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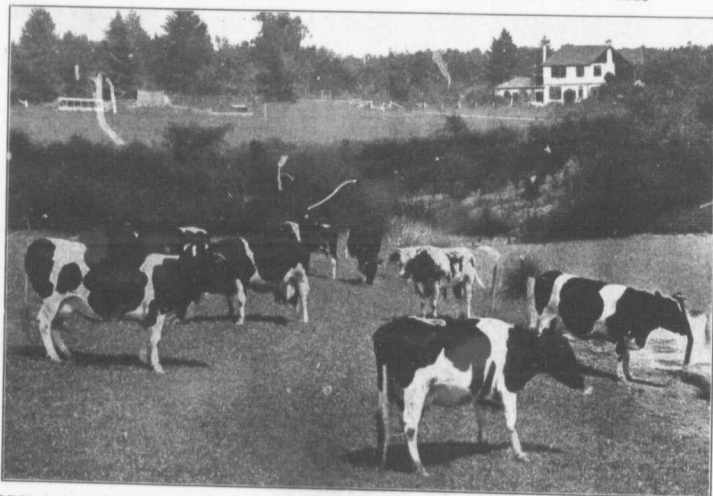
FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

APRIL 10

1913



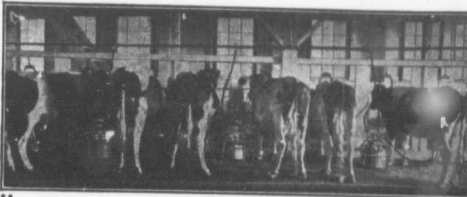
SPECIAL PURPOSE COWS PROPERLY CARED FOR MAKE FOR SUCCESS ON THE DAIRY FARM
Business ability, skill in crop production and unbounded energy,—all of these will fail to make the dairy farmer a financial success if his cows are not right, and properly cared for. The poor farmer with good cows stands a much better chance of "making good" than the one who grows the largest crops in the neighborhood and feeds them to cows that do not pay their board. It is the awakening among dairy farmers to an appreciation of this truth that explains the ever increasing demand for pure bred dairy cattle, and the nation-wide interest in cow testing and the premium that buyers of pure bred now place on records of production rather than show yard reputation. The rich man is the only person who can afford to feed a poor cow.

DEVOTED TO
BETTER FARMING AND
CANADIAN COUNTRY LIFE

ISSUED
EACH WEEK

Only \$1.00 a Year

PRICE 10 CENTS.



It'll Pay You To Follow

The Leaders who now use B-L-R Mechanical Milkers and do away with the hard work of milking by hand

Here are a few of the leading dairymen who have B-L-K Mechanical Milkers which they milk their cows:

- F. L. Green Winchmore, Ont.
- Rae Brothers Valleyfield, Que.
- Peter Stark Toronto, Ont.
- City Dairy Farms Burlington, Que.
- D. A. McFarlane Burlington, Que.
- R. Robertson Vancouver, B. C.
- G. G. Kemie Georgetown, Ont.
- T. Eaton & Co. Georgetown, Ont.
- Prof. W. J. Elliott Strathmore, Alta.
- E. L. Richardson Calgary, Alta.
- R. E. Gann Leavenworth, Ont.
- Capt. C. D. Baber Carr Alex, Alta.
- Hygenic Dairy Co. Mabel, C.
- C. M. Strigley Alameda, Ont.
- E. D. Sator Ottawa, Ont.
- Thos. Leslie Norval Station, Ont.
- A. M. Zooler New Hamburg, Ont.
- Gooderham & Warts Toronto, Ont.
- R. A. McDonald Greenfield, Ont.
- J. A. Anderson Dickenson's Landing, Ont.
- P. Clark Ottawa, Ont.
- Wm. J. Wark Windsor Mills, Que.
- M. Nahrany New Hamburg, Ont.
- Lewis Wallbridge Belleville, Ont.
- G. E. Palmer Sumnerstown, Ont.
- Fred Trimm Aylmer, Ont.
- A. E. Parsons Ottawa, Ont.
- Joe Brown Ingersoll, Ont.
- Allan B. Shantz Berlin, Ont.
- C. H. Slawson & Co. Ingersoll, Ont.
- Wm. Kaufman Berlin, Ont.
- Joe Ramseyes Tavistock, Ont.
- G. A. Gillespie New Hamburg, Ont.
- Jacob Steinmetz New Hamburg, Ont.
- Wm. Brigg London, Ont.
- W. C. Byres Dundas, Ont.
- Tranquil Fathers Hudson Station, Que.

