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VOL. XXX.

NUMBER 28

FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

JULY 13,

1911.



DON'T EXPECT GOOD CORN UNLESS YOU CULTIVATE IT WELL AND OFTEN

From this time forward the success of the corn crop is dependent to a great degree upon the cultivation it is given. During hot, dry weather, the soil between the corn rows ought frequently to be stirred and kept level—not torn up deep and rough, which will unduly and greatly waste the soil moisture so necessary to the proper growth of the corn. Moisture is the important need of the growing corn, so take care to conserve as much moisture as possible by frequent, shallow cultivation from this time on; and let not weeds or grass flourish amongst the corn to rob it of the vital moisture! The photo for our illustration this week was taken on Mr. John Durst's Farm, Huron Co., Ont.

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CANADIAN COUNTRY LIFE

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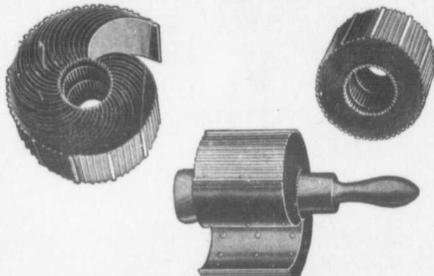
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"SIMPLEX"

CREAM SEPARATORS

1. The Link-Blade Skimming Device
2. The Self-Balancing Bowl

Note the Principal Advantages of the Above-Mentioned Features:—



The Link-Blades closed for skimming, open for cleaning and held by standard for convenience in cleaning.

1. Increased capacity of from 30 to 50 per cent. over the most efficient of previous devices, combined with very clean skimming under a wide range of conditions as to milk, temperatures, etc.

2. Great convenience in cleaning and handling, because the blades do not come apart, and do not have to be re-assembled in any particular order.

3. The device being expandible, and fitting the bowl snugly, it can never become loose, or shift in the bowl, and throw the same out of balance.

4. The pressure being transmitted through a series of brass rivets, there is no strain on the blades themselves, and there is no rusting formed by the points of contact of the rivets.

5. The device, being much more efficient, is a great deal lighter and smaller in order to do the same amount of work, making it still easier to handle, and requires less power to run than other devices of same capacity.

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Greatest Live Stock Show on the Continent

SPECIAL PRIZES: \$800.00 for Best Animal in Holstein Classes.
\$500.00 for Best Animal in Shorthorn Classes.

ALL ENTRIES CLOSE AUGUST 15th

For Prize List and Information write

J. O. ORR, Manager, City Hall, TORONTO

Mr. Flatt Submits Some Figures.

Editor, Farm and Dairy.—When glancing over Farm and Dairy of June 29th issue I notice an article written by John McKee, one of our leading Ayrshire breeders. I wonder what is the trouble with Mr. McKee and with some other Ayrshire breeders that they are trying so hard to knock the Holstein cow? Perhaps it is the fact that a grade Holstein at public auction will sell for nearly as much as their registered Ayrshires; or is it the wonderful advances the Holstein cow is making entirely on her own merits? She seems to be the thorn in the flesh of some of our Ayrshire admirers.

Mr. McKee sounds another note of warning to beware of those Holstein cows for they will consume everything in sight. From hearing Mr. McKee one not informed in these matters would imagine an Ayrshire cow would hardly make a meal for a Holstein.

It might not be out of place to suggest to the Ayrshire knockers to pay more attention to the improvement of the weak places in their favorite cattle and let the other follow alone. The intelligent dairy farmer of to-day is not guided by fault finders through the public press but wants cows that will give most satisfactory returns from feed consumed and labor expended, and from present indications and past experience the grade found their ideal in the Holstein cow.

ADMISSIONS AND CLAIMS.

We all admit the good qualities and tidy appetites of the Ayrshire bossie, but the 20th century is an age of big things, and, strange to say, we must in every instance couple the name of a big, vigorous, healthy Holstein with every milk and butter record of the world. We Holstein breeders also admit and appreciate the vigorous appetites of our mortgage lifters. They are capable of consuming large quantities of roughage and converting it into milk, and what we most admire, is that her milk and butter fat production is corresponding larger than her consumption of food (in comparison to other dairy breeds).

As the Holstein cow has demonstrated that she is superior to all others in the production of milk and butter fat and as the Ayrshire admirers' only remaining prop is the claim they make for economical production, it is the earnest prayer of the Holstein fraternity that the Ayrshire men allow the cheap production bluff to be tested on its merits by bringing representatives of both breeds together in public test, weigh and value all feed and pool the money, winners to take all, and then I fear the nervous little Ayrshire bossie with her tiny tests will have lost her last claim to first place among the dairy breeds of cattle.

SOME TELLING FIGURES.

To further substantiate my arguments I will submit a statement of food consumed by one of our registered 4-year-old Holstein heifers.

Jennie Bonerages Ormsby, who has just completed a 30-day official record of 125 1/2 lbs. butter from 2,580 lbs. of milk; also her 7-day record is 30.76 lbs. butter.

Her daily ration was as follows:
10 lbs. bran worth 9c.
4 lbs. corn chop worth 5c.
3 lbs. oat chop worth 4c.
2 lbs. oil cake worth 3c.
19 lbs. meal worth 21c a day, or \$6.30 for 30 days.

In addition to this she received all the green grass she wanted, and I think that a liberal allowance for this during the month, making \$10.80 total cost of food for 30 days. She produced 2,580 lbs. of milk worth, wholesale at Hamilton, at 16c a gal., \$41.28, leaving a nice balance of

\$30.48 for caring for one Holstein cow for 30 days.

Smile and the world smiles with you. Knock and you go alone.

The chief credit will let you in. Where the knocker never known.—D. C. Flatt & Son, Wentworth Co., Ont.

Thinking—Not Doing

Editor, Farm and Dairy.—I noticed an expression in Farm and Dairy recently regretting that farmers so often let others do their thinking for them. My experience among farmers is that they do the thinking all right, but the trouble too often is they let others do the acting for them.

If they would only do as well as they think, rural Canadians would be nearer getting what they are entitled to. Success to you.—W. K. MacLeod, New Westminster District, B.C.

Fair Dates for 1911

Canadian Industrial Exhibition, Winnipeg, Man. July 12 to 22
Inter-Provincial Fair, Brandon, Man. July 24 to 28
Dominion Exposition, Regina, Sask. July 31 to Aug. 12
Canada National Exhibition, Toronto, Ont. Aug. 26 to Sept. 11
Nova Scotia Provincial, Halifax, N. S. Aug. 30 to Sept. 7
Canada Eastern Exhibition, Sherbrooke, Que. Sept. 2 to 9
Western Fair, London, Ont. Sept. 8 to 16
Central Canada Exhibition, Ottawa, Ont. Sept. 8 to 16
Fredericton Exhibition, Fredericton, N. B. Sept. 16 to 23
P. E. I. Provincial, Charlottetown, P. E. I. Sept. 26 to 29

Some Pertinent Questions

Editor, Farm and Dairy.—Country newspapers from one end of Canada to the other have for some months now been publishing articles opposing reciprocity and pointing out wherein the industry of agriculture will receive a serious setback should reciprocity pass. We should stop to think where these articles come from and who pays for the large advertising space used.

Why have our protected interests taken such a sudden—a new—interest in the farmer's welfare. As far as I can see, formerly their chief interest was to make as much money out of us farmers as possible. And that is still their chief interest, and it is an explanation of their bitter animosity to the proposed reciprocity pact. They fear that we farmers will get out of the tariff corral.—E. F. Eaton, Colchester Co., N. S.

Items of Interest

The second annual report of the Commission of Conservation has been received. A vast fund of informatics with which every Canadian should be in touch, is contained in this report, which may be had on application to James White, Secretary to the Commission, Ottawa, Ont.

Mr. W. H. Bunting, of St. Catharines, has been engaged to conduct an enquiry into the fruit industry in Canada, the information collected will be presented at the Dominion fruit conference next winter. The acreage devoted to fruit in the Dominion, and the production and distribution of the crop will be studied.

Prof. F. C. Harrison, former bacteriologist at Macdonald College, St. Anne's-Bellefleur, has been appointed principal of the college, the position vacated by Mr. Jas. W. Robertson.

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

Issued
Each We

Vol. XXX.

An Old Pioneer
Some

FARM land for 850 plantations on the turn. Science method of the farm applied in enclosure of a rural farm and Dairy office in Peterborough, Ontario, Hawaii, Honolulu, Hawaii, farm boy, who Hawaiian Islands a visit to the place. Some facts in regard to these products are of special interest since we farmers sell from them well in conversing Hawaiian government reviewed for the

RESULTS

Science has won of the Hawaiian commercial field to the soil tillage, up-to-date of the farms and the management made immense millions, and in receipt of good

Mr. Boswell, and the condition in the olden days kindly terms of a during that period stated it as his of progressing had inferior in yield Mr. Boswell was

A REVELATION
"Your Canada fed," said Mr. B. the crops their far these crops with soil in the way of them keep account of affairs, and it "There are great will but grow the available and adapt utilize and adapt conditions as we find a business basis, guess, as to the department of the

EXPERIENCE

According to Mr. Boswell or plantations is reduced to a business money is expended divided farmers

FARM AND DAIRY & RURAL HOME

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a Year

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FOR WEEK ENDING JULY 13, 1911.

No. 28

WHAT SCIENTIFIC BUSINESS AGRICULTURE HAS DONE FOR HAWAII

An Old Peterboro Boy Pays a Visit to the Land of His Youth, and Recounts to the Editors of Farm and Dairy Some of the Wonderful Profits From Scientific Farming on Islands of the Pacific Ocean

FARM land in the Hawaiian Islands sells for \$500 to \$600 an acre. On the larger plantations annual dividends of 60 per cent. on the original capital is the common return. Science enters largely into the management of the farms and commercial fertilizers are applied in enormous quantities, such as would startle a rural Canadian. Recently the editors of Farm and Dairy were honored with a call at their office in Peterboro by Mr. Henry G. Boswell, of Honolulu, Hawaii, a former Peterboro county farm boy, who has spent the last 20 years in the Hawaiian Islands and is back in Canada to pay a visit to the place where he grew to manhood. Some facts in regard to the agricultural practices in these productive islands of the Pacific Ocean, are of special interest to Canadian farmers, and since we farmers with profit may draw many lessons from them, the facts as given by Mr. Boswell in conversation, and substantiated by the Hawaiian government literature, are here briefly reviewed for the benefit of Farm and Dairy readers.

RESULTS OF SCIENTIFIC AGRICULTURE

Science has worked wonders on the agriculture of the Hawaiian Islands. The liberal application of commercial fertilizers, crops especially adapted to the soil and climate, proper methods of tillage, up-to-date equipment in all departments of the farms and the placing of large areas under the management of one most capable head, have made immense profits possible, has created many millions, and has placed the laboring classes in receipt of good wages and comfortable living.

Mr. Boswell, after 20 years away from Canada, and the conditions as he knew them on the farms in the olden days, was not given to speaking in kindly terms of any progress that had been made during that period by our farmers. In fact, he stated it as his opinion that our farms rather than progressing had fallen backwards, our crops were inferior in yield to what they used to be—and Mr. Boswell was not slow in arriving at a conclusion as to the cause.

A REFLECTION ON US FARMERS

"Your Canadian farmers are too easily satisfied," said Mr. Boswell. "They continue to grow the crops their fathers used to grow. They take these crops without an adequate return to them in the way of fertilizers, and few if any of them keep accounts. This is a deplorable state of affairs, and it need not be.

"There are great possibilities in the soil if we will but grow the most profitable crops that are fit and adapted to our soils, if we will fertilize and adapt ourselves as best we can to conditions as we find them and place our farms upon a business basis, keep accounts, and know, not guess, as to the profitability of each and every department of the farm each year."

EXPENSIVE EXPERIMENTAL WORK

According to Mr. Boswell everything about the farms or plantations on these Hawaiian Islands is reduced to a business and scientific basis. Much money is expended in experimental work. Individual farmers conduct experimental plots for

themselves, the Planters' association expends large sums experimenting with commercial fertilizers and various methods of crop management, and the government also carries on much work of an experimental nature seeking to assist the farmers and make possible a maximum of crop production on the islands.

The main crop is sugar—the sugar cane. Pine apples and other tropical fruits also enter largely into the agricultural production. The soil is volcanic in nature, and the climate being dry, irrigation is practised. Practically all the water used for irrigation has to be pumped and at great expense, since often it has to be elevated 600 feet and more. On the large plantation with which Mr. Boswell is connected 80,000,000 gallons every 24 hours are pumped and elevated 600 feet for irrigation purposes. The pumping machinery on this one plantation alone represents an investment of \$1,000,000.

HISTORY OF HAWAIIAN AGRICULTURE

It was interesting to hear Mr. Boswell tell the history of agriculture in these islands. Here are

Best in the Country

I receive Farm and Dairy regularly. It is a good, interesting and useful paper: the best I have had the pleasure of subscribing for, since coming to this country, some six years ago. I have had quite a number of farm papers since then. I like Farm and Dairy the best. I shall certainly renew my subscription when it is due.—John Roy, Winnipeg, Manitoba.

his words: "Sixty years ago our Islands were inhabited by a semi-barbarous people. They grew cane and produced sugar, but their methods were most crude. To-day we produce more on one acre than was formerly grown on six. In earlier days the sugar was boiled in kettles. There was a loss in sugar averaging about 40 per cent., and two tons of sugar an acre was considered a good yield. Now on our plantation our yield of sugar averages 14.9 tons per acre. No fertilizer was used in those earlier days. Now most liberal applications of commercial fertilizers form the very basis of our prosperity, and we are learning year by year that it pays to apply even more fertilizer. The fertilizer we use costs about \$40 a ton. How profitable it is when applied on our soil you may learn when I tell you that one half ton produced an extra yield in sugar worth \$80. On a plantation of 9,000 acres we apply annually \$200,000 worth of commercial fertilizer.

