers cannot afford to go on breeding good cows and feeding them well only to have much of their work go for naught through the inferior milk sent to the factory by other more careless patrons.—Chief Dairy Instructor G. G. Poulton, Kingston, Ont.

A maker who works to incorporate moisture in his cheese is making a mistake. We must endeavor to expel moisture up to a certain point, but if we then start to incorporate we will get into trouble.—W. Waddell, Middlesex Co., Ont.

One of the outstanding features of the dairy business at the present time is the scarcity of milk and more especially for the larger towns and cities. In many cases the cities are reaching out so far for a supply that it is having a serious effect on some of our cheese factories and creameries. One of the dairy situations is in a most healthy condition and there need be no fear of increasing the production, as all dairy products are ready to find ready sale at remunerative prices.



THE BUTTER-BUYER said—"Your two lots of butter taste all right—but will they keep? What kind of salt did you use?"

THE FIRST FARMER said—"I don't know—the storekeeper gave me what he had".

THE SECOND FARMER said—"I used Windsor Dairy Salt".

THE BUTTER-BUYER said—"I want your butter. I know all about Windsor Dairy Salt—and the man who is particular enough to always use Windsor Dairy Salt is pretty sure to be particular to make good butter.

I'll take all you make—as long as you use



Cheesemaker with some experience wanted immediately to work in Ballymote factory. Highest wages paid to satisfactory man. Apply to

George Kenney, Proprietor BALLYMOTE, ONT.

Cheesemaker Experienced help wanted. Will pay \$120 for season, board included. Apply P. O. Box 190 Campbellford, Ont.

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Over 70 sizes and styles, for drilling either deep or shallow wells in any kind of soil or rock. Mounted on wheels or on skids. With engines or horse power. Strong, simple and durable. Any machine can operate these machines. See our catalog. WILLIAMS BROS., ITHACA, N.Y.

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First-class butter maker to take charge of butter department in modern creamery, state lowest wages and how soon can come, year round job.

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DAIRY FARMERS, ATTENTION!

Start the season right by shipping your cream to the Walkerton Creamery. We are in a position to handle an unlimited quantity of Fresh Cream for Buttermaking purposes and a big to solicit your shipments.

We pay by Express Money Order, Post Office Money Order or Bank Money Order, and payments are made every two weeks. Express charges paid on all shipments.

Every can of cream carefully weighed and tested upon arrival at Creamery. Write for cans and further particulars to the

Walkerton Egg & Dairy Co., Ltd. WALKERTON, ONT.



The Second Chance

(Copyrighted)
NELLIE L. McCLUNG
Author of "Sowing Seeds in Danny"
(Continued from last week)

Pearl, the eldest daughter of John Watson, a O. P. R. seaman in Milford, Mass., receives a man of money and starts in to educate herself and the rest of the family. She proves a clever scholar but feeling that her small brothers are getting into bad habits in town, suggests moving the family on to a farm. We are next introduced to the children at a country school. Tom Steadman, a bully, is thrashed by Bud Perkins for striking Libby Ann Gavers. The Watsons again take up their abode, close up his sin in consequence. Mr. Perkins pligs his grain with wheat and Bud gets the blame. He leaves home. Mr. Perkins' daughter, Martha, is in love with a young Englishman on a neighboring farm, Arthur Wemyss. Arthur is engaged to an English girl, who is shortly to come out and join him in his new home. On the boat she falls in with another young man and they are married. The schoolmaster starts to educate Martha.

ARTHUR came over for his bread that evening also, and when Dr. Emory went to the organ in the parlour and began to play, every one in the house went in to listen. He did not often play without being asked, but to-night he suggested it himself. The parlour lamp was lighted, a gorgeous air with a large pink globe on which a stalwart deer, poised on a rock, was about to spring across a rushing stream. But the parlour lamp seemed to expend all its energy lighting up the deer and stream and the wreath of wild roses on the other side, and have very little left for the room. The doctor silently commended its dim light, for it suited his purpose better.

At Mr. Perkins' request he played Irish reels and jigs. Mrs. Perkins had only one favourite, "Home, Sweet Home," with variations; that was the only tune she was real sure of. When the Doctor got these two orders filled he began the real business of the evening with Handel's "Largo." Mr. Perkins began to yawn and soon took his departure, closely followed by Mrs. Perkins. They unitedly declared that they "didn't like a die-away ducky piece like that hadn't any swing to it!"

The Doctor's fine old eyes were shining with a real purpose as he played. "I'll suggest their thoughts for them," the old man was chuckling to himself. "Who can resist these dainty love-songs?"—he was playing Schubert's "Serenade." "Twilight and music! If the moon would only show her face at the window! I'm detring loose a whole flock of cupids. Oh, I know, I know, I've heard their whispers—they tell you there is no death or loneliness—or separation—lying little rascals! But sweet, oh, wondrously sweet to listen to. Listen to this, Arthur—it's all yours—Martha's just as true and pure and sweet as all this—and she loves you, man alive, think of that. Sorrow and evil days and death itself will never change Martha—she's a solid rock for you to build your soul's happiness on. Dream on now, Arthur, as millions have dreamed before you; let your dreams keep pace with this cup! Let carry you on its strong tide—it will land you safe on the rainbow shore. It carries me even, and I am old and full of evil days. What must it be to you, Arthur, for you are young and can easily believe, and the girl who loves you is right beside you. Take

the thought—it's bright with promise—it's full of love and comfort and home for you."

The schoolmaster stole away to his room upstairs and took a faded photograph from an old portfolio and kissed it tenderly.

Behind the lace curtains the full moon, with a golden mist around her face, shone softly into the dimly-lighted room, and still the old man played on, the deathless songs of



"We Guarantee Pure Syrup"

Notice the covered sap pail. No chance for dirt to get in this sap. A scene in Brazil Co., Ont.

YOUTH and love—the sweet, changeless melodies which have come down the ages to remind us of the love that still lives, glorious and triumphant, though the hearts that loved are dust.

CHAPTER XXXI.

MRS. CAVERS'S NEIGHBOURS.
O! the world's a curious compound,
With its honey and its gall,
With its cares and bitter crosses—
But a good word after all.
—James Whitcomb Riley.

The people of the neighbourhood were disposed to wonder why Mrs. Gavers lived on in the old tumble-down Steadman house after her husband's death. "Why doesn't she go home to her own people?" they asked each other—but in any kindly spirit, but because they naturally expected that she would do this. Libby Anne had told the children at school so much about her mother's lovely home in Ontario, under her grand-

mother and Aunt Edith still lived, that the people of the neighborhood had associated with it the idea of wealth. Unfortunately, they were wrong about this. Mrs. Cavers's mother and sister lived in a pretty white cottage, just outside one of Ontario's large cities. Roses ran over the porch, and Morning Glory vines shut in the small verandah. It was a home of refinement and good taste, but not of wealth or of competition. Mrs. Cavers's only sister, Edith, and the sweet-faced mother lived there in peace and contentment, but every dollar of Edith's small salary as milliner's assistant was needed for their sustenance.

Mrs. Cavers had never let her mother and sister know what hard times she had come through. It was her good that she could hide her troubles even from them. Even now her letters were cheerful and hopeful, the kindness of her neighbours being often their theme. She made many good things not coming home to live. She was afraid the damp winter would not agree with Libby Anne; she had not disposed of all her stock machinery yet. These and other reasons she gave, but never the real one. She knew how hard it was to find a situation in Ontario, and now, faded and wrinkled and worn as she was, what chance had she among the many? She got a position as housekeeper on a farm. She could earn her own living and Libby Anne's, and Libby Anne would go to school.

Mrs. Cavers was a brave woman, and faced the issues of life without a murmur. She told herself over and over again that she should be thankful that she had her health and such kind friends and neighbours. But sometimes at night when Libby Anne was sleeping, and she sat alone by the fire, the weariness of the years rolled over her. If she could see her mother she often thought, and feel once more that gentle touch of sympathy that never fails, if she could creep into her mother's arms, as she had often done as a child, and cry away all the pain and sorrow she had never known—she could forget that life had held for her so much of ill.

The Watsons' gift of two hundred dollars came like a prisoner's release, for with it she could go home. She and Libby Anne would have a visit at home anyway. Then she could come back on the harvesters' excursion and work for three months during the busy time, and perhaps go home again. She would not think of the future beyond that—it was enough to know that she and Libby Anne would go home in the spring.

It was in February, that Libby Anne took a cold. When she had been at school a few days Pearl Watson went over to see what was wrong. Libby Anne's flushed face and burning eyes told a story by her father, who was going to Milford, to her friend, Dr. Clay.

Dr. Clay went out at once to see Libby Anne, and without alarming Mrs. Cavers, made a thorough examination of the child's lungs. He found that one of them undoubtedly was affected.

Mrs. Cavers was telling him about their proposed journey east, when the generous gift from the Watsons had made possible. They would go just as soon as Libby Anne's cold got better now—the damp weather would be over then.

The doctor's face was turned away. How could he tell her? He could not tell her here in this forsaken, deserted little town.

"Come for a drive, Mrs. Cavers," he said last week, "let me take you and Libby Anne over to see Mrs. Perkins and Martha. It will do you both good."

Mrs. Cavers gladly assented, but

would go out hurt Libby Anne. "Oh, no!" the doctor assured her, "the fresh air will do her good."