We'll gladly give you an estimate of just what it will cost you to put in a B-L-R Milking Machine where you all the old time hard back milking your cows. Send us special notice of your stable and tell us how many cows you want to milk. **Special Notice to Dairymen:** You know our establishment is the Supplies. Place your order with us early. We can serve you this year even better than ever.

D. Derbyshire & Co.

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

Keep Your Eyes Open!

Your livestock is exposed to dangers from without and within. Indigestion, sluggish liver and bowels, weak circulation, are the cause of greater loss than accidents, since poor condition usually affects all the stock and accidents strike individuals. It pays big to keep horses, cattle, sheep and hogs in prime condition, capable of doing their best at all times. This means the difference between profit and loss.

Pratt's Animal Regulator

is the best animal conditioner known to stock growers. It has stood the practical test of forty years and made good all the time and every where. It is a tonic, not a food, and acts directly upon the organs of digestion. It maintains a keen appetite, perfect digestion, heavy production. You can't afford to be without it!
25c, 50c, \$1, 25-lb. Pail, \$3.50

For general farm and family use nothing equals

Pratt's Liniment

Equally good for man and beast. It cures sprains, bruises, sore and stiff muscles. Affords relief from rheumatism and neuralgia.

25c, 50c, \$1

"Your money back if it fails"
Stock Book FREE at dealers, or write us

Our products are sold by dealers every where, or
THE PRATT FOOD CO. OF CANADA,
TORONTO, ONT. Ltd.



Does This Rocky Road Explain Rural Depopulation and City Slums?

A FURTHER INCREASE IN DAIRY PRODUCTION IN ONTARIO EXPECTED

PRESENT conditions are favorable for an increase in production of dairy products in Ontario this coming season. It is yet early to state with any degree of certainty just what the increase will be, but from reports received from correspondents of Farm and Dairy who are intimately in touch with the dairy industry, we believe that the increase this year will be somewhat greater than the increase last year if weather conditions are all favorable. In the first place cattle are coming out of the stable in better condition. Good crops were stored in most districts last season and cattle have been wintered much better than they were in the winter following the short crops harvested in many sections in 1911. The quality of cows too is ever improving and this will play a large part in increasing dairy production. It is difficult to ascertain from the reports of correspondents whether the number of cows is increasing or decreasing. For instance, Mr. E. Weatherly, our correspondent in Carleton county, writes that "the majority of farmers are going into dairying extensively." Many correspondents agree with him, particularly those living in the counties that have gone in most extensively for pure bred dairy stock. In this latter class, Oxford county seems to be an exception. There the number of cows is not increasing, farmers devoting their efforts to an improvement in the quality of stock increasing production in that way.

THE OTHER SIDE

Mr. David Kelley, writing from Grenville county, says that some are increasing their dairy herds and some are decreasing and several correspondents scattered over the province hold views in common with him. Rather a pessimistic view is taken by G. B. Brodie of Middlesex county, who looks for a decreased make and fewer cows. "There might be a tendency to increase their dairy herds with some," says he, "but the majority cannot get help and just keep the number of cows they can manage nicely." Frequent reference is made to this scarcity of help and this scarcity seems to be the factor most potent in inducing farmers to improve their stock.

The demands of the city milk supply are cutting more and more into the business of the cheese factories. In the extreme east many factories have been almost put out of business through the Montreal demand. Similar conditions are found around Toronto, Ottawa, Hamilton and all other cities of importance. Condensed reports of a few of our correspondents follow:

"Prospects for the make of cheese are very good. We have about the

same number of cows and they are in a fair condition."—David Kelly, Grenville Co.
"We have the same number of cows and they are in good condition. Many farmers are going into dairying extensively."—E. Weatherly, Carleton Co.

CITY PRICES ARE BETTER
"We will make less cheese than in 1912. More milk is going to Montreal. City prices are higher than factory prices."—S. W. Morrison, Prescott Co.

"We will have a larger make this season than last as farmers are keeping more and better cows. Farmers are going into pure bred cattle."—S. A. Kinnaird, Stormont Co.

