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VOL. XXXI.

NUMBER 40

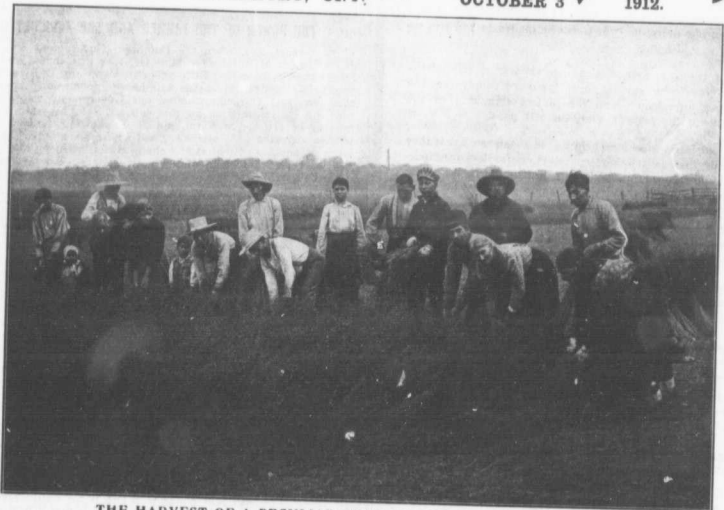
FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

OCTOBER 3

1912.

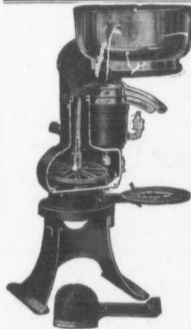


THE HARVEST OF A PECULIAR CROP OF GREAT POTENTIAL WORTH

Rather a limited area in the older provinces of Canada is devoted to growing flax. Round about Baden in Waterloo Co., Ont., the flax industry has been existant for many years, but no very large advancement has been made. Where the straw is to be utilized for its fibre the crop must be pulled by hand, after the fashion as shown in this Waterloo county picture, where the Indians are at work. Out in Saskatchewan, where probably four-fifths of the half million acres devoted to flax in Canada are grown, no account is made of the straw, the crop being grown for seed, and cut with the self-binder. Some day we may expect to see more attention given to the flax crop in Canada. Prices for seed and oil rule very high.

DEVOTED TO
**BETTER FARMING AND
CANADIAN COUNTRY LIFE**

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Showing Simplicity and Accessibility of setting. Removing the body—housing exposes the gearing and lower bearings of the Simplex.

Why You Will Prefer THE "SIMPLEX"

In preference to all other Cream Separators is because the "Simplex" is

- So Simple
- So Easy to Turn
- So Easy to Clean
- So Perfect in Skimming
- So Quick in Separating
- So Pleasing in Appearance
- Self Balancing
- Seldom out of Repair
- Soon Pays for Itself

LASTS A LIFE TIME

There are other advantages in favor of the "Simplex." These are explained in our literature, which will be mailed to you free on request.

The ease of running, ease of cleaning, simplicity, self-balancing bowl, interchangeable spindle point, low-down supply can, the general pleasing appearance, and the perfect skimming of the "Simplex" make it the favorite everywhere it goes.

Then, too, our large capacity machines, so constructed that they turn more easily than most other separators, regardless of capacity, will enable you to separate your milk in half the time. This is a great advantage it will pay you to enjoy.

Bear in mind we allow you to prove all these claims—since "Proof of the Pudding is in the Eating."

Write to us for full particulars about the "Simplex" and our special terms to you to use the "Simplex" and represent us locally in your district.

D. Derbyshire & Co.

Head Office and Works: BROCKVILLE, ONT.

Branches: PETERBOROUGH, ONT. MONTREAL and QUEBEC, P. Q.

WE WANT AGENTS IN A FEW UNREPRESENTED DISTRICTS

Advertisers and Women

Convince the Women and the Battle is Almost Won

The advertising wisemen have learned that women buy or strongly influence 90 per cent of all purchases.

Especially is this true of farm women, who are in closest everyday consultation about the business of the farm.

Next issue is your opportunity to absolutely reach every woman on 17,000 dairy farms we reach.

No time to lose, send your copy at once—rush—for Farm and Dairy's

Special Household Magazine Number

Published Oct. 10, send copy by Oct. 5

(Tell us your story and we will put it in shape if you haven't time)



THE POWER OF THE FARMER AND THE AGRICULTURAL PRESS

Five years ago, when the Dominion Government was opposed to the establishment of Rural Free Mail Delivery in Canada, and when the other farm papers were saying little about it, Farm and Dairy sent one of its editors to Washington to gather first hand information about the system in that country. Our editor found our Government was five years behind time in its information on this subject. On his return he published a number of articles in Farm and Dairy showing the true situation. These articles attracted wide attention, and within six months the Dominion Government announced that it had changed its attitude and purposed establishing Free Rural Mail Delivery in Canada. To-day thousands of Canadian farmers are enjoying the benefits of the service, and many of them remember to thank Farm and Dairy for it.

The Manufacturers and Loyalty

The farmers of the prairie provinces last week played a mean trick on the members of the Canadian Manufacturers' Association, and put their much boasted loyalty to the test by sending the following telegram, through their official organ, The Grain Growers' Guide, to the members of the Manufacturers' Association, while they were holding their annual convention in Ottawa. It was a cruel thing to do, for everyone knows that the manufacturers are as much opposed to increasing the British Preference and, incidentally, the ties which bind us to the Mother Land, as they are to freer trade with the United States. This is the tele. ram:

"The western grain growers are anxious to know if the Manufacturers' Association will join hands with them in an effort to bind Canada closer to the Motherland by urging the Government to reduce the tariff on British imports to one-half that charged American imports, and further reducing it later until we have complete free trade with the Motherland in ten years.

"The grain-growers feel that this would be a tangible form of showing their patriotism, and would develop a much greater trade with the Motherland, and thus strengthen the ties of the Empire and show the world that Canada's loyalty to the Motherland is deep and abiding, and not merely words. It would also show the world that Canada stands behind the Motherland to uphold the traditions of the Anglo-Saxon race and keep the Union Jack in the proud position it has held for a thousand years. Such an action would also be an undoubted proof that Canada has no desire for political union with the United States. Would you kindly bring the matter before your annual convention now in session at Ottawa and ascertain if the manufacturers present are willing to this great Imperial scheme?"

THE MANUFACTURERS' REPLY

The reply of the Manufacturers' Association was just such a one as the farmers evidently expected to receive—it was evasive. It claimed that the telegram had been received too late to enable such an important matter to be given due consideration, and expressed a willingness to have a conference with "any organization of organizations representative of all producers in both the east and the middle and farther west," something which they well knew would be difficult to arrange. Many of the manufacturers laughed when the telegram was read, and President Gourlay, of the Manufacturers' Association, showed the real attitude of the Association when, while speaking at a banquet of the Association, he said:

"The British manufacturers asked us if we would favor an increase in British preference. We told them we would not, and that the best course for them was to cast in their lot with us to establish branch factories in Canada."

This reply shows the real selfishness of the Association, and goes to show as the farmers intended that it should, to show which is the most anxious to build up the ties between Canada and the Motherland, and to extend Imperial Unity, the farmer or the manufacturers.

Chasing the cows may be good exercise for the dog, but it's hard on the milk checks.

As our bull calves come along we get their extended pedigrees made out and printed and struck off by one hundred. Then as enquiries come in for calves, we can send out the extended pedigrees, and save ourselves greatly in the work of correspondence and give our customers the best of satisfaction and full knowledge of the bulls we have for sale.—J. W. Dimick, Woodcrest Farm Ulster Co., N.Y.

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FOR WEEK ENDING OCTOBER 3, 1912.

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STORY OF THE TRANSFORMATION OF A FARM

The History of how Richard Honey of Brickley, Ont., Northumberland County, started Farming under a heavy indebtedness. Of how he realized the need for changing his methods of farm practice. Of how he did it. Now he is the owner of two farms, and of a herd of pure bred cattle.

SCATTERED all through Canada, particularly in Ontario and the East, there are thousands of farmers who, although they started farming under heavy mortgages or heavy indebtedness in one form or another, have not only surmounted all their difficulties, but are now prosperous and well-to-do. Scattered through Canada also there are at this time thousands of young men who are starting into farming confronted with the same difficulties which faced their predecessors. These young men would like to know how the older men succeeded. From time to time Farm and Dairy has told the stories of some of our most successful farmers. This time we want to tell the story of Richard Honey, of Brickley, Ont., Northumberland county.

Mr. Honey, with his parents and brothers and sisters, came to Canada when he was 16 years of age. His father purchased the farm on which Mr. Honey now lives. Mr. Honey worked with his father until his father's death, which took place when Mr. Honey was 31 years of age. The farm was left to Mr. Honey, and with it was an obligation to take care of his widowed mother and to make certain payments to other members of the family which totalled up an indebtedness which Mr. Honey believed at that time, and still believes, was greater by \$500 to \$1,000 than the farm, with its buildings and equipment, was worth. So great was this indebtedness that one of the executors of his father's estate, after reading the will, told Mr. Honey, with tears of sympathy in his eyes, that he never would be able to make enough out of the farm to pay off the obligation that confronted him.

FARM METHODS CHANGED

Mr. Honey would not be the well-to-do farmer today were it not that he has been a man of action and of decision of character. Had he continued to manage the farm along the same lines that had proved successful until a few years before his father's death, it is altogether likely that the prediction of his father's executor would have proved correct. It was just here, however, that Mr. Honey first proved his metal. An editor of Farm and Dairy who recently had the privilege of looking over his excellent Holstein cattle and who spent a night in his home, succeeded through asking questions in securing the following history of his farm operations. "At the time I took charge of the farm," said Mr. Honey, "we were raising wheat and barley and selling grain. The cattle on the farm were grades with a showing of Shorthorn blood. Their milk was being sent to the cheese factory, the

object being to raise a dual purpose animal that would return a revenue both from milk and for beef purposes. The average production of the cows was somewhere between 2,000 and 4,000 pounds of milk a year.

"I soon realized that if I was ever going to pay all the indebtedness that confronted me, I would have to completely change my system of farming. My obligation amounted to over \$4,000. Wheat a few years before had sold for as high as \$1.50 a bushel and barley for 90 cents. At that time, however, wheat had dropped to from 70 to 75 cents a bushel and barley to 50 cents.



A Good Place for the Hogs This Time of Year

The farmer who was far-sighted enough to plow the meadow as soon as the hay was off and sow a field to rape will now have a pork making crop that will add appreciably to his returns from that field and from his hogs as well. A field of rape in conjunction with the grain feeding is an ideal condition for profitable hog production.

—Photo courtesy J. H. Gridman.

Seeding grain under these conditions meant farming at a loss.

AN OLD-FASHIONED WAY

"The conditions that confronted me forced me to think. I saw that the selling of grain off the farm was an old-fashioned method of farming that had passed out of date with the development of the west. I realized that the west could beat us in the production of grain. I also saw that the production of grain was depleting our soil fertility and decreasing the productiveness of our farms. This was the case with our own farm at any rate.

"Having come to the conclusion that it was absolutely necessary that I should keep more stock I decided that while it might cost a little more to buy pure bred stock it would not cost much, if any, more to raise them to maturity, while the returns they should bring in, if properly looked after, should greatly exceed those from grade stock because of their value for breeding purposes. Having reached this conclusion I decided to try it and as soon as possible I purchased some pure bred sheep and pigs. I was the first man in this part of our township, if not the first man in our township, to own registered pigs and sheep.

"Realizing, also, that it was necessary that I

should keep cows able to produce greater quantities of milk, and having seen some Holsteins and watched them being milked, I concluded that I would obtain some of this breed of cattle. I therefore secured a pure bred Holstein bull. My first cross on our grade stock proved satisfactory, and I tried another. It gave equally as good results. This led me to get one or two pure bred females. To do this I had to borrow some money, but I did it. Within a few years I had bred up enough females that I was able to dispose of my grade cattle. By this time the milk producing qualities of my cows had so increased that I was able to sell them at \$50 to \$60 each, although ordinary grade cows were selling for \$30.

HAS ADVERTISED

"Once I had got started with my pure bred stock I found my conclusions, although there had been many to advise me against them when

I started, had been sound. Although ordinary rams were selling at \$2.50 apiece, real good ones bringing as high as \$3, I succeeded in getting \$10 and \$12 for my pure bred ones. Before I succeeded in doing this I had seen that to sell my stock I would have to exhibit at the local fairs and also advertise. I have exhibited regularly every year since at the local fairs. Thus my stock has become well known all over this section of the country. I have advertised regularly also, and have secured buyers from a distance by my advertisements. Thus I have never had difficulty in disposing of my surplus stock at good prices.

"The purchase of the pure bred stock forced me to change my system of farming. Instead of what I grew more mixed grain and sowed less land, but worked it better. By this means I raised as much grain as formerly and was enabled also to grow more roots. I also grew hay and more corn than before. I soon found that it did not pay to sell any grain as I obtained better results when it was fed to the stock. Sometimes I have bought mill feed and bran for feeding purposes.

THOUGHT TO BE FOOLISH

"When I first went to Toronto and invested \$50 to \$60 in pure bred rams and \$30 to \$40 for pure bred boars, there were not lacking people who told me that there was little use in my trying to make money, as I went and squandered it as soon as I secured some, and that the pure bred stock would soon put me out on the road. It is somewhat remarkable that people continued to tell me this for 10 years after I had got nicely started and was doing well with my pure bred.

"The home farm comprised 100 acres. As the stock kept increasing in numbers, the need for more land became apparent, and I rented an additional 100 acres, a quarter of a mile from the home farm. The land on both farms was good, heavy clay, but very stony. I used most of the

land on the second farm for pasture for my sheep and cattle, and for the growing of some hay and grain. The home farm required a lot of stoning as well as overhauling of the fences and buildings.

INCREASED RETURNS

"The revenue of the farm soon increased after I had secured my first pure bred sheep and hogs. Not only did I get a good price through selling my stock for breeding purposes, but the prizes I won at local exhibitions helped out considerably. It was eight or nine years, however, before I began to get much better returns in the matter of the milk production of my cows and from the sale of breeding stock. I was fortunate in one respect in that my cows had very few bull calves. I kept the heifer calves during the first years while I was building up the herd, and therefore derived but little money from the sale of breeding stock.

"The first cow I purchased proved a good one. On ordinary feed she gave as high as 73 pounds of milk testing 4.2 per cent. butter fat in a day. Every animal in my herd, excepting two, trace back to this old cow. I paid \$80 for her when a calf. The sale of her progeny during the past 20 years has brought me in thousands of dollars. A daughter of hers, and this daughter's stock, sold for \$600. I still have two daughters from a daughter of the old cow that are easily worth \$400.

MADE BUTTER

"From the start I had followed the practice of sending my milk to the cheese factory in the summer and of making butter at home in the winter. Between the twentieth of last November and the first of May, we made this year over 700 pounds of butter. This method of farming has kept money coming into the house regularly throughout the year. Mrs. Honey and I have been fortunate in that we have had a healthy family, comprising five boys and three girls. (The eldest is now only 20 years of age.—Editor.) The needs of this large family soon taught Mrs. Honey and me that it was unsafe for us to start running store bills during the winter, expecting to pay them out the next season's returns. Had we done so, we would soon have been swamped. The sale of butter has enabled us to keep from running store bills.

LIBERAL FEEDING ADVOCATED

"When I started to keep pure bred cows I realized that if I expected to secure good results from them I would have to feed them well. This I have done ever since. We have fed the cows and they have fed us and fed the pigs. During the summer we have had hay for the pigs and in the winter plenty of skim milk for the calves, and some for the pigs also. Our system of winter milk production has been one of the secrets of our success. At the season of the year when most farmers' cows are boarding at the farmers' expense, our cows each year have been feeding us.

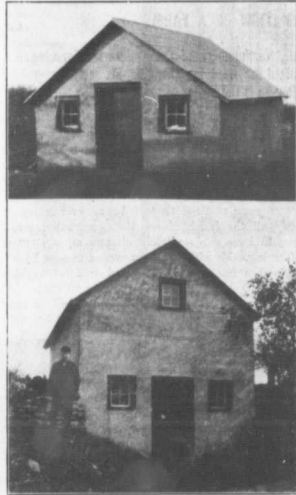
"Another secret of our success has been that I have been fortunate to breed in a line. I did not start with one kind of pure bred stock and after a few years change into another, only a few years later to change back again, as so many farmers do. By breeding straight ahead I have been able to improve my stock, and my success as a breeder has become better known each year, thereby facilitating the making of sales. I have always had great faith in what I have called the 4 C's, i.e., more cows, more corn, more clover, and more care.

"After I had been running the second farm for about 13 years, its owner required it for other purposes, and I had to give it up. When I did this I gave up breeding sheep. I have usually seeded down every two or three years. I never grew grain more than three years and never grow the same variety of grain on the

same land two years in succession. I seed down often and break up often.

"For 10 years after my mother died I had to pay \$300 a year to other members of my family. It kept me joggling all that time. However, I was beginning to secure returns from my surplus stock of pure bred cattle, and the load became lighter each year.

"Of course I never would have got ahead if I had not been economical. There are some lines in which economy is not a virtue. Had I tried to economize by not buying pure bred stock I would have soon found this out. Economy, however, is often a virtue. For instance, we have made it a practise to buy our flour and sugar



A Combined Granary and Root House

The building here illustrated is built of cement with the exception of the roof. The lower portion is used for a root house and the upper portion as a granary. Mr. W. H. Miller, Lennox Co., Ont., on whose farm this building is, did the most of the work himself. And this is just one of the many ways in which Mr. Miller utilizes cement on his farm. Mr. Miller may be seen in the lower illustration.

and some other supplies wholesale. Economies of this nature do not necessitate any less in other directions, and they amount to considerable in the course of a year.

SPECIAL DAIRY CATTLE THE KIND

"I have never regretted my decision to go in for special purpose dairy cattle. Soon after doing so I began testing my cows, and since the establishment of the Record of Performance I have entered a number of my cows in that test. Some of them have made records of 13,000 to 14,000 pounds of milk a year with ordinary feed. One cow, Snowflake, produced 443 pounds of butter fat. Her best month's production of milk during the test was 1,464 pounds of milk. Since then she has produced over 2,050 pounds of milk in a month. I believe that the short term tests do not give a correct indication of what a cow can do. There is a temptation to force cows during the short tests when made immediately after calving. When, however, a cow produces a calf every year and still makes a good yearly record you may know that she and her stock are the kind of animals it is safe to buy."

Mr. Honey was 31 years of age when he undertook the management of his farm. He was not

married until he was 36 years of age. That his system of farming as here described has proved successful is indicated by the fact that not only has he cleared the home farm, but has recently purchased another 100 acre farm about a quarter of a mile away, which is worth probably between \$5,000 and \$6,000. Including his two farms and his excellent herd of Holstein cattle and his pure bred Yorkshire hogs we consider it a safe estimate that Mr. Honey stands to-day \$16,000 to \$18,000 to the good. He is not self-satisfied, however. He states frankly that he still has much to do. He wants and purposes putting up better buildings and making other improvements that he has long contemplated. The success that he has already achieved, however, should be sufficient encouragement to lead other young men to emulate the example he has set.