When they drove into the Perkins yard, Martha and Mrs. Perkins warmly welcomed them. The doctor had some calls to make across the river, but he would be back in time to take the home before dark, he said. While



Very Young Poultry Women

The children can be taught to be a great help in caring for the farm poultry. The little daughters of Mr. Matchett, Peterboro, Ont., here illustrate their devotion to their parents as they are starting in early to take an interest in poultry.

Mrs. Perkins had taken the visitors into the parlour the doctor followed Martha into the kitchen. He would tell Martha, for Dr. Clay, like every one else who knew her, had learned that Martha's quiet ways were full of strength. Martha would know what to do.

He told her in a few words, "It's like a chance?" asked Martha, quietly.

"She has a good chance," he answered. "It is only in an early stage, but she must be put in a tent, kept in bed, and have plenty of nourishing food; either that or she must be sent to a sanitarium."

"Where is there one?" Martha asked.

"At Gravenhurst, Muskoka," he said quickly.

"But her mother can't be left alone with her," said the doctor.

"Martha stood still for some moments with one hand on the teakettle's shining lid. Then she spoke. "The tent can be put up here in one ward," she said. "Mother and I will help Mrs. Cavers. I'll ask father and mother, but I'm sure they will help. They never went back on neighbour. We must give Libby Anne her chance."

The doctor looked at her with admiration. "Will you tell me how Martha? You're the best one to tell her."

"All right," she answered. "I will tell her."

The doctor drove away with the great reverence in his heart for the quiet Martha. Pearl had told him about Martha's hopes and fears, and of her great ambition she had for an education. "She won't have much to say to improve her mind now," he said to himself. "She never hesitated.

She may not be acquainted with the binomial theorem, but she has a heart of gold, and that's more important. I wonder what Arthur is thinking. He's foolish to grieve for the tow-haired Thursa when queen are passing by."

(To be continued)

Straighten up! Look at the sky sky at the green hills once in a while. Keeping the eye fixed on the white. My eye has been so long in a gray earth all the time makes a fellow color blind. Away under is the best for weak eyes and weak hearts.

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Irish maid.
Parties arriv
Apply now,
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The Upward Look

The Direction of Our Lives

Whosoever cometh with sin is the servant of sin.—St. John 8:34.

Satan's greatest power over us lies in his ability to deceive us.

Each of us have some one or more sins, or faults to which we are peculiarly subject. Really they are peculiar sins are displeasing to God. Therefore they are dangerous. But Satan suggests to us whenever our conscience troubles us, that they are merely faults and, therefore, not very serious. Really, he says, they are not worth bothering much about. And we, only too often, are content to take no heed for it and as the serpent first charms the bird and then draws it closer and closer into his power, so Satan soothes our consciences, and leads us away from the way of our sins right and tighter around us.

There are hundreds of thousands of professing Christians to-day who admit to themselves, whenever they take time to examine their lives, that they are not living as close to God as they ought to live. They sin and repent, and then commit the same sin over again in the same way that they have done dozens and dozens of times before. And Satan keeps whispering to them that they really can't help it, that they haven't the time to give to prayer that they ought to, or to the study of God's word, that they must keep the house clean, or their business going. And they listen to and accept Satan's suggestion that living closer to God will necessitate their neglecting their daily duties and, therefore, never gain the mastery of

their sins, and thus they sin again. "Whosoever cometh with sin is the servant of sin." Whosoever gives way to an impatient temper is the servant of sin. Whosoever listens to the voice of pride is the servant of sin. Whosoever neglects to forgive others for things they have said or done is the servant of sin. Whosoever spends too much time in the pursuit of wealth or pleasure is the servant of sin. Whosoever is slothful to the servant of sin. And the wages of sin is Death. (Romans 6:23.)

There is no excuse for us when we habitually allow the little sins—which we often recognize them to be sins—become big sins, if we persist in them—to have the mastery over us. We cannot serve two masters, God and Sin. The longer we continue to put up with our sins the more we cut ourselves off from God. The moment we resist them and turn to God they begin to lose their power over us.

"Know ye not unto whom ye yield yourselves servants to obey, his servants ye are to whom ye obey; whether of sin unto death or of obedience unto righteousness?" (Romans 6:16.) By surrendering ourselves to God and seeking His guidance and strength we can master our sins. (Romans 6:14.) They can no longer have dominion over us. We cannot gain, perhaps, the victory in one or a week or a month, or it may be a year. But each week and month while we earnestly seek with God's help to gain the mastery over them, will enable us to look back over victories gained that will encourage us to continue the conflict with more confidence and increased faith. "Each victory will help us some other to win, therefore let us lay aside every weight, and let us sin which doth so easily beset us, and let us run with patience the race that is set before us, looking unto Jesus the author and finisher of our faith." (Hebrews 12:1-2.) "And the peace of God which passeth all understanding shall keep your hearts and minds through Christ Jesus." (Philippians 4:7.) Let us therefore fight the good fight of faith.—I.H.N.

To Mothers

"Tell me a story, please!" You remember the sweet, beseeching, little voice of "yesterday, do you not. You will hear it to-morrow. Through all the years every child voice will bear the same burden: "Please tell me a story."

Did the plaint fall on deaf ears? Were you too busy, too tired, too much engrossed in your own cares to tell the longed-for story? Do you realize what your child and every other child wants, longs for, needs, when he asks for a story?

He wants food for his imagination, first of all. He doesn't live in your world. His world is a kind of unexplored borderland, a place beyond the visioning of us adults, who have grown out of it. He lives in a world which is a land of beauty and desire, a place full of fairies and flowers, sunlight and other children playing, a most delectable happy place for sojourning. No wonder that the little lad wants to take them there. When you tell him a story you are only repeating the words of the book, but the little lad lives it all.

AN END WORSE WHELLS A story will do a great many things for a child; make him brave, helpful, true, sympathetic; but above all these it will teach him the art of visioning. He learns through a well-told story to behold through the veil of the commonplace.

"I loaf and invite my soul," says the poet. We are told by a contemporary that no woman can loaf. The

exquisite pleasures of real idleness are denied to her; she cannot loaf, she cannot waste her time. This is very amusing from the woman's point of view, for woman is really the born loafer, and not man, the only difference being that she does it in private, while he does it in the semi-publicity of his club. The woman who is on loafing bent goes about it systematically. She dons a rest gown. The man, who has learned nothing of the pleasures of a rest gown, will think he has discovered the most gorgeous depths of laziness when he is enclosed behind a newspaper in his club smoking-room exposed to the conversation of a man who is really loafing doesn't want to talk.

He Waited too Long

Mrs. P. Richards, Wentworth Co., Ont.

Could we get down in black and white the story of many a farm woman's life it would be a tragedy of small things. Small things indeed. But things that robbed her life of all that was worth while. In most cases, the root of the trouble is selfishness on her part of the husband. He is anxious to install all modern improvements on his farm and around his barns, but just why his wife should ever need money he cannot see.

One of these farm tragedies was well ventilated in our neighbourhood some years ago. One of our neighbours who thought that the spending of all the money available to be in the hands of his lordship, the man of the house, carried his selfishness a little too far. His wife rebelled and left him, and then the story of how he has stinted her in everything came out.

HOME ESSENTIAL TO FARM.

When the wife was no longer with him, this man began to find out what a valuable business partner she had been. Keeping bachelor's hall was not convenient, and he soon found that he could not run the house and farm too. In the city he could have boarded out, but the home is an essential part of the farm, and he had to stay right there.

About a year ago our farmer neighbor started to work to improve his home. He painted the house, remodelled the interior, and made all things up-to-date. And then he wanted his wife to come back to him. But she would not.

Would it not have been much more to the point for this neighbour to have installed his improvements earlier and kept his wife happy and contented? There are thousands of farmers who are pursuing the same course as did this man. Why not make your improvements now before you have driven your wives away from you or into their graves?

Household Hints

Table linen is apt to wear in the creases. Before signs of wear appear, cut a little off one side and hem it. This will bring the creases in a different place, and save the wear. The same may be done with the ends.

Rags should never be thrown away because they are dirty. Soap suds and leave in cold water. Boil, adding a tablespoonful of paraffin to the water, and they will be nice and clean, and most useful for any kind of polishing in the house.

Before washing home-made net curtains having a straight-hemmed edge, run a string of common white grocery twine along the hem, measuring the exact length of the iron edge of the curtain. Whether you iron or stretch them they will always be as even as before laundering.

Well, Well!



THIS is a HOME DYE that ANYONE can USE

I dyed ALL these DIFFERENT KINDS of GOODS with the SAME Dye. I used



CLEAN and SIMPLE to Use. NO chance of using the WRONG Dye for the Goods you have.

EGGS FOR HATCHING Have you any for sale? I will pay you to advertise them in FARM AND DAIRY.

THIS WASHER MUST PAY FOR ITSELF.

A MAN tried to sell me a horse once. He said it was a fine horse and had nothing the matter with it. I knew it was a fine horse, but I didn't know a nuthin'g about horses, but I did know the man very well. So I told him I wanted to try the horse for a month. He said "All right, but I'll give you back your money if the horse isn't all right." Well, I'll give you my word, I was afraid the horse wasn't all right, and I didn't want to waste my money if I once parted with it. So I didn't buy the horse, although I wanted it badly. Now, this set me thinking.

You see I make Washing Machines—the "100 Gravity" Washer. And I said to myself, lots of people may think about my Washing Machine as I thought about the horse, and about the man who owned it. But I'd never know, because they wouldn't write and tell me. You see I sell my Washing Machines by mail. I have sold over half a million that way. So, thought I, it is only fair enough to let people try my Washing Machines for a month, before they pay for them, just as I would to try a horse.