"Farmers are keeping as many cows and some more. They have been wintered well."—W. O. Wert, Stormont Co.

"Prospects for cheese make look good. Farmers are keeping more cows and they are in good condition."—Chas. Strader, Dundas Co.

IMPROVEMENT TALKED OF
"Prospects good. Some number of cows as last season. Farmers are talking still building and stable improvement."—Wm. Fitzgerald, Frontenac Co.

"Make of cheese and number of cows will compare favorably with 1912. Good cheese prices last year are an encouragement to more extensive dairying."—Edward Johnson, Frontenac Co.

"Last season was a good one; this one will be better. Farmers are coming to realize that it pays to keep good cows are being accordingly. Cows will come out of the stable in better condition than for years."—H. J. Windley, Frontenac Co.

"The make of cheese will be about the same. Cows are in better condition than usual."—J. H. Haran, Oxford Co.

WINTER DAIRYING IMPROVING

"Our summer make of cheese will be the same, but total production is increasing as more milk is being made in winter. Cows are not more numerous but of better quality and more are keeping pure breeds."—O. R. Francis, Oxford Co.

"This community has changed from cheese to butter. Cows have not increased in numbers. They will come out of the stable in Al shape."—J. A. Hainer, Haldimand Co.

"Farmers are going into the dairy business more extensively each year. Herds are looking well and prospects for the season are good."—C. M. Firby, Egin Co.

CONDENSERY GETS THE MILK

"Most of the milk is going to the condensers. Farmers are keeping more cows and they are in good condition. In 1889 I made 28 1/2 tons (Continued on page 27)

You'll get through a right out amongst have our the good well to

This issue breaks—than ever advertising of a year

We're just way that ahead. Who it, and kindly to publish advertising solicited at cost of ad will carry means some big as this

For much indebted to port in this ers and in Dairy. Out the unbound in them w settlements in the ted column

These far forward buy their ads well for the you through They know what they sell. They Farm and Farming mean quainting y effecting sa to their bested sales their overche appreciate dairy farmer you typify in purchasing like the nice are always

We are do come more a ful to you. we are gath planning to during the m

You can e this good wo too much fo to see one o bors about t It would be gladness to this passed co fortune with haps you w now or see o time you go neighbors to and become a Dairy! This class of appr

Our next S Improvement out May 8th, material alrea Would you c better? A sh some improv a photograph,

Just in con wishes for v every assista helping you to of the probabl dian Dairy In

PUBLISHERS' DESK

You'll be delighted with this issue through and through. We've been right out on the firing line as usual amongst the successful ones, and we have our pages all alive again with the good stuff, which it will pay you well to read, think over and act upon.

This issue is again a double record breaker—going out to more people than ever before and carrying more advertising than our Dairy Annual of a year ago.

We're just a little bit proud of the way that Farm and Dairy is going ahead. When you come to think of it, and know that we refuse absolutely to publish what is oftentimes as much as 22 per cent. of commercial advertising offering, and we do not solicit at all as much as 37½ per cent. of advertising that most papers will carry without objection, it means something to get out issues as big as this one.

For much of this growth we are indebted to you for your loyal support in thinking well of our advertisers and in talking about Farm and Dairy. Our advertisers appreciate the unbounded confidence you have in them when you see their advertisements in our absolutely guaranteed columns.

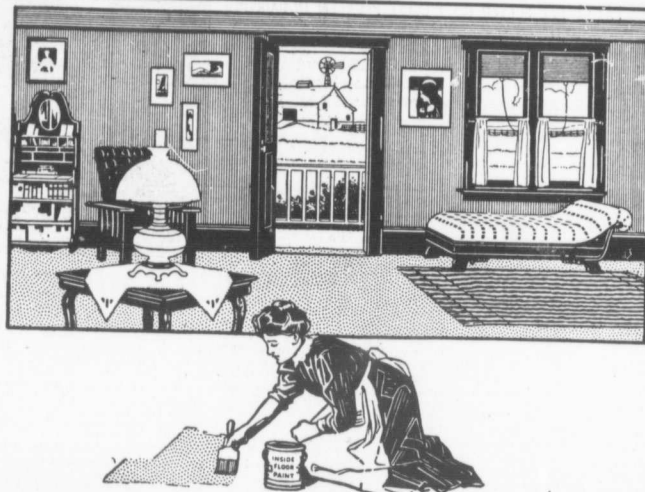
These far-sighted, keen, straightforward business men, who place their ads. in Farm and Dairy, pay well for the privilege of talking to you through their advertisements. They know that you have need of what they manufacture and have to sell. They know, too, that through Farm and Dairy they have the best paying means of reaching you, acquainting you with their goods, and effecting sales to you that are better to them because they have thus assisted sales and cut down greatly their overhead cost of selling. They appreciate the fact that you are a dairy farmer, and represent all which you typify in the way of progress and purchasing power. Moreover, they like the nice clean company their ads. are always with in Farm and Dairy.