AN INSTITUTE SPEAKER OF NOV

After he had been running his farm only 10 years he was selected by the Provincial Government to go out as an Institute speaker, which work he continued for several years. He has also done considerable work for the Government as an expert judge at the fall fairs. Possibly one of Mr. Honey's greatest achievements lies in the fact that his three eldest sons, Charlie, William, and Walter, are all enthusiastic about farming, and seem determined to follow the line that he has found so successful. The next boys are too young as yet to show their inclination, but they are fond of the farm, as shown by their interest in all that pertains to it.—H.B.C.

Over-Feeding Hogs

Geo. Duncan, Ontario Co., Ont.

Overfeeding is the point on which many of us fall down in the pork business. We don't overfeed other farm animals. If the hired man is sleepy and useless, we are apt to accuse him of overeating. But when it comes to the hogs we cannot fill them too full.

A farmer living just a few farms from me went into the hog business heavily last spring. Before very long he came to me in great distress telling me that his young pigs were all down in the dumps, would not eat, and seemed sick. I went to investigate. There they were, moping in the far corner and the troughs just running over with feed. My neighbor jumped over the fence, grabbed the poor little things, brought them over two at a time, forced their noses into the swill and tried to make them eat more. I asked him if he fed his dairy cows that way. He replied that he did not, but that cows had some sense and that hogs had not. I advised him to cut out the feed for a while, give the hogs a chance to exercise some, and watch results. He did and learned his lesson.

Pork is too low and feed too high nowadays to waste any of the latter. I always plan to keep my pigs growing vigorously from the first. But they never get any feed unless that gives at the previous meal has been cleaned up promptly. In the two or three weeks' fitting at the end, we induce the pigs to eat as much as possible, and don't like to see them hungry. We would, however, rather see them hungry even than see the feed untouched.

Heavy drafters are easy to raise. The light horse is continually getting into trouble.—Walter Elliott, Halton Co., Ont.

Some people get an idea that underdrainage will cause the land to be too dry in a dry time. My experience is that the drained land is more moist in a dry time than is undrained land. Crops will continue growing on the drained land when those on wet land will be shrunken and shrivelled up. The overplus of water causes some soils to bake hard in summer.—Jas. Marshall, Wentworth Co., Ont.

Construction

During the country fairs by a home sun passes without made for harv is the time to building an ic many perso since conce the continua ready every with concrete buildi ally valuable in

With a conc successful stor depends only ful packing, drainage at the and well regula ation beneath Therefore the must be located drained site an sible, in the other buildin It should be it to the south.

The size of ing is depende Nearly any hous consume one pounds every d tons for the sea cubic foot of ic 37 pounds and the ice-house about 40 cubic the ice is of a pily, meltag; amounts to one-quanti harvested a house of a ca quirements. For sufficient supply by 14 feet (insid the eaves and 13 With an allowan the ice for a pa of this structu

Either concrete solid concrete m for the walls. Di dation trenches wide and 2½ feet remove water from ing ice, lay a one-inch drain tile fr outside the buildi ending at the se so that the top pipe, a sewer ½ will be at floor inches above nat level. Fill the trenches with cor portioned one to half to five. Ab level the walls ma of blocks (laid in two cement-sand of solid concrete. solid wall mix the one bag of Portlan sand to four cubic part cement to four movable forms, 3 f the entire buildin cret; until it sets. the forms may be again. During the

Construction of Small Concrete Ice-Houses

During the sweltering heat of summer many a country family longs for the comforts afforded by a home supply of ice. Too often summer passes without any preparation having been made for harvesting the winter ice crop. Now is the time to get ready for next summer by building an ice-house. For a private supply, many persons are using concrete ice-houses, since concrete is heat-resisting, is not rotted by the continual dampness from the ice and is ready every winter without repairs. Likewise a concrete building is fireproof, a quality especially valuable in the country.

With a concrete house, successful storage of ice depends only upon careful packing, air-trapped drainage at the floor line, and well regulated ventilation beneath the roof. Therefore the ice-house must be located on a well-drained site and, if possible, in the shade of other buildings or trees. It should be turned end to the south.

The size of the building is dependent on the needs of the family.

Nearly any household will consume one hundred pounds every day, or 10 tons for the season. One cubic foot of ice weighs 57 pounds and a ton in the ice-house occupies about 40 cubic feet. If the ice is of a poor quality, meltage frequently amounts to one-third the quantity harvested; therefore it is wise to build a house of a capacity twice the calculated requirements. For a farm with a small dairy, a sufficient supply can be stored in a building 10 by 14 feet (inside measurements) by 9 feet to the eaves and 12 feet to the comb of the roof. With an allowance of one foot on all sides of the ice for a packing of sawdust, the capacity of this structure is 30 tons.

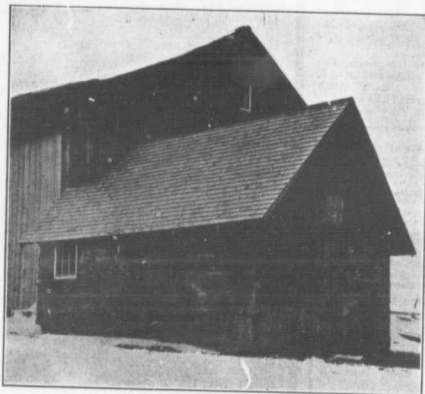
Either concrete blocks or solid concrete may be used for the walls. Dig the foundation trenches 10 inches wide and 2½ feet deep. To remove water from the melting ice, lay a string of four-inch drain tile from a point outside the building and ending at the service door, so that the top of the last pipe, a sewer "goose neck," will be at floor line four inches above natural ground level. Fill the foundation trenches with concrete proportioned one to two and a half to five. Above ground level the walls may be made of blocks (laid in a one to two cement-sand mortar) or of solid concrete. For the solid wall mix the concrete

one bag of Portland cement to two cubic feet of sand to four cubic feet of crushed rock, or one part cement to four parts bank-run gravel. Use movable forms, 3 feet high and extending around the entire building, to hold the mushy wet concrete until it sets. The day after they are filled, the forms may be loosened, moved up and filled again. During the placing of the concrete, re-

inforce the walls, three inches from the outside, with woven wire fencing or with ¼ inch rods spaced 18 inches apart and running in both directions. Stagger the rods by placing half of them three inches from the inside surface of the walls. Inbed two rods or an old wagon tyre in the concrete two inches above all door openings. During the construction set a service door frame (3½ by 6½ feet) between the forms at one end of the building. Likewise, while pouring the concrete for the gable ends, make provision for small ventilation doors 2½ feet square.

ROOFING THE HOUSE

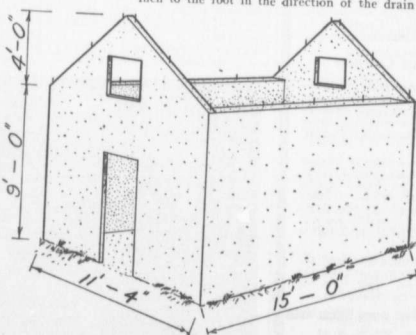
A wooden roof, while not durable like one of



• Concrete Ice-house: Milk Room in Rear

concrete, is more easily built. To hold the plates on the top of the side and gable walls, sink half-inch bolts eight inches long, heads down six inches into the concrete. Use eight-foot rafters and cover the building with a watertight roofing material.

Lay a four-inch concrete floor upon the natural ground and give it a slope of one-quarter inch to the foot in the direction of the drain at



Roof-proof Ice-house of Twenty Ton Capacity

the service door. Place a trash strainer in the drain opening. The water in the "goose neck" sewer pipe will act as a seal and keep out the warm air of the drain.

Hinge the small doors in the gables to outside and top of the frames, so that they can remain slightly open at the bottom yet shut out rain. The service door also swings outward.

The frame is fitted with short removable sections of boards set in slots or grooves so as to hold the packing in place.

STORING AND REMOVING ICE

In storing ice use a thickness of 12 inches of sawdust or 18 inches of marsh hay or straw over the floor and around the sides of the house. Set the ice on edge and pack it tightly together without any filler between the cakes. To prevent blocks from slipping, lay them in courses lengthwise in opposite directions in what masons call "headers and stretchers." When the house is full, cover the ice-pack with sawdust or hay weighted down. Keep the service door closed while removing ice and take care that the pack is again well covered. See that the drain works properly and prevents water from standing on the floor.

Where Underdrains Are Needed

Jas. Marshall, Westworth Co., Ont.

Any soils that remain saturated with water for a considerable length of time after heavy rains require underdraining to produce best results. I have had over 15 years' experience with underdraining, having placed over 20 miles of tile drains in one farm, which is heavy clay, in Westworth Co., Ont., nearly two miles south of Hamilton city.

Most lands require underdrains where the subsoil is not sufficiently porous to allow the rain to be absorbed freely into the lower soils. Where there is a surface wash the best soil is being continually carried down into the lower land, and from there down the creeks or rivers into the lakes or sea, probably to make good farms in the distant future for those who may then be on the earth. This surface wash may be prevented almost altogether by underdrains. Most farmers manure only the hills, and even then the lower land is generally richer.

Soils such as I have seen in parts of Manitoba, where I rode from here four times on my bicycle, and some parts of Ontario, with an open, gravelly, or coarse sand subsoil, do not require underdrains, while on the other hand soils with a close compact bottom, such as we have here, require underdrains over hills and hollows.

Eliminate the Scrub

J. R. Westlake, Carleton Co., Ont.

I have recently been studying the result of Prof. Pearl's work with poultry at the Experimental Station, Orono, Maine. At that station they have been striving for many years to improve the laying qualities of their poultry. The system that they followed was the trap nest system. They selected those hens that produced the greatest number of eggs in the year for the breeding pens. Now after many years they are obliged to confess that their poultry are no better layers than were those with which they first started.

There is a lesson here for many of our cow testers who are faithfully weighing the milk produced by each cow daily, or three times a month, as the case may be, and selling to the butcher those cows that do not come up to the mark. If the same principles apply in the improvement of cattle as apply in the improvement of the laying qualities of hens, the herds of these cow testers will never be greatly improved unless the male is taken into consideration as well. As I see it, cow testing is simply an aid to breeding, not breeding an aid to cow testing as many seem to think. When we have found where our best cows are, we are in a position then to breed to the best advantage. Records and promiscuous breeding will never take us anywhere. Records and the use of a pure bred sire of milky breeding will lead to continuous improvement.

Professor H. H. Dean Prepares a Course On "Dairying"

HERE is a Course of Education that will appeal to every progressive farmer. It is the experience and knowledge of the most successful dairymen in various parts of the world put into such a clear and simple form that it may be readily understood and applied with profit by Canadian farmers.

This Course is the crowning achievement of Professor Dean's life—the result of twenty-two years' experience as a teacher, scientist, investigator and practical dairyman. Prof. Dean is one of the most eminent dairy professors in the world, being professor of dairying at Ontario Agricultural College, Guelph.

World's Leading Dairy Farms Visited

Much of the material for the course was gathered from visits to the leading dairy farms of the world in England, Scotland, Holland, and the islands of Guernsey and Jersey. There is but one other way to obtain this information. That is, to go abroad yourself and visit the model dairy farms. It would be well worth your while, too, but it would cost you a thousand dollars or more.

Among other things, this course explains the marvellously efficient methods pursued by the "Model Farm" of North Holland where the finest Holsteins are kept.

Two Breeding Systems

This course on "Dairying" also tells about two widely different, yet successful, systems of breeding for milk-producing cows as followed on two Guernsey farms for over forty years. Canadian dairymen should certainly have this information. But to go into full particulars about this course is impossible in this space. To state the matter briefly, it covers almost everything from the origin and development of dairy cattle and the various breeds to modern dairy stock management. The subjects of "Feeding" and "Breeding" are alone worth many dollars to the man who will apply what he learns.

5-Year Subscriptions Free

The Course aims to meet two classes of readers: *First*—Those who are interested in dairying, but who do not care to answer the examination questions. *Second*—Those who will write on the examination questions at the close of the course. Five year subscriptions to "Canadian Farm" will be given free to the subscriber residing in the Maritime Provinces who makes the highest marks, to the one residing in Ontario and Quebec, and to the one residing in the Western Provinces. You have as good a chance as anybody one to win a five year's subscription.

This course is a gift that the Publishers of "Canadian Farm" are making to their subscribers. It cost considerable, more than you imagine, to secure the rights to print this notable series of articles in "Canadian Farm." It is the biggest thing that any agricultural publication has ever pulled off.

Each week for ten weeks, this series of articles will be continued in "Canadian Farm." Each article will be well illustrated and intensely interesting.

Can You Answer These ?

Just as an experiment see if you can answer the following questions. Then you will have some idea as to whether there is anything in the course for you!

1. What is the general outlook for immediate improvement in dairy cattle in Canada?
2. What are the three main theories relating to origin of sheep?
3. What is the limit of milk production in a dairy cow?
4. What are the strong and weak points of the Ayrshire breed? The Jersey? The Holstein?
5. What is the reason for the high percentage of butter fat in Jersey milk?
6. What is the "supernatural" in breeding? (This principle is more important than heredity.)
7. Why is it important to look out for "sports" and "mutants" among cows? How would you discover them, there being no noticeable difference in appearance?
8. What is Nutritive Ratio? Why is it so vastly important for dairying purposes? What are the German, American and O.A.C. Tables of Nutritive Ratio?
9. What is a correct balanced ration for progressive farmers? Will also appear in "Canadian Farm" during the next twelve months. After you've read a couple of issues of this bright, newsy, informative publication you'll quickly decide to take it permanently.
10. What do the terms "Record of Performance" and "milk mark" mean as applied to dairy cattle?
11. What is one satisfactory system of ventilating a dairy?

You will be able to answer these questions and scores of others when you've completed the course—read the series of articles faithfully. Just think how largely you will increase your knowledge. Knowledge is power—power to make larger profits.

Mail the Coupon

Fill in coupon below. Enclose with it 25c. for a three months' subscription, or \$1 for a year's subscription. You will receive the entire series of articles in the three months' subscription.

Other notable articles of interest to progressive farmers will also appear in "Canadian Farm" during the next twelve months. After you've read a couple of issues of this bright, newsy, informative publication you'll quickly decide to take it permanently.

But the main thing is to send the coupon in right now, so as to get the "Dairying Course" right from the start. Address the envelope to

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Enclosed please find _____ (state whether 25c. or \$1.00 is enclosed) for a _____ (state whether for three months or one year) subscription to "Canadian Farm," including Professor H. H. Dean's Course on "Dairying."

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30

AN UNUSUAL STUDY IN CHAMPION BULLS

Probably not in years have breeders of dairy cattle and onlookers at two great shows had as much reason to be completely mystified in regard to what is the desirable type of show bull as applies to the Holstein bulls shown at the Toronto and Ottawa Exhibitions this fall. Herewith we present four illustrations showing

Prince Hengerveldt Pietje, from the Avondale Stock Farm, owned by Mr. A. C. Hardy, Brockville, Ont. This bull has a wonderful front. Note his head and neck, his general style and carriage. The illustration shows him, as he is, of wonderful length. He is deeper and of greater substance than appears in the illustration, since



No. 1—Grand Champion Holstein Male, at the Canadian National Exhibition, 1912

The bull here shown is Mercena Vale, first at Toronto, 1912, in the class for Holstein bulls three years and over, and grand champion Holstein male. This bull was bred by James Bettie, Norwich, Ont. He has been in use in the herd of Logan Bros., of Nova Scotia, and is now owned and exhibited by the Colony Farm, Coquitlam, B. C. The conformation of this bull is about as near right as is generally seen in the show ring.—Photo by an editor of Farm and Dairy.

four noteworthy individuals that figured in the winnings at these exhibitions this year.

Bull No. 1, "Mercena Vale," is the first prize and grand champion bull at Toronto. He was exhibited by the Colony Farm of Coquitlam, B. C. As a show bull he is probably in his right place at the head of this bunch of four. The judge at Ottawa, where he was placed second, considered him to be lacking in bloom. As may be seen from the illustration, he is low down, a bull of great depth, straight in his lines, evenly proportioned, and has an attractive carriage and a pleasing head and neck, such as is in every way becoming to a dairy bull. It gives him the appearance of and indicates prepotency.

Cut No. 2 shows what is probably one of the best bred bulls in Canada,

his extraordinary length gives the appearance of lack of depth. Nor in years have we seen a bull that would so suggest to one by virtue of his masculine bearing and his appearance the fact of possessing the invaluable qualities of prepotency as is pictured in this bull. This bull was second to Mercena Vale at Toronto. At the Dominion Exhibition in Ottawa, he was made champion over the British Columbia bull.

Cut No. 3 shows the bull, Homestead Aberkerk Prince, owned, and exhibited at the Ottawa Exhibition, by A. L. Stackhouse, of Kinburn, Ont. This bull is an excellent individual. Alongside of his peers, however, illustrated as Nos. 1 and 2, we could not see how a judge would prefer him for a champion! Age, of course, must be considered, but as there is a lack of sufficient masculine



No. 2—Senior Champion Bull, Dominion Exhibition, Ottawa, 1912

Note the general style and carriage of this bull. There is something about his head and expression that leads one to presume him to be a very prepotent animal—that is, he appears to possess the quality of passing on to his offspring his own characteristics. The illustration, because of the bull being stretched, does set to him justice, and because of his great neck and crest development, he appears to be low in the back. He was first in the aged class at Dominion Exhibition, Ottawa, this year, and at Toronto, his leader at Toronto taking 2nd place to him at Ottawa. Owned and exhibited by A. C. Hardy, Avondale Farm, Brockville, Ont.

bearing and appeal, as shown in rather long and too much of white to see in a cow. Holsteins will fancy, from a hold the matter of the quarters of this present him in his life, there are



No. 3—The G...

Homestead Aberkerk Prince, Ont., and Kinburn, Ont. The connection is discussed.

constitution, that would not be favored or two bulls came in generation as to which prepotency. It is quite that he may develop prepotency.

Cut No. 4 shows has had to be reek Pleasant Hill Korneed by Neil Sangs, Ont., and exhibited show this year. Ational Exhibition a was the reserve champion, grand champion Schulling. Many judges at the ring thought he should and have received prize. This year he



No. 4—A Newt...

This bull is Pleasant Ormstown, Que. Last year, and many good in Logan Prince Schulling, best. The bull here at year. The Champion this class at Toronto this

bearing and appearance in this animal as shown in his head, which is rather long and pointed and suggests too much of what we would expect to see in a cow's head. Judges of Holsteins will find something to criticize, from a Holstein standpoint, in the matter of the rump and the hind quarters of this bull, and could we present him in his full appearance in life, there are points, in the matter of

Toronto; at Ottawa he was not in the fit that would have entitled him to first place as a champion. He is in only fair flesh for good breeding condition, and he is of an age when he probably shows his worst, as shown in the photograph. In confirmation, he is about as we want them from his hip bones forward. He seems to appear a little upstanding, and is not quite possessed of the bal-



No. 3—The Grand Champion Holstein Male, at the Dominion Exhibition, Ottawa, 1912

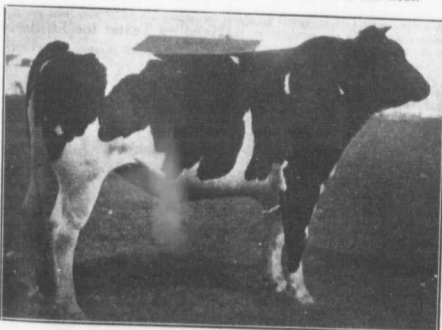
Homestead Abbecker Prince, here shown, was bred by Edmund Laidlaw & Sons, Aylmer, Ont., and is now owned and was exhibited by A. L. Stackhouse, of Kintore, Ont. The placing of this bull as champion over the two aged bulls shown in connection is discussed in the adjoining article.

constitution, that in our opinion, would not be favored when these other two bulls came forward for consideration as to which would be champion. It is quite possible, however, that he may develop beyond our expectations.