Now, I know what our "100 Gravity" Washer will do for you, and you don't wear or tearing them, in less than half the time any other washer, and you don't wear the clothes, they are washed by hand or by any other machine.

I know it will wash a tub full of very dirty clothes in less than half the time any other machine ever invented can do that, without wearing the clothes. Our "100 Gravity" Washer does the work so easy that a child can run it almost as well as a strong woman, and it doesn't wear or tear the clothes, they are washed by hand or by any other machine.

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

Address me this way—F. C. Bach, Manager, 1900 Washer Co., 37 Yonge St., Toronto, Ont.

SEND US \$1.50

SEND US \$1.50—Receipts for a regular month's supply of this famous eleven-cent dress for a regular two to eight months' supply. It is made of the finest quality of dark red golden brown, dark green, navy blue, and black. It is a fancy white braided same age 10 years. It is made in the finest age—Standard Garment Co., 25 Standard Building, London, Ont.

Have City Conveniences



REPLACE the pestilent, draught-draw, or any other convenient place in or out of the closet with an in-floor closet which requires no plumbing and no floor installation. Have city conveniences in your home. Safeguard family health by installing a

"Tweed" Closet

Sanitary and Odorless "Tweed" Closets can be installed in the bath, bedroom, cellar, or any other convenient place. They are really requiring to be connected by a few simple pipes and a water supply line. "Tweed" Liquid Chemical used in connection with "Tweed" Closets is both a deodorant and a disinfectant. Many hundreds of "Tweed" Closets have been sold in Canada. Send for illustrated literature.

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Coloist Cars on all Trains No charge for berths Through Trains Toronto to Winnipeg and West

Ask your friends about subscribing to Farm and Dairy.

Have You Made Your Will?

If Not, Your Family is Unprotected

No Lawyer is Necessary

For thirty-five cents you can make your will and be absolutely assured that it is perfectly legal in every respect and that it cannot be broken by anyone, no matter how hard he may try.

Delay in making your will is an injustice to those whom you wish to be taken care of. The courts are full of will cases where, by legal technicalities or the absence of a will, the people who inherit property are almost the last ones that the deceased would want to share in it.

Life is very uncertain. So if you wish to assure those who are nearest and dearest to you of receiving all that you wish them to have, instead of paying \$5.00 to \$10.00 to a lawyer send 25 cents for a Box Legal Will Form, which also includes a specimen will for your guidance.

Why not send to-day, now, while it is on your mind to The Box Will Form Co., Room 1, 275 Colborne St., Toronto.

A House-cleaning Melody

Sing a song of cleaning house, Pocket full of nails; Four and twenty dust-pans, Scrubbing brooms and pails; When the door is opened, Wife begins to sing:

"Just help me move this bureau here. And hang that picture, won't you, dear."

And tack that carpet by the door, And stretch this one a little more; And drive this nail, and screw this screw,

And here's a job I have for you— This closet door will never close; I think you'll have to fix the latch; And, oh, while you're about it, John, I wish you'd put the cornice on. And hang this curtain; when you're done—

I'll hand you up the other one; This box has got to have a hinge Before I can put on the fringe; Before you, you mend that broken chair?"

I'd like a hook put right up there, The bureau drawer must have a knob, And here's another little job— I wish to ask you, dear, But could you fix a bracket here?"

With this and that and those to do, Ad infinitum and more, too, All in a merry jangle, And isn't that enough to make A man wish he was single (almost)? —Carrie W. Bronson, Wisconsin Agriculturist.

The Lawn—Preparation and Seeding

The lawn is probably the most important feature that deals with the impression of a beautiful home. In making a lawn, the first feature is grading. It should always be graded before the surface is prepared and the grass sown upon it, for the grade can with difficulty be changed in after years and must be more or less permanent. If hard-pan or stiff clay lies near the surface, it should be removed, and only the best top portions of the soil be retained.

Drainage should be considered in connection with grading. It is essential to have the lawn well drained, for grass will not do well when there is water standing at its roots. A sandy loam soil will usually obviate any necessity for detailed attention to drainage; yet all lawns should have good under-drainage; and if the situation is flat probably tile drainage will have to be resorted to.

SOIL FERTILITY

After the grading and the drainage are attended to the surface should have a top-dressing of well-rotted manure, preferably that which has not had weed-seeds or any other undesirable foreign material coming into it. The dressing should be worked into the top soil; and then the soil, with the worked-in dressing of manure, should be tamped over with a plow or by spading.

When the plowing or spading has been completed, the ground may be levelled and thoroughly pulverized with garden-rakes or with a harrow. If seed is put upon a lawn that is lumpy, and that has not been thoroughly prepared, one cannot expect good or quick results. The seed should be secured during the winter months, in anticipation of the lawn that is to be made in the spring.

A very good mixture of seed to use is composed of 30 pounds of extra-re-cleaned Kentucky Blue Grass and 10 pounds of the same quality of white clover per acre. Thirty pounds of Red Top are also very frequently added to the mixture.

The blue grass is rather slow in germination; and, to get quick re-

sults, timothy may be added at the rate of 10 pounds to the above mixture; or a peck of rye may be sown per acre, in order to give a green appearance very quickly. It should be remembered that, in order to get good results with lawn grass-seeds, the seeds should be sown just as soon as the ground can be worked up in the spring, so that the germination and early growth may be secured while the weather is yet cool. Most of the seeds germinate best in the time when the nights and the days are comparatively cool. The usual practice is to sow the seeds and depend upon the showers to wash them into the soil. Very often a brush harrow, made from a thorn bush cut and dragged over the ground, will give a covering that is sufficient.—K. A. Kirkpatrick.

The Back Yard Beautiful

Mrs. A. P. G., Hastings Co., Ont. "Oh, dump it in the back yard! How often we hear that expression! Too many of the back yards behind our farmhouses are a dumping-place for the whole farm. We have the



Gables that are Attractive

The story and a half home with gable windows has an attractiveness which plain houses will redeem an otherwise plain house. The home of Robt. Shuld, Hutton Co., Ont., is here illustrated. —Photo by an editor of Farm and Dairy

to work out a few ideas of our own with regard to what the back yard should be, and we believe that we have succeeded in making the best of our house almost as attractive as the front. It used to be that the cattle came right up to the back door of the house. We now have them fenced back in their proper place. The yard is levelled, a nice green lawn has been developed, and is kept tidy with a lawn mower. The high board fence to the west that protects from winds is covered with vines, and at the base is a nice border of perennial flowers that make a great display all summer and requires very little attention. All the fences are neatly painted, and on no account rubbish dumped in our door yard. We are so proud of it that we frequently take our neighbours out to see it in the hopes that they will go and do likewise.

It is quite a common practice washing milk utensils to start with hot water. This is not the best method. In boiling milk a skin forms on it. The hot water likewise cleans this skin to the sides of the milk vessel, making it hard to remove. The better way is to first rinse the utensil in cold water, and it should be rinsed as soon as it is emptied of milk, or else the milk will dry, and then rinsing will not so thoroughly remove it.

'NEW CENTURY' WASHER



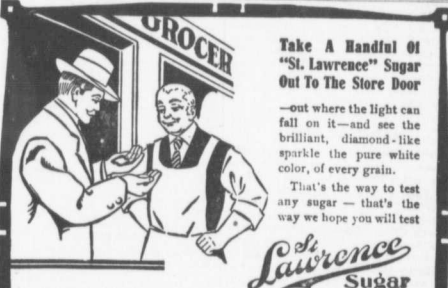
Let the New Century Do Your Clothes Washing

It goes right after the dirt and removes every trace without the slightest injury to the most delicate fabric—and "SO EASY". Ask any good dealer to demonstrate how the New Century saves time and strength. Look at the springs that do half the work and the ball-bearings that make it run "SO EASY".

Notice the Rust Proof shaft that makes the machine rigid and lasting, and also the Anti-Warp rust-proof steel spring sprung into groove inside tub. These are unique features.

This machine pays for itself in the clothes it saves. Ask for "Aunt Salina's Wash day philosophy"—an interesting booklet showing many ways of lightening work on wash day. A-1-12

SUMMER-DOWSWELL HAMILTON, CANADA, LIMITED.



Take a Handful of "St. Lawrence" Sugar Out To The Store Door

—out where the light can fall on it—and see the brilliant, diamond-like sparkle the pure white color, of every grain.

That's the way to test any sugar — that's the way we hope you will test



Compare it with any other sugar—compare its pure, white sparkle—its even grain—its matchless sweetness.

Better still, get a 20 pound or 100 pound bag at your grocer's and test "St. Lawrence Sugar" in your home.

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



HELLY BILL

Say, isn't it fine? Independent Tale... "Well, I should say..."

STROMBE Independent... ILLUSTRATION BY...



QUESTIONS ANSWERED... ARTS, EDUCATION, THEOLOGY, MEDICINE, SCIENCE, INCLUDING ENGINEERING... Rits Summer Session July 1 to Aug 17

UNIVERSITY KINGSTON

Tonight GRAND TR

Homes

Excursion

WESTERN

Chicago a... MAY 14th and 28th... every Second...

WINNIPEG AND RED... EMMONTON and... Tickets will also... through Pullman... operated in con...

NO CHANGE... Full particulars a... Grand Trunk Agent, Victoria Passenger Toronto, Ont.



HELLO BILL!

Say, isn't it fine to have an Independent Telephone in the House?