We are destined to grow and become more and more useful and helpful to you. Better and better things we are gathering and preparing and planning to give you week by week during the months to come.

You can encourage us greatly in this good work. Would it be asking too much for you to plan right now to see one of your friends or neighbors about taking on Farm and Dairy? It would help us greatly and bring gladness to our hearts that you have thus passed on and shared your good fortune with your neighbors. Perhaps you will step to the phone now or see one of your friends first time you go out, and ask one of your neighbors to join the ranks with you, and become a subscriber to Farm and Dairy! Thank you. Here's a hand-clasp of appreciation of your service.

Our next Special will be a Farm Improvement Number (5th annual), out May 8th. We've a lot of good material already on hand for it. Would you care to help us make it better? A short pointed letter about some improvement you have made, or a photograph, would be acceptable.

Just in conclusion, here's our best wishes for you and assurance of every assistance we can give you in helping you to get your big fat slice of the probable \$125,000,000 Canadian Dairy Industry of 1913.



Make the interior of your home comfortable, wholesome and cozy

Not everyone knows how much paints and varnishes help to do this. How old furniture can be made to look like new, sanded, worn floors can be made clean and fresh; sanitary. Here are a few hints, all can be carried out at small expense.

Use S-W FLAT-TONE for your walls. A durable oil paint that dries with a soft velvety finish. Absolutely sanitary. Can be washed with soap and water. Twenty-four beautiful colors. The S-W MAR-NOT on hardwood and hard pine floors. A durable, effect on an old floor. Made in light and dark oak, mahogany etc. Use S-W INSIDE FLOOR PAINT for a painted finish. Use S-W FLOOR-LAC on soft wood floors. Gives a hardwood effect on a painted finish. Use S-W FAMILY PAINT for touch-up around the house. Just the thing to paint woodwork, doors, cupboard, etc. Use S-W ENAMEL for painting and decorating woodwork, doors, furniture, picture frames, etc. Use a Sherwin-Williams Paint, Varnish, Stain or Enamel for every surface that needs finishing around the house. There is a Sherwin-Williams Agent in your town. Ask him for color cards.

THE SHERWIN-WILLIAMS CO.
of Canada, Limited

PAINT, VARNISH & COLOR MAKERS
LINSEED OIL CRUSHERS

FACTORIES: MONTREAL, TORONTO, WINNIPEG, LONDON, ENG.
OFFICE & WAREHOUSES: MONTREAL, TORONTO, WINNIPEG, VANCOUVER, LONDON, ENG.

FOR SALE—Barred Plymouth Rock, Pekin and Rouen Duck Eggs. Each, \$1.00 a setting—C. R. Wallace, Shanley, Ont.

GRAND TRUNK RAILWAY SYSTEM

HOMESEEKERS' EXCURSIONS

To MANITOBA, SASKATCHEWAN AND ALBERTA

each TUESDAY until Oct. 28 inclusive.
WINNIPEG AND RETURN \$35.00
EDMONTON AND RETURN 43.00
Proportionate low rates to other points
Return limit two months.

Settlers' Excursions

To ALBERTA AND SASKATCHEWAN Every TUESDAY until April 23rd inclusive. From stations in Ontario, Port Hope, Peterboro and West, at very low rates.
Through coaches and Pullman Tourist Sleeping cars are operated to WINNIPEG without change, leaving Toronto 11.00 p.m., via Chicago and St. Paul on above dates.
The Grand Trunk Pacific Railway is the shortest and quickest route between Winnipeg-Saskatoon-Edmonton.

Beth Reservations and particulars from Grand Trunk agents.

It is Most Desirable

that you say, "I saw your adv. in Farm and Dairy." Do this when you write advertisers and take full advantage of Our Absolute Guarantee!