Cut No. 4 shows another bull which has had to be reckoned with. He is Pleasant Hill Korndyke Pontiac, owned by Neil Sangster, of Ormstown, Que., and exhibited at the Ottawa show this year. At the Canadian National Exhibition a year ago, this bull was the reserve champion to the \$500 prize, grand champion Logan Prince Schulling. Many good breeders and judges at the ringside at that time thought he should have been first, and have received the \$500 special prize. This year he did not show at

and we like to see, fore and aft. Another year should make a wonderful difference in this bull.

In the matter of placing cattle, or in awarding prizes to live stock in general, judges are inclined to differ. We present these four illustrations this week because of the excellent study they afford, and many of our readers will appreciate this opportunity of having these illustrations where they can place and judge them. All four are most excellent bulls and exceedingly richly bred, and they represent a good deal of money in the matter of the price they would realize if put up at a well advertised auction. Mr. Brethen, the judge at Ottawa, gives his reasons for his placings on Page 23 of this issue.



No. 4—A Noteworthy "Near-Champion" Bull of Last year, at Toronto

This bull is Pleasant Hill Pontiac, owned and exhibited by Neil Sangster, of Ormstown, Que. Last year at the Canadian National Exhibition, at Toronto, he competed for the great \$500 special prize, for which he was made reserve champion, and many good judges thought he should have had the prize over the winner, Logan Prince Schulling, a great bull of wonderful development, but considerably less. The bull here shown this year was third in his class at Ottawa—last year he was the Champion that beat him last year on the \$500 prize was made fifth in his class at Toronto this year.—Photo by an editor of Farm and Dairy.



This is the Richly Bred Bull

Of which I told you in my advertisement in Farm and Dairy two weeks ago, he being son of "KING OF THE PONTIACS," which bull is the sire of two 30-lb. daughters (records having been made as three-year-olds) and he is son of the great "PONTIAC KORNDYKE," a bull with four daughters, having official 7 day butter records exceeding 37 lbs., and twelve daughters each over 30 lbs. of butter in 7 days.

As you will see from this illustration, this bull

Prince Hengerveld of the Pontiacs

is a most desirable individual. See how straight he is—How deep and thick through the heart—How evenly balanced—How desirable in type for a dairy bull.

I will be willing to part with this bull in the near future, and if you have the right kind of a herd and want him, I will make the price right to you at an early date.

I have a few choice bulls out of splendid dams, and by "Prince Hengerveld of the Pontiacs," which I am offering for sale.

These animals I have priced very reasonable, and they will make you money. Come to my farm and see them or write. I have over 100 Holsteins for you to choose from. Write

THE MANOR FARM

Gordon S. Gooderham, Prop. BEDFORD PARK, ONT.

Free PIGS

HAVE YOU GOT YOURS?

They are easy to get. Over 200 already given away. One man earned 3 in a day.

One Pig is Given For Each 9 New Subscriptions

All are pure bred, choicest stock. Your selection of Tamworth, Yorkshire or Berkshire, of either sex.



The *Pride of the Farm* are two of our pigs earned by one of our boy readers in two weeks. His neighbors are offering big prices for the young ones and the boar is in constant demand. They have given him a fine present so we tell you how he worked. You can do the same.

Everyone who fills in this coupon gets FREE our

"Pig Booklet" which tells about pure bred pigs and why they are the best.

Farm and Dairy

(A post card will do if you do not want to cut your paper)

FARM AND DAIRY, Toronto, Ont.
 I will try to secure 9 new subscriptions to earn a pure-bred pig. Please send me sample copies, receipts and order blanks.
 Signed, _____
 P. O. _____ Prov. _____

FARMER BRAND[®] COTTON SEED MEAL

Makes More Milk
And makes it cheaper than any other feed
"FARMER BRAND" contains 44 to 46 per cent Protein—the milk producing element. Protein is the only element in the feed that can produce milk, blood or muscle. Protein is the part of a feed which goes to build up the little milk cells and which makes the casein in the milk. No protein—no casein; no casein—no milk.
Your home-grown feeds are high in starch and sugars. They are all right for producing fat. But, they are low in protein and cannot produce the maximum flow of milk.
Cut out five or six pounds of the grain you are now feeding. Substitute two or three pounds of "Farmer Brand" Cottonseed Meal. Then watch the milk pail all up. Never fails.

No matter what you are feeding now, "Farmer Brand" will make more milk for the same amount of money. Try it and see.
Write for prices in carload lots or in small lots. Ask for our valuable booklet "Feed Facts." Contains much valuable information on feeding—tells how to balance your ration properly and how to get the most good out of your home-grown feeds. It's free for the asking.

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Farm and Dairy, Peterboro, 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 powers. Strong, simple and durable. Any mechanic can operate them easily. Send for catalogue. WILLIAMS BROS., ITHACA, N.Y.

The "Monarch" does all the hard work on your farm

THE easily-moved "Monarch" will do your farm chores—give you an easier winter than you ever enjoyed. Get one like thousands of other economical, wise farmers. All sizes from 1½ to 35 horse power. This is the "King of Farm Engines" for economy and long wear. Easy to start, even at 30 below zero.

Made with gasoline gauge, speed regulator, etc., like finest automobile engine. Just learn how good it is. Water-cooled and air-cooled types.

Send for catalogue and folder to-day. Liberal, easy terms of purchase.

CANADIAN ENGINES LIMITED : DUNNVILLE, ONT.

Frost & Wood, Limited, Smiths Falls, Montreal and St. John, N. B.
Selling Agents East of Peterboro, Ont. to Maritime Provinces.



FARM MANAGEMENT

Light on the Labor Problem

Jas. Armstrong, Wellington Co., Ont.
We farmers might just as well give up trying to make out that the man in the country at \$20 a month and board is as well off as the city mechanic at \$3 a day. He isn't. The city employers do pay higher wages, both actually and relatively, than we do, and they do it because they can afford to. Economic conditions may favor the city and I believe they do. But there is another reason. The great division of labor that is possible in city industries makes the city employ a greater producer of wealth than the hired man on the farm.

The hired man on the farm has to handle all kinds of all work and is able to do a great many separate operations such as milking cows, teaming, plowing, and so forth. This of course leads to a greater development of intellect in the man himself, and it also means that, being able to do so many things, he cannot do one thing with the proficiency that the city employ can, and hence he cannot produce as much of a wealth in the course of a month. I have lost lots of hired men and good ones who went off of the work in the neighboring city of Guelph, and I know, having talked with them since, that they are doing better in the city than I could ever have offered to do for them on my farm, and the above is the explanation that I would offer.

SPECIALIZATION MEANS EFFICIENCY

I believe that we on the farm, to approximate, can do something to improve the division of labor that is practiced in the city. We can specialize in some branch of farming. For instance, if we devote our 100-acre farm exclusively to one branch of agriculture, such as dairying, horse raising, and so forth, we can hire a man and give him some one special branch of the work to look after, and he can devote all his time to that. For instance, on the dairy farm, one or two men might spend all of their time looking after the cattle. One or two men would do all of the teaming and looking after the horses, and so forth. Specialized agriculture is the only kind of agriculture to my mind that will enable us to compete with the city employer.

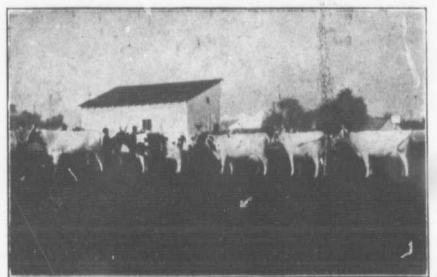
My Herd Management

Thos. A. McCoy, Hastings Co., Ont.
I manage my herd during the winter months in such a manner as to have them in good order in the spring. I feed clover hay, if I have it, corn stalks, and rough feed, also grain, oats, and bran. The corn I grow in hills. I do not pull off the ears as do some farmers. I always supply the cows with plenty of good water and never leave them outside more than from a half-hour to one hour a day.

In the spring I feed plenty of good hay and about four quarts of chop to a cow until June, when the grass is good. From that time until September I fed two quarts of grain a day per cow, as I had no green feed until that date. Then I fed corn and roots the rest of the time.

1000-foot-pounds of work are necessary to dig and wall such a well, and in computing in the same manner it is found that this woman does 16,000 foot-pounds of work each day carrying the water up the hill, or in 62 days she has done enough such work to equal the work of digging and walling a well. At this rate she does enough needless work to make six wells a year of 60 wells in 10 years.

By the expenditure of \$5 for a pump, \$5 for piping and expense of laying it and \$1 for a barrel connected in the kitchen into which to pump the water, the number of these trips to the spring could have been reduced to one in two days, and in 10 years this woman would have done a sufficient amount of this kind of work to equal the making of only four wells, as compared with the former 60. If the



A \$20,000 Herd of Prize Winning Ayrshire Cattle.

This illustration shows a herd of prize-winning Ayrshire cattle, the equal of which has probably never been seen in a show-ring on this continent. It was the winning herd at both the Canadian National and the Dominion Exhibition, and this fall at Toronto and Ottawa. The animals were shown by E. R. Nease of Howick, Que. They include the champion bull, the first second and fourth prize cows and the first prize three-year-old cow this year at the Ottawa Exhibition. This is the herd for which Mr. Baker, of Buffalo, offered Mr. Nease \$20,000, providing only that he was able to secure the expert services of Mr. McMillan, of Huntingdon, Que. for a period of years to look after them.

Milking at regular hours and having men that can milk a cow in five or six minutes, is a great help in the dairy business.

Saving Steps

L. W. Chase, Nebraska

Too often the little things about the farm are overlooked. A manufacturing company will spend \$2,000 a year for an engineer who can arrange the coal bins in the boiler plant so that a few cents can be saved in the handling of a ton of coal. It is only the very thriftest of farmers who ever think of such small things, and yet these very small things are those which count the most.

A barn 300 feet from the house causes the men on the average farm to walk 1.59 miles farther each day than they would have to walk if the barn were only 125 feet from the house. Even though it is only a trifling farther to walk each trip it amounts to approximately 580 miles each year. A man walks at the rate of about 1.5 miles an hour while doing chores. At such a rate of walking it would take him about five more working days each year to travel to the barn farthest away.

A more inexorable oversight of the little savings about a farm was noticed the other day when a farmer's wife was seen going down to a spring after a pail of water. The spring was about 20 feet lower than the house and this woman was making an average of about eight trips each day down to the spring for water. Upon inquiry it was found that a well could have been dug at the back porch and it need not have been more than 20 feet deep. By computation it can be found that only about 1,004,

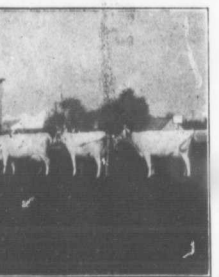


Photo by an editor of Farm and Dairy.
men would pump the water while watering the horses her needless work would be entirely eliminated.

Better still it would be to place a windmill at the spring and pump the water into a tank of sufficient size so that the pleasures of the city cousins who use an average of 30 gallons of water a person each day be experienced instead of being limited to the amount of four and one-third gallons a person.—Nebraska Farmer.

Handling Teams for Efficiency

On a farm adjoining the writer's boyhood home there is a Scottishman whose horses were always full of life and spirit, writes H. E. McCartney in Breeder's Gazette. The horses were worked hard, too. Their days were longer than on any other farm in the locality. Plows were set at a greater depth and everything done in a thorough-going Scottish manner.

Upon studying the methods of handling the teams on that farm one was impressed by the large number of short stops in the field during each half day; once across the field and a short stop, a return trip and another short stop. This procedure was followed with scarcely a trip without a rest. The teams appeared as fresh at quitting as when they started out. A comparison of the number of furrows or corn rows usually made a very favorable showing for teams handled on this plan.

Later this system was tried by the writer. It was found that more could actually be accomplished. A series of short stops, however, had not seemed to be compensated by a freedom of action and spirit that would enable the return trip to be made in one minute or more shorter time.

The Feeder

The Feeder's Code of Conduct
are invited to
send items of
interest to
the editor.

Alfalfa is

If O. Morse, Jr.
I have fed alfalfa
every animal on my
cows, hens, and pig
it principally for
The hens got it in
they seemed to thrive
on it.

When feeding alfalfa
I find that we never
ever if the horses
hand. My horse
alfalfa hay. Even
fat that we cannot
when the horses are
grain ration is ad-
then I find that
big saving in the

Feeding the

Walter Elliott, B.
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start to buy the
mares. In this feed
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winter roots are fo
have never fed em
man. My do not
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tains too much acic
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draught, but the
feeding could be
sown mares on grass
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Calves Che

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chase and what will
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to be the cause of
appetite of the riv
ever, possibly due to
matter and want of
would suggest that
piece of rock salt
and then let out
the day for a run in
dock. With this slight
treatment they are
is probably they hal
formed.—J.H.G.

Treatment for

Repeated gorging
with food or water,
according to Dr. J. I.
the Nova Scotia Col
culture, is the cause
symptoms are exp
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ble lifting of the
which are increased if
forced up a grade at
gallop when the stom
with food or water;
hacking, cough, moor
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seemed to be compensa
freedom of action and
enable the return trip
one minute or more
shorter time.

The Feeders' Corner

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

Alfalfa is Great Feed

H. O. Morse, Halton Co., Ont.
I have fed alfalfa to practically every animal on the farm—horses, cows, hens, and pigs—but have used it principally for cattle and horses. The hens got it in spite of me, and they started to thrive on the alfalfa leaves.

When feeding alfalfa to my horses I find that we need no grain whatever if the horses are not working hard. My horses get rolling fat on alfalfa hay. Even my driver is so fat that we cannot feel a rib on him. When the horses are working a small grain ration is advisable, but even then I find that alfalfa will make a big saving in the feed bill.

Feeding the Brood Mare

Walter Elliott, Halton Co., Ont.
A month before foaling we always start to boil the grain feed to our mares. In this feed is always included a cup full of boiled flax; if in the winter roots are fed as well. We have never fed ensilage to our brood mares. We do not think that ensilage is intended for horses. It contains too much acid and the horse's stomach is too small to make use of such bulky feed.

The day before the foal is expected care should be taken that the mare does not fill up too much on any kind of feed. If they are working steadily the results of over feeding might not be disastrous, but even then heavy feeding would not be wise. I have seen mares on grass that have been simply bleated up on feed and the results of foaling in cases like these have not always been the best.

Calves Chew Wood

I have some calves that chew wood constantly. They are fed separator milk, shorts, bran and ground oats and are in the stable all the time. What is the cause and what will prevent it?—Subscriber.

It is rather difficult to say what may be the cause of the unnatural appetite of the calves. It is, however, possibly due to lack of mineral matter and want of exercise and I would suggest that they be given a piece of rock salt in their mangers and they let out in the cool of the day for a run in some small paddock. With this slight change in the treatment they are now receiving, it is probable they would soon abandon the undesirable habit they have formed.—J.H.G.

Treatment for Heaves

Repeated gorging of the stomach with food or water, and often both, according to Dr. J. H. Standish, of the New Scotia College of Agriculture, is the cause of heaves, and the symptoms are deep breathing, evidenced by the expanding nostrils and the lifting of the flanks, both of which are increased if the animal is forced up a grade at a fast trot or gallop when the stomach is distended with food or water; generally, also, hacking cough, mostly in the morning.

The disease is incurable, says Dr. Standish, but may be palliated by feeding easily digested, nutritive food in small quantities. Give such food as early cut, well cured, clean mucky hay, preferably dampened with weak lime water, and, in winter, roots, carrots, turnips, mangels,

or sugar beets; the oats to be boiled twice a week. Give four drams of ginger and two drams of baking soda in the food at night, or oil of tar in dessertspoonful twice a day.

In some cases better results are secured by alternating these daily or weekly, and in some cases are benefited by four to ten grain doses of white arsenic once a day. But care in feeding and watering is necessary in any treatment. Oat straw, if early cut and well cured, is often preferable to hay. In either case, shake the hay or straw well to remove all dust.

Feeding for Milk Records

A. D. Foster, Prince Edward Co., Ont.

We find the records of production of the dairy cow coming up higher every year. This is due to better feeding, more careful selecting of sires, and better care. The time has come when even the average man knows that his cow cannot give milk in large quantities without plenty of good food, such as corn silage, red clover, alfalfa hay, mangels, wheat grain, chopped oats, peameal, or oil cake.

I have had some experience in feeding dairy cows for records and find that different cows want different varieties and quantities of feed. This being the case one needs to be well acquainted with the cow they are feeding. One of the essential points is not to over feed, because once we get a cow off her feet it is hard to bring her back to where she was in production. A great deal can be done in educating a cow to eat those foods that we want her to. This would have to be done gradually, at some time previous to beginning a record.

The best way I know of to find out what a cow likes best is to watch her lick up the dust of a good feed when she licks off her nose and draws a long breath and seems to say "Have you anything better?" just give her a handful of any one kind of meal and thus go through the whole bill of fare and she will soon decide for us what is best suited to her. I always feed some salt on the grain ration. I would not feed more than three times in 24 hours, as a cow should have a rest and time to chew her cud.

A Pointer on Calf Rearing

One of the editors of Farm and Dairy who recently was down through New York State, visiting leading Holstein breeders, was greatly impressed with the fact of the special care these breeders take of all young growing stock. All of the breeders were making it their special concern to see that the young stuff was kept growing and thriving the best possible. They all seem to be studying how to make their calves do even better—quite the opposite to the practice we have seen so generally in our own country, that of, "Well, you are big enough to take care of yourself now."

To this end the breeders we visited without exception, all have separate calf barns, there being divided off into individual pens, in each one calf to a pen. Abundance of light and fresh air were provided. In all of the barns we saw the calf nurseries or pens for the youngest calves were equipped with a string of hot water pipes leading from a small, hard-coal heater. In cold snaps, by means of this heating system the chill is taken off of the air and more fresh air can be provided without chilling the calves.

This little extra heat provided in these cold snaps proves to be a big factor in helping the calf on to maturity, and in keeping it thriving right along even in the cold months.

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Every cent invested in this wonderful health-giver, brings back dollars in strong, healthy, vigorous, cows, sheep and hogs.

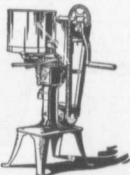
Careful tests show that 4 quarts of oats and the regular feed of INTERNATIONAL STOCK FOOD will keep horses in better condition than FIVE quarts of oats without it.

INTERNATIONAL STOCK FOOD will make your cow gain 1 1/2 quarts of milk per day. Nothing like INTERNATIONAL STOCK FOOD to fatten animals for market. Ask your name and address, and tell us the number of head of stock you own.

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WE HAVE A COPY OF OUR \$3.00 STOCK BOOK FOR YOU. Send your name and address, and tell us the number of head of stock you own.

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IHC Cream Separators Have Trouble-Proof Neck Bearings

GRANTING that a cream separator is a money making necessity on every farm where three or more cows are kept, there are two points to make sure of when you purchase your machine—close skimming and long life.