ACCURATE AND COMPLETE ACCOUNTING

"Of course in connection with our farming the most accurate account is kept of everything about the plantation. There is no growing crops that do not pay. We keep accounts to make sure they do pay, and we are constantly endeavoring to make them better. Everything is run on the strictest business principles. For a general manager we hire the most competent man available.

He is an agricultural chemist, a civil engineer, and a general all-round man of many years' experience. We pay him a salary of \$10,000 yearly, and provide him with a home and servants. Other men, heads of various departments under the general manager, receive good salaries. For instance, we pay our agricultural chemist \$3,000; our sugar boiler \$3,000; our civil engineer \$3,000, and our head overseer \$3,000; in addition these men all have free houses and other concessions that go with them. The mill on our plantation cost \$1,000,000, and we have an average annual output of 35,000 tons of sugar.

AGRICULTURE IN THE PHILIPPINES

"Before the white man took charge and began running the sugar plantations according to the most up-to-date methods, two tons of sugar per acre was considered a good crop. Last year I had occasion to visit the Philippine Islands, and I found that under the management there a yield of two tons per acre and less was the common run. In the Philippines their methods of culture and boiling the sugar are very much the same as they were in Hawaii 50 years ago. They are recovering about 55 per cent. of their sugar, and that is of a very low grade and not marketable as commercial sugar. While there I induced 17 large growers to agree to grow the cane for a mill which we would establish, and we would give them 60 per cent., and do all the work; they now get less than 55 per cent., and have all of the expense and work. These planters in the Philippines have used no fertilizers for 30 years, and there is great possibilities in improvement in the crop production as well as in their methods of finishing the product."

"This is all very interesting," we said to Mr. Boswell, "but of course our farmers do not grow sugar cane and it is the belief of our economists that we are much better off with a large number of smaller farms owned and worked by individual farmers." "Quite true," said Mr. Boswell, "but you can grow sugar beets, and I am informed that when they are grown for your sugar factories they give an average test close up to 16 per cent. Such a crop ought to prove most profitable, and if the business were conducted under a competent head there is no reason why it should not flourish exceedingly.

WAGES OF CANADIAN FARMERS

"Many of the crops your Canadian farmers are growing are not paying them like as would other crops they might adopt. When I was home on the farm 25 years ago, we used to figure up what we made in wages over and above a fair return on our investment, and I think it was something like 12½ cents a day we got for our hard work. How much more do your farmers make to-day after paying good interest on their investments?"

"I am surprised to note that your farmers seem to be afraid to hire men. We believe in capitalizing labor, and of course growing the best money crops available and managing everything in the most economical way, such as is possible on large farms or plantations, under one capable management.

"Your Canadian farmers also do not appreciate the value of fertilizers. Very little commercial fertilizer is used at all in Canada, and I doubt

(Continued on page 6)

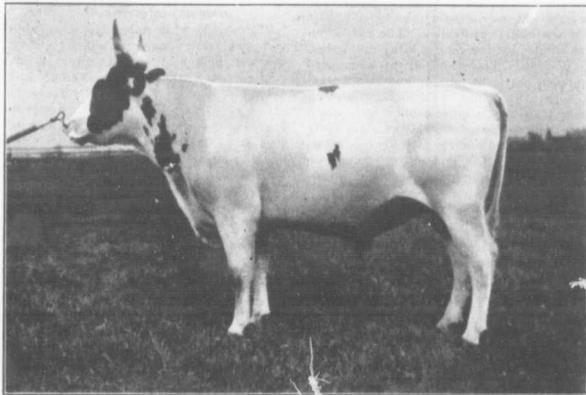
Expert Counsel About Buying Horses

If you are not conversant with the anatomy of a horse you had better not try to buy a horse on your own judgment unless you are purchasing from a responsible horse or a well-known dealer who has a reputation to uphold. But if you are an enthusiastic buyer on your own account, perhaps the writer can give you some hints that will be useful, and it may be, save you loss.

After you select the horse which you think has captured your fancy it might be best to have him brought out for a careful examination. Be sure that he is cool and not in a heated condition; remember that horses are subject to every ailment and disease that human flesh is heir to; that he has temperament, disposition, individuality and needs to be very carefully bought.

The first thing you look at is his foot—no foot, no horse; it should be on the concave order, a deep sole and not too narrow; this denotes breeding. Run your hand down his forelegs, examine for splints; if on the lone they will never hurt him; but if on the tendons drop him like a hot potato, no matter how small the splint.

To save the time and trouble have him jogged



A Three-Year-Old Ayrshire that Sold for the Record Price, \$2,600.

September 1st, 1910, this illustration from a photo taken by an editor of Farm and Dairy was published in these columns over the caption, "An Exceptionally Strong Animal that gives Promise of a Great Future." This bull, Bargenock Victor Hugo (Imp.), one of the Robt. Hunter & Sons' herd, sold at their public auction dispersion sale two weeks ago, for \$2,600 to Mr. P. Ryan, of Brewster, N.Y.

quietly down on the floor, on stone or cement if possible, and look for lameness, and see if his style of going suits you. Now examine his coronecs for sidebones; take a look at his eyes, and that very closely. Stand in front of him to see that he has a full chest; glance between his forelegs at his spavin joints; run your hand over his kidneys and press hard as you do so; pass behind him and see that he stands square; examine for curbs (a curb will never hurt a horse after he is six years old); feel his hocks for incipient spavins or bruises on the cap of his hocks, which require a satisfactory explanation from the owner. Don't forget to look for thoroughpins and bog spavins; look carefully at his hips that they are both alike; personally I would never buy an interfering horse, or a horse that shows symptoms of it.

See that your intended purchase is well ribbed up; long backed, narrow-gutted horses are bad feeders and doers and cannot stand their work. See also that he has plenty of neck, good, high shoulders and sloping back. Then proceeding, ask the holder of the horse to walk quick into his flank both ways, turning him quickly; then back him while you look carefully for symptoms of springhalt or cramps.

If up to this time the horse has borne inspection favorably put a man on his back and gallop him as fast as he will go to test his wind for a whistling sound. If all right have him put in harness to see if he has any vice. Stable habits, such as weaving, wind sucking, cribbing and halter pulling, must be left to the voracity of the seller's word, as they are only to be detected when the horse is standing quietly in the stable.

In the matter of age four years old is not preferable. You are taking chances with the young horse. I had rather buy a horse at eight than five, as he is then in his prime, and his habits are all developed; if a horse has arrived at that age and maintained his soundness, you can rely upon his being a good one. If he fills the bill, buy him; good horses are scarce.—"Dick."

Harvesting Alfalfa Without Hand Work

"Most of our neighbors think that we put too much work on our alfalfa when cutting it for hay," said Mr. H. Glendinning, of Ontario Co., Ont., recently when in conversation with an editor of Farm and Dairy. "We do put a lot of work on our alfalfa, but very little of it is hand work.

"We have now used the same method of curing alfalfa for three years and have not heard of a better one. We start two mowers in the morning as soon as the dew is off, and cut until two or three in the afternoon. The tedder is started soon after the mowers. We go over the field with the tedder in the afternoon. The alfalfa is raked into windrows that night with a side delivery rake. The following morning the tedder is run lengthwise of the windrows and again in the afternoon. It is left in this condition the second night, tugged the next morning, and then hauled into the barn. As we use a hay loader, the only hand work is on the load and a little in the mow.

"It is a general opinion that as much tugging as I give my alfalfa is not advisable in that the leaves will be knocked off. I do not find that the leaves are knocked off. Tedding merely gives the leaf an opportunity to perform its normal function. The function of the leaf in curing hay of any kind is to carry off the water. If the alfalfa is left in the windrow, as is so commonly advocated, the leaves are exposed to the rays of the sun for a long time and are killed. The water then has to come out of the stalks by some unnatural method, and a poor hay results.

By constant tugging the leaves are not exposed to the direct rays of the sun for any length of time, and the alfalfa cures more quickly and more naturally. I used to avoid tugging whenever possible, until one day it struck me that I was not giving the leaf an opportunity to perform its natural function. I changed my methods entirely, but my new method was so out of the ordinary that it was several years before I advocated it in public."

Profitable Lessons From Cow Testing

W. H. McGregor, Prince Co., P. E. I.

Mr. Mitchell of the Dairy Department lectured on dairying here in July, 1909, and induced us to organize a cow testing association. It was August before we got our equipment. My best cow gave in that month 780 lbs. of milk; the poorest 140 lbs. The same cows in August, 1910, gave 510 and 820 lbs. of milk respectively, having been better cared for during the previous winter and plenty of peas and oats provided for summer feed.

Since we started weighing and testing the milk from individual cows we do not let anything prevent us from getting the feed in for the cows each night and morning, thus keeping them from shrinking, which they will do very quickly when the grass gets dry and the flies bad, although the shrinkage may not be noticed where the scales are not used.

One thing I have learned since starting a test is that the most profitable time to have the cows freshen is in the fall or early winter. I had heard this fact stated time and again, but it never appealed to me until last winter, when I found out by experience. I had a heifer that lost her calf by some accident two months before it was due. She came to her milk and in 12 months she gave 5,380 lbs. of milk, was dry six weeks and freshened again. This I know is not a large yield by any means, but is 2,000 lbs. above the average for the province and is 2,000 lbs. or more better than she would have done freshening in May.

Another cow that freshened four months before we began to test gave in 14 months without freshening 8,000 lbs. of milk. This cow, barring accident, will give about that amount in the next 11 months if she keeps along as well as she is doing at the present time. Were I not weighing the milk I am sure she would not give more than two-thirds of this amount, as she would not be fed as well as we are feeding now when we know what we are getting for it.

We bought a cow some time ago without testing her milk. When she freshened in 1909 she gave a very small amount at each milking. I made up my mind right away that she would go off in the fall, or before, if possible. When we began to test, the manager of the factory asked me over the phone how much I would take for No. 1 cow. I replied that I was looking for something I had a grudge against and that that could have her pretty cheap. "Well," he replied, "her milk tests 5.0 per cent." At the end of the year she was only 20 lbs. of fat behind the best cow, her milk going up to 6.0 per cent fat. Needless to say I have not given her to the other fellow yet.

We have increased the milk yield several hundred pounds per cow since testing systematically and we have also got a great desire for better and more productive cows; This desire may be in the mind of every dairymen; they will tell you so at all events. But they are not working on improved stock, for when they are requested to a representative of the Dairy Department to keep a record of the production of their cows they will have some excuse, such as lack of time, and that they know their best cows well enough. The time taken does not amount to much. When the help get used to weighing the milk they rather like it.

The serious flow through until next spring when milk gets hot from two years ago covers) as to dried up, however.

It seems a little extra at this absolutely net profit, keep them milk next winter will give me I know not to the year, because What is the corn, cutting the cows may feed them now production? I next winter to we will then give and the progress and Dairy paper perhaps more.

I count on a just such content is large enough. This I find to relished by the peas (these are together with enough to cut cows milking Later on, as so then I have lot upon which the

I have written who has not made his cows other ture. To these better use of coming out in and feed to the ter to feed it although if you and extra work just over the fence side of your patient, cut it haul it to the co

FREE If green feed tage of the hay be worth while to return fed, now meantime have of suitable fodder fed just now, as milk feeds. A calculating where larly will soon to may not use and Now that the again and are sure to take precautionary proprietary mixture Of these I would small quantity at is recommended. some of these, so have found out th

On dairy farms are the main source count they need as if anyone should

A Dairyman Writes about Summer Feed

T. R. James, Middlesex Co., Ont.

The serious problem of how to keep up the milk flow through the remainder of the season, and until next spring again, now confronts us farmers who milk cows. We may as well expect to get heat from burning coal ashes (as was tried two years ago after the report of a so-called discovery) as to expect a full milk flow from the dried up, hard pastures as are now available.

It seems a hard thing to have to feed our cows extra at this time of the year, but the practice is absolutely necessary if we would make the greatest profits, keep our cows in good condition and keep them milking so that we may have them milk next winter, when, as a matter of course, we will all feed the cows as well as we know how. I know of no greater folly than is the common practice not to feed cows extra at this season of the year, because we are too busy at other things. What is the use of working in the roots and corn, cutting the hay and storing it away that the cows may be fed well next winter unless we feed them now and keep them up to their full production? It will not be possible for the cows next winter to pay as they should for the feed we will then give them. Now is the time to feed, and the progressive dairymen who read this Farm and Dairy paper know as much about it as I do—perhaps more.

PROVISION FOR FEEDING.

I count on making provision every spring for just such contingencies as we now face. My silo is large enough that I have some silage left over. This I find to be great summer feed, and it is relished by the cows. Then I have some oats and peas (these are now just ready to be fed) and together with green alfalfa, or when it is not big enough to cut I have the hay, I can keep the cows milking fairly well in spite of the pastures. Later on, as soon as the corn comes into tassel, then I have lots of feed that the cows like and upon which they milk splendidly.

I have written this letter more for the man who has not made sufficient provision for feeding his cows other than what they can get in the pasture. To those men I would say you can make a better use of some of those oats that are now coming out in head than to cut some each day and feed to the cows, all they will eat. It is better to feed it in the mangers at milking time, although if you do not care to go to this trouble and extra work it will be worth while to feed it just over the fence, should the oat field be alongside of your pasture. Should it not be so convenient, cut it and throw it onto a wagon and haul it to the cows.

FEED HAY IF YOU MUST.