CANADIAN PACIFIC

EXCURSIONS
To Manitoba, Saskatchewan, Alberta

HOMESEEKERS
Low Round Trip Rates each Tuesday, March to October inclusive
Winnipeg and Return - \$35.00
Edmonton and Return - 43.00
Other points in proportion
Return limit two months.

TOURIST SLEEPING CARS
on all excursions. Comfortable berths, fully equipped with bedding, can be secured at moderate rates through local agent.

Home Seeker's Trains Leave Toronto 10.20 p.m. during March, April, September and October, and at 2 p.m. and 10.20 p.m. during May, June, July and August.

Through Trains Toronto to Winnipeg and West
Full particulars from any C.P.R. Agent or write M. G. Murphy, District Passenger Agent, Toronto

SETTLERS

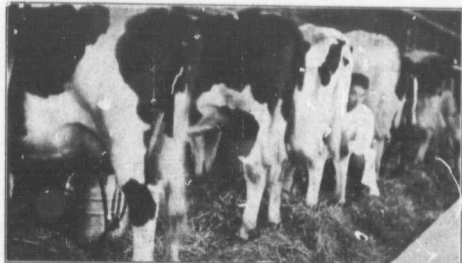
For settlers traveling with live stock and effects should use **SPECIAL TRAINS** leaving Toronto each TUESDAY MARCH AND APRIL 10.20 p.m.

COLONIST CARS ON ALL TRAINS
No charge for berths

Settlers and families without live stock should use **REGULAR TRAINS** leaving Toronto 10.20 p.m. Daily Through Colonist and Tourist Sleepers

HOW MR. PAT CLARKE SOLVED HIS BIGGEST PROBLEM IN DAIRYING

One of Ottawa's Leading Dairymen and His Neighbor, also a City Milkman, put in B-L-K Mechanical Milkers, and do away with Hand Milking. How They Save Their Men the old time Drudgery. The Machines are Popular and are a Success. Inspected by an Editor of Farm & Dairy.



B-L-K Milkers in Mr. Clarke's Stable Being Set for Us to Inspect and Photograph

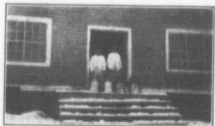
A GREAT big question is in the minds of every progressive and extensive dairy farmer as to whether or not he should put in equipment to milk his cows mechanically and thereby greatly lessen the hard work and do away with the drudgery of hand milking his cows. Will it pay? And is the milking machine a success? You can find much in the way of satisfactory answer to your questions about Mechanical milking, by reading about the facts in the following, as secured first-hand by an editor of Farm and Dairy recently from Mr. Pat Clarke, one of Ottawa's largest and most successful dairy farmers, who supplies milk to that city; and also by noting the information as gathered from a visit to Mr. L. D. Slater's big dairy near Ottawa, both of these dairymen having now had for some little time in successful operation B-L-K Mechanical Milkers in their respective dairy stables.

You would probably have to travel the country over to find a better informed and more up-to-the-minute dairymen and who has had as wide an experience up against all of the problems confronting dairymen, than Mr. Pat Clarke, of the Silver Springs Dairy Farm, Ottawa. When we called on him we found him right in his dairy attending to business. He hesitated to talk at first about the success he is having with his Mechanical Milker. We found him very cautious in his statements. He realized full well that he ought to be careful about saying too much about his success with these milkers until he had used them for several years. Because of his attitude in this respect we regarded his opinion with the more favor, and herewith set it before Farm and Dairy readers for their careful consideration.

At the outset Mr. Clarke said: "I have been looking at Mechanical Milkers and considering the question of installing them seriously, during the past seven years. I had seen 18 or 20 different installations of Mechanical Milkers and I even went right to the factory to see the machines. I then decided I would not have it, as I had been and always will be very particular about the bacterial count in the milk and some experiments that had been concluded at the Ohio Experiment Station had given me a "chill," since the bacterial count with them had gone up. But at last I had to have the milker or get out of this dairy business. I was driven to

instal the milking machine. Before I put it in I wanted to get out of dairying, as I was sick of it, for I had had so much trouble with getting suitable help and men to milk the cows. I found that if I wanted to get clean milk I must put on the men, and then having put on the men there was no profit left in the business. Last year I got into greatest difficulty in securing men; to save the situation I put in the B-L-K Milker.