There is very little skimming difference between separators when they will give. The difference is due to design and mechanical construction. To take one example of mechanical efficiency

IHC Cream Separators Dairymaid and Bluebell

have trouble proof, self aligning, bowl spindle bearings. The bowl spindle bearing or neck bearing is an extremely important part of the separator mechanism. Its business is to reduce to the lowest possible point the vibration of a heavy bowl whirling at the rate of 6,000 or more revolutions per minute. A rigid bearing in such a place is impossible. To make a flexible bearing capable of withstanding the terrific strain requires the most accurate balance of strength, firmness, and elasticity. In IHC cream separators this balance is acquired by the use of one spring. There is only one wearing part, a phosphor bronze bushing. The entire bearing is protected from dirt or milk by steel cases. There is but one adjustment and that easy to make.

Go to the IHC local agent who handles these machines and ask him to show you how successfully this bearing meets all the difficulties imposed upon it. He will also show you many other reasons why IHC cream separators, made in four sizes, are the best. Get catalogues and full information from him, or write the nearest branch house.

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INTERNATIONAL HARVESTER COMPANY OF AMERICA
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IHC Service Bureau

The purpose of this Bureau is to furnish, free of charge to all, the best information obtainable on farm machinery. If you have any inquiries regarding milking machines, feed cutters, grain threshers, etc., make your inquiries specific and send them to IHC Service Bureau, Harmon, Illinois, Chicago, U.S.A.



POULTRY YARD

Selecting the Layers

E. F. Eaton, Colchester Co., N.B.
The most accurate method of determining which of our pullets are laying eggs and which are merely boarders is the trap nest. To most of us, however, with whom poultry is only a side line, and who are not running into the poultry house every 30 or 40 minutes, this method of detecting our best layers is impossible. I have found that by watching hens carefully when around the poultry house it is easy to pick out the good layers.

The following are some points which indicate an unprofitable bird: Birds that want to set for several months each year never give a large

sary, or at least, which do not serve some useful purpose, are more or less of a nuisance, because they impede the movements of the fowls and of their attendant make the cleaning of the house more difficult. The affections which are likely to come from the use of high perches are bumble-foot and rupture or abdominal troubles, frequently caused by jumping to the ground from a high perch. We would hear less of these troubles if perches in fowl-houses were uniformly low.

The Best Breed

What is the best breed of poultry for egg laying on a poultry farm? What style of house is best suited to Western Canada?—Reader, Ontario Co., Ont.

It is generally believed that the Mediterranean breeds, such as Leghorns and Minorcas, will lay more eggs than will the American or utility



A Much Appreciated Department of the Farm

Bees do not receive general attention from Canadian farmers, but those who do have a few hives fully appreciate their value. Honey makes a most delicious dish and can be had practically free of cost. Illustrations here show the best department on the farm of Mr. Stewart Brown, Peterboro Co., Ont.

yearly yield. Loafing around instead of scratching for their living, the first birds to roost in the evening and last out in the morning, are other indications of poor laying propensities. The busy hen is the laying one.

Every spring we select eight or 10 two year old birds and place them in a pen by themselves. The eggs from birds in this pen are used for hatching. The only means which we have of detecting the layers are those which we have just outlined. By the way in which our output of eggs has increased from year to year, we are convinced that this is a fairly reliable way of selecting the best layers.

Why Low Perches are Best

There is a strong inclination amongst fowls to roost upon the highest perches they can find and reach, and when left to themselves it may be observed that they select such places as the branches of trees, the collar beams of out-houses, and in some cases the roof of buildings as roosting places. This decided inclination to roost in high places is an inherited trait. It is an instinct to sleep in places of security. Fowls, even in a state of domestication, have many enemies, including foxes, dogs, cats, etc., and they instinctively want to rest peacefully where their enemies cannot molest them.

But in modern poultry keeping we protect our poultry against their natural enemies by providing them with safe houses, and an outcome of the secure house is the conveniently situated low perch. A convenient height at which to place perches in a fowl-house is from two to three feet from the ground. The chief objection to the high perch is the difficulty of getting off it without injury. In some fowl-houses we see rather high perches, with a ladder-like arrangement leading the fowl to the first perch by step, but this ladder is hardly ever used by the birds in descending from the roosts, and it is therefore a useless arrangement as well as a nuisance in the fowl-house. All appliances that are not neces-

sary such as Rocks, Wyandottes, Orpingtons or Rhode Island Reds. Egg laying, however, is more a matter of strain than of breed, and many of our most successful poultry men prefer the utility breeds even for egg laying. Among winter egg layers the Rhode Island Reds seem to be a general favorite. The American breeds of course have an advantage in that the cockerels make good table fowl and can thus be disposed of to advantage. If popularity be any indication of utility value, and we believe it is, the Barred Plymouth Rock must be considered our best all round breed.

Even in the cold climate of Western Canada, the cotton front poultry house is giving good results to poultry men who have tried it. No matter where we go, dryness and cold are more agreeable to the best health of the birds than are warmth and dampness.

How revolting is a hen house where the manure is allowed to pile in pyramids under the roosts, where cobwebs form draperies, where lice and mites find roosting places. Can such a condition speak well for the enterprise of the men in charge? If idleness, shiftlessness and uncleanness were to wealth, what a large array of rich men we would have. For him who is a shiftless business man, a poor manager, one of those forgetful, inactive kind, the poultry business is one of the worst businesses.

As the increasing demand from poultry raisers has boosted the price of meat scraps up, and the quality has also decreased, many are searching for a substitute. Meat scraps are used for two purposes. First, they contain a high percentage of protein and are used to narrow down the ration in conjunction with the regular grain rations. Secondly, it is thought that fowls need some kind of animal food aside from the rice as protein. Growing alfalfa, with a dry mash and cracked grain ration, answers very well without scraps for growing, developing and maturing pullets.

Qu'Appelle, Saskatchewan, Canada

The best grain and dairy district in the North-West—cheap lands, 100,000 acres within 5 miles of Qu'Appelle, old established town on P. E. Main Line. \$1.00 an acre upwards, easy terms. Write for information and illustrated pamphlet to Secretary—Qu'Appelle Poultry Association, Qu'Appelle, Sask., who will gladly furnish all further details.



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Any size with the London Ad. Justable Silo Curbs. Send for Catalogue. We manufacture a complete line of Concrete Machinery. Tell us your requirements. LONDON'S Concrete Machinery Co., Limited Dept. H. London, Ont.
Largest Manufacturers of concrete machinery in Canada.

THE CONNAUGHT SKIRT
WONDERFUL VALUE!

Have you seen it? It is really worth while. HOW CAN WE DO IT? We are selling this skirt at less than it costs us to make it, simply to introduce to you our Mail-Order Catalogue.

We have a Fashion Book for you this season which is really worth seeing. It shows the very latest styles in Ladies' and Children's wear.

WE ARE LEADERS in the art of making clothes for the gentle sex, and we must know how, when you consider the thousands of Customers we have from Coast to Coast.

We guarantee a fit or refund your money—and prepay all charges to your nearest Express or Post Office.

DO NOT ORDER YOUR SUIT, COAT OR DRESS before seeing this book. IT IS FREE FOR THE ASKING.

Now Read About the CONNAUGHT Skirt



Ladies' Vicuna Skirt Again we offer a beautiful tailor-made Skirt, believing that our patrons appreciate our efforts in producing a rare bargain, as the demand for our Special season was enormous and at times taxed our capacity. **DO NOT THINK** that because the price is low the value is likewise, it is really worth far more and you will agree with us when you see it.

We attribute this success to the fact that all our friends know that we use dependable cloth, good tailors and good trimmings which in this case, on this offer, gives you a Vicuna Skirt above the average. It is five gored, panel back, high waist or the regular waist band. Comes in colors Navy, Brown, Grey and Black.

Be sure and mention whether you want high or low waist.

Sold in stock sizes only as follows:

STOCK SIZES

Band—23 24-25 25-26 26-27 27-28 28-29-30
Length—38 39 40 42 43 44

We call it the "CONNAUGHT," and the price is

\$1.98 POST PAID

If you do not get the Skirt, be sure and get the Catalogue.
MONTGOMERY ROSS & CO., LTD.
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The Mail-Order House de Luxe of Canada

FARM AND DAIRY

AND RURAL HOME

Published by The Rural Publishing Company, Limited



1. FARM AND DAIRY is published every Thursday. It is the official organ of the British Columbia, Eastern and Western Ontario, and Pacific Coast Dairy Clubs, Dairymen's Associations, and of the Canadian Holstein Cattle Breeders' Convention.

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

3. REMITTANCES should be made by Post Office or Money Order, or Registered Letter. Postage stamps accepted for amounts less than \$1.00. On all checks add 20 cents for exchange fee required at the banks.

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

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

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

CIRCULATION STATEMENT

The paid subscriptions to Farm and Dairy exceed 14,378. The actual circulation of each issue, including the copies of the paper sent subscribers who are but slightly in arrears, and sample copies, varies from 14,000 to 15,000. All subscription notices are accepted at less than the full subscription rates.

For more 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 are dealt with by the advertiser's reliability. We try to admit to our columns only the most reliable advertisers. Should any subscriber have cause to be dissatisfied with the treatment he receives from any of our advertisers, we will investigate the circumstances fully. If we find we believe that any of our advertisers are unreliable, even in the slightest degree, we will discontinue immediately the publication of their advertisements. Should the circumstances warrant, we will expose them through the columns of our paper. Thus we will not only protect our readers, but we will also protect ourselves as well. In order to be entitled to the benefits of our Protective Policy, you are only to insert the words "our advertisement in Farm and Dairy." Complaints must be made to Farm and Dairy within one week from the date of any unsatisfactory transaction, with proofs thereof, and within one month from the date that the advertisement appears, in order to take advantage of our guarantee. We will not undertake to adjust trifling differences between readers and responsible advertisers.

FARM AND DAIRY

PETERBORO, ONT.

EDUCATION DID IT

Rider Haggard, novelist and farmer, has recently published a book telling of personal investigations that he made into the subject of Danish agriculture. Mr. Haggard went right out into the country in Denmark and talked with the farmers. He studied their farming methods, their business methods, and also their educational system. He saw the disadvantages under which the Danish farmer labors—the poor soil and none too favorable climate. After studying the subject thoroughly Mr. Haggard has come to the conclusion that the wonderful prosperity of rural Denmark is due more than anything else to their so splendidly practical system of education.

The superficial observer will attribute the success of the Danes to their excellent agricultural methods, to the

fact that they have dairy cattle that are big producers, and to their selling cooperatively, thereby securing the biggest prices paid. But these things are only outcroppings of the rural basic factor in Danish prosperity—education.

The whole system of Danish education is designed to give the student a high appreciation of the dignity and usefulness of the calling of agriculture. In his school life the Danish boy learns more than the three R's. He learns both the how and why of elementary agriculture, and when he leaves school he is well equipped to carry on farming in an intelligent manner. For those who wish further education along agricultural lines the Government has provided a system of agricultural high schools that has its equal no place in the world.

School children in Denmark get as much "cultural" education as they do in this country. They study the best literature with just as much appreciation as does the Canadian school child. But they get more. They get an education that will be of assistance to them in the practical everyday affairs of their entire life. How long will it be before we here in Canada give our children equal advantages?

INVESTMENT OR EXPENSE

When a railway company decides to build a branch line, the managers do not wait until profits from the lines already in existence will enable them to build the new branch. They add to their capital stock, sell shares to the public, and depend on the earnings of the branch line to pay interest on that investment. The new branch is to them an investment, not an added expense.

There are thousands upon thousands of farms in Ontario that are badly in need of tile draining. In many cases the annual income from those farms could be doubled by a well planned system of tile drains. But the owners of those farms are waiting until they get enough money ahead to meet the expenses of tiling.

Those of us whose farms are wet might well take a lesson from the practice of railway companies. Tile drains are not an additional expense, but a permanent and profitable investment. Instead of waiting many years until we can tile drain our farms on our bank accounts, why not add to our capital by borrowing from the Government as provided for in the Tile Drainage Act, put in our drains, and then pay interest and principle from the profits accruing from the new improvement. That is a business-like way of doing it.

We must draw a distinction between investment and expense. A good investment is always wise. Let those of us in Ontario whose farms need tiles get in touch with the Department of Physics at the O.A.C., Guelph, and make arrangements for a drainage survey of our farms. Then through our County Council we can arrange for a loan with payments extending over twenty years. Let us, if we are short of cash, do it—now!

IS HARD WORK ADVISABLE?

The slowness of many of our hard-working farmers to adopt reforms that are obviously for their own benefit has always been a source of wonderment to educationalists. For instance, the value of alfalfa could not be more clearly demonstrated. The experience of hundreds proves that the investment in a pure bred sire in the grade herd will return manyfold. And yet many of our farmers, perhaps the majority, do not grow alfalfa nor keep pure bred sires.

There is a physiological reason for this conservatism on the part of our farmers. Most of us think that in order to get along we must work very hard and work long hours. Our sympathetic nervous system which controls the distribution of energy in the body is worked overtime to supply energy to the muscles that are used in manual labor. The sympathetic nervous system develops as we require it to, and more and more energy is directed to the muscles and less and less to the brain cells. The adoption of new and progressive methods first requires a mental effort. But many of us have worked so hard with our muscles that the necessary energy for the development of new ideas is not directed to the centre of thought, the brain.

Not long ago we saw a fine example of the practical working out of this scientific principle. A farmer who had always worked very hard had to go to the hospital for a couple of months. As he could not direct his energies towards manual labor, he started to read and think. When he came back to the farm he was ready and willing to make changes and reforms to which he had previously been opposed.

We farmers should remember that brain is quite as important as brawn in the management of our farms. We can hire brawn, but we cannot readily hire the brain power. We must supply that ourselves. Even if labor is scarce and high we cannot afford to make slaves of ourselves. For then progress ceases, just as does our ability to think.

TAKING COUNSEL WITH FEAR

"I am afraid that it will kill out, and then I will have all my trouble and expense for nothing." So said a Peterboro county farmer recently in explaining why he had not seeded a field to alfalfa last spring as so many of his neighbors had done. His explanation brought to our minds the reasons advanced by another farmer in a western Ontario county for not going into pure bred stock. For years he had been talking about purchasing a Holstein bull, but he is still using a scrub in his herd, because he thought it too great a risk to put so much money into one animal.

The trouble with these two farmers is that they are taking counsel with their fears rather than with their courage. They do not realize that if they will not risk anything they cannot gain anything.

Is the risk so great after all? Al-

falfa will kill out occasionally. So will red clover. But thousands of alfalfa growers will testify that it would take more than a winter killing occasionally to render the crop unprofitable. Dairymen from one end of Canada to the other would smile at the idea of there being any risk in investing money in a pure bred sire.

We should not be governed by our fears. Let us take counsel with our courage.

OUR EDUCATIONAL SYSTEM

In the course of an address before the Illinois Bankers' Association, President B. F. Harris spoke some words of wisdom on rural education that we would all do well to ponder. He said:

"The children in the country are entitled to a course of instruction that will enrich their lives and make life in the country not simply tolerable, but attractive and all that it should be. Practical education develops thrift, and thrift is a fundamental factor in progress, whether of the individual or of the community at large."

Are our Canadian school children here in Canada getting the kind of education of which Mr. Harris speaks? If not, where do our school courses lead to?

We find our answer in a rapidly decreasing rural population and in a continually increasing city population. The cities of Ontario alone increased in population over 300,000 in the same period that the rural population decreased 100,000.

Did our schools exalt the dignity of farming rather than laud the so-called "learned professions," there would be more of our young people remaining on the farms. The reorganization of our common school system here in Canada and the substitution for subjects now studied of subjects that bear directly on the life work of the student is one of the reformations that must come in our educational system if we are to retain a contented and educated population in our rural sections.

A new feature in the city milk trade is the continually increasing number of dairymen who are breeding and raising their own cows. City milk producers are finding that it is now impossible to go out into the country to buy the best cows at nominal prices. In many places the country has been drained of good cows. In others farmers are finding that their good cows are the only profitable ones and are worth as much to them as the city milk producer. Around Montreal, Ottawa, Toronto, and other large cities we can now find dozens of farms with fine young stock developing where formerly not a cow was raised. This is development in the right direction. It will prevent the draining of the outlying counties into districts of good cows, and the dairymen themselves will make more money than under the old system.

What would Where would line?

It may be the time in carrying, refusing absolute use of alfalfa and electric belt, quick and questionable we are doing something justice.

It would surprise the great amount advertising that is during the course which we turn down. In connection we have no com ever. With some it is a question who should put it in Farm and Dairy.

A case of this two weeks ago. ment was subm "Away with wort and the illustrati with was to be us



with it. After telling the merits of this rupture holder, and asking people to write for their free book, which poses all humbug etc., it took a ge doctors and drug contract for this advertisement. To us. The ed. w 26 issues.

There was really the advertisement objectionable other than the insinu

Perhaps we have people an injustice ing their advertiser must draw the line and our line include able advertising in appearance

We believe our oughtly appreciate a this regard, and w much to do with in Farm and Dairy splendid results the —because OUR F DAIRY FARMER Farm and Dairy. OUR ADVERTIS

While we are c hundreds of dollars revenue right adv accepting all adver sers, we have fait win out in the lon policy, and we inte this policy and co duct this paper, Fa where it will alwa where be known

A Paper Farmer

XLVII

What would you do about it? Where would you draw the line?

It may be that from time to time in carrying out our policy of refusing absolutely to allow the use of Farm and Dairy advertising columns to patent medicines, electric belt, liquor, get-rich-quick and questionable schemes, we are doing some people an injustice.

It would surprise you to know the great amount of questionable advertising that is submitted to us during the course of a year, and which we turn down absolutely.

In connection with most of this we have no compunction whatever. With some of it, however, it is a question whether or not we should put it in the columns of Farm and Dairy.

A case of this kind came up two weeks ago. An advertisement was submitted headed: "Away with worthless trusses," and the illustration given here-with was to be used in connection



with it. After telling the merits of this rupture holder, and asking people to write for their free book, which claimed to expose all humbug methods, etc., etc., it took a general thrust at doctors and drug stores. The contract for this advertisement represented something over \$120 to us. The ad. was to appear in 26 issues.

There was really nothing about the advertisement to make it objectionable other than its appearance and the insinuations it made.

Perhaps we have done these people an injustice in not publishing their advertisement! But we must draw the line somewhere, and our line includes all questionable advertising, even that questionable in appearance.

To believe our readers thoroughly appreciate our policy in this regard, and we know it has much to do with our advertisers in Farm and Dairy getting the splendid results they tell us about,—because OUR PEOPLE THE DAIRY FARMERS, who read Farm and Dairy, BELIEVE IN OUR ADVERTISERS.

While we are dropping many hundreds of dollars in immediate revenue right along through not accepting all advertising that offers, we have faith that we will win out in the long run on this policy, and we intend to continue this policy and continue to conduct this paper, Farm and Dairy, where it will always and ever-where be known as,—

A Paper Farmers Swear By!

Jersey Island and its Cows

Jersey Island, the home of the Jersey breed of cattle, is one of a group of three islands situated off the coast of France. The cattle of these islands were first known as the Alderney cattle. Later they were formed into three distinct breeds. The Jerseys originated from a cross between the large, red Normandy with the small, black Briton, many centuries ago. They have been bred with little or no mixture of other blood for upwards of 600 years. In 1789, the importation to the island of foreign cattle, except for slaughter, was prohibited under severe penalty. The three breeds of cattle, known as the Jersey, Alderney and Guernsey, coming respectively from the Channel Island group, differ very little in general appearance, and might with propriety be classed as the one breed. Jerseys are the more numerous. Guernseys are larger and coarser than the former, and are more useful for beef, while the Alderneys are smaller and more delicate even than the Jerseys, and of them there have been imported to America.