Yes, it is. You can't say it is. Why, only yesterday, it saved my life and saved my horse's. I just phoned the store, and they got my stuff along by Sam Thompson. They got my horse right away. Yes, the phone on my old job was going higher, too. Come on right away, too.

Yes, my wants to talk to his wife. "All right," said the woman taking those telephone calls. "It's worth the money, just to help them. From last afternoon, they got my stuff along by Sam Thompson. They got my horse right away. Yes, the phone on my old job was going higher, too. Come on right away, too."

STROMBERG-CARLSON
Independent Telephone

INDEPENDENT OWNERSHIP
REPRESENTATION GUARANTEED BY NEAREST REPRESENTATIVE



STROMBERG-CARLSON
17 Victoria Street, Toronto

Vincent's Health Hints

Reward of Sensible Eating

Food that we take pains in eating has the finest taste of any ever taken into the mouth. We never get half the pleasure we might out of eating, unless we chewed the food beyond description. It may be the very plainest of food, but if we masticate it well it satisfies the appetite as no food could before. Less of it will be needed, too, to keep up the bodily strength. There will be absolutely no need to take pills or any other form of physic if we eat this way. We never will have any digestive troubles due to faulty eating; that is a positive fact. We need never be afraid of appendicitis; it will not come near us. We lessen our chances of cancer as a thousandfold and if our food be clean, simple and well cooked the likelihood of this disease is still further greatly reduced. Would it not pay to reform in this way? Pay? It would add years to our lives and make life sweeter and happier and more blessed than any other one we could do.

WHAT IMPROVED EATING LEADS TO

If there is anything I do want to see clear of, it being a blank about any part of my work, and especially in regard to this matter of eating. Eating is really such a small part of living. Or it ought to be, and it is to the man and woman who live right. To be all the time thinking about eating is one of the worst things in the world. We ought to give it attention, but not make it the life object. When we rise to the place more ought to occupy on this subject, we will see that the purpose of eating is to glorify the one who made us and take with the deepest gratitude all He sends us, down to the minutest morsel of our daily food, and turn it into brawn and brain, life and spirit, so that we will be just what He wants us to be, pure, earnest, happy and helpful in the places where we have been placed.

CAUSE OF SOME BRUTISH MEN

But we never can reach this high standard and eat food that is not cooked right, or good food that is not cooked right. I know this puts a big burden on the women folks who do the cooking. But it is a fact that poor cooking and wrong eating have turned many a man into a brute. Why, I can tell you of men who are as cross as a sore-headed bear from morning till night. They never speak pleasant word to anybody, especially their own wives and children. They grump and growl around all the time. The old dog slinks away when they come, and the horses lay back their ears and look as mad as haters and as scared as a chipmunk when a gun goes off. These men don't get much comfort out of life—how could they?

TRANSFORMING MEN

But you take those same men and give them good food properly cooked and show them how to eat like human beings and they will soon be changed men. Their very faces would show it. They would smile and have a kind word for other folks; they would see that the world is not going to the dogs, and they would be healthy, happy, strong members of society. Is this fancy? Not bit of it. I have seen just such changes worked out in men. And it does seem to me if I were a woman I would certainly wish to learn how to cook—not just how to make good pastry, but how to prepare good pure, wholesome food such as people ought to put into their stomachs. There certainly could be no higher ambition than to do this.

SPECIAL PATTERN SERVICE

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

SEMI-PRINCESS DRESS, 7413



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

OUTING COAT, 7488



This pattern is cut in sizes 34, 36, 38 and 40 inch bust measure.

FIVE GORED SKIRT, 7427



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

GIRL'S GUMPEE, 7429



This pattern is cut in sizes for girls from 4 to 12 years of age.

BREAKFAST JACKET, 7149
EMBROIDERY PATTERN, 356



This pattern includes 6 yards.

BOY'S SUIT, 7466
657 EMBROIDERY PATTERN.



This pattern is cut in sizes for boys of 2, 4 and 6 years of age.

HOUSE OR GUMPEE, 7287



This pattern is cut in sizes 34, 36, 38, 40 and 44 inch bust measure.

WAITRESS' APRON, 7421



This pattern is cut in sizes only.

QUEEN'S

ARTS, EDUCATION, THEOLOGY, MEDICINE, SCIENCE.

The Arts course may be taken by correspondence, but students desiring to graduate must attend classes in person.

Includes Engineering, Arts Summer Session July 1 to Aug. 17

UNIVERSITY

KINGSTON • ONTARIO

Tonight

Plan whom you will see about taking FARM AND DAIRY.

GRAND TRUNK RAILWAY SYSTEM

Homeseekers' Excursions

TO WESTERN CANADA VIA Chicago and St. Paul

May 11th and 22nd; JUNE 11th and 23rd
and every Second Tuesday thereafter until September 17th.

WINNIPEG AND RETURN \$34.00
MONTREAL AND RETURN \$42.00

Tickets will also be on sale on certain days via Sarina and Northern Navigator.

Through Pullman Tourist Sleepers will be operated in connection with above excursions, leaving Toronto at 10.25 P.M.

NO CHANGE OF CARS

Full particulars and tickets from any Grand Trunk Agent, or write A. E. DUFF, District Passenger Agent, Union Station, Toronto, Ont.

IMPROVED FARM CONDITIONS

One of the most striking things amongst farmers in the vicinity of my old home...

CEMENT FENCE POSTS.

I was particularly struck with a fence I saw on my way out on his place...

A good many accidents took place, one day another, with these fences which...

PROUD OF HIS FENCE

"As I was about to say, my brother who had on the old farm, took me down...

THE COST

I asked him if the fence had not cost a little costly.

"I asked him if the posts never loosened and fell over to one side in the way that used to make so much work for us in the old days."

"Well, said he, 'they do loosen sometimes. But do you remember how solid the old wooden posts were..."

AYRSHIRE NEWS

Farm and Dairy is the recognized exponent of the Dairy interests of Canada.

GREAT AYRSHIRES AT AUCTION

Never before in the Ayrshire annals of this country have breeders had such an opportunity to secure excellent producing stock...

Mr. Turner's herd combines showy quality and producing ability to a marked degree.

Mr. Turner keeps record of the milk and fat production of all the milkers in his herd.

The herd consists of about 30 animals. Of these all but three will be sold, and it is not certain that even these will be retained.

NOTES FROM THE SECRETARY'S REPORT

W. F. Stephen, Huntington, Que. The advertising, Exhibitions, Dairy Tests, Record of Performance records and the press—all have combined to bring to the notice of the public the many beauties of the Ayrshire breed.



25 Holstein Cattle

Will be sold at Public Auction at Lyndenwood Stock Farm, Nober, Ont., (Norfolk County)

Wednesday, MAY 22, 1912

The Offering includes 15 Registered Holstein Friesians and 10 High-Grade Holsteins

Nearly all of the pure breeds are either fresh or with call to Gano's FAVORIT Butter Boy 6654, who is also offered in the sale.

All of the Pure Breed Females are in the Record of Merit or out of Record of Merit stock with records ranging from nearly 18 lbs. for two-year-olds to 23.42 lbs. as mature cows.

Some of the cows offered are sired by Sir Schulling Posch, No. 3416, sire of Netherland Beauty Posch, who made a Canadian record for a senior two-year-old...

Trains will be met at Townsend and Hagersville on day of sale.

TERMS: Cash or six months credit to responsible parties at 6% interest.

Welby Almas, Auctioneer W. J. BAILEY, Prop. Nober, Ont.

LABOR SAVING Machines appeal mightily to Farm and Dairy people—since manual labor is most expensive to buy...

Will be high in our great Farm Machinery Number, June 6th

OUR HERD OF 80 Ayrshires - 80 Will be sold at Unreserved Public Auction TUESDAY, JUNE 18th, 1912



Seize this opportunity of getting deep milking, high testing Ayrshire females. We have a few bulls and bull calves from deep milking stock which will be in the sale.

BREEDER'S DIRECTORY

FOR TAMWORTH SWINE—Write John W. Todd, Corinth, Ont. E.F.D. No. 1. YORKSHIRE PIGS—All ages, either sex. Chosen young boars, St. for service.—H. C. Benfield, Woodstock, Ontario. HAMPSHIRE PIGS—Canadian Champion Record. Boar head leaders. Borne three months and under.—Hastings Bros., Crosshill, Ont. CLYDESDALES, Imp. Stallions and Fil. head. Fresh Importations. Borne three months and under. Guaranteed in pedigree.—J. J. Sample, Silverton, Ont., and Laverne, Minn., U.S.A. HOLSTEINS—Young stock, for sale. Bred by Imperial Poultry Dept., whom 15 in 7 days.—R. W. Walker, Utica, Ont. HOLSTEINS and TAMWORTH—All ages, also B.O.W. Young stock for sale at any time.—J. McKenna, Willowdale, Ontario. CLYDESDALES—Home of Ams. (Imp.) Holsteins—Home of King Fayus Red Gledhies—several 7 dams of his butter per week, and Broken Welsh Postage.—W. Kealy, G.T.T. & P.O. Manassas, Va., Kyrie C.P.R.

HOLSTEINS

Ourvilla Holstein Herd

Present offering—Bull Calves, five months old and younger, from our great bull, Dutchess Calantha Sir Alshert, champion, champion B. O. F. **EDMUND LAIDLAW & SONS,** ELGIN COUNTY, AYLWER ST. - ONT.