"I am getting good results and I have not missed milking as yet with the milker. Not a cow has gone wrong in her milk flow since putting in the machine; the milk flow is more regular and it has not cost me a cent for repairs so far. I can see even with my limited experience covering the actual use of the milker, that it is here to stay. I have always said that if I could get the kind of milkers I would like, I would rather not have the machine, but if I have the same opinion at the end of the year as I now have of my B-L-K Milker, I'll forget about my former prejudice."



Mr. Clark's Outfit Milks 8 Cows at Once

As he continued to discuss the merits of this great labor-saving device for milking cows, Mr. Clarke made it clear that there was still a man problem to solve and this in connection with the operation and care of the Mechanical Milker. "I believe," he said, "that a farmer who is using the milker himself and has his wife or his daughter to give attention to the cleaning of it, will make the greatest success of Mechanical Milking. The man in charge of the operation of the machines should be someone whose pocket nerve is touched by every mistake that he makes. Such a man will find out all that he can about how best to operate the milkers, and he will be very careful about making the same mistakes twice."

"It is in connection with cleaning the machine that great care should be exercised. The instructions sent

out by some manufacturers are all wrong in that they advise cleaning only once a week. It stands to reason that the machine should be taken down every day and cleaned. There is hardly a man that one can get to do this work rightly. A woman would do it better and it is here that the average farmer would score a point over a large dairymen, who is depending on hired outside help exclusively."

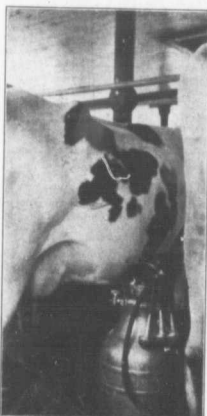
Mr. Clarke has four units or milkers in his outfit; each of these milks two cows at a time. In order to keep track of the production of each individual cow, the milk from each cow is weighed on every 10th day. He finds that every 10th day will give a very close estimate as to the total production. Figuring up on some of his cows for 18 months back, the total difference of every day milking was only a matter of 72 lbs. covering that extended period of time; this difference he considers hardly worth while to make advisable the extra trouble of taking weighings daily for each cow.

There is considerable to learn about the management of a herd under mechanical milking to secure the best result from the Mechanical Milkers. "It is most essential," remarked Mr. Clarke, "to mate up the cows in pairs, so they will milk out clean together, and thus save time on the machines. It takes one week to get the cows arranged just right. One should aim to build up the herd so that it will give best results when the machine is to be used for milking. Discard cows with big large teats and those also with small teats. Heifers I find milk out quickly and cleanly with the Mechanical Milker and even the heifers of last year milk out better with the machine than do the old cows. I find it is better not to milk out the cows too clean, but rather to strip out the last by hand, since you thus enable the machine to make better time. In working with heifers, or a young herd and when one is wishing to build up a herd that will give the best results with the milker, I would not advise the practice of stripping since the herd should be built up and educated as it were to milk out clean."

"A good man can operate two machines handily. For the best results I would not advise him operating more than two. I believe that the dissatisfaction some people have had with Mechanical Milkers, is because they have tried to get one man to operate too many units. It is important to manipulate the udder and stimulate the secretion of the cow. We, of course, are anxious about the bacterial count in the milk we produce, therefore wash the few drops drawn from each teat just previous to attaching the machine and this is a good practice also from the standpoint of stimulating the cow to "let

down" her milk. Then the operator should have time to be able to exercise care in watching the milk and getting the machine on to the next pair of cows. It is difficult to get a good operator. He must in addition to giving care to these details as suggested, see that the pulsating is right, see that the vacuum is right—not too high nor too low."