If green feed be not available then take advantage of the hay on hand. It probably would not be worth while to feed the cows new timothy, but mixed hay, or clover, would give much better returns fed now than later if the cows in the meantime have been made to suffer want of plenty of suitable fodder. Grain seems rather expensive to feed just now, as is the case with bran and other mill feeds. A little experimental work and calculating where the milk is being weighed regularly will soon tell how much of these we may or may not use and return a profit.

Now that the flies have become so numerous again and are such a pest to the cattle, it pays to take precaution to keep them off. Several proprietary mixtures are to be had at local stores. Of these I would advise anyone to get only a small quantity at the start and of a brand that is recommended. There is danger in applying some of these, so be careful with them until you have found out the effects of the application.

On dairy farms—real dairy farms—the cows are the main source of income, and on that account they need to be well cared for. It seems as if anyone should know this, in their own best

interests, but how frequently we see dairymen blind to their own best interests and allowing their cows—their main source of income—to suffer! Is it because they think the cows, somehow, will make them profits, or is it because they have never been used to feeding and as yet cannot bring themselves to see the necessity of extra feed and the great profit that comes from it, or, failing profits directly, then the great loss indirectly through having not provided for the cows all they require?

Seasonable Notes about Alfalfa

Notwithstanding severe winter-killing and the dry, hot summer, alfalfa has again this season given a good account of itself, and has again demonstrated that it is the peer amongst hay crops. The first cutting was well ready to harvest by the week of June 12th. In most cases reports to hand state that it was cut in that week and the week following. The yield has been most satisfactory, averaging about two tons to the acre. The alfalfa has since come on in splendid shape in spite of the dry weather and is fast making headway towards a second crop. In a year like this one, with ordinary red clover so scarce—it having in many sections been almost totally winter-killed, alfalfa hay will be, even more than usual, appreciated by those who have it.

ALFALFA FOR SEED

Some farmers are counting on reserving their second cutting of alfalfa for the purpose of obtaining seed. While it is sometimes very profitable as a seed crop, we all should remember that ordinarily alfalfa in Ontario does not produce over two bushels of seed to the acre, and in reserving a piece for seed one loses what he might otherwise obtain from the second and third cuttings, and while he may obtain two bushels of seed or more per acre he is just as liable to fail entirely to obtain seed. On this account one is usually ill-advised in trying for seed, and this year particularly when fodders, clover especially, is likely to be at a premium, it appears to be a wiser course not to save seed, but to take the second and third cuttings for hay.

Jottings from Farmers

I believe in cutting clover as rapidly as possible.
—C. S. Johnson, Huron Co., Ont.

Hay that is cut and then rained on is apt to become affected with mildew. Such hay should be thoroughly cured before being placed in the mow. It would need to be cured much dryer than hay made under ordinary conditions as I am satisfied that mildew and the mold that appears later in stored hay are one and the same.—Henry Glendinning, Victoria Co., Ont.

Farmers have to a great extent given up the summer fallow. They have found there is a great loss of natural food when they summer fallow as the heavy rains carry away with them the nitrogen, and it is lost. Another argument against summer fallow is that the ground will become devoid of humus. Keep the ground covered, and if you have a good summer crop it will conserve all the nitrogen.—W. C. McCalla, Lincoln Co., Ont.

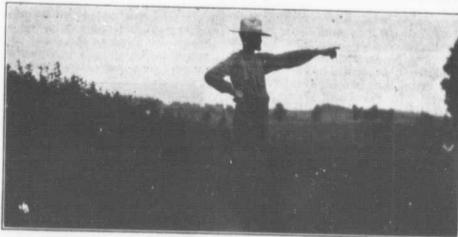
Experience with Heavy Horses

Chas. Groat, Ontario Co., Ont.

Heavy horses have paid me very well in the past. I have sold a yearling filly for \$250 and a two-year-old, weighing 1,930 lbs., for \$550, and a number of others at good prices. The last two years we have been rather unfortunate taking them to the winter fairs. We captured good prizes, but the colts caught colds, and we lost them.

I have three mares in foal this year, two imported ones and a good Canadian mare. I only have a small farm and work the mares.

Most of our neighbors like the Clydesdale. It would be no use to introduce any other breed in our midst. Most of us try to raise two or three

**Heavy Hay Right on the Brow of a Hillside**

Alfalfa is wonderfully productive, even on clay hillsides, where with other crops we ordinarily would not expect so luxuriant a growth. This photo was taken on June 3rd by an editor of Farm and Dairy, and shows alfalfa, heavy even piece of alfalfa, although quite badly winter-killed in places, gave a cutting of Farms and Dairy this field had developed a splendid second growth in spite of the severe drought, which has burnt other hay plants and caused the ordinary pastures to turn brown and dry. Mr. H. R. Nixon may be seen in the illustration.

colts each year. Foals four or five months old sell from \$115 to \$200, and when old enough to break from \$200 to \$350. These high prices often tempt us to part with our best breeding stock. To improve our horses we should keep the best fillies, not sell them, even though tempted with a good price.

The foals are taught to lead while young. They are taken to the dam and let suck once in the forenoon and once in the afternoon. I would rather handle the foals in this way than let them run with the dam for two months or so and then wean them and put the mare to work, as is sometimes practised, and let the foal out on dry pasture to search for a living and fight the flies.

A little separated milk is a good thing for a foal. The last one I raised when 17 months old weighed 1,530 lbs. He got second in a large class at the Guelph winter fair last winter. There is something in separated milk that makes them grow and keeps them healthy.

A PLEA FOR THE LIGHT HORSE.

The light horse is all right in its place. I believe every farmer needs one. They are just the thing for fast driving. I like to have a horse fitted for this work, but I do not think everyone is fitted to handle light horses. It takes more time and patience to get them trained properly, and a colt must be well trained now—a day to be safe for driving around automobiles, street cars, and so forth.

Every farmer's wife and daughters should know how to drive. It is not only handy, but it is healthy for them to drive, and no one has a better right than a farmer and his family to have a good driving horse and carriage. But for a profitable horse to breed I prefer the draught type.

In my experience of 20 years I have on all reasonably dry soils found that alfalfa winters better than other clovers. I have sowed more than ever to alfalfa this spring.—John Clark, Grey Co., Ont.

Experiences in Cow Testing

W. H. Cherry, Haldimand Co., Ont. One does not need to drive far into the country even to-day to find that the good advice given by Farm and Dairy and other farm journals in regard to the care of cows is not heeded. In winter herds of shivering cows still huddle around the straw stacks while their owners stouly maintain that there is no money in dairying.

I was in the same position myself some few years ago, but decided to specialize a little and await results. I purchased a set of dairy scales and a four-hill Babcock tester. Their combined use was the means of finding the herd of nine out of 13 of the dairy cows. New ones were purchased, including some pure bred Holsteins. My dairy cows now average from 8,000 to 15,000 lbs. of milk per cow annually. Formerly from 3,500 to 4,000 lbs. of milk was the limit.

Three of the grades in my herd have for their dam the light-colored cow pictured in Farm and Dairy of Dec. 15th. The cow there illustrated gave her owner, Mr. Wm. Pearce, of Oxford Co., Ont., 11,366 lbs. of milk in eight months. He sold her for \$105. The heifers are no discredit to their dam.

A Combined Rake and Tedder

Prof. John Evans, Guelph, Ont. Simplicity is not always a characteristic of combination implements, but it is present to a marked degree in the new side-delivery rake and tedder, which does away with at least one implement in hay-making.

It may be explained that "when the rake drum revolves in one direction, the machine acts as a side-delivery rake; by moving a lever, thus reversing the direction in which the drum revolves, the machine is immediately transformed into a hay tedder."

When the machine is used as a side-delivery rake, the rake drum revolves

in the opposite direction to the road wheels. The rakes collect two swaths cut by an ordinary two horse mower and it is claimed will deliver the hay gently and neatly in one loose continuous windrow, in the best possible shape for "air curing." The motion of the teeth is "easy but positive," their action, we are assured, being very similar to the work of hand rakes.

When acting as a tedder the rake drum revolves in the same direction as the road wheels, but naturally, at a higher speed. In this way it shakes the hay gently but thoroughly, without any thrashing or injury, the hay lying in two swaths cut by an ordinary two-horse mower.

The rear castor wheels can be adjusted to carry the frame at varying heights to suit all conditions of soil and surface and crops, and coil steel springs are fitted on the stems of the castors to lessen jolting on uneven ground. The teeth are arranged in



The Tent Covered Sale Ring at the Recent Noted Ayrshire Sale

This illustration shows the tent under sale of Ayrshires was conducted.—Photo by an editor of Farm and Dairy.

three rows, with ample clearance between each, and the rake drum is provided with a number of curved rods to assist in cleaning the teeth as they rise from the ground.

Scientific Agriculture in Hawaii

(Continued from page 3)

If there is a farmer in Peterboro county who has ever spent anything worth while for fertilizer to apply on his land. Even the fertilizer you have in the country is not appreciated. I understand that large quantities of wood ashes annually are allowed to leave the farms, and they enter the channels of commerce, and are shipped to be used by the United States farmers.

Among other subjects touched upon by Mr. Boswell was that of our educational system. "Farming is like every other business," he said. "There is no end to what one can learn about

farming. Before your Canadian farmers will ever adopt the most up-to-date and scientific methods of crop production they will have received instruction on scientific agriculture in their schools. Before they can ever appreciate the great importance of commercial fertilizer and be able to profit from their use they will require a considerable knowledge of agricultural chemistry. This they have not to-day, nor will the rising generation get it from the young agricultural teachers who dispense the training in the public schools.

"Did Canadian farmers adopt some of the methods that have brought us success in Hawaii, your agriculture would attain a new lease of life and become exceedingly profitable. Before returns you might it will require that more land be worked under one management. It may be worked cooperatively, if you wish, but it will not pay so well as to have large areas under

Our Veterinary Adviser

ABSCESS ON LEG.—"One of my horses has one of his hind legs swollen from the fetlock. In two or three days it has burst, and has since been running freely, was working the previous day, and the trouble is not irremediable. The swelling is hard. Can you explain this?"—O. A., Hutton Co., Ont.

"The horse had his leg bruised in some way and an abscess formed. Flush the cavity out with carbolic daily until healed with a five per cent solution of carbolic acid. When healed if the swelling does not subside, lance, rub and bandage when hot as in the stable. Give regular exercise or work, and give one dram iodide of potassium twice daily.

DIARRHOEA IN CALVES.—My calves are scouring very badly. Have tried cod liver oil, reducing the amount of milk fed, etc., without success. What treatment would you recommend?"—Peel Co., Ont.

"Add to the milk given one-fifth of its bulk of lime water. If the calves do not check the scouring, give one dram Lanolinum and one dram cod liver oil and prepared chalk in a little new milk every five hours until diarrhoea ceases, and continue the lime water."

A raised sleeping platform in the pigery makes the pigs cleaner and more comfortable.—W. J. Telford, Peterboro Co., Ont.

160 ACRES OF LAND FOR THE SETTLER

Large areas of rich agricultural lands, convenient to railways, are now available for settlement in Northern Ontario.

The soil is rich and productive and covered with valuable timber. For full information regarding homestead regulations, and special colonization rates to settlers, write

The Director of Colonization Department of Agriculture, TORONTO



SYNOPSIS OF CANADIAN NORTH-WEST LAND REGULATIONS

Any person who is the sole head of a family, or any male over 18 years of age may homestead a quarter section of any available Dominion land in Manitoba, Saskatchewan or Alberta. The applicant must appear in person at the District Office of Entry from which he desires an agency, on certain conditions, by father, mother, son, daughter, brother or sister of intending homesteader.

Duties—Six months' residence upon said cultivation of the land in each of five years. A homesteader may live within one mile of his homestead on a farm of at least 30 acres, or on a quarter section held by him or by his father, mother, son, daughter, brother or sister.

In certain districts, a homesteader's good standing may pre-empt a quarter section of Alberta homestead. Price 10¢ per acre. Duties—Must reside upon the good of six years from date of homestead right (including the time required to earn homestead right) on a quarter section extra.

A homesteader who has exhausted his homestead right and cannot obtain a pre-emption may enter for a purchase homestead of 160 acres. Price 10¢ per acre. Duties—Must reside six months on the land for three years, cultivate 50 acres and erect a house.

W. W. O'BY, Minister of Agriculture, Ottawa, Ont. N.B.—Unauthorized publication of this advertisement will not be paid for.

Harvesting

W. C. Cutler, Ont. We cut on July. When can be stripped and the thinn cuttings. We cut to the bottom, we shell the shells. The seed to dry as the seeds are being hauled the with cotton. Done the next possible.

In case it is not field we do hasten drying crop. A bush would be handling. It is very gentle.

Secret of

Underdrainage the problem of and securing it. The point is following letter. Dairy last week, merille of the Brockville, Ontario.

"A few days of Col. Stafford's of Len. Ont., a much interested all went. It pulled by the in length. Mr. Stafford of the county sent farmers in been a strong acre. These six acre well sown and harrowed and manured acre, and sown September. Mr. Stafford's indication that average yield of but best of all the grass were complete. To the striking example of summer fallow irrigation.

This season the following is applied that is completely eradicated other noxious weeds. Mr. Stafford writes information to a cultivation of a

"What has sufficed on this growing mustard, etc. in production of the many farmers it following his method will repair for me."

Management

Information for the alfalfa feeders is given by agronomist at the Model Station in dened form. When weather unfavorable the when this occurs the land the following the case may be successful trial if. If the leaves are badly, or if severely, or if weeds the young plants. Clip whenever

The Gate That Lasts
The frame of the Peerless Gate is made of steel tubing, scientifically welded into one solid piece. It is strong and rigid, and will not get out of order.

Peerless Farm and Ornamental Gates

are built to stand. They will save you money because they never need repair. We also make lawn, farm and poultry fence that stands the test of time. Write for full particulars.