THEIR HOMELAND

The island of Jersey is 11 miles long, and less in width. It contains about 23,000 acres, and has a population of 60,000 people. It has many advantages, which tend to make it a most suitable place for carrying on of dairying. The cold of winter is not severe. Late frosts are uncommon. The climate is moist, the soil fertile, and its people are industrious, their aim always being to improve their conditions and get the best out of everything. The system of agriculture followed is naturally intensive owing to the large population that the island supports. The average farm on the island contains about 10 acres. Few farms exceed 50 acres. As a rule, dairyman on the island do not keep more than three or four cows each, these being tethered out of doors from May to October, and are housed at night only during the remaining portion of the year. The method of handling the stock tends to explain, in a large measure, why tuberculosis is not found on the island.

ORGANIZED EFFORT

The first great demand for Jerseys came from Great Britain shortly after 1833. At that time a few gentlemen and farmers, encouraged, possibly by the success achieved in England by the Shorthorn and other breeds, formed the Royal Agricultural and Horticultural Society of Jersey. The chief aim of this society was to improve the breed of cattle, which would be conducive to the general welfare of the island. At that time, two of the best cows in the island were selected as models of the breed, and a scale of points was compiled. Since that time many shows have been held, which have served as inducements to Jersey breeders to improve their cattle. The first importations of any note to America were made about 1850. To Messrs. Motley, Taintorn, Norton and Buck, American breeders, who were first attracted to these cows, belong the credit of many of the great successes of blood. At this time great interest had been developed in beef cattle. Americans were attending Shorthorn sales in England, and paying exorbitant prices for certain of the animals. This interest in the cattle here had been developed in beef cattle. Americans were attending Shorthorn sales in England, and paying exorbitant prices for certain of the animals. This interest in the cattle here had been developed in beef cattle. Americans were attending Shorthorn sales in England, and paying exorbitant prices for certain of the animals. This interest in the cattle here had been developed in beef cattle.

stabling was wretched, and whose winter feed consisted mostly of straw or a few watery turnips. Now they are well fed, improved in quality and symmetry; new buildings dot the island, and a general prosperity has dawned on the farmers. One of the most detrimental features of the importation to America about this time was the demand for dark colors and white muzzles and switches. Eccentricity in this regard has now passed by, and the Jersey is slowly but surely gaining ground.

In 1866 a herd book was established on the island. In this were registered two classes of stock: foundation stock, including all qualified cattle on the island, and pedigreed stock, including Jerseys from foundation stock. Two years after the herd book was established on the island, the American Jersey Cattle Club was inaugurated in Philadelphia. The object of this was to carefully guard the interests of dairy cattle, and suggest ways and means of improving the breed and developing them in America. They published, from time to time, tests of cows. The tendency now among English and American breeders is toward the breed of a larger sized cow than those found in the island. It is claimed, however, that this is not desirable, as far as milking qualities are concerned. Some have the impression, however, that a larger, stronger and more vigorous cow would be better suited to our conditions than the smaller type of Jersey found on the island.

Central Alberta a Dairy District

Issac Bateman, Innisfail, Alta.

I believe that dairying here is only in its infancy. Most of the settlers are milking only a few cows on the side, as it were, and keeping very inferior dairy cows at that. Judging from the inquiries I have had for Holstein-Friesian bull calves this summer, I believe our farmers are beginning to realize the importance of a good pure bred dairy sire at the head of their herds.

There is a considerable amount of cream being shipped to Calgary from Innisfail this summer, but still we have a good output at our creamery. There are several creameries and factories in the surrounding country. There is a creamery at Markerville, 15 miles north-west, a private cheese factory seven miles north-west, a creamery at Lake View 17 miles east, Toucher Valley creamery 20 miles east, and a cheese factory at Bowden 12 miles south. I do not know the outputs of these creameries and factories at present. There is also the Red Deer Creamery to the north and a private creamery and cheese factory. On the whole there is quite a lot of dairying going on, and in a few years I believe that here in Alberta we will be second only to Ontario.

We have an ideal country for dairying. We can grow anything in course of feeds. I have cut two cuttings of alfalfa this year, the first averaging two and a half tons an acre and the second two tons an acre. We can cut two to three and a half tons of timothy hay to the acre and grow timothy to 12 tons of mangles and turnips an acre. We have not corn fodder as in Ontario, but we can grow two and a half to three tons an acre of oat green feed.

I have been here 10 years, and I have always had lots of feed. I have 67 head of cattle, young and old, and carry them all on 160 acres. Only the young cattle range out all summer; that is, the grade cattle. The pure bred are always on the place.

Eat moderately and masticate thoroughly; many a man feels "put out" because of what he takes in.

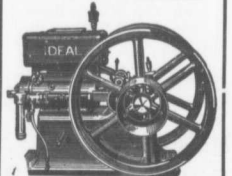
DE LAVAL
CREAM
SEPARATORS

The best of all dairy investments
Saves \$10. to \$15.
per cow every year

De Laval Dairy Supply Co. Ltd.
Montreal Winnipeg

GALVES RAISE THEM WITHOUT MILK
Booklet Free.
Steel, Briggs Seed Co., Ltd., Toronto, Ont.

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



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

GOOLD, SHAPLEY & MUIR CO., LTD.
Branches Winnipeg Calgary

RAT CORN

KILLS RATS AND MICE

OUR SIXTH TALK ABOUT RATS
DON'T BE A MUMMY!
But mummy all the Rats and Mice on your premises and in your vicinity
HOW?

RAT CORN

WILL DO IT

When Rats and Mice are mummified there are no odors. Won't kill cats, dogs or human beings.
It costs \$500,000 yearly to Feed and Harbor Rats.
Rats eat \$100,000,000 of Grain yearly in this country.
Rats killed 6,000,000 in India by Bubonic Plague in Ten years.
One pair of Rats will produce 900,000,000 Rats in Five years.
There are 500,000,000 Rats in the United States to-day.

RAT CORN
Is your Haven of refuge—Use It Freely!
Use It to-day—Use It every day—until your premises are free from the pest.
25c, 50c and \$1.00 cans
Ask your dealer, or sent by mail on receipt of price. We pay postage.
Made only by
CANADIAN RAT CORN CO. LTD.
193 Adelaide St. W., TORONTO, ONT.

Auction Sale Of Choice 100 Acre Farm

Farm Stock and Implements
—ON—
October 16th, 1912
Situating 2 miles east of Brucefield, Huron County, Ont. 40 miles north of London. Ninety acres under cultivation, large basement barn, spring water piped to barn, brick well at house, cement silo. Bring house heated by furnace.

The stock contains a richly bred Holstein bull, 20 months old.
Photo of buildings and full particulars on request.

ALEX. A. WATT
BRUCEFIELD - ONTARIO

MERCHANTS' PRODUCE CO.

**Butter Eggs Poultry-Honey
Beans Apples Potatoes, etc.**
Our constantly growing trade demands large supplies of choice farm produce.
We need yours. Write for weekly market letter.
57 Front St. E., Toronto
Established 1880

EGGS, BUTTER and POULTRY

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

PROMPT RETURNS
Established 1874
The Wm. DAVIES Co., Ltd.
Toronto, Ont.

Protection or Free

Why are all the great farmers' organizations of Canada and the United States opposed to the system of protection? Why do they claim that protection imposes millions of dollars of unjust taxation on farmers? Which do you believe in, Protection or Free Trade? What do you know about this great subject anyway? Have you replied for all your information on what you have read in the Dairy Press, either Liberal or Conservative, or what you have heard manufacturers or politicians say? If then you need to know a great deal more about this subject, learn all about it from a non-political standpoint. Read "Protection or Free Trade" by the great Henry George, a book written some 30 years ago, but which is as interesting and as true each when it was written. This is because it deals with the great principles of the question. It takes up every one of the great arguments in favor of Protection. It gives you the answers for them. When you have read it you will know practically all you need to know on this question, and you will be able to hold your own with politicians or anybody in its discussion.

This great book, printed in pamphlet form, contains 112 pages, and may be purchased through Farm and Dairy for only 5c. Send the money in stamps and we will forward it to you. Among the subjects it takes up are: "Tariff for Revenue," "The Home Market and the Home Trade," "Do High Wages Necessitate Protection?" "Effect of Protection on Industry," "Protection and Wages," "Abolition of Protection," "The Real Weakness of Free Trade," "The Real Strength of Protection," "The Real Weakness of Free Trade," "No further doubt about the rightness of this far-reaching question after you have read this book."
Apply Book Department, Farm and Dairy, Peterborough, Ont.

Creamery Department

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

Stirring vs. Not Stirring Curds

Prof. H. H. Dean, O.A.C., Guelph.
This is a continuation of the work done during the past three seasons, except that the curd was divided into two nearly equal parts at the time of dipping, instead of into two parts as formerly. The A. curds were not stirred, but simply allowed to drain in the curd-sink; the B. curds were stirred slightly; and the C. curds were stirred "dry." Altogether ten experiments were made during the season, for which there were used 16,456 lbs. milk, testing an average of 3.47 per cent. fat, and 2.2 per cent. acid. The percentage of acid at the time of dipping averaged .176 for all three lots; the percentages of acidity at milling were .613, .636, and .68; at salting .1.02, .917, and .901 respectively, for the A, B, and C. lots. The percentages of shrinkage during one month were 3.09, 2.48, and 2.23, respectively, for A, B, and C. lots. The average percentages of moisture in curd and cheese, also the average scores of the cheese are shown in the table.

	Per Cent. Moisture in:			Closeness.	Color.	Texture.	Total.	
	Curd at dipping.	Green Cheese.	Cheese 1 Month old.					
Per cent.	Per cent.	Per cent.	(lb)	(lb)	(lb)	(lb)	(lb)	
A.....	62.73	35.20	34.93	35.65	14.11	14.15	16.75	90.56
B.....	65.42	35.17	35.16	35.86	14.82	14.85	16.86	91.53
C.....	45.00	34.43	34.43	35.10	14.62	14.39	17.20	92.31

CONCLUSION

Last year we said: "The results of three years work on this question indicate that there is probably little or no advantage in giving curds so much stirring at the time of dipping as is the common practice among cheesemakers; on the other hand, it is probably an advantage to the quality of the cheese to do some stirring at the time the curd is placed in the curd sink, or upon a rack in the vat." The results of this year's tests confirm our conclusion of last year, as the cheese made by stirring slightly, averaged one point higher in the scorings than did those made from curds not stirred at all, but they are about three quarters of a pint lower in average scorings than these made from curds stirred "dry." The difference in quality in each of the three lots is not very great. Stirring tends to decrease the yield of cheese per 1,000 lbs. milk, but also tends to improve the quality slightly. We are inclined to think that many cheesemakers stir their curds more than is necessary. However, the market demand for "improved quality" in cheese is so insistent that most makers feel that it is safer to sacrifice some in "quantity" in order not to run risks on "quality."

Winter Dairy Exhibition

The directors of the Western Ontario Dairywomen's Association are distributing prize lists and entry forms for the Winter Dairy Exhibition, which will be held in Woodstock, Ont., Jan. 15 and 16, in connection with the annual convention of the association. The prize list has been somewhat extended, and the number of cash prizes increased.

The list of special prizes being offered this year is unusually large. Prize lists and entry forms may be obtained from the secretary, Mr. Frank Hens, Bank of Toronto Chambers, London, Ont.

Organizing Cooperative Creameries

G. L. Martin, Prof., Dairying, North Dakota Agricultural College.

Every now and then the question of organizing creamery companies comes up for consideration. This is especially true in sections like the Northwest, where the farmers are beginning to realize that the dairy cow is a factor that needs to be considered where the old system of general grain farming is to be replaced by a system of more diversified farming.

The local cooperative creamery is a necessity where the largest returns are desired from the dairy business so the question of proper organization is very important, for where thoroughly organized the cooperative creamery seldom fails.

HOW TO ORGANIZE

There are two ways of forming creamery organizations. One way is to have it done by creamery promoters—persons interested only from their own standpoint and the other way is for the farmers to do it themselves. The best way is to call a meeting of farmers and business men in the locality where such an organization is desired. Arrange to have attend some disinterested dairymen from the Department of Agriculture or the Agricultural College, who are thoroughly familiar with every detail of the business, willing to cooperate freely and able to answer

moter and failed from lack of cows together with too large an investment in building and equipment.

INITIAL EXPENSE

The cost of building, equipping, and operating a creamery will depend upon the volume of business. A building sufficient to handle the product of 400 cows, if put up by the company, ought to cost not over \$1,800; if built by the promoter, it often costs \$3,000. The machinery required to properly equip such a creamery will depend largely upon the volume of business. It is much better to begin with only what is actually necessary, then later to install such machinery as needed. In many of the promoters' creameries can be found expensive new machinery that has been cast aside because there is no use for it.

The first cost of starting a creamery is large enough at best and to have a lot of useless machinery cast aside is a needless expense.

It is always advisable to install new machinery, which for the average creamery will cost close to \$1,000 for the loss in efficiency of second-hand equipment, more than offset by the additional cost of new.

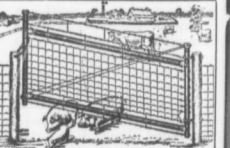
The details and cost of operating are best determined by those interested in the company and would vary with the volume of business.

The Why of Sweet Cream

When whole milk is delivered to a creamery the farmer understands that if it is sour the separator will be clogged and such milk cannot be skimmed; but when the farmer delivers cream to the factory it is sometimes difficult for him to understand why an objection is made to its sourness, because he knows that the butter-maker will sour or ripen the cream before he churns it. There are at least two good reasons for the butter-maker wishing the cream to be sweet so that he can control the souring or ripening process himself.

First, the souring of the cream must be uniform throughout in order that the butter may have a uniform flavor. This very important quality of butter cannot be guaranteed from day to day when the cream received from different patrons varies in acidity from perfectly sweet to excessively sour. The mixture of such widely different lots of cream cannot be so ripened as to give a uniform flavor to the butter.

Second, many buttermakers wish to avail themselves of the advantages gained in buttermaking by pasteurizing the cream. It is a well-known fact that pasteurizing thin sour cream causes a heavy loss of butter, it is evident that the cream must be nearly sweet in order to obtain the full benefit of pasteurizing in buttermaking—Wisconsin Bulletin.



A Practical Gate

PRACTICAL because it can be raised quickly and simply to let small stock through, (see illustration) or to lift over deep snow in winter. Clay Steel Farm Gate is made of heavy iron, and is blow down or roll, and is fully guaranteed. It costs less than any other. Have one or two for next winter.

Send for Illustrated Price List
CANADIAN GATE CO., LTD.
29 Morris St. GUELPH, ONT.

Cheese

Makers are invited to submit questions on this subject for discussion to the Cheese Department.

Season's Milk

Although the year in Eastern Canada is in the middle of September, 20,000 to 25,000 cows' season's make up there is a prospect will be wiped out by the season, and this year may exceed by possibly 5,000 cows' season's milk.

Instructor G. G.



THE BUTTER

"Your two lots right—but will kind of salt did

THE FIRST

"I don't know gave me what the

THE SECOND

"I used Windsor

THE BUTTER

"I want your butter Windsor I man who is paid pretty sure to make good butter

I'll take all you as you use



WANT

GOOD SECOND five hundred pound particulars Box T Peterboro, Ont.



MAIL CO

SEALED TENDERS Postmaster General, Ottawa, until Nov. 1, 1912. For the Wm. Davies' Mail, treat for long ready work over Lakefield, No. 4 from the P. 1912. Contract may be accepted by the Post Office Inspector, Post Office Inspector, Peterboro, Ont.

Cheese Department

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

Season's Make of Cheese

Although the make of cheese this year in Eastern Ontario, up to about the middle of September, was some 20,000 to 25,000 boxes short of last season's make up to the same date, there is a prospect that this shortage may be wiped out before the end of the season, and that the total make this year may exceed last year's make by possibly 5,000 boxes. Chief Dairy Instructor G. G. Publow of Kingston, while in the office of Farm and Dairy last week, stated that the reports he was receiving from the different instructors showed the factories now to be averaging a box of cheese a day more than they were making a year ago at this time.

He said that he never knew the prospects for a large make during the month of October to be as bright as they are this year, pastures being in exceptionally good condition. He was hopeful that the factories will continue to average a box of cheese a day more than last season's make, which would result in an increased make for the year. Some factories are averaging over two to four boxes of cheese a day over last year's make, but these are exceptions.

Important Dairy Census

What proportion of dairy farmers keep pure bred bulls at the head of the herds, have silos, grow corn and alfalfa, take proper care of their milk and cream, feed soiling crops, or do a large number of other things advocated by leading dairy authorities? No person knows. The Ontario Department of Agriculture has decided to try and find out what the actual conditions are in Ontario. Arrangements have been completed for the taking during the month of October of a farm census, the object of which is to ascertain as nearly as it can be done what the actual conditions are on the dairy farms of Eastern and Western Ontario.

Chief Dairy Instructor, G. G. Publow, of Kingston, while in the office of Farm and Dairy last week, explained what it is proposed to do. There are some 28 groups of factories in Eastern Ontario, with an average of about 25 factories in each. Each of these groups are in charge of a dairy instructor. In each of these groups one factory has been selected. The dairy instructors are going to visit every patron sending milk to these factories and ask the questions outlined below. In three of the groups of factories, three factories will be selected typical of the different classes of factories in that group. In five counties, townships have been selected and arrangements are being made to visit every patron sending milk to all the factories in these five counties. These counties and townships are as follows: In Glengarry Co., Kenyon Township; in Leeds Co., Bastard Township; in Frontenac Co., Kingston Township; in Prince Edward Co., Hollowell Township; and in Hastings Co., Roden Township.

The dairy instructors who syndicates the patrons of three factories will be visited are Dairy Instructor Ecklin, of Lanark Co., Elliott, of Carleton and Renfrew Counties, and Grey, of Northumberland Co. All the patrons of the Cannington creamery will also be visited.

Where the instructors are unable to do all the work themselves, they will be assisted by the district representatives of the Department of Agriculture. The districts' representatives will have charge of this work in the five townships. The secretaries of the cheese factories and the creameries which are to be visited, will assist. They will be paid to furnish the names of their patrons with a statement of the amount of milk and cream they deliver between about the first of April and the first of October. All the information thus gathered will be kept strictly confidential as far as individuals are concerned, and will be tabulated in such a way as to show the average condition of the average farm.

QUESTIONS TO BE ASKED

Among the questions that will be asked the patrons are the following: What is the size of your farm? Are you an owner or tenant? What proportion of your farm is in woodland,

pasture and under cultivation? How many head of cattle, horses, sheep, hogs and poultry do you keep? What are their breeds? What proportion of them are pure breeds? What are your average returns from each class of stock? What rotation of crops do you follow? How much alfalfa and corn do you grow? Have you a silo? And if so, what size, and make? And what results have you obtained from it? Do you feed soiling crops, and if so what kind? How much grain do you feed? How many tons of hay do you sell off the farm, or have you purchased? What amount of manure is fed on the farm and sold from it? What is the character of your stable? Have you any provision for light and ventilation in that form of power do you use, if any? What provision have you for caring for your milk and cream? Do you keep ice, and what character of well have you and where is it situated? Of the similar questions will also be asked.