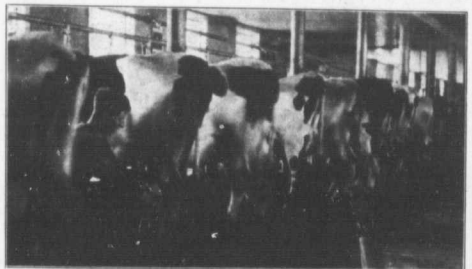
The day previous to our visit to this farm, Dr. Higgins, of Ottawa, had been out to secure samples of the mechanically drawn milk to test for bacterial count. He had found them to be below 10,000 per cc. (cubic centimeter). A second sample he had taken went below 1,000 per cc. This is considered to be exceptionally low, as milk ordinarily drawn is well over



B-L-K Milker Half at Work, Half Idle

20,000 and often over 80,000 to 100,000 bacteria per cc. The bacterial count is of course greatly dependant upon the cleanliness of the stables, of the cows, and most certainly of the machine. In this connection Mr. Clarke remarked: "I know of one large dairy where care had to be taken of the bacterial count, and because of this they discarded the Mechanical Milker. On personal investigation I found the reason to be because of the machines not being regularly and properly cleaned. Water was drawn through the machine, but they were not taken down and thoroughly gone over, except once in two weeks, and they had even let it go as long as four weeks! The machines must be taken down every day, and they would be better to be cleaned twice a day.

(Continued on page 8.)



Placing the B-L-K Milkers on the Cows in Mr. L. D. Slater's Dairy, Ottawa, Ont.

—All photos by an editor of Farm and Dairy.

Issue Each W

Vol. XXX

I have ext the dev



G. A. Street

Jack must lo ever crossed through and little short of all he surr of barn, an the Hill-Crest a little better not? Doesn them a com scratch their "I would r keep many co before making Countess. "I any other we year later, ex more milking whole life bef 2 I was m Now I am so will have at t work."

Did you ev every dairy fa Spot, and Sue, that will trun he is worth don't care a name or not. from England, you, by your f make him an wire on your f to be play an I have about efficient help d enthusias the w social fitness. Say, did you was willing af

FARM AND DAIRY

&

RURAL HOME

The Developement of Jack and Tom

G. A. Brethen

I have experienced a wonderful satisfaction in the development of the "Hill-Crest Boys." I have never been criticized for lack of enthusiasm in the breeding of Holstein cattle. But to me the most interesting feature of the game as played on our little farm is the growth of knowledge, of morality and of experience of my two boys, Jack and Tom.



G. A. Brethen.

"Jack" is our English boy, and to "Countess" and her young son, to "Countess" at anyrate,

Jack must look about the best that ever crossed the pond. Tom, Irish through and through, although a little short in experience, is monarch of all he surveys when it comes to the calf barn, and prides himself 'that the Hill-Crest youngsters know him a little better than anyone else.' Why not? Doesn't he feel them, give them a comfortable bed as well, scratch their backs and brush them.

"I would rather live with a farmer that doesn't keep many cows; I don't like milking," said Jack before making the acquaintance of Hill-Crest and Countess. "I would rather milk these cows than any other work on the farm," is the way Jack, a year later, expresses himself after having done more milking than probably he had done in his whole life before. "I used to be thinking all the time I was milking about how tiresome it was. Now I am so anxious to see how much milk I will have at the scales that I never think of the work."

RECORDS MAKE PLAY OF WORK

Did you ever hear of a better reason why every dairy farmer should keep a milk record of Spot, and Sue, and Jessie and Lou? Any method that will transform farm work with play for the boy is worthy of the highest commendation. I don't care a snap whether your boy bears your name or not. He is somebody's boy, whether from England, Scotland or the Emerald Isle. If you, by your farm methods, awaken his interest, make him an enthusiast, that boy will be a live wire on your farm. He will play the game, work will be play and drudgery eliminated.

I have about arrived at this conclusion,—that efficient help depends more upon the spirit that enthuses the worker than even upon his physical fitness.

Say, did you ever try a 900-pound pony that was willing after an experience with a 1,500-

pound "wont go?" Not how big, but how interested. "I never liked to milk so I never got very good at it." "Do you like milking?" enquired a visitor one evening of Tom. "Oh, I just love it, but I can't do it very well yet." replied Tom after a four months' experience at Hill-



"I always give Piet a pat"

"I just love to milk Countess."

Crest. The one never became proficient as a milker. Why? Because the heart wasn't in it. Things done by halves are never done right.

"Oh, I just love it." It is not necessary to ask, will Tom learn to milk well? Most certainly. A love of the work and happiness from well doing always spells Success.

"But I can't do it very well yet." Note the modesty of the reply. Tom is learning, yet unlike altogether too many of the boys in a similar position, he doesn't know it all. He has got away above that. He knows that he doesn't know yet, the best mental position that anybody can start from in his search for knowledge. Tom will certainly learn.