THE BARWELL HOXIE WIRE FENCE CO., Ltd.,
Dorset, Weymouth, Dorset, England, Ont.

WESTERN LAND FOR SALE

In areas to suit purchasers, from 160 acres upward, situated on or near railways in the Best Wheat, Oat and Stock Growing Districts of

SASKATCHEWAN AND ALBERTA

250,000 Acres to choose from

Prices low. Terms generous and helpful. Special inducements given actual settlers, and those requiring blocks for colonization purposes.

Write for particulars. Reliable agents wanted in every county.

F. W. HODSON, & CO., TORONTO, ONT.

Room 100 Temple Building

Branch Office:—North Battleford, Sask.

During 1910 we sold over 133,400 acres; during the past four years we sold over 400,000.

Cow Improvement on a Big Sale

S. A. Freeman, Oxford Co., Ont. Last year our herd of 70 cows gave 526,042 lbs. of milk, an average of 7,515 lbs. We received for this milk \$65,510.61, an average of \$93 per cow. Twelve of the best cows had an average production of 10,426 lbs. of milk. The herd is composed of grades of all sorts.

In 1906 the average production of our herd was 5,149 lbs. of milk. They have made a gain, therefore, of 2,366 lbs. each. They have always received much the same care and feeding. This additional flow at the average price that we receive for milk this year, \$1.23 1/4 cwt., means an added revenue of \$2,257. I attribute this gain almost entirely to weighing the milk from individual cows and keeping records. The poor cows have got to travel. I set my standard this year at 7,000 lbs. each, and sold the nine that did not measure up to this standard. I have 12 two-year-old heifers to replace them. I am not satisfied with my herd yet, however, and intend to keep on testing and weeding out the poor ones until the cows have an average production of 10,000 lbs.

In feeding silage is our standby. We grow 50 acres of corn each year. Last year we bought in addition to what we grew on the farm \$600.26 worth of mill feed, mostly bran.

FARM MANAGEMENT

Harvesting the Alsike Crop

Harvesting, Ontario Co., Ont. We cut our alsike the first half of July. When one-third of the heads can be stripped off between the finger and the thumb is the best stage for cutting. Use a clover table attachment to the cutting bar with a false bottom, which saves the seed that shells. The bundles of alsike are allowed to dry well, but are not stirred, and the seeds are threshed out readily. In hauling the wagon rack is covered with cotton. Threshing should be done the next day after hauling if possible.

In case it rains on the alsike in the field we do not throw it about to hasten drying, as we would a forage crop. A bushel of seed to the acre would be lost with a little rough handling. It may be turned over, but very gently.

Secret of Good Crops—Few Weeds

Underdraining offers a solution to the problem of keeping down weeds and securing heavy yields from crops. The point is well illustrated in the following letter received by Farm and Dairy last week from Mr. N. G. Summerville, of the D. H. Burrell & Co., Brockville, Ont.:

"A few days ago I visited at Lieut.-Col. Stafford's farm in the vicinity of Lyn, Ont., and while there was very much interested in a six acre field of all wheat. Two stalks of this wheat pulled by the writer measured 5 ft. in length.

Mr. Stafford, who is an ex-warden of the county and one of the prominent farmers in his section, has always been a strong advocate of underdraining. These six acres are tile-drained, were well summer-fallowed last season, plowed four times, and riddled and harrowed as often as was necessary, manured with 12 loads to the acre, and sowed on the first day of September. At the time the writer visited Mr. Stafford's there was every indication that he would have an average yield of 50 bushels an acre, but best of all the mustard and scutch grass were completely killed.

According to the writer's mind, this is a very striking example of killing bad weeds by summer fallowing and proper cultivation.

This season Mr. Stafford is summer-fallowing 10 acres, and he is satisfied that by so doing he can completely eradicate the mustard and other noxious weeds. The example in this case is very striking, and Mr. Stafford would be willing to furnish information to any one of his method of cultivation and underdraining.

"What has been done by Mr. Stafford on this six acre field in killing mustard, etc., and increasing the production of the soil can be done by many farmers in his section and by following his methods they would be well repaid for their labors."

Management of the Alfalfa Field

Information for the management of the alfalfa field after it has been seeded is given by O. O. Chubb, agronomist at the Oklahoma Experiment Station in the following condensed form:

When weather conditions are very unfavorable the young plants may die. When this occurs reseed on the same land the following spring or fall, as the case may be. Do not let one unsuccessful trial discourage you.

If the leaves turn yellow or rust badly, or if severely attacked by insects, or if weeds grow rank and shade the young plants, it should be clipped. Clip whenever the plants begin to

blossom even during the first year.

Use a spring-tooth harrow, a renovator or a disc harrow in the spring just before a growth starts or just after a crop is removed when the soil becomes hard and compact or very weedy. When a disc is used set it nearly straight and weight down so that it will run the desired depth.

Manure will always give good returns and especially on poor land and when the plants are doing poorly.

Do not pasture late in the fall or during the winter. Most alfalfa growers claim better results when the crop is grown for hay than when the field is pastured.

Do not pasture at all during the



The Way Alfalfa Grows in Peterboro Co.

The alfalfa here illustrated is on the farm of W. G. Sanderson, Peterboro Co., Ont. The photo was taken on May 24th, and was then almost ready for its first cutting. This is a crop of the value of which Peterboro county farmers are just beginning to appreciate.—Photo by an editor of Farm and Dairy.

first three years, or until the alfalfa becomes thoroughly established.

The alfalfa crop should be cut whenever five or 10 per cent. of the plants are in blossom. A better method of telling when to mow is to watch the base of the plant and cut whenever the little buds show that a new growth is started.

Allow the plants to wilt but not to become too dry in the swath, then rake and cure in the window or in bales.

Stack or put in the barn when cured, which will be about one week

after mowing, depending upon the weather conditions.

When a seed crop is desired, the first crop should be removed and then the plants allowed to go to seed. The production of seed depends very largely upon the weather conditions and upon the thickness of the plants. The seed crop may be mowed and raked the same as the hay crop, and most of the seed can be saved by an ordinary threshing machine.

Feed this valuable hay to good stock; you cannot afford to sell it.

Ventilation of a Cow Stable

Editor, Farm and Dairy.—I think that it was in Farm and Dairy that I read recently about giving ventilation through the fodder stored above the cattle over an open ceiling. I consider this a great mistake. It will destroy the quality of the fodder. The ceiling in my stable is double boarded with heavy tar paper between.

I have just built a new cow stable 40 by 40 feet, with nine and a half feet between the cement floor and the ceilings. I put in a number of windows 3 1/2 by 6 feet, opening from the top for ventilation in warm spring days. Besides ventilation through the hay chute, 4 1/2 by 4 1/2 feet, and other ventilators.—W. A. Oswald, Bromo Co., Que.

Harrowing vs. Prayers for Rain

"If I were to come onto your farm and set 750 teams to work for a week hauling water to a quarter section at the rate of four tons a day, I would then only put on as much water as evaporates in a week when there is a good moisture content in the soil." Such is the very striking illustration used by President Worst of the North Dakota agricultural college of the great amount of water lost by evaporation.

A thorough harrowing will stop this evaporation and save the moisture for the crop.

A cow must produce about 4,000 lbs. of milk and 160 lbs. of butter fat to pay for her feed and labor; this is the dead line. 5,000 lbs. of milk, \$10 profit; 8,000 lbs. of milk, \$40 profit—four times as much. Ten cows averaging 8,000 lbs. of milk are as profitable as 40 cows producing 5,000 lbs. The cost of keep increases but \$35 a cow, from 2,000 to 10,000 lbs. of milk given, yet the income increases \$115, over three times as rapidly.—Prof. W. J. Fraser, University of Illinois.

TWO in ONE Stratford Rope Extension LADDER



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The rope is so arranged that by unsnapping it from the top section the ladder can be separated to form two single ladders.

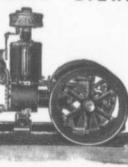
The hooks automatically lock at every round and unlock between the rounds.

These ladders are strong, light, easily operated, durable, and convenient,—a necessity around the house and farm buildings.

Write us to-day for Catalogue H for full description and price

THE STRATFORD MFG. CO. LIMITED STRATFORD, ONT. We make all kinds of Ladders, Lawns and Porch Swings and Seats.

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Will pump water for you and put it just where you want it. It is the simplest engine on the market. It starts easily and never balks.

Our booklet No. 57 gives you a complete course in gasoline engineering. Send a post card for it to-day. IT IS FREE.

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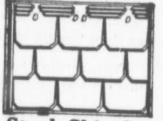
No building material like this—"METALLIC"

is superior in every way. It is most economical—is easy and quick to lay or erect, saving expensive labor, and lasts a lifetime without continual repairs. Lightning, rain, wind or snow has no effect on "Metallic"—it is WEATHER, FIRE AND RUSTPROOF, the best material for all buildings.

Look over this list—all made from the finest quality sheet steel

- "EASTLAKE" METALLIC SHINGLES. On buildings for 25 years, and still in perfect condition.
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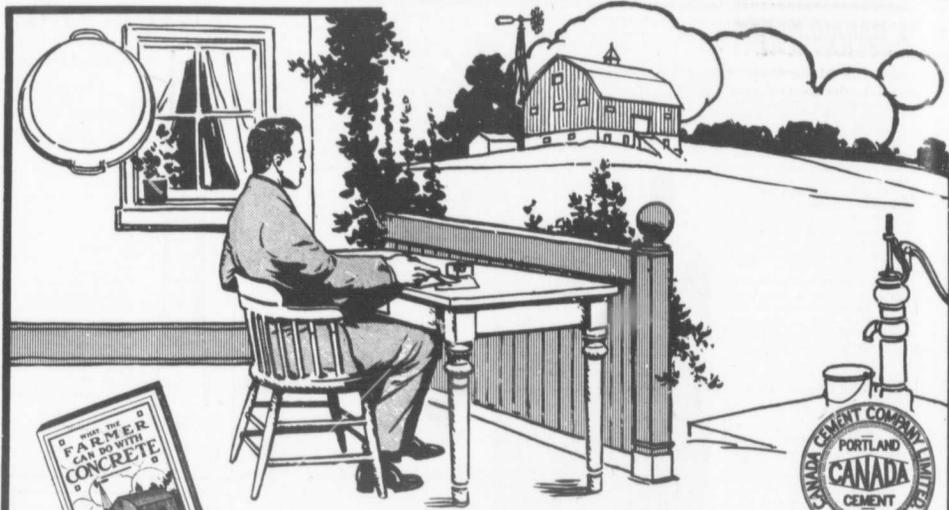
Steel Shingles

"MANITOBA" STEEL SIDING. The best for large buildings, elevators, mills, storerooms, etc.
CORRUGATED IRON—GALVANIZED OR PAINTED. For implement sheds or barns, fireproof and durable.

You should read our interesting booklet "EASTLAKE METALLIC SHINGLES" and our new Catalogue No. 70. A post card with your name and address will bring them to you at once.

Agents wanted in some Sections. Write for Particulars.

The Metallic Roofing Co. Limited TORONTO WINNIPEG



Send for this free book

\$3,600 in Cash Prizes for Farmers

Tell Us How You Did It

You may win a prize by doing so

SUPPOSE your friend Bob Wilson, on the next concession, "pulled up" at your front gate on the way back from market and asked you about that silo or barn foundation you built, you would be glad to tell him, wouldn't you? And it wouldn't take you long either, would it? And, as a matter of fact, you'd find as much pleasure telling him as he would in listening—isn't that right?

First, you would take him over to view the silo or barn foundation. Then you would start to describe it—its dimensions—the kind of aggregate used—the proportions of cement used—number of men employed—number of hours' working time required—method of mixing—kind of forms used—method of reinforcing, if any—and finally, what the job cost. So that by the time you finished, neighbor Wilson would have a pretty accurate idea of how to go about building the particular piece of work which you described.

Now, couldn't you do the same for us, with this difference—that you stand a good chance of getting well paid for your time?

In Prize "D" of our contest, open to the farmers of Canada, we offer \$100.00 to the farmer in each province who will furnish us with the best and most complete description of how any particular piece of concrete work shown by photograph sent in was done. The size of the work described makes no difference. The only important thing to remember is that the work must be done in 1911, and "CANADA" Cement used.

In writing your description, don't be too particular about grammar or spelling or punctuation. Leave that to literary folk. Tell it to us as you would tell it to your neighbor. What we want are the facts, plainly and clearly told!

Sounds simple, doesn't it? And it is simple. And surely it will well worth your while when you think of the reward in view.

Now, sit right down, take your pen or pencil—fill out the attached coupon—or a post card if it's handier—and write for the circular which fully describes the conditions of this, the first contest of the kind ever held in Canada.

Every dealer who handles "CANADA" Cement will also be given a supply of these circulars—and you can get one from the dealer in your town, if that seems more convenient than writing for it.

Contest will close on November 16th, 1911—all photos and descriptions must be sent in by that date, to be eligible for one of these prizes. Awards will be made as soon as possible thereafter. The decisions will be made by a disinterested committee, the following gentlemen having consented to act for us, as the jury of award: Prof. Peter Gillespie, Lecturer in Theory of Construction, University of Toronto; Prof. W. H. Day, Professor of Physics, Ontario Agricultural College, Guelph; and Ivan S. Macdonald, Editor of "Construction."

Having decided to compete for one of the prizes, your first step should be to get all the information you can on the subject of Concrete Construction on the Farm. Fortunately, most of the pointers that anyone can possibly need, are contained in our wonderfully complete book, entitled "What the Farmer Can Do with Concrete." A large number of Canadian farmers have already sent for and obtained copies of this free book. Have you got your copy yet? If not you'd better send for it to-day. Whether you are a contestant for one of our prizes or not, you really ought to have this book in your library. For it contains a vast amount of information and hints that are invaluable to the farmer.