GREATEST VIEW HOLSTEIN HERD

As I have sold all my yearling bulls, I am offering my spring crop of Bull Calves, sired by Gora DeKol Pletier's Count, half-brother May Echo, the champion B. O. F. cow with nearly 24,000 lbs. milk and 1,050 lbs. butter in 1 year, from large producing dams. Prices moderate. For particulars apply to **ARCHIBALD PARKS, NAPANEE, ONT.**

LAKEVIEW HOLSTEINS

Bull Calves, sired by Dutchland Golsau Sir Mona, and out of better sired by Count Hengerveld Payne DeKol.

E. F. OSLER

BRONTE - - - ONT

PENINSULA FARM

Offers for sale three or four Holstein bulls, B for service, from R.O.M. and B.O.P. cows. These bulls are about two-thirds black and all are good ones. Will sell reasonable to make room for the young stock this spring. **H. F. PATTERSON, ALFORD JCT., ONT.** Bell Phone on Farm.

N.B.

Having sold all my yearling bulls, I am now going to offer the young son of Diamond's Ind Lulu, the Dam of Lulu Keyes.

He is 2 weeks old, light in color, straight and well formed. Price \$150.

E. B. MALLORY

FRANKFORD ONTARIO

LAKESIDE DAIRY AND STOCK FARM

Present offering, Bull Calves from Record of Performance dams; and a few females.

W. F. BELL, BRITANNIA BAY, ONT. Ottawa Bell Phone.

AVONDALE FARM HOLSTEINS

Yorkshire and Horned Dorsels

A. C. HARDY - Proprietor

SERVICE BULLS;

KING PONTIAC ARTU, CAYADA—Sire, King of the Pontiacs; dam, Pontias Artis—3 1/2 lbs. butter in 7 days, 1,077 lbs. butter in 365 days.

PRINCE HENGERVELD PIETJE,—Sire, Pietje 2nd's Woodered Land; dam, Princess Hengerveld DeKol—3 1/4 lbs. butter in 7 days; highest record from Prince winning stock, and all for sale.

Address all correspondence to: **H. LORNE LOGAN, Manager, Brockville, Ont.**

MARKET REVIEW AND FORECAST

Toronto, Monday, May 13.—Immigration statistics up to date show conditions satisfactory. In fact Old Country people could not come to Canada much faster as all the steamer space available is taken up. A pleasing factor is that the immigration of a better class than we have ever had before. Many of them bring money enough to buy and equip to travel. Practically all are going to the northwest.

Of course this means good business, and who's men become more and more optimistic as the season advances. Every year the importance of the Canadian wheat in its effect on Eastern trade is becoming greater. Merchants nowadays when talking about trade prospects talk of crops in the west even though the crops of Ontario are worth much more.

A review of farmers' markets this week shows business steady. The most important change is that in the cattle market, which shows another advance.

WHEAT

Lake shipments of wheat are expected in a very short time as prices have declined on Manitoba wheat in consequence. Latest quotations are: No. 1 Northern, \$1.13; No. 2, \$1.09; No. 3, \$1.04; feed wheat, 66¢. The demand for Ontario wheat is stronger than for several months past. There is a steady demand from local millers, and receipts are low on account of farmers being busy. The latest export price run around \$1.04 to \$1.05, while the market price for the winter has done much damage to fall wheat and the crop may be short.

COARSE GRAINS

Expected lake shipments have also forced down prices on Canadian western oats. Ontario oats maintain their old level. Other grains are steady and quiet. Quotations are as follows: Barley, malt-ing, 87¢ to 88¢; feed, 65¢ to 70¢; oats, C.W. No. 1, feed, 66¢; No. 2, 47¢; Ontario No. 3, 46¢; 1/2 outside, 52 1/2¢ to 69¢; track here, No. 3, 1c less; corn, 65¢ to 69¢; peas, \$1.30 to \$1.35; buckwheat, 72¢ to 75¢; rye, 85¢. Quotations at Montreal are: Feed, 65¢; oat, C.W. No. 2, 55¢; extra No. 1, feed, 50.54¢; No. 1, feed, 49.34¢; No. 2, feed, 48.13¢; local, 50.12¢; No. 3, 46¢; No. 4, 46.13¢; peas, \$1.70 to \$1.85 and buckwheat, 75¢ to 74¢.

MILL STUFFS

Quotations are as follows: Manitoba bran, 82¢; shorts, 82¢; Ontario bran, 82¢; shorts, 82¢. At Montreal bran is 82¢ to 82 1/2¢; shorts, 82¢ to 82¢ and middlings, 82¢ to 83¢.

HONEY

Wholesale quotations remain unchanged. Strained honey is 10c to 11c in 60 lbs. tins, 11c to 12c in 5 to 10-lb. tins; buckwheat honey, 6c to 7c in tins, 6.54c in barrels. No. 1 comb honey is 82¢ to 82.50 a doz.

HIDES AND WOOL

The market for hides is steady at last week's prices. Prices paid by country merchants are: Hides, cured, 11c to 11.50c; green, 10c to 10.50c; lambs and pelts, 81¢ to \$1.40; horse hides, \$3.25; horse hair, 50¢; calf skins, 14c to 16c. City quotations are: No. 1, \$1.30; No. 2, \$1.15; No. 3, \$1.10; calf skins, 14c to 15c. Unwashed wool is quoted at 12.50c to 13.50c; washed, 12c to 13c; rejected, 14.50c.

MAY AND STRAW

Farmers are busy and quotations running over \$20 for No. 1 hay will not draw

them off the land to deliver it. And besides there is not much hay in the country. Large quantities of hay are disposed of right at home. Quotations here are as follows: No. 1, \$20 to \$21; No. 2, \$18 to \$19; No. 3, \$14 to \$15; clover, \$16 to \$17; alfalfa, \$17 to \$18; straw, \$11 to \$12.50. Retail prices are as follows: Timothy, \$23 to \$25; clover, \$17 to \$19; straw, \$11 to \$12; alfalfa, \$17 to \$19. At Montreal the hay market continues active, both American and Canadian buyers better posted. Quotations are as follows: No. 1, \$20; No. 2, \$17 to \$19; No. 3, \$15 to \$16.50.

SEEDS

Merchants are selling seeds at the following prices: No. 1, recombined red clover, \$15 to \$16; No. 2, \$14.50 to \$15; timothy, No. 1, \$9 to \$9.50; No. 2, \$8.50 to \$9; alfalfa, No. 1, \$12 to \$12.50; No. 2, \$10.50 to \$11; No. 3, \$10 to \$11. Dealers pay the following prices to farmers: Red clover, No. 1, \$15; No. 2, \$12; No. 3, \$11; alfalfa, No. 1, \$13; No. 2, \$11.50; No. 3, \$10.50; timothy, No. 1, \$8; No. 2, \$7.30; No. 3, \$6.45.

EGGS AND POULTRY

Eggs maintain a low level as noted last week, and for the same cause—high prices of all other kinds of food stuffs. The Hons and Eggs are making a special effort to educate farmers to market eggs that are fresh rather than 17 per cent rotten. They have offered a premium for the better eggs, viz: to dealers are paying 25c to 25c for the new laid eggs. The retail price is 25c to 25c. Montreal dealers are paying 25c to 25c in the country.

Wholesale quotations on dressed poultry are: Chickens, 15c to 17c; fowl, 12c to 15c; turkeys, 21c to 22c; ducks, 12c to 14c; geese, 15c to 18c. On the farmers' market chickens sell at 15c to 25c; fowl, 14c to 16c; turkeys, 22c to 25c; geese, 16c to 18c; ducks, 20c to 25c; hens, 12c to 14c.

POTATOES AND BEANS

There is little change in the potato situation. Most growers generally are holding what little they have left for seed, and what they don't need for their neighbors who have none. English and Irish potatoes are practically the only kind available for consumption. Nominal quotations of domestic potatoes at 12.50c in car lots and 13.50c out of store. Dutchware, \$1.90 to \$2 and English and Irish Mountains sell at \$1.75 to \$1.90 a bag in car lots on track.

Prime beans are quoted here at \$2.50 to \$2.65 and hand picked, \$2.70 to \$2.75. At Montreal three-penned pickers are \$2.50 to \$2.55.

DAIRY PRODUCE

Prices for dairy produce have suffered a further decline of 1c to 2c, due to more liberal receipts. Prices in Canada are now considerably lower than in the United States, and the strength of the dollar has had a tendency to prevent further flow of this side. Wholesale quotations are: Dairy artios, 25¢ to 26¢; creamery price, 25¢ to 26¢; solids, 25¢ to 26¢ and inferior, 12c to 25c. Oil cheese are quoted at 17.4c to 17.5c and 17c and 17c and 17.14c for large. New twins are 15.24c to 15.12c and new large, 15.13c to 15.34c.

HORSES

Heavy drafters are still the kind wanted, but horses of any kind meet with a satisfactory demand. Quotations are as

HOLSTEINS

May 16, 1912

LYNDALE HOLSTEINS

Bull Calves from High Producers sired by the \$2000 Bull King Pontias Artis Canada. **BROWN BROS., LEX., ONT.**

FOREST RIDGE HOLSTEINS

Headed by the grand old King Scotia Pietje, large six months old, average 27 lbs butter in seven days and over 50 lbs butter in 7 days, and 1 year-olds with records of over 50 lbs butter in 7 days. Also mature cows up to 5 years old with records of over 25 lbs the butter in 7 days.

Males and females for sale. Write me what you want or come and see them. **L. H. LIPSITT, Prop., Stratford, Ont.** Uglis Co., on Ft. Burwell Branch, Ont.