It is believed that the information thus to be gathered when compiled will be of great value. It is probable that in the course of the next year an census may be taken in the same districts to ascertain what improvement, if any, has been made in the introduction of improved methods, and what proportions of the farmers are still on their farms and the reasons, such as shortage of help, that are leading farmers to leave their farms.

Cheese Scales Often Mislead

The report which the commission appointed by Hon. Martin Burrell, to investigate the shortage of cheese weights at the port of Montreal will make to the Department of Agriculture, will contain some startling information relative to the industry in Eastern Ontario.

R. A. Pringle, K. C., chairman of the commission, states that Commissioner Macdonnell and J. D. Lemieux have visited the great majority of the factories in Eastern Ontario and Western Quebec, and found the scales at all of these factories, without a single exception, out of order, and not returning correct weights. This, it is believed, will to a great extent explain the discrepancies found in the weights at Montreal, and the cuts in weights so frequently complained of by these makers and salesmen.

Although Messrs. Macdonnell and Lemieux visited a great many factories, the number is only a small portion of the total number in Ontario or even Quebec. It is believed that the false scales must be very numerous, and that the situation calls for immediate action.

I go slow in taking an ordinary factory on to my list as a cheese buyer. How good I feel in seeing the other fellows getting the poor cheese.—Senator D. Derbyshire, Leeds Co., Ont.



YOUR COWS WILL GIVE MILK OF GOOD QUANTITY & QUALITY

this winter if you watch their water supply carefully. Don't turn them out on a cold winter's day to drink at a common trough. Long draughts of icy cold water prevent milk secretion. The Woodward Basin System insures an ample flow of properly tempered water, is automatically regulated, requires no labor, trouble and expense by installing Woodward Water Basin now. Get estimates and full particulars from the office nearest you. With the particular Woodward Basin you choose a descriptive pamphlet telling you how to make your cows comfortable by combining Champion No. 10 Standpipes and Woodward Water Basins.

THE ONTARIO WIND ENGINE & PUMP CO. WINNIPEG TORONTO CALGARY

FOR SALE AND WANT ADVERTISING

FOR SALE—Iron Pipe, Pultney, Belling, Halls, Chain, Wire Fencing, Iron Posts, etc., all sizes, very cheap. Send for list stating what you want. The Imperial Waste and Metal Co., Dept. F. D., Queen Street, Montreal.

CREAM—Wanted Sweet Cream, shipped f.o.b. at West Toronto, G.P.R. Address Hodge's Dairy, 131 High Park, West Toronto.

SYNOPSIS OF DOMINION LAND REGULATIONS

Any person who is the sole head of a family or an unmarried person, may homestead a quarter section of available Dominion land in Manitoba, Saskatchewan, Alberta or Ontario. The applicant must appear in person at the Dominion Lands Agency or Sub-Agency for the district. Entry by proxy may be made at any agency, on certain conditions by father, mother, son, daughter, brother, or sister of intending homesteader.

Duties.—Six months' residence upon and each mile of the land in each of three years. A homesteader may live within or without the land. A homesteader on at least 30 acres of settled land may be occupied by him or by his father, mother, son, daughter, brother, or sister. In certain districts a homesteader in good standing may pre-empt a quarter-section alongside his homestead. Price, \$3.00 per acre. Duties.—Must reside upon the homestead in certain districts. Price, \$3.00 per acre. Duties.—Must reside six months in each of three years and erect a house worth \$300.00. Deputy of the Minister of the Interior. N.B.—Unauthorized publication of this advertisement will not be paid for.



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



69D

WANTED

GOOD SECOND HAND CHURN, five hundred pound capacity. State particulars Box T., Farm and Dairy, Toronto, Ont.



MAIL CONTRACT

SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa until noon, on Friday, the 6th of November, 1912, for the conveyance of His Majesty's Mails, on a proposed Contract for four years, six round trips per week over Lakefield Rural Mail Route No. 4 from the Postmaster General's place.

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

H. HERRICK, Post Office Inspector.

Post Office Inspector's Office, 26th September, 1912.

Cheap Profitable Farm Lands

For Stock, Poultry and Hog raising, Dairying, Fruit growing, Truck Crops, Alfalfa yields and General Farming, the BEST EASTERN STATES present soil, climatic and market conditions unsurpassed by any other region.

Farm land values are most tempting. Undeveloped tracts sell from \$5 an acre up to improved properties ranging from \$20 to \$35 per acre.

THE SOUTHERN RAILWAY

Mobile & Ohio Railroad or Georgia Southern & Florida Railway will help you find a desirable farm location where two and three crops grow annually. Alfalfa produced 4 to 6 tons, Corn yields 50 to 100 bu., Truck crops make \$100 to \$400, Apple Orchards \$100 to \$300 per acre and Beef and Pork are produced at \$3 to 4 cts. per lb.

Let us know in what state and branch of farming you are interested. Let us give you facts and free publications furnished to you.

M. V. RICHARDS, Land & Industrial Agent, Room 300 Washington, D. C.





He who can suppress a moment's anger may prevent a day of sorrow.—Barrow.

The Revelation

(New England Homestead)

There was no doubt about it. Some one had stolen a hundred dollars in bills from the cash register in the hotel office. I was the whole story on my return from work, or rather as much of the situation as anyone there knew.

It seems that a new patented register had been purchased for the hotel office, and that afternoon the salesman had called to explain the combination by which it was opened. No one was in the office when the combination was given and the trials gone through except Sterns, the proprietor, and the salesman.

Late in the afternoon, Sterns discovered that the bills were gone, and there was no other way to figure it out than that they had been stolen by some one who had managed to get the combination.

In the old village hotel that evening there was anxiety; we looked into each other's faces questioning; somewhere our mind was a thief. I noticed that Richard Manston, a nephew of the proprietor, was very active in the attempt to locate the thief, and it was he who first directed attention to Job.

We knew the man simply by that name. He was grey and old, bent, quiet of face and manner, and simple of mind; and his duties were that of general caretaker and man of all work about the place.

Manston and Job had always been the best of friends, though it was rather a one-sided friendship in many ways; but the old man loved the young fellow with the simple unquestioning love that we see sometimes between men in the friendships that brighten the world.

The situation looked black for Job immediately for it was soon learned that he had been working in the corridor just off the office about the time the salesman was explaining the combination. Sterns looked grim and savage as he listened to the maid's story of having seen him there. He sent word to the barn to have the old man sent in.

He came in, bent and wrinkled his crooked fingers shuffling the old straw cap in his hand. He looked at us with faded, wondering eyes as we faced him.

Quick and sharp came Sterns' question: "Job, were you working out there in the hall this afternoon?"

"Yes, sir," the old man mumbled, his eyes searching our faces hesitatingly as if to seek a sympathizing face; then I saw his pleading glance swing straight to Manston and brighten, but Manston turned away.

On the questions went, curt and merciless, up to the final one. Sterns' hand was leveled at Manston as the old man quailed. "Did you steal that money?" Sterns demanded.

Job's eyes fluttered wildly from Sterns' face to the floor. He tried to speak but no sound came from his lips; he glanced pitifully to Manston, as if begging a word of help, but Manston's face was white and set, and

he seemed to be waiting anxiously for the old man's answer.

No—no—I didn't—steal it," he mumbled.

I saw a shadowy look of relief flit across Manston's face.

Sterns glared at Job. "If you did not, who did? Do you know? You



A Reward of Patient Industry That is Worth While

A residence as handsome as this, that of Mr. Wm. Heron, of Boston Co., Ont., would attract attention in a good sized city. Home such as this make the industry and thrift that it takes to get them well worth while.

—Photo by an editor of Farm and Dairy.

were the only one near the office besides us—say, do you know? Speak up!"

The old man's lips moved tremulously, but he kept silent.

The town sheriff, who had been called into the case, came in, and whispered something into Sterns' ear. Sterns whirled on the old man. "Job, you're lying—you miserable scoundrel! Where did you get that money you spent down town?" he demanded.

Job's fingers played nervously with his frayed cap. "I had been saving it a long time—I—" But he went no further; something seemed to lay a silence on his tongue. He stood like a dog beaten to obedience.

"Saved it," Sterns repeated with sarcasm, "that's likely. It's jail for you—that's all!"

The cap slipped from the old man's fingers to the floor. "No, Mister Sterns, not that—not that—I—" Again something seemed to stay his speech; he said no more.

"Lock him up!" Sterns said, shortly. "I'll teach him!"

The sheriff caught the old man by the shoulder and showed him stumbling and wavering toward the door; and they went out into the night.

The next day bail was fixed, and Job went to the county jail, for Sterns wouldn't permit Manston to offer bail as the young fellow wished. Life settled into its customary grooves about the quiet old hotel, but I could not forget the faltering, patient old man, nor could I get the idea out of my mind that an injustice was being done, but just how, I could not tell, nor guess, for that matter.

Manston, too, seemed to be unable to keep Job from his thoughts. The old man had always been his faithful follower, willing to perform

his slightest wish from boyhood up, seeming to enjoy himself the most when he was doing something for the young fellow. Manston looked worried and preoccupied for many days after the old man had been committed to jail. His attitude evidently bothered Sterns, for narrow as were the confines of the man's heart, he had a big place there for his tall, handsome nephew. Sterns attempted to cheer him up, but worry did not leave the young face, and on the morning of the day when the old man was to be tried, he looked as if his mind were heavily burdened.

The old man was brought in, looking a little more bent, greyer, and more feeble, and given his seat under the eye of the sheriff. He sat quietly, his attitude the consummation of despair, his crooked fingers fumbling nervously the same frayed cap, and his faded blue eyes looking it seen almost unseeing at the door of the court room.

The trial went on, and slowly the net of circumstantial evidence was drawn around him. The young lawyer who had been appointed to de-

fend him went after the evidence viciously and made good headway, but as he announced, he was handicapped by Job's refusal to assist him. It seemed to me he made a great blunder in saying that, but it looked differently when in his closing for the defence, he made the fact stand out that in his opinion the old man was shielding another.

Then the prosecutor began the final address, and swept briefly and sonorously over the evidence, and realizing as he went on that he must overcome the strong appeal of the young lawyer with its mute but eloquent support in the old man, he turned on the old man with keen and cutting sarcasm, setting forth the years he had been trusted, the kindness that had been shown him, the home that had been given him—then to turn and deliberately steal from the man who had benefited him! Sharper and deeper went the lance thrusts of the sarcasm; and the old man dropped beneath them. The grey head with its whitening temples sank under the weight of the writing face was hidden; the worn cap slipped from numb fingers to the floor, and down the furrowed cheeks crept tears.

Then something happened. A tall young fellow strode down the aisle into the lawyers' space. I saw he was Manston.

"Enough of this!" he cried, and his voice, though hoarse, was stronger. "That old man didn't steal the money; he's doing this to shield me—to shield me—do you hear! I did—" He paused, choking, then went on in a hard voice. "I was down cellar when that combination was being explained, and I heard all the conversation. I went upstairs later when

there was no one around. I—I—opened the register; and the old man saw me. He didn't steal; he took the blame to shield me; he's been my friend for twenty-six years, and I am his. I've stood the long enough. Free him! I am the man you want."

"His voice ran down to a whisper, and he sank into a chair, his flushed face slowly growing white again."

What we thought who listened one can imagine, but everything seemed confused for a moment. The sheriff pounded for order and his deputies finally secured the man who had slid forward in his seat, his eyes fastened with great joy on the form of the lad he loved, and the look on his face was such as it seems the thief must have given Christ on the cross.

Sterns had sat rigid as a marble statue while Manston spoke; then he rose slowly and went over to Manston. He put one hand on the young fellow's shoulder. His face was drawn with emotion.

Suddenly, a man, dusty and covered with flecks of foam as if thrown from a horse ridden hard, hurried up the stairs. He talked with a paper. Sterns' hand shook so that he could hardly read it, slowly, then feverishly, and he turned to the prosecuting attorney. He talked with him a long time, then with Manston. The lawyer's face underwent many changes of expression.

Quiet was ordered by the sheriff. The lawyer rose. His voice had lost its sonorous ring, and carried a thrill of grief meaning.

"Your honor," he said, addressing the judge, "I have learned of a friendship almost beyond belief. The defendant has lost its sonorous ring, and carried a thrill of grief meaning. It seems that this old man is innocent; he was shielding the good name of a man he loved, supposing and believing that man guilty. Now it appears that Manston was not guilty, but confesses himself so in order to save the old man from disgrace and imprisonment, which might mean death."

It appears that Manston did lean the combination while he was busy in the cellar, heard the combination explained, and did open the register, led by a boyish purpose to see whether he could or not, and was seen by the old man; but neither can be charged with crime—for, to-day, Mr. Sterns was compelled to send for an agent of the register makers, because of the continual ill-working of the machine, and the expert found not an hour ago, the missing bills jammed in back of and above the sliding drawer.

"Your Honor, I move that the defendant be discharged."

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The Upw...

Moses' F...

And Moses said my Lord, I am not heretofore nor since unto thy servant; I speak, and of Exodus 4, 10.

These halting, Moses contain much who dwell in a country own weakness. We of Moses as the man who worked great Egyptians and before who later led their bondage and difficulties up to the promised land. It is, therefore, to fit entered upon his, was just such an ording as we are and conscious of his failure with God not to make the things that him he desired him.

When we think of which Moses was plowder. He belonged of slaves. The Egyptian nation, who died at nothing, who that he had been brought to the end of forty years he had

The Upward Look

Moses' Hesitancy

And Moses said unto the Lord, O my Lord, I am not eloquent, neither heretofore nor since thou hast spoken unto thy servant; but I am slow of speech, and of a slow tongue.—Exodus 4, 10.

These halting, hesitating words of Moses contain much comfort for us who dwell in a consciousness of our own weakness. We are prone to think of Moses as the mighty man of God who worked great wonders before the Egyptians and before his own people, and who later led the latter out of their bondage and through all their difficulties up to the borders of the promised land. It is a revelation to us, therefore, to find that before he entered upon his grand mission he was just such an ordinary human being as we are and that he was so conscious of his failings that he pleaded with God not to ask him to undertake the things that God had told him he desired him to do.

When we think of the position in which Moses was placed we need not wonder. He belonged to a despised race of slaves. They were ruled by a mighty nation, whose cruelty stopped at nothing. While it is true that he had been brought up by the daughter of their king, he had been forced to flee out of the land and for forty years he had lived in a remote

country district out of touch with the courts of the king and forgotten by his own people. Well may his heart have failed him, therefore, when he realized that God desired him to stand before that great king and nation and in bringing them forth out of their bondage. Neither is it surprising that he should have replied unto God: "Who am I that I should go unto Pharaoh, and that I should bring forth the children of Israel." Exodus 3, 11. Or that he should ask what he should say unto the people when they should ask him who he was. (Exodus 3, 13.)

How utterly incapable Moses felt himself to be of performing the great task that lay before him is shown, also, by his fear that the people would not listen to him. This led him to say, "but, behold, they will not believe me, nor hearken unto my voice; for they will say, The Lord hath not appeared unto thee."

How like we are unto Moses! and with how much less excuse! There are many little tasks which God's voice whispers to us we should undertake for Him, but we hang back fearful and dismayed. Like Moses we allow Satan to convince us that we are not eloquent, that we are slow of speech and of slow tongue, and we conclude that the people will not believe us nor listen to us. We forget all about God's reply to Moses, "And the Lord said unto him, Who hath made man's mouth? Or who maketh the dumb or deaf or the seeing or the

blind? Have not I the Lord? Now, therefore, go, and I will be with thy mouth, and teach thee what thou shalt say."—(Exodus 4, 11.)

God's message to Moses is His message to us. As He had work for Moses to do so He has for us. He has told us to be doers of the word and not hearers only, thereby deceiving ourselves (James 1, 22). And as He promised to help Moses so He has promised to help us and to teach us what we shall say: "But the Comforter, which is the Holy Ghost whom the Father will send in my name, he shall teach you all things, and bring all things to your remembrance whatsoever I have said unto you." (St. John, 14, 26.)

When, therefore, we have some task to perform for Christ, be it little or great, either abroad or in our own homes, let us remember Moses' weakness and his fears and how greatly God used him, and then let us remember Christ's words to Thomas, "be not faithless, but believing." (St. John, 20, 27.) When we learn to forget our shortcomings and to remember God's infinite power our fears will be dispelled as the mist before the sun.—I. H. N.

The Other Side

We go our ways in life too much alone; We hold ourselves too far from all our kind; Too often, are we deaf to sigh and moan, Too often to the weak and helpless

blind.

Too often, where distress and want abide,
We turn and pass on the other side.

The other side is trodden smooth and worn,
By footsteeps passing idly all the day;
Where lie the bruised ones and the faint and torn

Is seldom more than an untrodden way.
Our selfish hearts are for our feet the guide,
They lead us by upon the other side.

It should be ours, the oil, the wine to pour
Into the bleeding wounds of stricken ones,

To lift the smitten, and the sick and sore,
And bear them where a stream of mercy runs.

Instead, we look about; the other way is wide,
And so we pass upon the other side.

Oh, friends and brothers hastening down the years,

Humanity is calling each and all
In tender accents, born of pain and tears;

I pray you listen to the thrilling call,
You cannot in your selfishness and pride,

Pass guiltless on the other side.

—A. A. Hopkins.



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What To Teach a Girl

Teach her to arrange the parlor and the library.

Teach her to say "No!" and mean it, or "Yes!" and stick to it.

Teach her how to wear a calico dress, and wear it like a queen.

Teach her how to sew on buttons, darn stockings, and mend gloves.

Teach her to dress for health and comfort as well as for appearance.

Teach her to cultivate flowers and to keep the kitchen garden.

Teach her to have the neatest room in the house.

Teach her to have nothing to do with intemperate or dissolute young men.

Teach her that tight lacing is unbecomingly as well as injurious to health.

Teach her to regard morals and habits and not money when selecting her associates.

TAKE THE TROUBLE to get well acquainted with your children, and to interest yourself in their pastimes. By this means they will learn to trust and confide in you, and are not easily led away by outside influence.

Teach her to observe the old rule, "A place for everything and everything in its place."

Teach her the important truism: That the more she lives within her income the more she will save, and the further away from the porchouse.

Teach her that music, drawing, and painting are real accomplishments in the home, and are not to be neglected if there is time and money for their use.

Cherish the Talent

Mrs. J. W. Wheeler

It is to be regretted that so many women in the ordinary walks of life

relinquish, sometimes lightly, the little gift that is so closely identified with their personality, which, as a matter of fact, constitutes one of their strongest charms.

"Oh! I couldn't keep in practice after baby came; I haven't a minute to myself."

You have all heard it; perhaps some of you have said it. Even if one's time is so occupied that the little talent cannot be developed further, why not at least try to hold on to it? Surely one can keep in touch, unobtrusively, to practice. Dexterity, dexterity and economy in the spare minutes will accomplish much. If one starts with the idea that they will try to retain what they already know, sometimes they wake up to find they have really made an advance (there was no such thing as standing still).

TEN MINUTES EACH DAY

Think one moment! There are 1440 minutes in the day, probably two-thirds of them of the waking hours. Out of these 960 minutes can you not spare an average of 10 to 15 minutes for self-improvement?

If the gift is music, that wonderful baby may be accustomed to it from the very first. I have a case in mind where the young mother a piano teacher, trained her child in this way, even to the extent of making no difference when he was put into his crib for the nap or his night sleep; the piano was not to be kept quiet for him, unless he were sick, and many a night has he gone to dreamland to the music of scales and five-finger exercises. For he was in the study room to the music room. She tried only to keep what she already had, to give sufficient lessons to secure pin money—but found her reward in being able to resume the old life of music when one year ago her husband was suddenly taken from her, and she was obliged to supplement the income he left her.