HO
Orchard

W. T. Ma

We must have, however, a rule that rate early, and put in on the condi subsoil is too ger from to from too litt a cover crop. A sandy soil quires differ santly soil w first should season than chard man, his tress and treatment th

With most crop in the if the soil crops may b will cause ex deter ripeni are the cover At the Ce we have had mer taros, so to the acre. is that they is frozen in if they do n to dry weath frost and the covering. To start, will n the fall afte killed. Later, alr are to mat cold climate important. I five pounds under in the

The careful be prepared to rapid thinni Most trees s can bring to ferer, with future. Whi a large task greatly to be results are e

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Folders descr lands, Rapids, Bay, Tadoussac, River, etc., on or Steamboat For illustrate For illustra Res.; send 5c Foster, Chaffee, Thus, Henry, & O. Navigatio

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HORTICULTURE

Orchard Cultivation—Cover Crops

W. T. Macoun, Dominion Horticulturist, Ottawa

We must regulate our methods of orchard cultivation according to the differences in soil and climatic conditions with which we have to contend. Too much general advice as to the mode of procedure in orchard cultivation has been given. And the most of us are all too liable to follow this advice.

No matter what kind of a soil we have, however, we can lay it down as a rule that we should start to cultivate early. When to stop cultivation and put in the cover crop depends on the condition of the subsoil. If the subsoil is too moist there is more danger from too much cultivation than from too little. In this case put down a cover crop just as soon as you can. A sandy soil with a sandy subsoil requires a different treatment than a sandy soil with a moist subsoil. The first should be cultivated later in the season than the second. Every orchard man, however, should watch his trees and decide for himself what treatment the orchard requires.

COVER CROPS

With most soils a leguminous cover crop in the orchard is desirable, but if the soil is very rich, leguminous crops may be injurious in that they will cause excessive wood growth and deter ripening. Clovers and vetches are the cover crops in universal use.

At the Central Experimental Farm we have had good results from summer tares, sown at the rate of 40 lbs. to the acre. The advantage of tares is that they will grow until the land is frozen in the fall. Most cover crops, if they do not get a good start owing to dry weather, are killed by the first frost and the ground has no adequate covering. Tares, even without a good start, will make a good growth in the fall after other crops have been killed.

Lately, also, we have been using rye to mature the wood as in our cold climate proper ripening is very important. It is sown at the rate of five pounds to the acre, and plowed under in the spring.

Thinning Fruit

The careful orchardist should now be prepared to conduct systematic and rapid thinning of his tree fruit. Most trees set more fruit than they can bring to maturity without interfering with their production in the future. While thinning seems to be a large task and also expensive, it is greatly to be recommended if best results are expected. Do not delay

WHERE WILL YOU GO THIS SUMMER?

If you desire rest and recreation, why not "THE RIVER ST. LAWRENCE TRIP?"

Folders descriptive of the Thousand Islands, Rapids, Montreal, Quebec, Murray Bay, Tadoussac, the Saguenay River, etc., on application to any Railway or Steamboat Ticket Agent.

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HARDWOOD ASHES—Best fertilizer in use—George Stevens, Peterboro, Ont.

thinning until the fruit is too large. Start to thin when the fruit is about the size of a hazelnut or as soon as the grower can determine which is the best on the spur and after the early drops are over. One fruit to a spur is sufficient. See that the fruit is not allowed to remain on spurs closer than the spread of the hand. This, however, cannot serve as an accurate guide on all classes, for some trees are able to bring to maturity more fruit than others.

A knowledge of the yield in past years is quite essential to aid in judicious thinning. If the fruit is carefully thinned each year and the trees allowed only to mature that which will not overtax its constitution, it should bear a crop of normal fruit annually, other factors being favorable.

Some growers prefer to use small scissors or other specially devised instruments, while some prefer to pull out the undesirable specimens with the fingers.—H. Wicks, Idaho Experiment Station.

POULTRY YARD

White Diarrhoea in Chicks

The losses from white diarrhoea of chickens in Canada each year amounts to millions of dollars. Heretofore, little has been known even of the nature of the disease, and poultrymen have been in the dark in fighting it. Investigations at the Storrs Agricultural Experiment Station, Connecticut, by L. R. Pettger and F. H. Stoneburn, indicate that the disease is due to the specific organism, *Bacterium pullorum*. Some of their conclusions as to the spread of the disease are as follows:

1. The original source of infection is the ovary of the mother hen.
2. Eggs from infected hens contain the organism in the yolks.
3. Chicks produced from infected eggs have the disease when hatched.
4. The disease may be spread through the medium of infected food and water. Hence normal chicks may acquire it by picking up infected droppings or food contaminated thereby.
5. Infection from chick to chick cannot, apparently, take place after they are three or four days of age.
6. As a rule, infected chicks make less satisfactory growth than those that are apparently normal. For some time they appear stunted and weak, but may eventually undergo more or less complete development.
7. The female chicks which survive often harbor the infection and may become bacillus carriers. Infection in the breeding pens is perpetuated in this manner.
8. In all probability infection does not pass from adult to adult.
9. Infected hens are apparently poor layers, especially in their second and subsequent laying seasons.

July Poultry Pointers

Do not let up in your warfare against the destructive louse army. Lice are working havoc, and too severe measures can not be adopted to destroy them.

Fifth is just the right condition for their thrift. Lice and disease go hand in hand in ill-kept chicken coops. Clean up the droppings daily; disinfect the premises every week, and in this way the enemy will be subdued, if not extinguished.

The growing cockerels should now be separated from the pullets, and the former given an extra allowance of feed. They will need this additional amount more than will the pullets in order that they can be kept growing.

All the old stock that is not wanted should now be disposed of before they go into moult.

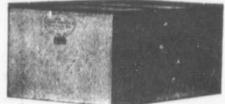
To Get Hens to Lay in Winter

Prof. J. Dryden, Corvallis, Ore.

To make the hen lay in winter is the real problem of success with poultry; yet its solution depends upon the solution of other problems. It is not merely a question of caring for or making the hens lay. The problem goes back to the making of the hen. If the hen were made right there would be little trouble in making her lay. How to make the hen lay in winter resolves itself largely into a question of making the hen.

I am inclined to think that those who say that the raising of the chick is the hardest problem come near "hitting the nail on the head." To get a profitable egg yield under any conditions, the flock of layers must be frequently renewed. The old hen doesn't pay. For commercial purposes it seldom pays to keep her more than two years. This means that in a few years the farmer has raised several generations of fowls, and any mistake in the breeding or raising is very soon evident. To be successful a poultry raiser must be able to maintain offspring with the same vigor and vitality as the parent; otherwise, there would soon be no eggs in winter because of lack of constitutional vigor in the stock.

But it is not all in the raising.



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There is probably more in the breeding; and it is not so much a matter of the breeds. No matter how they may be raised, fed and cared for, some hens won't lay, because they have not the breeding or the laying capacity. On the other hand, some will lay, almost in spite of neglect; that is a question of breeding.

SOME HISTORY about Typewriters



Modern and Ancient

CHAPTER NINE

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AND RURAL HOME

Published by The Rural Publishing Company, Limited.

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

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The paid subscriptions to Farm and Dairy exceed \$986. The actual circulation of each issue, when stamps are included, is 10,000. The number of copies of the paper sent subscribers who are but slightly in arrears, and sample copies, varies from 500 to 1,000. The number of subscriptions accepted is less than the full subscription rate. The number of copies does not contain any dead circulation.

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

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FARM AND DAIRY

PETERBORO, ONT.

A GALA DAY FOR DAIRY CATTLE

Dairy cattle are coming well into their own. Recent auction sales have witnessed record prices being paid for dairy stock. Two weeks ago at the Robt. Hunter & Sons dispersion sale of Ayrshire cattle several new records were established.

High prices are being paid not alone for any particular breed of dairy cattle. At recent sales on the other side of the line, among which might be mentioned the Guernsey sale at Villa Nova, Pa., the prices paid for animals were record breakers. The same is true of the auction sale of Messrs. T. S. Cooper & Son, noted American breeders of Jersey cattle. Holsteins have sold well and for record prices; now the Hunter sale of Ayrshires, where an animal, as reported in Farm and Dairy last week, sold for \$2,600,

and 117 animals of all ages sold for \$312,015, or an average of over \$343.50 each, cannot help but renew courage in the hearts of dairy cattle breeders and cause an increased interest in dairy animals.

Great inspiration was afforded those breeders who attended the Hunter sale. Some present were heard to avow their intention of getting more strongly into the business and importing some of the best stock from Scotland. Far as the reports of this and similar events are read will the influence for better dairy stock be carried.

A gala day has dawned for dairying. Greater advance yet may be expected. The path has been blazed, the limit not yet reached, and there is every encouragement for those who admire and breed the good individuals of any of the leading dairy breeds. Let's all unite in a grand boost for dairying!

MUST FEED EXTRA TILL NEXT MAY

Again owing to unfavorable weather conditions, common, though differing in degree to every summer season, we dairymen if we would maintain the milk flow must resort to supplementary feeding. Happy are we if, in the light of former experience, we made provision last spring for supplementary feeding and now have suitable fodderes wherewith to supplement the pastures and maintain the money-bringing milk flow.

In some parts of Western Ontario, notably Brant county, the situation is unusually severe this season. Pastures have become hard and brown even where they are not short and the milk cows must be fed. Spring seedling of clover has been almost a total failure, and there is but very little old clover meadow to provide a second growth; hence no matter what the weather conditions may be from this time forward short pastures even in late summer and fall are bound to prevail. Mr. H. R. Nixon, a dairy farmer at St. George, told one of our editors who was at his place on Dominion Day that he would be obliged to feed his dairy cows from now on until late next May. He, like many other dairymen in this district, has provided for such a contingency, and now with ensilage, oats and peas, alfalfa and later on with green fodder corn, and again with ensilage, will be able to cope successfully with periods of drought, short pasture, and partially failing hay crops.

Good dairymen take no chances from this time forward with their cows not getting the feed they need to produce a profit. As pastures fail they know that it pays and pays well to provide other feed for the cows rather than to suffer them to slacken off in their flow, which, once it slackens, can hardly, if at all, ever be regained during that lactation period. Dairymen everywhere are well advised in falling in with the modern practice in this respect and attending to the wants and comforts of their cows, thereby giving them the opportunity to do what they surely will under these essential conditions—produce a steady and profitable income.

LAND-SEEKERS—TAKE HEED

As the harvest season again approaches people in the west are developing their characteristic uneasiness about garnering the crop. This year with the prospect of a bumper crop and little labor to handle it, unusual concern is being evinced in the labor problem and the call has been sent forth for laborers for the harvest fields. The harvest extensions will shortly be announced, and much of the good blood of Ontario and the eastern provinces will "trook" west, and take advantage of the call for harvesters as an opportunity of seeing the country.

Those who go west to help with the harvest and to see the country, possibly with a view ultimately of homesteading free land and settling in the western country, should not forget that in the great clay belt in Northern Ontario are opportunities surpassing those of the west for the homesteader. On this point Mr. Frank Moberly, C.E., of Barrie, who has recently returned from the west, where he has been this year to see how the homesteaders were getting on, states that he is more than ever convinced that the settler in the clay belt has in many things an equal chance with the prairie settler and in others a great advantage. In the matter of fuel and water, the Greater Ontario settler is away ahead. He has as good and a more lasting soil; his land is timbered, which gives him shelter and a marketable crop while clearing the land; he has a ready cash market at hand in supplying the railways, mining camps and lumber camps and he is 1,500 miles nearer the markets of the world, which gives a great advantage in freight rates. Railways now traverse the clay belt east and west, and north and south, besides which it is cut in all directions by great waterways.

The intending settler of small means may well look towards Greater Ontario with its many advantages over the west. He should think long and soberly, in the light of all the evidence, before risking his all on the uncertain homestead land of the prairies. Ye who are going west, take heed!

MAKE DITCHERS DUTY FREE

Traction ditchers are not made in Canada, yet they are dutiable at 17 1/2 per cent. This duty adds approximately \$250 to the cost of the ditcher to Canadians.

Protection of home industries and the collection of revenue are said to be the objects of our customs tariff. The tariff on ditchers does not come under either class. Since they are not made in Canada, there is no home industry to be protected. It can not be that the duty is maintained for revenue purposes because this added cost makes the number of ditching machines imported practically nil. The only reason apparent why a duty is imposed on ditchers at all is that it happens to come under a general classification in the tariff schedules that reads as follows: "Portable engines "with boilers in combination, horse "power and traction engines for

"farm purposes, 17-1/2 per cent." An exception should have been made from the general classification for traction ditchers.

Tile draining if installed where needed would result in an increase of millions of dollars to Canada. In Ontario alone there are over 5,000,000 acres of land in need of tile draining. Investigations carried on by the Ontario Agricultural College demonstrate that crops from tile drained land yield an average increase in annual value of \$23.65 over crops on similar land, not tile drained. Even were the average increase in value of the crops only \$10 an acre, a complete system of tile draining on the farms of Ontario would mean \$50,000,000 of annual added value; hence it is important that the drainage should be encouraged.

The future of tile draining depends largely on the traction ditcher. The scarcity and high price of labor renders manual labor too expensive for digging the ditches. We must have machine ditchers.

With the price of the ditching machine increased by \$200 or \$300 through the workings of a tariff, which does not protect home industry, and is so high that it shuts out the importation of the machine almost completely, progress in tile draining must perforce be very slow. The removal of the duty on ditching machines would be of great value to the farmers of Canada. An amendment to the tariff schedule already quoted should be made whereby traction ditchers could be imported free of duty.