WILLOW BANK HOLSTEINS

A Daughter of Pontias Herms (S4) and out of Imported Dam, Horn April 15th, 1910. Large, straight and fine marked. In calf to a good son of One Also a number of young bulls One nearly ready for service, whose grand sire are Harry Line 4th and 25th and Dity Abbecker's Morona (P4) and Prices low.

COLLIER V. ROBINS, RIVERVIEW, ONT. Fenwick Station, T.H.B.

FAIRVIEW FARM HERD

Too much money is spent every year for poor bulls. Why not buy a good one? Sons of Pontias King, Duke, Rag Apple Kordyke, and Johanna Colantha Gladi for sale; In head in herd. Come and see them or write.

E. H. DOLLAR, HEVELTON, N.H.

RIVERVIEW HERD

Offers bull calves from 8 to 10 months sired by KING IRIBELLE WALKER, large and fine marked. Last winter average 30.18 LBS BUTTER IN 7 DAYS and 130 LBS. IN 30 DAYS from dams of three generations, at exceptionally low prices \$1.10 a pair.

F. J. SALBY, LACHINE RAPIDS, ONT.

"LES CHENAUX FARMS"

HOLSTEINS—VANDREUIL, the ring of all the gold Medal herd at Grand Fair. They combine Conformation and Production.

Bull and Heifer Calves from our selection for sale. **DR. L. de L. HARWOOD, D. BODER, Prop.,**

High Testing Lynden Holsteins

To avoid inbreeding I am offering a Herd Bull, Nigger Kordyke De Bore 3rd, young sire 4 1/2 years old, was up 1 week, tested 77 1/2 per cent fat, is a number of Farms and Dairy, Holsteins, for full record. Price, \$180. Bull Calves sired by above bull and his large record cows. Also a few good sons. **C. LEMON, STYDEN, ONT.**

May 16, 1912

HOLSTEINS

SPRING B...

...to ask a "B..."
...and they are...
...of quality, out...
...and when the...
...with them, the...
...member will...
...of the Hol...
...J. CHALLMAN,

HO...

...STRIE...

Holsteins

Apply to

OTTO SERRING

HO...

...Holstein Friesian ...

ELMDALE

For Sale: 3 Y...

Cow, out of Y...

sire of Calan...

E.L.O., at 2 1/2 ...

milk, 20.6 lbs the

Highland Lado...

now 24 lbs. 20 ...

days if you wa...

and your bull ...

FRED. CARR, N.S.

Homestead H...

Offers extra goo...

colours, color of

is a son of a son

his dam is a grand

Also 10 choice

good breeding...

F. R. BARR, N.S.

MISCE...

LARGE ENG...

Young Pigs rec...

and of all other...

such with certifi...

ed diplomas. Phone

V. J. HULICKI, ONT.

MER...

TAM V

is now offering

the choicest bre...

Young sows b...

ready for prod...

of all ages. Write

to **W. W. GEORGE,**

Sale Veterinary...

BREEDER

Breeder

How Much...

or how much...

Because S...

No

You have for sale

which they buy for

advertisements.

Take the prod...

needed for your

Dairy and...

Your advertisement

not only our help

but also your own.

FARM AND

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

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

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

HOLSTEINS

SPRING BROOK

Holsteins and Yearlings... "Brightest Cows" Bull... "Brightest Cows" Bull...

HOLSTEINS

If you are wanting HOLSTEINS... GORDON H. MANHARD, Manhard, Ont.

Holsteins

I have 3 Young Bulls for Sale, fit for service, from good milking strain.

Holstein CATTLE

Published Registered Holstein CATTLE... FREE ILLUSTRATED BOOKLETS...

EMMALE DAIRY HOLSTEINS

For Sale: 2 Yearling Bulls, also Cows out of Record of Merit dams...

Homestead Holstein Stock Farm

Offers Extra good Bulls, fit for service, of various type, color and breeding...

MISCELLANEOUS

LARGE ENGLISH BERKSHIRES... Young Pigs ready to wean from Imported...

MERTON LODGE TAM WORTH'S

Is now offering registered Tamworth's of the choicest breeding and type...

Breeders! DO YOU EVER CONSIDER

How Much You Have Lost or how much business you do not get Because Some One Does Not Know

You have for sale the stock they want and which they buy from the other fellow who advertises?

Take the progressive, paying way of getting buyers for your live stock—Advertise in Farm and Dairy

Your advertisement in these columns will cost you only one flat rate of 95 cents each week

FARM AND DAIRY PETERBORO, ONT.

follows: Choice heavy draft, \$200 to \$350; fair quality, \$175 to \$220; choice mod...

LIVE STOCK

Where are prices going to stop? That is what dealers are now asking themselves...

CHEESE MARKETS

The Holstein Association of America will hold their 77th annual meeting at the New Court House, Syracuse, N.Y., on Wednesday...

AYRSHIRES BRING GOOD PRICES IN NEW BRUNSWICK

Editor, Farm and Dairy.—We sold our Ayrshires at Hill-Grove Farm, East St. John, N. B., May 1st...

Small steers are in strong demand; Lambs, \$7 to \$9.50; spring lambs, each, \$4...

A first-class demand marks the cattle trade at Montreal...

MONTREAL HOG MARKET

Montreal, Saturday, May 11.—The high prices paid for live hogs last week had the result of bringing out heavy offerings...

MONTREAL CHEESE AND BUTTER

Montreal, Saturday, May 11.—The market for cheese advanced in price this week owing to the fact that the supply...

The 28 head sold at an average price of about \$15 a head...

The Superior the only stanchion that you can adjust to fit your own stall to your largest stock size.

shipped to the west and the prices paid ranged from 25.15c to 27c, and this represents the range of quotations on this market...

CHEESE MARKETS

Montreal, May 10.—The Quebec Cheese Makers' Cooperative Society sold finest butter at 26.15c; No. 2, 25.85c.

GOSSIP

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The Superior the only stanchion that you can adjust to fit your own stall to your largest stock size.

AYRSHIRES

AYRSHIRES AND YORKSHIRES

For sale—High class Ayrshires, all ages, including Calves and Bulls fit for service...

Neidpath Ayrshire Bulls

I offer two particularly choice Yearly Bulls from B. of P. dams and grand-dams with high records, and by an Auchenbarn breed bull.

W. W. BALLANTYNE, Phone, STRATFORD, ONT.

AYRSHIRES AND YORKSHIRES

Young Bulls and heifers of good type and breeding... Also proved Ayrshire cows and heifers...

ALEX HUME & CO., MENIE, ONT. Heard's Station, G.T.R.

Burnside Ayrshires

Winners in the show rings and dairy tests. Animals of both sexes. Imported or Canadian bred, for sale.

Long distance phone in house. R. R. NESS, HOWICK, ONT.

SUNNYSIDE AYRSHIRES

Imported and home bred, are of the choicest breeding of good type and have been selected for production...

J. W. LOGAN, Howick Station, Que (Phone in house) 1-61

Ayrshires

World's Champion herd for milk and production. Some young bulls and bull calves, all in groups...

WOODBINE, Ont., Tangleyville Farm, ROTHSAY, ONTARIO

LAKESIDE AYRSHIRES

We have a number of the young bulls of different age, all sired by our imported bull and the majority of them from dams entered or qualified for the record of performance...

LAKESIDE FARM, PHILIPSBURG, QUE GEO. H. MONTGOMERY, Prop., 604 St. Jacques St., Montreal

CHOICE AYRSHIRES

Are bred at "CHERRY BANK" A few young bull calves for sale. Write for particulars.

P. D. MCARTHUR, North Georgetown, BRUNSWICK Station on G T Ry. Que.

Ayrshires for Sale

Bred for production and profit. Special Offering, 3 Bulls, 10 months old, weighing 600 lbs each, two bull calves 2 months old and one four-year-old stock bull. Write GEO. H. STOKES, Oakland Stock & Dairy Farm, Tweed, Ont.

Stable Your Cattle the Superior Way

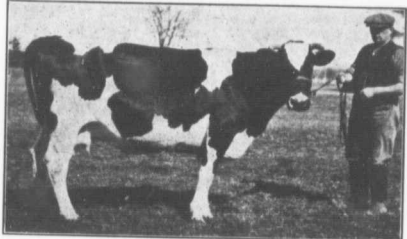
By so doing you will give them the greatest advantage in production to the maximum of the highest priced product.

With SUPERIOR equipment you will have the greatest protection for your investment. Convenience and Durability in stable construction are of prime importance.

Agents Wanted The Superior Barn Equipment Co. FERGUS, CANADA

The Best is None Too Good

Acting on this belief while at Syracuse, New York State, this past winter... I purchased some stock that would make the heart of any breeder glad to own.



Nicolò Pauline Friend

25.90 LBS. BUTTER IN 7 DAYS; 51.06 LBS. IN 14 DAYS.

Average Fat, 4.2 Per Cent.

This cow is sired by Clothilde Friend Pant, he having 5 A. R. O. daughters, 3 A. B. O. sons. She is in calf to PONTIAC KORNDYKE, the cow, to be full or better.

While this cow and some others I have in my stable are rather high priced, I am working into High-Testing Holsteins as a specialty, and will use these top notchers as foundation stock from now on.

Many good ones in my herd—cows with good records for milk and butter fat—you can buy at very reasonable prices.

I have some young stock that I am offering especially just now, this stock being from Prince Hengervold of the Pontiacs, whose picture and breeding were presented to you in this space last week.