PLEASURE FOR OTHERS

To be independent in meeting financial disaster is important, but there are other reasons for treasuring the talent. It is a joy all along the way, a diversion in time of stress and discouragement, when we need to get right out of ourselves, and a recreation in time of heartbreak. It is a power, too. That a woman has been able to keep up some special study through the strain of bringing up a family, often through financial embarrassments, commands both respect and admiration. What a consolation, also, to be able to step into the breach when the professional misses her train connections! One of the choicest reasons, however, is found in pleasure we can give to our nearest and dearest. The husband takes more pride in your beautiful voice than you can possibly imagine, and as for the children, we could cite many teaching and amusing instances which prove their profound regard of their mother's ability.

There is one last reason for the effort toward the preservation of your special gift. Think of the home folks! Possibly you will never know just how much they sacrificed in order that you might have the best instruction. Many a father and mother "went without" even the necessities of life while their child was away at the college or conservatory, and

how hurt they have been over the neglected talent. Before you decide to "have a minute," go back. I go of you, in memory, to the night you made your debut in the home town; think of their happy, shining faces and make them the beacon light that holds you to your purpose of cherishing that God-given talent.—New England Homestead.

The Valuable Lemon

The lemon is a palatable medicine and one that is especially useful for the blood. For thick, sluggish blood and an inactive liver, the juice of a lemon in a glass of water every morning on rising is a most beneficial tonic. The lemon juice should be taken without sugar and drunk at least half an hour before eating, to give it time to be absorbed into the system before anything is taken into the stomach.

As a drink hot or cold lemonade still stands first on the list of drinks. In combination with other foods and fruits it is also both refreshing and stimulating. A few tablespoonsful of lemon juice in barley water is a splendid drink for the sick.

There is a zest about a dish of lemon jelly that is shared with different meats (fish and poultry), which is especially pleasing.

When serving bananas and oranges—fruits that are nearly always on the market—a bit of lemon juice squeezed over the fruit brings out the flavor of each.

THE COOK'S CORNER

Recipes for publication are requested. Inquiries regarding cook-ing, resp. etc., gladly answered up on receipt to the Household Economist, Farm and Dairy, Peterboro, Ont.

Spiced Grapes.—For 6 lbs. seeded grapes allow 4 lbs. sugar, 1 pt. vinegar, 3 tablespoons cinnamon, and 1 tablespoon cloves. Cook fruit until tender, then add other ingredients and simmer for 1 hour. A fine relish served with cold meat.

Beet Pickles.—Cut cooked beets into squares. Fill qt. cans two-thirds full. Over these pour vinegar boiling hot, seasoned to taste—½ cup sugar, 1 tablespoon salt, ½ teaspoon each of cinnamon, cloves, and celery seed for each qt. of vinegar, makes a good proportion.

Sweet Fruit Pickle.—This is for peaches, apples or pears. About 1 pt. water, 1 pt. vinegar, 3½ pt. sugar, 1 teaspoon each of spice, cinnamon and cloves (if the pices in a cloth). Steam the fruit, which should weigh 15 lbs. for 1 hour. It is prepared. Boil the syrup until quite thick. Drop in the steamed fruit. Cook a few minutes and can.

Baked Canned Pears.—Select small seckle or August pears, wash and dry, discarding all imperfect ones. Fill fruit and add a little water. Cover the pan and bake until done. Make up over them a little water. Mash by boiling together 15 minutes one lb. sugar and one pt. water. Set white hot.

A Nice Breakfast Dish.—Mix cold beef or lamb. If beef put a pinch of pulverized cloves; if lamb put a pinch of sumner savory to season it, very little pepper and some salt, and put it in a baking dish; mash potatoes and mix them with the butter and a little salt, and spread over the meat; beat up an egg with cream or milk, a very little; spread it over the potatoes and bake it a short time, sufficient to warm it through and brown the potatoes.

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Good Substitutes for Meat

"If beef is too expensive, eat beans," advises Dr. R. E. Doolittle, acting chief of the Bureau of Chemistry of the Department of Agriculture. "Beans are the best substitute for beef. One should not eat meat, anyway, more than once daily, depending, of course, upon the physical condition and employment of the person. Hard workers need more meat than those leading a sedentary work. It seems to me the harder a man works and the lower his wages, the more meat he needs. Meat contains a great amount of protein. Protein is the muscle forming element of food.

"But beans are high in protein percentage. Not canned beans, but baked beans are the best. Canned vegetables of all kinds are not as good for meat. Other good substitutes for meat, of high protein content, are peas, all kinds of nuts, cheese and milk.

PLENTY OF VEGETABLES

"While I am not advocating a strict vegetarian diet as the only and best course to pursue, I am in favor of the substitution of some vegetables for meat. Sugar, too, is healthful. Oatmeal contains some fat, but breakfast foods, generally, are merely starchy. If fish cannot be considered meat I would recommend them as a meat substitute, but the rule fish prices follow those of meat.

"After all, beans and peas are the best of all for a meatless diet, but if you feel like it and your pocketbook can afford it, eat meat not more than once a day."

Women's Institute Convention

The annual Provincial Convention for Ontario Women's Institutes will be held in Toronto the second week of November. The definite dates have not yet been chosen. Plans are being made to secure some outside talent for the Convention, and a large number of our most prominent and capable workers in Ontario will take part. Provision will be made for an open discussion on many matters of vital interest to the Institutes. Notices will be sent direct to each Institute. Every branch in the Province should be represented at this gathering which holds such a prominent place in the Institute work. It would be well for the Institutes to appoint delegates in good time.

A Linoleum Hint

A good suggestion to improve the appearance of linoleum is to go over it occasionally with a cloth that has been dipped in oil which drips from a separator. As separators may not be alike in this respect, but a great many have a little nan in the lower part of the base into which the oil drips. This must not be used over again in the separator, though it makes a good oil for farm implements. But now, one finds a new use for it in oiling linoleum.

"Anyone who has had experience with an oiled floor knows that the dust does not fly as it does on one that is not oiled, and this is true with linoleum, so that one need not wash or mop it nearly so often. Where one has no waste oil, linseed oil would be best to use. Of course one should not put on enough to leave a greasy, smeary appearance, but simply wipe it over with an oil moistened cloth.

Kerosene will soften boots and shoes that have been hardened by water and makes them as pliable as new.

If a porcelain tacking dish becomes discolored on the inside, fill it with buttermilk and let it stand for two or three days. The acid in the milk will remove all semblance of stain.

Embroidery Designs

Designs illustrated in this column will be furnished for 10 cents each. Readers desiring any special pattern will confer a favor by writing Household Editor, asking for same. They will be published as soon as possible after request is received.

669 Design for an Embroidered Edge Three-Quarters of a Inch in Width. Four yards are given.



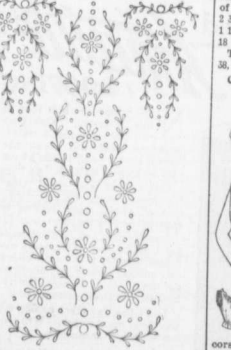
668 Design for a Cushion Cover.



670 Designs for Initial Frames, suitable for Handkerchief Corners or any Object requiring a Small Initial. Two transfers of each design are given.



654 Designs for Embroidering Sprays of Two Sprays of each size are given.



656 Design for Embroidering Panels.

One panel, twenty inches in depth and nine and one-quarter inches in width, and the lower edge and two panels, seven and one-quarter inches in depth and four and one-half inches in width at the lower edges, are given.

The Sewing Room

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

OPEN DRAWERS, 7528

Drawers that are wide enough for freedom and comfort, yet perfectly smooth over the surface, are those demanded by the present fashions. These perfecting and other requirements whether they are finished with a sole or extended to the waist line and under-panels.

For the medium size, the drawers will require 2 yards of material 36 or 44 inches wide with 2 1/4 yards embroidery for frills and 1 5/8 yards of heading, to trim as illustrated.

This pattern is cut in sizes for 22, 24, 26, 28, 30 and 32 waist measure.

CHILD'S COAT, 7530

Coats for the wee tots are always in demand. One shown with the cape, the round collar and the ruffles scalloped and buttoned and with the skirt tucked to take up the fullness and it is exceedingly attractive. The little cape may be omitted altogether and the skirt can be gathered instead of tucked.

For the medium size, the coat will require 3 yards of material 27 inches wide, 2 3/4 yards 36 or 44, with 8 1/2 yards of brand to trim as shown.

This pattern is cut in sizes for children of 6 months and 1 year.

SURPLICE BLOUSE, 7590

Every blouse that gives the surplice line is fashionable this season. For mid-summer, our embroidered flouncing with the chemise effect makes it very charming, but there is a coming need for blouses of a different sort and the suggestion made in the back view is equally desirable for long sleeves are promised in increasing numbers as cool weather approaches.

For the medium size, the blouse will require 2 1/2 yards of bordered material 46 inches wide or 2 3/4 yards of plain 27, 1 3/4 yards 36 or 1 1/2 yards 44 inches wide with 5 1/2 yards 18 inches wide for the centre portions.

This pattern is cut in sizes for 34, 36, 38, 40 and 42 inch bust measure.

CORSET COVER FOR MISSES AND SMALL WOMEN, 7528

There are certain advantages in a corset cover that close at the back, which are apparent at a glance. As this one can be finished in a day or with the regulation front closing, it is adapted for wear beneath the blouse of all kinds. Wearers who are seeking an slender effect as possible will like the smooth fitting peplum attached to the lower edge, but when the figure is slender, it is just as well to allow the waist line and draw it up by means of tape and a casing.

For the medium size, the corset cover will require 1 1/2 yards of material 36 or 44 yard 44 inches wide, with 3 1/2 yards of heading and 3 yards of edging.

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

He Bought Her a 900 Washer

ONE OF OUR READERS TELLS HOW HER HUSBAND LEARNED What Washday Means to a Woman

DEAR EDITOR—Most men have no realization of what "wash-day" means to a woman. My husband is one of the most that I have ever loved but he laughed when I asked him one day to get me a 1900 Gravity Washer.



I told him it would wash a tubful of clothes in six minutes. "Why, wife," he said, "a washing machine is a luxury. And besides, there's no better article than rubbing clothes on a washboard. It's good for the back. I think we had better wait 'til we get the farm paid for before footing away money on such new-fangled things as washing machines." That settled. I gave up the idea and kept on washing in the same old way. I confess that I felt hurt but I knew John had no notion how hard it was to do for a family of five. I was not very strong, and the washing with all my own work, finally got the better of me. I had quite a sick spell, and after things had gone all a croak and reverse for nearly two weeks, I suggested to John that he had better do the washing. We couldn't hire a girl for love or money, and the situation was desperate. So one morning he started it. My what a commotion there was in the kitchen! From my bedroom I occasionally caught glimpses of poor John struggling with that mountain of dirty clothes. He ever a man had all the "exercise" he wanted, my husband was that man! I couldn't help feeling sorry for him, and yet I made up my mind. I remembered how he made fun of me when I hinted so strongly for a 1900 Gravity Washer. When he finally got the clothes done and on the line, he was just about "all in." That evening John came to my room, and said kind of sheepishly—"What's the name of the firm that makes those washers you were telling me

about?" I looked up their advertisement and found the following address:

L. M. MORRIS, Manager,
The 1900 Washer Co.,
357 Yonge St., Toronto, Can.

That's all he said, but he lost no time in sending for their Free Washer Book. The book came in due time and with it an offer to send the 1900 Gravity Washer on thirty days' free trial. My husband jumped at the chance to try the Washer without having to spend a cent. We'll have four weeks' use of the Washer anyway, even if we don't decide to keep it," he said. So he told the Company to send on the Washer.

It was sent promptly, all charges paid, and the 1900 Washer Company offered to let us pay for it in little easy payments. The next week I felt well enough to use it. It is the nicest Washer I ever saw, and it almost runs itself. Takes only six minutes to wash a tubful, and the garments come out spotlessly clean.

We were all delighted with the Washer, and wrote to the company that we would keep it and accept their easy payment terms of 50 cents a week. We paid for it without even missing the money, and I know John would just as soon have the Washer for five times its cost if he could get another just like it.

If women knew what a wonderful help the 1900 Gravity Washer is, not one would be without it. It saves work and worry and does away with the old-fashioned washboard.

And if any woman takes away all the dirt from her washday, I feel like a different woman since I have quit the use of the washboard. Anybody can buy one of these labor-saving machines, take a hint from my experience, let the man do just one big washing by hand-rubbing on the old-fashioned washboard, and he will be only too glad to get you a 1900 Gravity Washer.

Anybody can buy one free trial, by first writing for the Washer Book. Enclose my name and a long letter, but I hope, Mr. Editor, you will print it for the benefit of the women readers of your valuable paper. Sincerely yours, MRS. J. H. SMITH.

Your Boy's Room

Inez Cooper

Look it over. Is it given the care and thought your girl's is? You say it "doesn't matter so much." Doesn't it though? Just try him. He is so reserved that it would perhaps surprise you to know that there is a bitter ranking of injustice in his bosom because he is the Heir to the room with the south window and Sally the one with the alcove—that "bully" alcove where he would so like to spread and arrange all his Indian relics and bugs!

If you do give him a room, no matter how fine or how poor, allow him to fix it to suit himself. Pause a moment and consider how you would enjoy having him fix your room and be governed accordingly.

Don't, if you want to keep his confidence, refer to his belongings as trash, and if he keeps them in his room do not allow the other members of the family to comment unfavorably on his things.

weeds with no injury to itself, and even grass can't entirely choke it out when once started.

PLEASURES FROM APPLE ORCHARD
Two dozen raspberry or blackberry bushes cost from 25 to 50 cents and will astonish you with the amount of fruit they produce. Grapes, peaches, pears, cherries, plums, currants, and gooseberries are all easily and quickly grown, some fruiting the second year after planting. No farm is more complete without a small apple orchard. The farmer who feels content to miss all the pleasures inspired by a succession of apples beginning in August and Astrachans, Yellow Harvests and Sweet Boughs right through to Warram, Warram, and with Northern Spys, Russets, etc., must be lacking something.

Isn't there a sandy corner somewhere on the lawn where watermelons and muskmelons will grow? Oh, how good these home-grown melons are! How we girls used to look forward, all through the long

Effects of Good Reading

CHILDHOOD is truly the time to acquire knowledge; a healthy child is never still or idle. Every moment he is awake he is learning something. All his knowledge of the world is gained through his eyes, his ears, or his nose. Some people count them, but he learns most, as we all do, from what he sees, and from reading. Before he knows one letter from another he will look at pictures for an hour at a time and if he can find anyone to read or tell him about what he sees, his tongue is as busy as his eyes.

As soon as the child is old enough to read, if he is not provided with reading material, there are only two ways for him to do either his reading or his play. So such a power over his whole life, it is very important that parents be careful about what their children read. If a taste or desire for reading or study is not formed early in life it is probable that it never will be. It is a waste of time and money to waste the child's time on worthless sensational material that he acquires it with a passion for it. Negligence or thoughtlessness of parents on this question is often the cause of a lifelong regret.

Though few lads will show it, boys are very easily teased and most youths are sensitive about remarks from the family. Give the family an understanding, especially when he is possessed with the collecting mania peculiar to adolescence, that remarking on things in his domain is considered and treated as meddling.

PART OF EDUCATION

Shall we dare to call trash those bugs and things which he is collecting and hoarding and which are doing so much to educate him? Could we be so foolish as to regard as useless those rods and accoutrements which are such a source of pleasure to him and which hold such drawing powers when mischief calls in another direction?

Everyone knows that you love your boy as well as you do your girl. Just show him the small courtesy as to his room, sports and driving affairs that you do to her and demand that all the members of the family shall do the same—and then set back and watch results! They will come.—New England Homestead.

As soon as the child is old enough to read, if he is not provided with reading material, there are only two ways for him to do either his reading or his play. So such a power over his whole life, it is very important that parents be careful about what their children read. If a taste or desire for reading or study is not formed early in life it is probable that it never will be. It is a waste of time and money to waste the child's time on worthless sensational material that he acquires it with a passion for it. Negligence or thoughtlessness of parents on this question is often the cause of a lifelong regret.

mile and a half walk from school, last September, to the cool, luscious melons at the farm. Give the family an understanding, especially when he is possessed with the collecting mania peculiar to adolescence, that remarking on things in his domain is considered and treated as meddling.

THE VALUE OF FARM RESOURCES
We who live on the farm are inclined to value our resources as though we attempt to do without them. If, however, we never developed the resources, we do not know how we are missing.

A man, spending twelve hours a day in the open air may sit down with a perfect relish to pork and beans, but the wife, whose hours are mostly spent indoors, craves as should have as her farm berries, these easily grown delicacies.

Bedroom Curtains

In making curtains for the bedroom windows one can economize in material by selecting Swiss or scrim width of the window. Now many of the length you desire the curtain and cut the material from corner to the bias. In other cases cut from the lower left-hand corner to the upper right-hand corner.

Finish the joining seam neatly by bridging a strip of feather-stitch or a narrow bias fold over the seam and seam edge.

Now finish the broad straight edge at the top with a hem and net casing, through which is run a cord the length of the width of the window. The curtains are drawn over the tape or small brass rods attached to the windows.

Drrape them to each side of the window with ribbons or cottons, and you will have a pair of good looking curtains, made from a quantity of material generally employed in making one curtain.

HOLST
RIVERVIEW
Offers Bull Calif. dam old; less than a 27 lb. cow; also a pair of blue dam and heifer dam 30.17 each. Also a P. J. SALLEY - LA

Forest Ridge
A few cows of K. H. Dale, near Sibley, Minn. Also a few Heifers. Write us for what you want and see them for sale.
L. H. LIPSITT, Sibley, Minn.

LYNDALE
We are now offering months old, one from Jewell Harts, near Newmarket, dams, including several, average over 200 lbs. Also a few Heifers. Write us for what you want and see them for sale.
BROWN BROS., Sibley, Minn.

LILAC HOLST
Offers you a pair of blue dam and heifer dam 30.17 each. Also a P. J. SALLEY - LA

HOLST
No matter what Holsteins may be the live Holstein is always present in Holstein.

Write, or come to T. H. RUSSELL, Sibley, Minn.

Holstein
The first 31 lb. cow weighed here. The cow that contains a 1200. The only herd in O. that has a 1000. The only herd in O. that has a 1000. The only herd in O. that has a 1000.

EDMUND LAIDL
ELGIN COUNTY, A. V.

"LES OKENA"
HOLSTEIN-WINTER at the Paul G. Mead Fair. They combine Condescendence and Bull and Heifer Condescendence for sale.
DR. L. DE L. HARWOOD

May Echo
Her son, Sir Echo, has been a champion. Write for full description of his pedigree and some of his recent successes. Also a few Heifers. Write us for what you want and see them for sale.
ALLISON STONE, Sibley, Minn.

There's a GOOD Job!
I Used Everjet ROOFING

"NOW I have the best roof in this township. One that will last—one that's waterproof—one that will resist the hardest storms—and I didn't have a bit of trouble laying it."

That's about what every Amnatite owner says. Its superiority over all other ready roofing is apparent to anyone who uses it.

Amnatite does away with all roofing troubles and unnecessary expenses because it is made with a real mineral surface that needs no painting. It is durable, fire retardant, practical, economical.