If there is any secret about getting a good corn crop after it is once planted—a suitable variety having been sown on well prepared

A Corn and fertilized soil—it is **Crop Secret** that the corn be not too thick and that it receive frequent cultivation, thereby conserving the moisture necessary for the growth of the crop. The cultivator needs to be kept on the move from this time forward and each time it is sent through the corn rows stirring the surface soil and leaving a light earth mulch a considerable amount is being added to the ultimate yield, this increase being much in excess of what it costs to obtain.

Pork Packing Profits

(Hamilton Times.)

Mr. J. W. Flavell, Toronto, is one of the men who pretend to believe that Canadian industries stand to suffer from the effects of the reciprocity agreement. Mr. Flavell's particular care is the William Davies Pork Packing Company, and as that company is now issuing a million and quarter of bonds at 6 per cent., the company's official statement may help us to judge as to whether it is really suffering infamously.

It is stated that the net profits of the company have been \$268,000 per annum. The further information is afforded that for the past five years the earnings have averaged over 12 per cent. on the common stock of the company, and sufficient to pay the bond interest over three times and a half. The people of Canada will not shed many tears over the hardships of such "infants."

Creamer

Butter maker's...
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and to suggest...
Address letters...

Variation

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Shedden Co., Ont.

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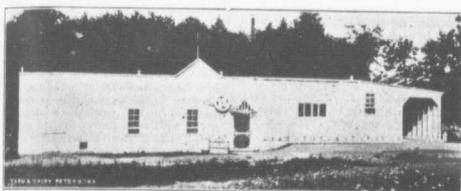
Creamery Department

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

Variation in Cream Tests

I notice that Farm and Dairy has always advocated the payment for milk and cream on the butter test, and I myself, heretofore, have always thought that this is the only fair way to divide the proceeds, but the test we have received lately has made me incredulous. Why is it that the test is not the same one week with another when the separator has not even moved and we have the same cows should not the test be practically the same. Many dairymen are very prejudiced in regard to the test and think it a humbug. The way our cream has tested for the last few weeks seems to confirm my incredulity. Should it vary?—N. D., Suffolk Co. Quo.

A very small variation in conditions such as turning the separator faster or slower will cause a variation in the



One of Many Fine Creameries of the Eastern Townships

One of the best creameries in the Eastern Townships of Quebec province, and one of the largest in Canada, is the one at Adamsville (Brome Co.) here illustrated. Eastern Townships butter has the

cream test. There are so many factors that determine the test of cream and that may cause a wide variation from week to week that it is possible for the test to vary where the testing is done with absolute accuracy. There are at least eight reasons why the farmer or dairymen does not always get the same test from day to day, and still may get all there is in the cream from his hand separator.

1. Often a change in operators will cause a variation in the richness of the cream. One may not turn as fast as another; and, the faster a separator is turned, the higher will be the cream test. It will be higher, but there will be a smaller quantity of cream; and nothing is gained by turning the machine faster than is required for absolute accuracy.

2. The temperature of the milk has much to do with the thickness of the cream. Cold milk has a tendency to give a high test.

3. If the faucet on the supply can be partly shut off, or becomes somewhat clogged, as with a small stick, some hair, or dirt, it shuts off a part of the feed; and the test is higher, because the milk does not go through as fast as usual and is subjected to centrifugal force in the machine for a longer time.

4. If the test of the herd varies, some cows test high and others low, and milk is saved out from the high testing cows for the house and not separated, and the next time the low testing whole-milk is saved, there will be a change in the test. That is, a change in the richness of the milk separated will change the test.

5. The use of too much warm water or skim milk in flushing the bowl will lower the cream test.

6. All cream separators have a mechanical device for changing the thickness of the cream, known as the cream-screw. This is usually located in the upper part of the bowl. Turning the cream-screw towards the centre of the bowl, or in, gives a thick

cream; and turning it out a thin cream.

7. If a small particle of dirt becomes lodged in the cream-screw it will change the test, producing a thicker cream.

8. When the separating has been done, the cream should be set at once in very cold water to cool it down. This, of course, furnishes excellent cream, not only for butter-making purposes, but for house use as well; and often the housewife, little thinking of the effect it will have on the cream test, goes out in the morning and dips off a couple of cupsful from the previous night's skimming. The thickest cream rises to the top, and two cupsful taken from the top after standing will materially lower the test—much more than one would at first imagine.

Dairy Export Trade for 1910-11

Mr. J. A. Ruddick, Dominion Dairy Commissioner, has recently published statistics showing the value of our export trade in dairy produce for the year ending March 31, 1911, and a

comparison is made with the previous two years. The figures are as follows:

Products	1911	1910	1909
Cheese	\$20,739,557	\$21,607,692	\$20,384,666
Butter in home	745,238	1,016,772	1,523,436
Cond. Milk	469,406		
Cream	1,714,538	541,372	90,530
Gasson	37,000		
Fresh milk	5,391		

Total.....\$23,719,179 \$23,119,336 \$23,996,622

It will be observed that the total value of the exports of dairy products shows an increase during the past two years, notwithstanding the lower price obtained for cheese in 1910. If the price of cheese had ruled as high in 1910 as it did in 1909 the exports for the past year would have totalled about \$25,000,000. If the annual increase in home consumption is also taken into account, we have ample evidence of a steady growth in dairy production.

Mr. Geo. H. Barr, Chief of the Dairy Division, and other members of the staff are now engaged in completing the investigation begun last year in connection with the care and handling of cream intended for cream-gathering creameries. This work is being carried on at Renfrew, Ont., and it is hoped to complete the series of experiments early in the season.

The latest advices from New Zealand, dated May 5th, show a decrease of 10 per cent. in the shipments of cheese from that country for the season of 1910-11 as compared with the previous season. The total shipments of New Zealand cheese to May 5th, which is practically the end of the season, amount to 43,265,600 pounds or about 550,000 boxes of cheese. Shipments of butter are practically the same as last year, there being only a very slight decrease. As against the decrease from New Zealand the shipments of butter from Australia have shown an increase of 49 per cent. over the season 1909-10, the total shipments up to May 5th being 92,626,240 pounds.



★ ★ ★

A POPPED QUESTION

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or do with a poor imitation?

Why do practically all competitive Machines imitate if not infringe, the De Laval Patent?

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FARM AND DAIRY

PETERBORO, ONT.



THE future destiny of the child is always the work of the mother.—Bonaparte.

The Second Chance

(Copyrighted)

NELLIE L. McCLUNG

Author of "Sowing Seeds in Danny"

CHAPTER I.

MARTHA
In the long run all love is paid by love.
The undervalued by the hosts of earth.

The great eternal government above keeps strict account, and will redeem its worth.
Give thy love freely; do not count the cost;

So beautiful a thing was never lost.
In the long run, it is yours.

Ella Wheeler Wilcox.

THOMAS PERKINS was astonished beyond words. Martha had asked for money! The steady, reliable, early-to-bed, early-to-rise Martha—the only one of his family that was really like his own people. If he could believe his senses, Martha had asked for two dollars in cash, and had distinctly said that due bills on the store would not do!

If Martha had risen from her cradle twenty-five years ago and banged her estimable parent in the eye with her small pink fist, he could not have been more surprised than this was now! He stared at her with all this in his face, and Martha felt the ground slipping away from her. Maybe she shouldn't have asked for it!

She went over the argument again. "It's for a magazine Mrs. Cavers lent me. I would like to get it every month—it's got lots of nice things in it." She did not look at her father as she said this.

Thomas Perkins moistened his lips. "By George!" he said. "You youngsters never think how the money comes. You seem to think it grows on bushes!"

Martha might have said that spring frost must have nipped the buds for the last twenty-five years, but she did not. Ready speech was not one of Martha's accomplishments, so she continued to plead her apron into a fan and said nothing.

"Here the other day didn't I send thirty-nine dollars into Winnipeg to get things for the house, and didn't I get you an eighteen-dollar wallaby coat last year, and let you wear it week-days and all, and never said a word!"

Martha might have reminded him that she was watering and feeding the stock, and saving the wages of a hired man, while she was wearing the wallaby coat, but she said not a word.

"You get a queer old lot more than I got when I was a young shaver, let me tell you. I've often told you young ones how I left home, when I was nine years old, with the wind in my neck—that's all I got from home—and with about enough clothes on me to flag a train with. There wasn't any of these magazines then, and I don't know as they do any good anyway. Poor old Ann Waters sent away her good, hard-earned dollar to some place in the States, where they said: 'Send us a dollar, and we'll show you how to

make fifty light employment; will not have to leave home; either ladies or gentlemen can do it.' She saw this in a magazine and sent her dollar, and what she got was a pretty straight insult, I think. They wrote back, 'Put an advertisement like ours in your paper, and get fifty people like yourself to answer it.' There's a magazine for you!"

Martha looked at him helplessly. "I promised Mrs. Cavers I'd take it. She's making a little money that way, to get a trip home this Christmas," she said, looking and unloosing her fingers, the rough, totem joints of which spoke eloquently in her favor; if the old man had had eyes to see them.

"You women are too easy," he said. "You'll promise anything for her poor grandmother let a man put a piano in the shed once when it was raining, and he asked her to sign a paper sayin' it was there, and he could come any time he liked to get it, and, by Jinks! didn't a fellow come along in a few days wantin' her to pay for it, and showing her her own name to a note. She wasn't so slow either, for she parted the sheet from his hand, and got near enough to make a grab for it, and tore her name off; but it gave me father such a turn he advertised her in the paper that he would not be responsible for her debts, and he never put his name to paper of any kind afterward. There was a fellow in the old Farmers' Home in Brandon that asked me father to sign his name in a big book that he showed up in front of him, and I tell you it was all we could do to keep the old man from hittin' him. Of course, Martha, if ye didn't put it down in writin' she's hold ye, but puttin' it down is the deuce altogether."

"But I want to give it," Martha said slowly. "I want the magazine, and I want to help Mrs. Cavers. And now, Martha, look at here," the old man said, "you're a real good girl, and very like my own folks—in the way you handle a hoe yer just like my poor sister Lizzie that married a peddler against all our wishes. I mind how she kissed me, and says she: 'Good-bye, Tommy, don't forget to shut the henhouse door,' and in the mornin' she was gone." I mind how Lizzie's bereaved brother wiped his eyes with a red handkerchief, and looked dreamily into the fire.

Martha, still pleading her apron, stood awkwardly by the table, but instinctively she felt that the meeting had closed, and the two-dollar bill was still inside.

She went upstairs to her own room. It was a neat and pretty little room, and the wife of Martha's little, but to-night Martha's heart had nothing in it but a great loneliness, vague and indefinite, a longing for something she had never known.

A rag carpet in well-harmonized

stripes was on the floor; a blue and white log-cabin quilt was on the bed; over the lace-edged pillow covers there hung embroidered pillow shams. One had on it a wreath of wild roses encircling the words "I sleep and dreamed that life was Beauty," while its companion, with a similar profusion of roses, made the correction: "I waken and know that life was Duty." Martha had not chosen the words, for she had never even dreamed that life was beauty. A peddler (not the one that had beguiled her Aunt Lizzie) was once storm-stayed with them the winter before, and he had given her these in payment for his lodging.

She sat now on a little stool that she had made for herself of empty tomato cans, covered with gaily flowered cretonne, and drawing back the muslin frilled curtains, looked wearily over the fields. It was a pleasant scene that lay before Martha's window—a long reach of stubble fields, stretching away to the bank of the Souris, flanked by poplar bluffs. It was just a mile long, that field, a wonderful stretch of wheat-producing soil; but to Martha it was all a weariness of

Tell Your Friends

"The Second Chance," the first instalment of which appears in Farm and Dairy this week, is one of the greatest serial stories ever run in a farm paper. Mrs McClung is one of the most popular of present day writers. "The Second Chance" is her masterpiece. It is a story that will reach the hearts of a readers, and the quaint humor of "Pearlie Watson" will be pleasing to all.

Tell your friends about our great serial story. Save the first few copies for your friends who may miss the first few numbers, and will wish to read the first of the story later on.

the flesh, for it meant the getting of innumerable meals for the men who ploughed and sowed and reaped thereon.

To-night, looking at the tall elms that fringed the river bank, she tried to think of the things that had made her happy. They were getting along well, there had been many improvements in the house and out of it. She had better clothes than ever she had; the trees had been lovely this last summer, and the garden never better; the lilacs had bloomed last spring. Everything was improving except herself, she thought sadly; the years that had been kind to everything else were cruel to her.

With a sudden impulse, she went to the mirror on her dressing-table, and looked long and earnestly at her image there. Martha was twenty-five years old, and looked older. Her shoulders were slightly bent, and would suggest to an accurate observer that they had become so by carrying heavy burdens. Her hair was lay-colored and broken. Her forehead and her eyes were her best features, and her mouth, too, was well formed and firm, giving her the look of a person who could endure.

To-day, as she sat leaning her head on the window sill, Martha's thoughts were as near to bitterness as they had ever been. This, then, was hard work, all her small economies. She had not been able to get even two dollars when she wanted it. She sat up straight and looked sadly into the velvet dusk, and the tears that had been long gathering in her heart came slowly to her eyes; not the quick glittering tears of childhood, that can be soon chased away by smiles—not that kind, no, no; but the slow tears that soak at wither, the tears that make one old.

It was dark when Martha lifted her head. She hastily drew down the blind, lit the lamp, and washed away all traces of her tears. Going to a cupboard that stood behind the door, she took out a piece of fine embroidery and was soon at work upon it.

Hidden away in her heart, so well hidden that no one could have suspected its presence, Martha cherished a sweet dream. To her stern sense of right and wrong it would have seemed improper to think the thoughts she was thinking, but for the fact that they were so idle, so vain, so futile, so hopeless. It had all begun the fall before, when, at a party at one of the neighbors', Arthur Wemyas, the young Englishman, had asked her to dance.