Write me of your needs in Holstein cattle or come and see my stock over 100 Holsteins for you to choose from. My barns are a short ride west from North Toronto, via the Metropolitan Electric Cars. You are welcome to come at any time.

THE MANOR FARM,

Gordon S. Gooderham, Bedford Park, Ontario

SALES HAVE INCREASED MORE THAN ANY OTHER. It is a well-known fact that, during the last three years, the sales of



Cream Separators

have increased more than the sales of any other cream separator. There must be some reason or reasons for this great showing. These are some of the reasons:

- Empire Separators skim to a trace. There isn't a machine made their equal for close skimming under difficult farm conditions.
They are easy to clean. They don't spatter oil. And they have anti-splash steel supply tanks.
So nearly frictionless they almost run themselves. Children delight in operating them, and can easily do so with perfect safety.

- They are durable. Years of service have proven their true worth. Their cost per year of service is less than any known separator. Years in advance of competing makes.
Your choice of the two standard models of cream separation. We make both cone and disc machines. Both are fully explained in our latest catalogue. Send for a copy. Get reliable, accurate information on the subject.

EMPIRE CREAM SEPARATOR CO. OF CANADA, LIMITED, Winnipeg, Toronto, Montreal, Sauxs.

Agents everywhere in Canada—Look for the Empire Sign.

OUR FARMERS' CLUB Correspondent invited PRINCE EDWARD ISLAND.

CARLETON, May 4.—We are busy ploughing and harrowing land for seeding; cold and damp. Rice is high. On 75c; potatoes, 65c; wheat, \$1.30 to \$2; timothy, 26 a lb.; clover, 35c to 28c. Hay is bringing \$14 to \$16 a ton pressed. No grain sowed up to date.—H. P.

QUEEN'S CO., P. E. I. BAY VIEW, May 8.—Our Experimental Farm is arranging for more extended experiments with grain and vegetables. A herd of cattle, as well as hogs and poultry, will be added this season. Additional buildings will be erected to accommodate them. An assistant superintendent has been appointed. Superintendent Clark will have a much larger staff employed this year, and he expects to have a considerable acreage added to the farm in the near future.—W. S.

QUEBEC. COMPTON CO., QUE. COMPTON, May 2.—We are having the weather and farmers are beginning to do their spring cropping. Our roads are very good at present, and we have been smoothing them with the King drag. It works fine and we are well pleased with it.—H. O.

RICHMOND CO., QUE. DANYVILLE, May 4.—We are having beautiful fine days, but cold nights. Grass is backward. There is very much done in the ground. The farmers are busy preparing the ground for seed; some have potatoes planted on light land. They have their grain sown. The prices for beef and pork remain much the same, high and scarce. Milch cows are bringing all the way from \$12 to \$20; calf skins, \$1; butter, 25c; eggs, 30c.—M. D. B.

ONTARIO. CARLETON CO., ONT. BRITANNIA BAY, May 4.—Farmers are busy at the crop, the ground being in good shape. Oats, 60c; hay, \$17 to \$18; wheat, 70c to \$1; potatoes, \$1.80; butter, 27c to 28c; eggs, 25c; milch cows, \$50 to \$70; veal, 7c for fronts, 8c for hinds. Grass seed is very high.—J. D.

WATERLOO, May 8.—We had a backward spring, but this last week of warm weather is forcing growth along. Ground is in fine shape and spring seed is about over, and now we are sowing mangolds and sugar beets. The tendency towards using mangolds and wider than implements. What is badly winter killed and a lot is being sown to barley or mixed grain. Fresh seedlings of clover potatoes are also very thin. Hay is selling at a cent a pound; potatoes, \$2.25 to \$2.50 a bag; butter, 30c.—O. H. B.

WOODSTOCK, May 7.—We are busy seeding. Land is in good shape; works fine. Fall wheat is very poor; too much ice and cold, dry winds. Cows are doing well, especially those in good condition. Some cattle are very thin. Quite a number are building silos, a few have manure already all concrete. It is claimed they give good satisfaction.—A. M. McD.

HEWITT CO., ONT. PORTER'S HILL, May 6.—The prospects for a good fruit crop look very favorable. Varieties such as Baldwin, Spy, Russet, Ben Davis, King and many earlier varieties are going to bloom heavy, while the Greening will be lighter. It bore well last year. Cherries are going to bloom heavy, plums medium, pears medium. Peaches will be light although they came through the severe winter in splendid condition, and a few of the tender ones are still freezing back any. Much activity is noticed in spraying. Seeding is well advanced, ideal weather for seeding. Fall wheat is very poor, less than half a crop. Seed oats are 60c to 65c and very scarce; barley, \$1; beans, \$2.50, for seed; clover, \$3; timothy, \$18. The feed crop cannot be had. Feed is scarce.—B. B. S.

ESSEX CO., ONT. HARRIS, May 2.—Seeding operations have been completed for several days, a good deal of the early sown grain shows green over the fields. Farmers are busy ploughing for the acreage planted in tobacco will not be so large as last season. The farmers are spraying their orchards more than in former years.—W. A. B.

BRITISH COLUMBIA. NEW WESTMINSTER DIST., B. C. CHILLIWACK, April 29.—Crops are doing fine. Seed of seedling is done. Pasture is good of seedling in some. Fruit trees are in blossom, and many of the spring birds such as the robin and swallow are here.—J. G.

LARGE COWS MOST PROFITABLE. Malcom H. Gardner, Detroit, Mich., in a recent issue of our A. B. O. reports the Illinois cow Blue Label Queen back to the full aged class with 24,704 lbs. fat from 608.2 lbs. milk; and so anxious was the owner to prove that she could hold over 95.75 lbs. fat had completed a 30-day run was continued on test for 10 days more. In the 40 days she produced 13,137 lbs. fat from 3577 lbs. milk and over the average of over 98 lbs. milk and over the lbs. fat a day. The fat would have made nearly 14 lbs. of commercial butter. It is the rule to set 1 very much doubt that the average yearly production of the cow, over a period of 20 miles of the Blue Label Queen, is not doubtful. The cow produced in 40 days. As to the average yearly milk and fat production of the Holstein-Friesian and Illinois taken as a whole, it would be about the same as a Holstein-Friesian cow produced in the 40 days.

"But," says some short-sighted farmer, "my cow is not making the same milk as the Holstein-Friesian cow." "That's just what she is," says the dairyman anxious to make his feed bill out, "much a cow would eat up all the feed that she would produce, and she is safe." Eat of course she is.

That Holstein-Friesian cows are for the Holstein-Friesian cow. One for her is a good Holstein cow. One for her is that she is the greatest dairy machine now produced. The great source of feed into money. The great source of milk into money. The great source of profit into money. The great source of life into money. The great source of love into money. The great source of hope into money. The great source of faith into money. The great source of peace into money. The great source of joy into money. The great source of love into money. The great source of hope into money. The great source of faith into money. The great source of peace into money. The great source of joy into money.

THE GOAT COMES FIRST. If a man wishes to make his feed bill, he should get a smaller dairy cow than the Holstein-Friesian cow. They claim that their cows are the economical of dairy cattle in the sense that they will produce more money than the cow of any other dairy breed in this country are right; but in the long run the goat will beat the Jersey cow in a frazzle. Why? Because the goat is a smaller dairy animal, just as the Jersey is smaller than the Holstein. But if the Jersey produces more value than the Holstein's worth of feed than the Holstein-Friesian, why not the more profitable animal? By no means. Why? Because the factor of time has to be considered. Suppose that a man has a large cow and a small cow, and each one eats 25 lbs. worth of feed the small cow has returned \$45 and the large cow but \$22, the small cow is 50 cents in the net? But suppose the small cow requires 20 lbs. of feed to eat her feed and the large cow but 35 lbs. Then at the end of the fourth month the large cow has eaten \$25 worth of feed and returned \$45 in cash, with a gain of \$20. The feed cost of the small cow; but does the farmer-dairyman want the feed to hold out to his net cost?

DAIRY NOTES. A big argument for winter drying is the thriftiness of the fall calf. "A place for everything and everything in its place" is an excellent rule to observe in the dairy stable. Pure-bred stock are an excellent foundation for successful dairying, but the profit they yield depends on the liberality of the feeder.

JERS

The firm of Jers... have been established in Toronto... advertising in the Canadian Farm and Dairy.

JERSEY... is a meeting of the Jersey breeders in Toronto...

GOOD JER... Strathbois, Ont., is one of the best of seven... three grade cows... value her at \$12,353... show that gave up in February... butter for 60 days... she would probably have... she slipped her... while we were in... another was J.O.G.O., a two year...

ECOMILK... Make A... Raise health calves at the... You can do...

CA... THE S... (Mad... CALIFORNIA... NUTRIMENT... feeding dry...

ASK YOUR... does not hand... 100 lbs. or... we pay the...

CANADIAN MILLING TORONTO

JERSEY NEWS

The firm of B. H. Bull and Son, of Hamilton, have recently imported 117 Jersey cows from the Island of Jersey. The animals were sent here for sale at the Canadian National Exhibition in Toronto, where their increase brought the number up to 449. It is said to be the largest importation of cattle ever brought into Canada.

JERSEY BREEDERS ACTIVE
 At a meeting of the directors of the Jersey Breeders' Cattle Club held recently in Toronto, it was decided to spend \$100 advertising Jersey cattle in the three leading farm papers of Ontario. Regular advertisements concerning Jersey cattle will appear at intervals in each of these papers. It was also decided to offer \$150 prizes for Jersey cows that qualify and make the best records in the Record of Performance test. The details of how these prizes will be awarded was left to a committee to decide.
 The first herd book to be issued by the club is nearing completion and will be published shortly.
 The club is endeavoring to secure illustrations of Jersey cows that have qualified in the Record of Performance test. These will be published in the farm papers and advertise the breed.