Don't buy another roofing till you look up Amnatite. Write to nearest office for samples.

Everjet Elastic Paint
Remember to note the black paint because the color is objectionable. Elasticity, waterproofing and all exposed iron and wood.

Peterson Manufacturing Company
Montreal, Toronto, Winnipeg, Vancouver.

HOLSTEINS RIVERVIEW HERD

Offers Bull Calif. dam 15.98 lb. Jr. 2-year-old...

Forest Ridge Holsteins

A few sons of King Siga Pictorette for sale from Forest King Priced right...

LYNDALE HOLSTEINS

We are now offering 2 Bulls, nine months old, one from a daughter of Sarah Jewel Henkel...

LILAC HOLSTEIN FARM

Offers young stock, One or a Car Lot. W. FRED STURGEON, Glen Buell, Ont.

HOLSTEINS

No matter what your needs in Holsteins may be, see RUSSELL, the live Holstein man.

T. H. RUSSELL

Geneva, Ohio, U.S.A.

Ourvillla Holstein Herd

The first 31 lb. cow in Canada was developed here. The only herd in Canada...

EDMUND LAIDLAW & SONS

ELGIN COUNTY, AYLMER WEST - ONT.

"LES CHENAUX FARMS"

VAUREUIL, QUE. HOLSTEINS-Winner in the ring and at the paid Gold Medal herd at Ottawa...

May Echo Has Made 31.34 lbs.

butler in 7 days and 726.5 lbs. milk in official work.

ALLISON STOCK FARM

W. P. Allison Chesterville, Ont.

MARKET REVIEW AND FORECAST

Toronto, Monday, Sept. 30th.-A recent bulletin received by the U.S. Department of Agriculture from the International Institute of Agricultural Economics...

Edward Charles Ryott AUCTIONEER & VALUATOR.

Pedigree Stock Sales are my specialty. Many years' (experience) on Farm Woodstock, Ont. quality me to get your satisfaction.

WANTED HOLSTEIN BULL CALF

From one to two months old, with pedigree for registration. Send description and price to FARM AND DAIRY, Peterboro, Ont.

Harry B. Davis

A New York State breeder started with the popular Holstein cattle only 5 1/2 years ago. To-day he stands right on the top rung of success.

PAID \$2,500.00

An Editor of Farm and Dairy visited Mr. Davis last summer and obtained at first hand facts as to his success. A leading article, based on the facts, success, and illustrated, will be in Farm and Dairy, October 17th.

October 10 to 12.

There is no change whatever in the price of mill feeds. The price of Ontario, Manitoba bran, \$23 to \$23 a ton; shorts, \$25 to \$26 a ton in bags; Toronto; Ontario bran, \$22 to \$23 a ton in bags; shorts \$25 to \$26 a ton in bags.

HIDES AND WOOL

There was a noteworthy article in the Toronto Globe in reference to the wool industry, showing that the enterprise is dwindling in a most alarming manner.

BREEDER'S DIRECTORY

Cards under this head inserted at the rate of \$4.00 a line per year. No card exceeding two lines nor for less than six months, or 25 insertions during twelve months.

HOLSTEINS

WILLOW BANK HOLSTEINS

A Daughter of Pontiac Herms (5442) and out of Imported Dam. Born April 25th, 1905. Large, straight, and nicely marked.

GLENDALE HOLSTEINS

Entire crop purchased Holstein Bull Calves and a limited number of Heifers, whose three nearest sires have sired May Echo Blyvia, over 21 lbs. butter in 7 days.

LAKEVIEW HOLSTEINS

Offer Bull born Feb., 1912, sired by our son of Colantha Johanna Lad, and out of a heifer that made over 13 lbs. butter in 7 days at under two years old.

E. F. OSLER - BRONTE, ONT.

HOLSTEIN CATTLE

The Greatest Dairy Breed. PURE BRED (REGISTERED) HOLSTEIN CATTLE.

AVONDALE FARM HOLSTEINS

Yorkshire and Improved Dorsets. A. C. HARDY - Proprietor SERVICE BULLS:

KING PONTIAC ARTIS CANADA

King of the Pontiacs. Pontiac Artisan - \$17 the butter in 7 days. 1.077 lb. butter in 66 days.

PRINCE HERBERT PISTIE

Prince Herbert Pistie - \$16 the butter in 7 days. 1.077 lb. butter in 66 days.

H. LORNE LOGAN, Manager, Brockville, Ont.

Notice: After 1st of October, 1912 kindly address all correspondence to VAUREUIL, QUEBEC, instead of Manhard, Ont., where I will be in a better position to furnish my customers with No. 1 Holsteins.

Gordon H. Manhard - Vaudreuil, P. Q. FAIRVIEW FARMS HERD

Offers a splendid son of Rag Apple Koradyk, the young bull we recently sold for \$5,000.00, and out of a 24-pound daughter of Pontiac Koradyk (record made at 4 years).

E. H. DOLLAR, Heuvelton, New York (Near PRESCOTT)

BREEDER'S DIRECTORY

Cards under this head inserted at the rate of \$4.00 a line per year. No card exceeding two lines nor for less than six months, or 25 insertions during twelve months.

YORKSHIRE PIGS, all ages, either sex.

HAMPSHIRE PIGS-Canadian Champion

FOR SALE:- Sons of King Payne Segs Clubbide, from E.O.P. Co. Also this fine Clyde Fillies and 3 Stallions. Yearlings. -R. M. Holby, Manchester, Ont.

FOR TANTHORN SWINE-Write John W. Todd, Corinth, Ont., R.F.D., No. 1.

HOLSTEINS-Young stock for sale, bred by Imperial Farming DeKol, who is the best record name average in the world in 7 days - B. W. Walker, Utica, Ont.

CYLEDALDES, Imp. Stallions and Fillies.

HOLSTEIN NEWS

THE HOLSTEINS AT OTTAWA

G. A. Brethen, Norwood, Ont (The Judge) has introduced the following notes on the Holstein cattle shown at the recent Dominion Exhibition in Ottawa. I might mention that the rules adopted by the Holstein-Friesian Association of America in assigning values to the different points of a typical Holstein animal as well as females are 30 points out of 100 to "hair and handling" and an equal number of points to "mammary system." Experience has taught me that a 20 per cent value on these qualities is just. Therefore to be consistent I must give them the attention they deserve, other points getting full consideration according to the value placed upon them by the highest authorities known to the breed.

The conformation of many of the animals shown at Ottawa I had studied previously, from the ringside. When it came to close examination, however, by both hand and "eye," I was surprised, agreeably in some cases, and in other animals, unpleasantly. I noticed some of the most prominent shows of hairy, disapproved hair. It was indeed a great privilege and experience to handle this grand exhibit from the inside at the Dominion Exhibition, but it teaches me, as I heard a prominent Ayrshire judge recently express it, that "ring-side" is not an animal giving all honor to previous awards, those reversals were not so marked and were often the first satisfying myself why they should be. "Mercesus Vale," Grand Champion male at Toronto National, is undeniably a very smooth bull of great dry matter, and with the exception of a rather short, beefy neck, is of pleasing conformation throughout. He is certainly a credit to serious consideration in any company. As he appeared at Ottawa, however, after a hard campaign in the show-rings, intensified by a rather close finish preceding the competition, he had a "dead to the world" expression, which contrasted very unfavorably with the bright, elastic step and stately carriage of Hardy's "Prince Hengelder Pietsje," who has abundant tribute of any worthy sire, "prepotency" these points, in addition to superior length of both body and quarter, good depth of chest and middle, high quality of veining, beautiful, long, clean, well-erected neck and great substance of the Avondale type, made him one that it took a competitor "in fit" to beat.

Mr. Sangster's beautiful 3-year-old bull, a frequent winner and a model-fronted bull, showed somewhat at a disadvantage in competition with the more mature bulls of greater stature and superior fitting. His most serious drawback is lack of middle, but this may be overcome with age, and his calves certainly have sufficient to escape criticism on this score. F. Bell's entry was fourth, the best handling bull in the ring, but too short and make for the Holstein type. The same type as in aged class was followed when the high-erected, well-to-do "Madam Posch" was selected to win over the somewhat plainer son of "Pontiac Aria." The Hardy bull, like the second prize bull in the aged class, is altogether too short and bulky about the neck to make a high-class show bull. Although wanted to the right kind of show, these bulls should prefer excellent breeders. A nice son of Jewel Dan Posch, 357 lbs butter in 7 days, decidedly lacking in the substance of the winners, was placed third.

The winner in the yearling class, bred by Messrs Ludlow, and afterwards made male champion, had the most beautiful head and neck as the winners of the previous classes, combined with a smoothness and sleekness that compared favorably for his age with the champions of the year. The owner is an amateur show-man, which proved a serious obstacle when competing for the championship with such ring-regulars as Messrs Loran and Dickie. Second went to a showy, though much lighter bodied bull, owned by Colony Farm. Third to the plainer, rather unattractive of Hardy's, but a bull that showed more winning development than any male in the

different classes. The senior and junior bull calves presented a very great variety of types and dissimilarity of age which made consistent judging difficult. The first in the senior class went to a Colony Farm entry that excelled in depth and masculinity, while the first in the junior class, the young bull calf in the class, was certainly a better handling quality than some of its larger competitors. Second prize went to Mr. Sangster's "Fridge" of Hardy's that had many strong points, but was too seriously lacking in heart girth to be a first prize animal.

Mr. Sangster showed a well-bodied calf that would easily have gone to the top but for a lack of masculinity in head and neck. Aged Cows The aged cow class, with 16 entries, proved one of the sensations of the show. "Madam Posch," the senior female champion at Toronto, had no cinch in winning over her two more lengthy dairy type competitors, "Fridge of Orchard Hill" of the Hardy string, and "Drotsky Sadies Vale" of Colony Farm, and it was only after a matter of hours and examination of udders when emptied that the judge decided her general smoothness, uniform depth, well-balanced udder and perfectly elastic, hardy counter. He also balanced a slight deficiency in spring of rib as compared to the other fair. He was the second prize animal, but probably stronger in shape of udder and placing of rear teats the Toronto winner would have had a position a couple of places lower down.

"Rhoda's Queen," the well-known Winter Fair, dairy test, milk record cow, owned by Mr. Sangster, showed a fine counter, development and handling qualities showed too plainly the evidences of age and a lack of ruggedness to win in such strong company.

When you consider the many good cows that had to be left out it will give some idea of the quality type and finish possessed by the winners in this class. The fact that dry and fresh cows compete in one class makes the task of selecting the winners a most difficult.

The Three-Year-Olds "Belle Model Johanna," the two-year-old winner of the Ontario Fair, but probably the best veined female in the show, headed the three-year-olds. Although in milk about nine months, she carries a good udder, with well placed teats, and has any amount of substance, length and depth. The three-year-old Toronto winner, now also owned by Hardy, of much the same type as the other, but lacking the wonderful vein development of the former, was second; while the Colony Farm entries, two beautiful heifers in any company, were placed third and fourth. This was a very strong class.

"Koba De Kol," the Colony Farm entry, although not enjoying as attractive a finish as some of the others, due to her long, heavy milking period, has any amount of type and depth and excels performance from "muzzle to switch." The mature closest competitor, and the more she strikes one as being, if in proper fit, a model in type and performance." She was a decided winner with the judge, and a strong candidate for higher honors later on.

Avondale showed a wonderfully good heifer in Pearl Pietsje, the 2-year-old, but she lacked in length to the other heifer in everything but name. The Colony Farm heifer, "Kathleen Pauline De Kol," winner of second place at Toronto and a favorite with many for premier honors at that show, has not done so well since coming, and at Ottawa showed a somewhat "tucked up" appearance, which seriously injured her chances for highest honors. The latter show, she was not a strong winner. Fred M. Bell had a good type heifer that showed to disadvantage on account of not being fresh, while Mr. Sangster has a good handling daughter of Rhoda's Queen of nice type, but lacking in substance and contains a good higher in such "hot" company. Many good heifers could not get in the money. This was another fine class.

Mr. Bell came to the front with an easy winner in the senior yearling class. This heifer was of nice type, carrying a good udder and a beautiful handler. Hardy was second and the Colony Farm entry, Colantha Payne, the Colony Farm entry. This heifer was brought out in almost

perfect shape, and is a very strong, well-balanced heifer throughout. She has a beautiful head and neck, with a very strong muzzle, plenty of depth, with a clean, well-appraised, good barrel, straight top-line and showing extraordinary udder development and well-placed teats. She was afterwards made Grand Toronto female, and was certainly a strong winner in any company owing to all-round balance and multiplication of strong points. Mr. Sangster's second, with another daughter of Rhoda's Queen that could go to the top in almost any company, Hardy was third and Colony Farm fourth.

Avondale carried off the honors in the heifer calf classes with three beautiful daughters of the first prize aged bull. These were a very typical bunch, and later on aided in securing for Avondale the first few breeders' young herd.

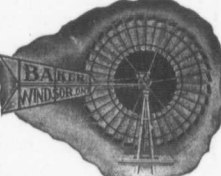
Colony Farm was the runner-up with some good entries of much the same type as the winner. The herd prizes went to Hardy and Colony Farm respectively, with Neil Sangster as the runner-up. At Ottawa, as I believe in Toronto, the female classes were particularly strong, with every indication of an abundance of even better classes at future shows. Bull classes exhibited too much variety in type to make as strong a show as would be expected at a show of this kind, but probably this also will be corrected as breeders study more closely the standard adopted for the breed.

Altogether the Dominion Exhibition, Ottawa, 1912, provided a worthy show of Holstein and whites, and every credit is due to those who were in the face of almost innumerable odds, brought out their animals, exhibiting the bloom and finish, of the majority of those shown at this the greatest fair in its history.

*Note the illustrations of the champion bulls described in this article that appear on pages 6 and 7 of this issue.

"Baker" Wind Engines

Are built for hard, steady work, and keep at it year in and year out



It is the reputation which "BAKER" Wind Engines have fairly won and steadily held ever since their first appearance on the market, 20 years ago, that should be considered. They are famous for their durability, simplicity of construction and easy running. "BAKER" Wind Engines are so designed that the gears cannot wear out of mesh. The wheel is built on a hub revolved on a long stationary steel spindle, requiring no balancing. It has a large number of small sails which develop the full power of the wind and enable them to pump in the lightest breezes. Has ball-bearing, turn-table and self-regulating device, and all the working parts are covered with a cast shield, protecting same from ice and sleet. The above is only a few of the many features that have placed "BAKER" Mills in the lead. Let the H.-C. Co. agent give you complete information, or write direct for books.

We make a full line of Steel Towers, Galvanized Steel Tanks, Pumps, Pneumatic Water Systems, Spray Pumps and Gas and Gasoline Engines.

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

MAPLECREST HOLSTEINS Beat the WORLD'S RECORDS

The Three Most Wonderful Cows the World Has Ever Produced! ALL DAUGHTERS OF ONE SIRE



Table with 4 columns: Cow Name, Weight, Milk Production, and Average Percent Fat. Banostine Belle DeKol: 1,214.4 lbs, 1,522.20 lbs milk, 1.20% fat. High-Lawn Harlow DeKol: 1,202.2 lbs, 1,541.00 lbs milk, 1.20% fat. Dairy Grace DeKol: 1,100.00 lbs, 1,476.00 lbs milk, 1.40% fat.

WE HAVE JUST A FEW CHOICE BULL CALVES FOR SALE Write for free booklet and detailed information.

MAPLECREST FARM E. CLARIDON, OHIO DAN DIMMICK & BRO., Props. Address all correspondence to Box G, Kalamazoo, Mich.

Dispensing Sale

Of Over 70 Head of Pure Breeds

Holstein-Friesian Cattle

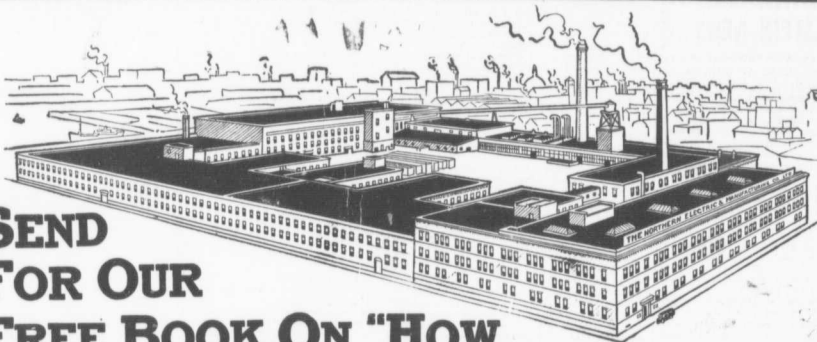
Will be held in the New Cattle Barn, EXHIBITION GROUNDS Red Deer, Alta., October 16th, 1912

Including our Champion prize winning herd, headed by SIR PIETERTJE OF RIVERSIDE, 20 choicely bred bulls, 50 females, all under 6 years of age.

The foundation stock of this herd was carefully selected from several of the leading Holstein herds of Ontario, and consist of a combination of several of the leading families of the breed and are sired by such noted sires as JOHANNA RUE 4th's LAD, AAGIE GRACE CORNUOPIA LAD, PRINCE DEKOL POSCH, SIR JOHANNA MERCEDES, SIR PIETERTJE POSCH DEBOER, KING JOHANNA PONTIAC GROVYK, and others.

Write for Catalogue, which will be ready the last of September. Come and look over the stock before the sale.

Col. Welsby Almas, Auctioneer - Brantford, Ont. Michener Bros., Props. Red Deer, Alta.



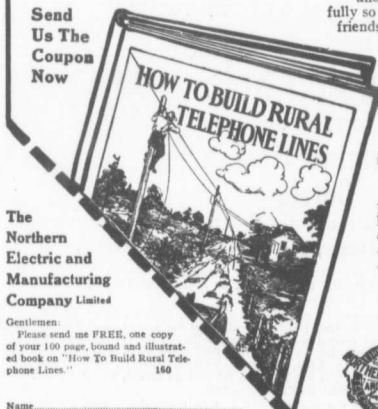
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YOU do not need to know anything about company organization or telephone line construction to start a telephone company in your own community. "How to Build Rural Telephone Lines" will tell you absolutely everything you need to know. When you have read this book you will be amazed at the simplicity of the whole proposition and wonder why you and your neighbors have not had a telephone system of your own long ago. Sooner or later someone is going to start a telephone system in your neighborhood. Whether you or one of your neighbors chances to be that "someone," you owe it to yourself to be fully informed on the subject.

We Send This 100-Page Illustrated Book Only on Request

THIS book contains seven chapters of detailed information on the construction of rural telephone lines, abounds in photographic illustrations and diagrams and deals with every vitally essential fact as does no other book in existence. Remember this book has cost too much money to prepare to send it out haphazard. While

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Gentlemen:

Please send me FREE, one copy of your 100 page, bound and illustrated book on "How To Build Rural Telephone Lines." 160

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we will be glad to send you a copy, we will not do so until you ask for it. If you are interested in the subject send us the coupon and we will send you one copy of this volume free by return of mail.

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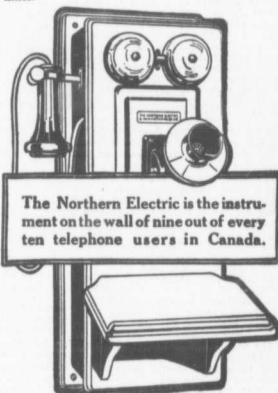
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