He had been so different from the young men she had known, so courteous and gentle, and had spoken to her with such respect, that her heart was swept with a strange, new feeling, that perhaps, after all, she might be for her the homage and admiration she had seen paid to other girls. In her innocence of the world's ways, good and bad, she did not know that young men like Arthur had been taught to reverence all women, and that the deference of his manner was nothing more than that.

Martha fed her heart with no false hope—she never forgot to remind herself that she was a dull, plain girl—and even when she sat at her embroidery and let the imagination of her heart weave for her a golden dream, it was only a dream to her, nothing more!

When Arthur loughed Jim Russell's quarter-section and began farming independently, the Perkinses were his nearest neighbors. Martha baked his bread for him, and seldom gave him his basket of newly made loaves that it did not contain a pie, a loaf of cake, or some other expression of her goodwill, all of which Arthur received very gratefully.

He never knew what pleasure it gave her to do this for him, and although she knew he was engaged to be married to a young lady in England, it was the one bright evening of the week for her when he came over to get his weekly allowance.

Martha had never heard of unrequited love. The only looks she had read were the Manitoba Readers as far as Book IV, and they are noticeably silent on the affairs of the heart. In the gossip of the neighborhood she had heard of girls making "a dead set" for fellows who did not care a row of pins" for them, and she knew it was not considered a nice thing for any girl to do; but it came to her now clearly that it was not a subject for mirth, and she wondered why any person found it so.

As for Martha herself, the tricks of coquetry were foreign to her, unless flaky biscuits and savory breads may be so called; and so, day by day, she went on baking, scrubbing, and sewing, taking what happiness she could out of dreams, sweet, vanishing dreams.

CHAPTER II. THE RISING WATSONS

There is ever a song somewhere, my dear.

There is ever a something sings always:
There's a song of the lark when the skies are clear.

And the song of the thrush when the skies are gray.

—James Whitcomb Riley.

While Martha Perkins was weaving sweet fancies to beguile the tedious hours of her uneventful life, a very different scene was being enacted, a few miles away, in the humble home of John Watson, C. P. R. section-man, in the little town of Millford, where, with his wife and family of nine were working out their own destiny. Mrs. Wat-

son up to this time had spent very few of the daylight hours at home, having a regular itinerary among some of the better homes of the town, where she did half-day stands at the washub, with a large grain sack draped around her portly person.

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THE loss caused by weeds amounts annually to hundreds of millions of dollars. The weed question, therefore, is both important and vital to every tiller of the soil. Until the appearance of this booklet, there has been available no modern, up-to-date, authoritative work on the subject. In bringing together the latest knowledge about weed eradication Professor Pammel has performed a task that will be useful for all time to come. It is peculiarly fitting that this book comes from this author. He is the master workman of the country; and his book is the result of study, investigation and observation for a long lifetime.

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while the family at home brought themselves up in whatever way seemed best to them.

One day the fortunes of the Watson family silently changed, and in such a remarkable way it soon convinced the most sceptical of the existence of good working fairies. A letter came to Pearl, the eldest girl, from the Old Country, and the letter contained money!

When it became known in the community that Pearl Watson had received a magnificent gift of money from the young Englishman who had nursed while she was working for Mrs. Sam Motherwell, it created no small stir in the hearts of those who had to do with other young Englishmen. Parents across the sea, rolling in ancestral gold and Bank of England notes, acquired a reality they had never enjoyed before. The young chore boy who was working for five dollars a month in George Steadman's never knew why Mrs. Steadman suddenly let him have the second helping of butter and also sugar in his tea. Neither did he understand why she gave him an onion and a piece of his aching ear, and laid to rub into his chapped hands. Therefore, when she asked him straight about his folks in the Old Country, and "how they were fixed," he, being a dull lad, and not quick to see an advantage, foolishly explained that he "didn't 'ave no body belongin' to him"—whereupon the old rub of rub and second helpings was as suddenly resting.

On the Monday morning after Pearl's return home she was the first person up in the house. She made the porridge and set the table for breakfast, and then roused all the family except Danny, who was still allowed the privilege of sleeping as long as he wished and even encouraged in this.

After the family had eaten their breakfast Pearl explained her plans to them. "Ma," she said, "you are not to wash any more, and isn't it lucky that Mrs. G's new Englishwoman across the track there in 'Little England,' that'll be glad to get to do, and no one'll be disappointed, and we'll go to the store to-day and get the Sunday suits all ready for the week-lads and all, and get them fixed up to go to Sunday school and church twice a day. You'll have to learn what ye can while the clothes last. Mary'll send us the money for the fur-lined capes, and Ma'll have the fur-lined cape; and yer old coat, Ma, can be cut down for me. Camilla'll help us to buy what we need, and now, Ma, let's get them ready for school. Money's no good to us if we haven't education, and it's education we'll have now, every last wad of us. Times has changed for the Watsons! It seems as if the Lord sent us the money for a reason. He can't bear to have people ignorant if there's any way out of it at all, at all, and there's nearly always a way if people'll only take it. So, Ma, get out a new bar of soap and let's get at them!"

But in spite of all Pearl and her mother could do, there was only enough clothing for two little boys, and Patsy had to stay at home; but Pearlie beguiled him into good humor by telling him that when he grew to be a man he would keep a big jewelry store, and in preparation therefor she set him to work draped in a nightdress of his mother's, to cut watches and brooches from an old Christmas catalogue.

"Now, Mary, alanna," Pearl continued, "you're to go to school, too, and make every day count. There's lots to learn, and it's all good. Get as much as ye can every day. I'm coin' myself, you see, when get things fixed up and in the clothes. We've got the money to get the clothes, and we'll go as far with it as the clothes'll last."

When Pearl, Mrs. Watson, and Camilla went that day to purchase

clothes for the family, they received the best of attention from the obliging clerks. Mr. Mason, the proprietor, examined the cheque, and even went with Pearl to the bank to deposit it.

Then came the joyous work of picking out clothes for the whole family. A neat blue and white hairline stripe was selected for Jimmy, in preference to a pepper-and-salt suit, which Pearl admitted was nice enough, but would not do for Jimmy, for it seemed to be making fun of his freckles. A soft brown serge with a white belt with two gold bears on it was chosen for Tommy and Patsy—just alike, because Pearl said everybody knew they were twins, and there was no use deceiving it now. A green and black plaid was bought to make Mary a new Sunday dress, and a red and black plaid for "days." Pearl knew that when Mary was telling a story to the boys she always clothed her leading lady in plaid, and from this she inferred how Mary's tastes ran! Stockings and shoes were selected, and an assortment of underclothes, towels, handkerchiefs, scarfs, and overshoes assembled.

It was like a dream to Pearl, the wildest, sweetest dream, the kind you



An Attractive and Exceedingly Comfortable Home

Probably as fine a farming district as one may ever see is the South Pars Plains in Brant Co., Ont. The soil is of a high level enough to drain well, been thoughtful and appreciative of good homes, a great many of which, like the editor of Farm and Dairy, showing the home of Mr. E. A. Smith, Brant Co., Ont.

lie down and try to coax back again after you wake from it. She could not keep from feeling Danny's brown suit and stroking lovingly his shiny brown shoes.

Then came a "stuff" dress for Ma, and Sunday suits for Pa, Teddy, and Billy. By this time the whole staff were busy helping on the good work. Mr. Mason had no fur-lined capes in stock, but he would send for one, he said, and have it still in time for Sunday, for Pearl was determined to have her whole family go to church Sunday morning.

"My, what an outburst of good clothes there'll be," Camilla said. "Now, what are you going to have for yourself?"

Pearl had always dreamed of a wine-colored silk, but she hesitated now, for she had heard that silk did not wear well, and was a material for rich people only, but that did not prevent the dream from coming back. While Pearl was thinking about it, Mr. Mason and Camilla held a hurried conference.

"What about your favorite color, now, Pearl?" Camilla asked. "Isn't it wine-colored silk you always wish for when you see the new moon?"

Pearl admitted that it had been her wish for quite a while, but she wanted to see overcoats first so overcoats were bought and overcoats sent on approval. There were yards and yards of flannelette bought to be made into various garments. Pearl was going to have a dressmaker come to the house, who, under Camilla's direction, would make all sorts of things for the Watsons.

Pearl's purchases were so numerous

that two packing boxes were sent up on the drag wagon, and it was a proud mooncar-fairy when she saw them carried in and placed in the middle of the "room."

"Now set down," Pearl said firmly. "Every wad of ye set on the floor, a none of yer stuff can fall, and I'll give ye what's for ye. But ye must put them on till Sunday morning, that's the Sunday things, and ye can't put on any of them till to-morrow mornin', when ye'll be as clean as a sheet, water and Lar soap can make ye; for me and Ma are going at ye all to-night. There's nothin' looks more miserable than a good suit of clothes with a dirty neckband, forment it."

Everybody did as Pearl said, and soon their arms were full of her purchases. Danny was so delighted with the gold bears that he quite neglected to look at his suit. Tommy was rubbing his chin on his new coat as if to see how it felt. Patsy was hunting for pockets in his, when someone discovered that Bugsey was in tears, idle, out-of-place tears! Mrs. Watson, in great surprise, inquired the cause, and after some coaxing, Bugsey whimpered: "I wish I'd always known I was a good boy, 'till I got 'em."

Mrs. Watson remonstrated with

him, but Pearl interposed gently. "I 'ave him alone, Ma; I know how his feels! He's enjoyin' his cry as much as if he was laughin' his head off."

An hour was spent in rapturous inspection, and then everything was placed carefully back in the boxes.

That night, after supper, there came a knock at the door, and a long pasteboard box, neatly tied with wine-colored ribbon, was handed in. On its top it bore the name of the store, and its actor's name of "With the compliments of Mason & Meikle."

"Excitement ran high."

"Open it, open it, dear," her mother said. "Don't stand there 'in' at it. There'll be something in it, maybe."

There was something in it for sure. There was a dress length of the softest, springiest silk, the kind that creaks when you squeeze it, and it was of the shade that Pearl had seen in her dreams. There were yards of silk braid and of cream net. There were sparkling buttons, a pair of silk thread, and a "neck" of cream filling with silver spangles on it, and the bottom of the box, rolled in tissue paper, were two pairs of embroidered stockings and a pair of glittering black patent leather slippers that you could see your face in!

"Look at that now!" Mrs. Watson exclaimed. "Doesn't it beat all!"

(To be continued.)

It is well to bathe the towels when bathing a baby or an invalid. They dry the skin more quickly and that moist sticky feeling that so often follows a bath is avoided.

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The Upward Look

We Should Banish Fear

No. 16

For God hath not given us the spirit of fear; but of power, and of love, and of a sound mind.—II Peter, 1:7
There is no fear in love; but perfect love casteth out fear; because fear hath torment. He that feareth is not made perfect in love.—I John, 4:18

There is a power contained in each of these two verses that is so stupendous the human mind cannot grasp its immensity. It is a power so great that if we will but trust it and test it, it will break the hold Satan has on us, and transform us into strong, courageous men and women, able to bear and do all things that are right and worthy. It is the power of God.

Our fears are our worst enemies. They hold us in continual slavery. They stay us from doing those things that we know that we should. They prevent our lives from growing and expanding as they would could we but shake them off and use to the full the powers with which God has endowed us. Our lives are stunted and shrivelled by our fears.

Most Christians do not appear to realize that the spirit of fear is a spirit sent into our lives by Satan in order that he may thwart our God-given

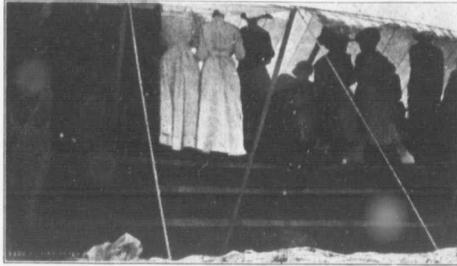
impulses to develop the great powers that are within us. There is no limit to the power that is within each of us, no matter how humble, or poor or ignorant we may be. Each of us has,

our lives so will our characters grow in power and influence until we are enabled to accomplish wonderful things for God. The word of God is full of recorded instances where the

and He will help us; Satan whispers that we are not able to do it, and that we shall surely fail. God tells us to trust in Him, and He will give us the victory. Satan answers that we are not strong enough to do so, and that people will laugh at us if we try and then fail. God tells us not to take any anxious thought for the morrow. Satan informs us that all manner of evil is sure to befall us if we do not do as our foolish fears prompt us. God tells us to ask and it shall be given unto us. Satan whispers that that is not so, that we are too full of sin or too weak to expect our petitions to be answered by the Lord.

And thus the ceaseless fight goes on in our lives. God's power ever striving to draw us up into higher and better spheres of action; Satan constantly holding us back by our fears and lack of belief.

If, therefore, we desire to become better men and women let us never forget the assurances given in our texts: That God instead of giving us the spirit of fear has given us the spirit of power and of love (His own spirit) and of a sound mind, and that when we find fear entering our minds, it matters not in what form, it is a certain sign that we are not loving and trusting God as we should, and that we have not yet been made perfect in love. Do we feel that our lives lack power and love and a sound mind? Then let us realize that it is because we have not accepted the great gift which God offers to each of us.—I. H. N.