GOOD JERSEYS FOR CANADA
 The following letter received from A. W. Oram, Strathcona, U.S.A., by Mr. E. Bull, secretary of the Canadian Jersey Cattle Club shows that Canada is getting some Jerseys of worth while breed.

"We have completed the sale of our Jersey cattle. W. E. Macdonald, of Gananoque, Ont., is the purchaser; 25 in all, consisting of seven pure-bred cows; three heifers, three years old; five heifers, two years and under; four heifers, one year and under; one bull, three years and three grade cows.
 Among the lot was Lady Cartner's Eastern Lily, 12,353, A.J.C.C., a seven-year-old cow that gave us from February 14, 1911, to February 12, 1912, 9,372 lbs. milk, best butter at test, 5.3, highest 6.7, about 60 days before finishing her year. She would probably have tested seven per cent the last month, but, unfortunately, she slipped her calf 10 days after test while we were trying to dry her up. We attribute this to getting frozen outages.
 Another was Priddy's Mystery, 1,618, G.J.O.C., a two-year-old under test last year. She gave us 6,446 lbs. of milk in 336 days, test 6.4 to 7 per cent. This heifer is a picture in every sense, and we valued her in the sale at \$600. She freshened again on March 11, and was giving 33 to 35 lbs. a day when she left here. With proper handling she should be heard from."

Economize on Milk for Calves and Make More Money

Raise healthy, thrifty, vigorous calves at the lowest possible cost. You can do this by using

CALFMEAL

"The Stockman's Friend"
 (Made in Canada)

CALFMEAL is a Pure, Wholesome, Nutritious meal for calves. It is made in Canada, and you have no duty to pay.

Feeding directions sent on application.

Ask your dealer for Calfmeil. If he does not handle it, send us a money order for \$2.75, and we will send 100 lbs. to any station in Ontario. We pay the freight.

CANADIAN CEREAL AND MILLING CO., LIMITED
 TORONTO, CANADA

"The cow and heifer under test were not forced, but were on regular ration they would have received without being under test, viz. one pound of grain to each three pounds milk produced at the maximum flow."

ALL FORMER RECORDS BROKEN
 Editor, Farm and Dairy—The readers of Farm and Dairy would be interested in knowing that Fairview Lady Korndyke has just completed a seven-day record of 32.12 lbs. of butter. She and her dam also made the wonderful record of 157 lbs., which is 11 lbs. better than the former world's record. She and her dam are owned by E. H. Dollar, of Havelton, N.Y. This cow was sired by Pontiac Korndyke, world's record sire. His cow, in 29 days, made the wonderful record of 157 lbs. in 7 days, 2 daughters all above 30 lbs. The dam of this great cow has a butter record of 314 lbs. in seven days at four years old.

J. W. Stewart, of Leno, and myself have secured a son of Fairview Lady Korndyke, now two years old. "He was sired by Bag Apple, the former world's record four-year-old, butter 45 lbs. in seven days, 126.56 lbs. in 30 days. This cow was sold for \$8,000, she being a full sister to Pontiac Gloriette, former world record, 37.21 lbs. in seven days. She also gave 25,318 lbs. of milk in one year and made a world's record of 1,271 lbs. in one year, 75 per cent the same breeding as Pontiac Pet, 37.58 lbs. in seven days. These two cows were daughters of Pontiac Gloriette DeKok, a 50-pound daughter of Hengerveld DeKok.

We could write a book about the ancestors of this great bull. Space will not permit. Where can you find anything greater than a son of a 39-pound cow, whose dam has a record of 29 lbs. at four years old, sire's dam, 31-pound record at four years old? Anyone wishing service of this bull can secure same for \$100 per cow. For further particulars write J. W. Stewart, Leno, Ont. or Gordon H. Manhard, Manhard P. O., Ont.

DETAILS OF BELLEVILLE SALE
 Consigned by R. J. Foster, Bloomfield, Quince DeKok 2nd, \$165, Jas. Fitzgerald, Halloway.

Sadie Queen, \$150, H. Smith, Winnipeg. Consigned by E. B. Mallory, Frankford Ross Omega, \$200, H. Smith. Sylvia Trenton of Glaspings, \$165, G. F. Murton.

Consigned by Irvine Hamblay, Bay Center, Ont.
 Victoria Johanna Burke, \$160, J. B. Dennison.

Consigned by R. G. Way, Trenton Ont. Verabelle, \$215, Andrew Little, Trenton.

Queen Triumph, \$200, H. Smith. Consigned by C. H. Saylor and Peter Cave, Bloomfield, Ont.

Lilly Butter Girl, \$160, J. C. Drury. Consigned by G. A. Kingston, Campbellford

Princess Belle of Harlaam, \$255, Jos. Kilgour.
 Princess Lillian of Harlaam, \$200, Jos. Kilgour.

Consigned by E. R. Tate, Lakefield, Ont. Jessie 2nd's Inka Wagon, \$190, H. S. Logan.

Anna Belle Marie, \$170, Jos. Kilgour.

A PROGRESSIVE ADVERTISER
 Mr. Gooderham, notes on whose Holstein appeared in Farm and Dairy last week, looks upon his farm and his cattle with the eye of a progressive business man. His experience with certified milk and the public in Toronto have taught him the value of advertising. He has started in now to make his cattle known to Holstein breeders and other breeders of dairy cattle throughout the length and breadth of Canada by advertising liberally in Farm and Dairy, which reaches these people he desires to interest, and with whom he can do business. Mr. Gooderham's advertisement will occupy one-quarter page space in every issue for practically the whole of a year at least. As a business proposition, Mr. Gooderham's advertisement is a sound investment; and it represents him in reality using the value of one of his better cows to advertise and make sale for the other 100, and their increase.

When you market your crops at home be sure and market them to the right kind of stock. Pure-bred stock is the best paying market.

Read The Public

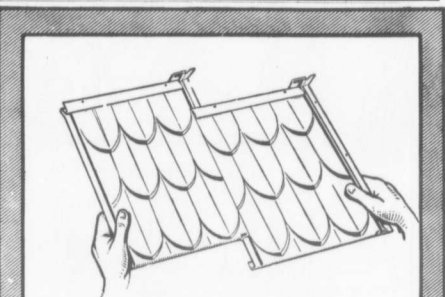
What would all the land in Canada be worth without any population? Have you noticed how land grows in value as the number of people increase?

This vital connection between the presence of population and the value of land is one every intelligent farmer should understand. If you are interested in the land question **THE PUBLIC** will probably be invaluable to you.

Send \$1.50 for fifty-two numbers and a FREE copy of "The Land Question" by Henry George.

The Public, Ellsworth Bldg., Chicago, Ill.

Read The Public



An Easy-to-lay Roof for Your Barn A Tight-locking Shingle that Keeps Out the Rain

SIMPLICITY in itself is no recommendation for a roof. But all other things being equal, you would select the easy-to-lay roof every time, wouldn't you?
 This is ONE feature of Galt Steel Shingles that strongly recommends them to the farmer. Another important recommendation is the tight-locking patented "hook" that forms an absolutely weather-proof surface which neither time nor violent storms can undo.
 The illustration shows two sections of a Galt Steel roof, about to be locked together. It will be noted that, while extremely simple, the shingles are so designed as to "grip" one another tightly at both sides and ends.

A Roof is No Stronger Than its Weakest Point

In a "Galt" roof, all danger of leaks is avoided by our patented "hook"—the most important improvement in metal roofing in 25 years.

The best illustration of "Galt" Shingle superiority you can have, is in the fact that if a number of our shingles are assembled and held to the light, it will be found that light does not penetrate the locks at any point. Do you know any other of which this is true?

It is generally acknowledged that a metal roof (owing to its permanence and fireproof qualities) is superior to any other kind of roof—if "security" can be obtained at the same. With "Galt" Shingles you can be absolutely sure of such security.

But space does not permit a detailed description or a complete story of Galt Shingles. If you would learn all the facts you ought to have, before you roof your barn, you should get a copy of our splendid free book entitled

"HOW TO BUILD A BARN."
 The value of this book to the farmer as a work of present and future reference can scarcely be overstated. But in order that you may appreciate its value and realize that it should be noted that duplicate copies will not be sent, rather, if these are for a friend, also interested in barn construction, use the coupon and send for this free book to-day.

THE GALT ART METAL CO., Limited

151 STONE ROAD, GALT, ONT.

Send Me Your Book on Barns

BRANCHES—General Contractors Supply Co., Halifax, N.S.; Brey & Co., St. John, N.B.; R. Christou & Sons, Fredericton, N.B.; J. L. Lockman, Ltd., 251 St. Paul St., Quebec, Que.; Wm. Gray & Sons-Campbell, Ltd., 333 St. Paul St., Montreal; Montague Sash & Door Factory, Montague, P.E.I.; Pile Hardware Co., Port William, Ont.; Galt Art Metal Co., Ltd., 151 Henry Ave., Windsor, Mass.; Gorham, Chancy & Crandley, Ltd., Calgary; Alex. J. Gorham, Chancy & Crandley, Ltd., Edmonton, Alta.; D. R. Morrison, 714 Richard Street, Vancouver, B. C.

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.

**Canada Cement Company
LIMITED**

National Bank Building, Montreal