American Society Ladies Interest Themselves in Dairy Cattle

The photo herewith reproduced was snapped by an editor of Farm and Dairy at the Robt. Hunter & Sons famous sale of Ayrshire cattle two weeks ago. One of the ladies here shown, Mrs. Erhardt, of West Berlin, Vt., purchased seven animals at the sale for \$3,500.

in some degree at least, the Spirit of God dwelling in us. "Know ye not that ye are the temple of God, and that the Spirit of God dwelleth in you?"—(I Corinthians 3:16). There is no limit to the power of the Spirit of God, and just as we allow this Spirit, working within us, to fashion and mould

rich and mighty were passed by and the poor and humble chosen for the accomplishment of great purposes, for "whosoever shall exalt himself shall be abased, and he that shall humble himself shall be exalted."—(St. Matt. 23:12.) God whispers to us to have faith.

Try this Thirsty Flour

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Manitoba wheat is wonderfully rich in sturdy gluten.

And, think of it, FIVE ROSES is milled exclusively from the very cream of the Manitoba wheat berries.

So FIVE ROSES must be awfully thirsty, don't you see.

In your mixing bowl it greedily absorbs more water.

So you get more loaves than usual without using more flour. You use less.

Your flour lasts longer, doesn't it?

Less trips to your dealer.

That's how FIVE ROSES saves money.

Actually saves YOU money.

Use this economical flour.



Five Roses Flour

Not Bleached



Not Blended

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.



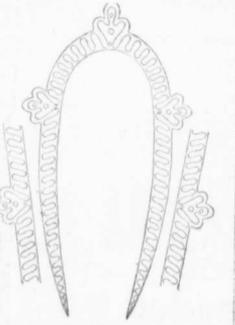
590 Design for a Scalloped Edge or Border.
The scallops are one and one-fourth inches in width, three-fourths of an inch in depth. Four yards and four corners are given.



594 Design for Braiding, a Sailor Collar and Rolled-Over Cuffs.



591 Design for Embroidering an Infant's Carriage Cover.



592 Design for Braiding an Over Blouse with a Back in Surplice Style. Especially adapted to May Manton Pattern, No. 691.
Transfer patterns for neck and back edges and for the sleeves are given.

A Refrigerator Without Ice

Ice for refrigeration though desirable is by no means a necessity. Our grand mothers got along very well without it. Campers of experience today are equally independent. The idea is simply to have a refrigerator based on the old-fashioned "coolers."

A cooler can be made out of any box that has for its sides slats instead of solid boards. A peach crate makes a very satisfactory one. The box once chosen, all that is needed in the way of construction is to add as many shelves inside as desired, and a door on hinges. Then cover the door, sides and back with burlap or some similar material.

On the top place a pan, preferably enamel, and from this pan hang wicks made of strips of flannel four or five inches in width. These wicks should have one end resting on the inside bottom of the pan, and the other hanging over the edge of the crate and touching the burlap. Then fill the pan with water.

The cooler should be placed outside in a cool place, where the wind can blow upon it. The wicks absorb the water and distribute it through the mesh of the burlap by capillary attraction. The wind causes the moisture to evaporate, and the evaporation reduces the temperature inside the refrigerator. A writer in The

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HOME DYEING has always been more or less a difficult undertaking—Not so when you use



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Easy to work. Runs on Hand Bearings and will wash anything from handkerchiefs to blankets.
Why should you drudge on in the same old way, when you can do it in half the time and with half the labor by using a Connor Hall Bearing Washer.
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CAPABLE OLD COUNTRY DOMESTICS

carefully selected, arriving every Monday. Apply now. The Guild, 71 Drummond St., Montreal, or 14 Grenville St., Toronto.

Youth's Companion, in describing such a cooler, asserts that it will keep butter hard and firm on the warmest days in summer.

Have Charity

Be not ready to condemn him, Though he early fall from grace, For sooner you might be condemned Were you in the sinner's place; For the sinner have forgiveness, Learn to live and let to live, As you hope to be forgiven, In your inmost heart "Forgive."

Stop and think before you scorn him, In your haughtiness and pride, Has your inner life been perfect, Have you nothing you would hide? If your hidden thoughts were painted On the pages of a book, Think you they would bear inspection?

When you stand before your Maker, Looking on the path you've trod, Will your record then be purer Than the sinner's is before God? Is your soul so pure and spotless? Is your heart so free from guile? Are you sure from never sinning, Is your house so strongly built?

When we're casting stones at others Let us think before we throw, Ere the stone might reach another, We might find ourselves in shame, While we long for Heavenly mansions, For that world so bright and fair, Without charity or other, We may never enter there.

THE COOK'S CORNER

Recipes for publication are requested. Inquiries regarding cooking, recipe, etc., gladly answered upon request, to the Household Editor, Farm and Dairy, Peterboro, Ont.

LEMON RAISIN PIE.

One cup of sugar, one lemon, one cup of raisins, one cup water; chop lemon and raisins fine, cook in the water three-quarters of an hour.

PIDDING SAUCE.

Four tablespoons of white sugar, two tablespoons of butter, one tablespoon of flour, beat all to a cream and add the white of one egg well beaten; then add one gill boiling water; stir well; flavor to taste.

MOLASSES COOKIES.

One cup of molasses, one table-oon of soda; dissolve in half a cup of boiling water; one tablespoon ginger, two tablespoons butter, and flour one gill to roll out thin; cut with cake cutter, and cook in quick oven.

TAPIOCA CREAM.

Two tablespoons of tapioca dissolved very soft, three yolks of eggs beaten and sweetened to the taste; boil one quart of milk, when cool stir in the tapioca and flavor; beat the whites very light and mix all together; let boil ten minutes, pour into moulds.

ORANGE CREAM.

Make according to above rule, adding one gill of orange juice and the grated rind of one orange which has been previously soaked in the orange juice while the gelatine is dissolving over the boiling water, and the beaten yolks of two eggs when you take off, and quite hot.

CHEERY PUDDING.

A pint of bread crusts or soft crackers, sealed in a quart of lolling milk, piece of butter the size of an egg, one teaspoon of salt, three eggs, one of a half a teaspoon of sugar if eaten without sauce, and if with sauce a tablespoon of sugar; a pinch of pulverized cinnamon, and a quart of stoned cherries; bake quickly.

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 give measurements for skirts. Address all orders to the Pattern Department.

CHILD'S YOKE DRESS, 708

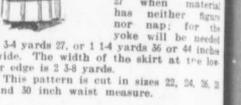
The simple little frock changes into a straight line dress. A yoke is one of the most becoming things the tiny child can wear. This one allows a choice of square or low and short or long sleeves, so that it suits all seasons.

For the 2 year old will be required 2 1/2 yards of material 27 with 4 1-4 yards of banding and 1 1/4 yards of edging to make as shown in the front view, or 3 1/2 yards of material 27 wide for yoke as shown in back view. This pattern is cut in sizes for children of 1, 2 and 4 years of age.

FIVE GORED SKIRT WITH DEEP YOKE AND HIGH WAIST LINE, 708.

The skirt that is made with a deep yoke is a very new one. It can be made of two materials, or of one.

For a woman of medium size the skirt will require 7 1/2 yards of material 27 inches wide. If the material has figure or nap, 3 3/4 yards when material has neither figure nor nap; for the yoke will be needed 1 1/4 yards 27, or 1 1/4 yards 36 or 4 1/4 yards. The width of the skirt at the top edge is 2 1/2 yards and 30 inch waist measure.



PLAIN SHIRT WAIST, 3678

This plain shirt waist that is made in peasant style is a new and smart one. This one is finished with the regulating box plait and with regulation sleeves, but it is in truth to make, as the sleeves make part of the waist and do not require fitting to the armholes.

For the medium size will be required 2 3/8 yards of material 27, 2 1/4 yards 36 or 4 1/2 yards 42 and 44 inch bust measure.

KIMONO WITH YOKE FOR MISSISS AND SMALL WOMEN, 7071

The simple kimono made with a plain yoke is always a pretty one and is adapted to a variety of materials. The one quite small women as well as young girls.

For the 10 year size will be required 5 1/4 yards of material 27, 4 1/4 yards 36 or 3 1/2 yards 42 inches wide, with 1 1/2 yards of an 18 yard or 3 1/2 yards of ribbon 5 inch wide to trim as illustrated; for the short kimono will be needed 2 5/8 yards 27, or 1 7/8 yards 36 or 4 1/2 inches wide with 1 yard of contrasting material. This pattern is cut in size for misses of 14, 16 and 18 years of age.



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HIGH-CLASS STOCK FOR SALE
Ayrshire calves and cattle, all ages; Yorkshire pigs and superior sows bred-both sire and grade sire from imported stock.

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12 Bulls fit for service, Scotch winners, 4 2 year old heifers, all bred by brother in Sept. and Oct. They are a grand strong lot of useful sires with good traits. Also a few good yearlings.

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World's Champion herd for milk and production. Registered and bull calves, all from R.O.P. cow for sale. A grandson of Primrose of Tangleywild in the lot. Address: WOODDISSE BROS., Tangleywild Farm, ROTHSAY, ONTARIO

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Contain more World's Champion milk and butter production than any herd in America. A few choice bull calves from record breaking dams for sale at reasonable prices. Address: A. S. TURNER & SON, Ryckman's Corners, Ont. 3 miles south of Hamilton

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Here are kept the choicest strains of AYRSHIRES. Imported and home bred AYRSHIRES—the best bacon types: WHITE OPINGTON, WHITE WYANDOTTES and BARRED ROCK AYRSHIRE. Mon. L. J. FORBET, J. A. BIRBAU, Proprietor, Manager, Ste. Anne de Bellevue, Que.

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Ayrshires, Clydesdales, Yorkshires
A few very choice Bull Calves, out of deep milking dams, and sired by "Bencheson Chief" Bull (Imp.) White No. and secure first choice. Females of all ages. A Commercial Herd.

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Is the home of most of the coveted honors at the leading eastern Exhibitions, including first prize old and young herd. FOR SALE a few choice Young Cows, also Bull Calves.

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Imported and home bred, are of the choicest breeding of good type and have been selected for production. THREE young bulls dropped this fall, sired by "Wether Hall" Bull (Imp.) as well as a few females of various ages for sale. Write or come and see. J. W. LODGE, Howick Station, Que. (Phone in house.) 1-6-11

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Are bred at "CHERRY BANK"
A few young bull calves for sale. Write for prices. P. D. MCARTHUR, North Georgetown, Howick Station on G. T. Ry. Que.

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Special offering of four young bulls, fit for service, from imported stock. Write for particulars. LAKESIDE FARM, PHILIPSBURG, QUE. GEO. H. MONTGOMERY, Prop., 164 St. James St., Montreal.

MISCELLANEOUS

TANWORTH AND BERKSHIRE SWINE—Boars and Sows for Sale. J. W. Todd, Cornish, Ont. Maple Leaf Stock Farm.

FOR SALE—KNIGHTON LODGE YORKSHIRES.

1 Boar, 10 sows for service, 2 sows in farrow, and several young ones of either sex—C. C. Kettle, Wilsonville, Ont.

MARKET REVIEW AND FORECAST

Toronto, Monday, July 10.—Business is fairly healthy before the midsummer lull. Country buyers are more conservative than heretofore, and large rush orders are not expected.

From all parts of the country come reports of late crops. It is shown in some sections, and the fruit crop generally will be short, but other crops are excellent. Exports from the Old Country have relieved the market situation in Ontario, but large excursions to the West may assume a scarcity of labor later on.

A resume of prices for farm products during the past week shows dairy produce and eggs firm, corn and oats strengthening with cattle weaker all round. Hogs are again decidedly below the \$7 mark. Cull money ranges here at 5 1/2 to 6 per cent.

WHEAT.
Quotations for wheat on this market are a little lower than a week ago owing to weak cable news from the Old Country. The Chicago market wheat advanced rapidly during the early part of the week owing to reports of damage by heat and drought. At the end of the scare prices dropped suddenly to their old level.

At this market the Old Country No. 2, 3 and No. 3, 95c; Ontario wheat shows some improvement, but quotations are not so high as last week. On the Farmers' market fall wheat is quoted at 82c to 85c and good wheat 80c to 81c.

COARSE GRAINS.
Trade in coarse grains is quite active. Reports of drought influenced prices at Chicago, and the effect has not passed off yet. Oats and corn show decided advances. Quotations are as follows: Oats, Canada No. 1, 43c; No. 2, 42c; No. 3, 41c; No. 4, 40c; No. 5, 39c; No. 6, 38c; No. 7, 37c; No. 8, 36c; No. 9, 35c; No. 10, 34c; No. 11, 33c; No. 12, 32c; No. 13, 31c; No. 14, 30c; No. 15, 29c; No. 16, 28c; No. 17, 27c; No. 18, 26c; No. 19, 25c; No. 20, 24c; No. 21, 23c; No. 22, 22c; No. 23, 21c; No. 24, 20c; No. 25, 19c; No. 26, 18c; No. 27, 17c; No. 28, 16c; No. 29, 15c; No. 30, 14c; No. 31, 13c; No. 32, 12c; No. 33, 11c; No. 34, 10c; No. 35, 9c; No. 36, 8c; No. 37, 7c; No. 38, 6c; No. 39, 5c; No. 40, 4c; No. 41, 3c; No. 42, 2c; No. 43, 1c; No. 44, 1/2c; No. 45, 1/4c; No. 46, 1/8c; No. 47, 1/16c; No. 48, 1/32c; No. 49, 1/64c; No. 50, 1/128c; No. 51, 1/256c; No. 52, 1/512c; No. 53, 1/1024c; No. 54, 1/2048c; No. 55, 1/4096c; No. 56, 1/8192c; No. 57, 1/16384c; No. 58, 1/32768c; No. 59, 1/65536c; No. 60, 1/131072c; No. 61, 1/262144c; No. 62, 1/524288c; No. 63, 1/1048576c; No. 64, 1/2097152c; No. 65, 1/4194304c; No. 66, 1/8388608c; No. 67, 1/16777216c; No. 68, 1/33554432c; 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