"Money is not all there is to consider when engaged with a farmer," said Tom to me recently. "I would not care to work on some farms I have seen. There doesn't seem much of a chance to improve oneself. I like to feel that I am doing things, making progress and growing in the knowledge of the business." Almost looks as though the farmer would have to brace up, read more, and embrace every opportunity to know his job, if he can retain the services of boys of this type, the boy that wants to learn.

The fact that Jack and Tom both secured a very high standing and diploma in the recent Correspondence Course in Dairying, conducted by Canadian Farm, under direction of Prof. Dean, shows that they are not only learning, but have

learned some of the essential points of handling dairy cattle.

"I believe Countess can beat any of them," said Jack some time ago, and Jack saw that she did. We generally get just what we go after in this world. Twenty thousand pounds of milk in one year from a heifer in her second milking period, looks like quite a big undertaking for an English boy to go after. But Jack always gave her a pat and Countess responded with 20,686 lbs. in 12 months.

THEIR OWN; MARK YOU

"I don't think anybody can have nicer calves than ours," said Tom one day. Leaving aside the merits of calves, note the claim of ownership of both Jack and Tom. This is vital to enthusiastic work.

"Of Love that says not mine and thine But ours, for ours is Thine and mine."

"I never was contented any place before, but this has been the happiest year of my life," said Jack at close of year. "If you want me I would like to try it some more." I wanted him. "After being three years in an office in London, filling silos, mixing cement, milking cows and feeding calves is a regular holiday to me," exclaimed Tom one day. "This is the best week I have had yet, Sir." Would you, dear reader, like to know why Tom thought this way? Because he had started his first cow in official test and felt he was "doing things."

"I can truthfully say I have never spent a happier or better year on the farm," G. A. Brethen, endorsed by Mrs. Brethen and the kiddies.

One day Jack, Tom and I were building a cement wall for our calf barn. Looking up from the wall where I was engaged putting in fillers for the next batch I saw Tom straighten up his five feet 11 inches and exclaim with all sincerity, "I wouldn't take \$500 and go back to my old job!" "Neither would I," said Jack.

THE JOY OF MIXING CEMENT

Here was food for thought. Was there anything about mixing cement that was so fascinating that it would entice a boy from his home and his friends and a lucrative position that is open to him if he cares to return? I never could see mixing cement just that way. Why did it appeal to Tom? He was looking after the calves. They were his special care and delight. Forgetting or ignoring any present discomforts he was looking forward to the time when he would have a brighter, better place in which to display his pets and this thought made the work go light. Tom has visions.

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(Continued on page 12)

How Much it Pays to Feed

There is some doubt in the minds of a great many people who have bought young bulls and who are now out to develop them to the best possible advantage as to just how much feed and of what kind a young dairy bull should be given. Recently while looking over the Holstein cattle in Mr. James Rettie's herd we noted his young bull recently imported and from a cow, 119 lbs. milk in a day, 25,600 lbs. milk in one year, 3,000 lbs. in 30 days, and we thought "Our People" would like to know just what Mr. Rettie was feeding him. The bull is a strong individual, eight to 10 months old.

To our enquiry Mr. Rettie replied that he was feeding the calf a mixture of oats and bran in equal parts by weight, and of this all he would eat readily, 9 lbs. a day, and, in addition, he was getting one and a half lbs. of oilcake meal a day. He was also being given clover hay and ensilage all that he would clean up readily.

In connection with raising cattle one should always bear in mind that a young animal is able to make much better use of its food and will increase in weight proportionately from its feed to a much greater extent than is possible for it to do as it becomes older. Hence the advisability of giving the youngsters every chance to do everything in the way of growing and developing of which they are capable.

Summer Soiling with a Silo

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

I believe there is no cheaper feed for supplementing dry pastures than silage. I have been using it for two years and in the drought of 1911 we were able to keep our cows up to a good flow of milk by having silage to feed. Last year, although pastures were good, the greater part of the season, we fed ensilage all the time and believe we got a much steadier flow of milk than we would otherwise have done without the silo.

We find ensilage a great help when bringing the cows into the stable at milking time. We put the silage in the mangers, then let the cows in and they get to their places quickly and remain quiet until they are fastened.

I would not advise building a silo more than 12 feet in diameter for a herd of 20 cows for summer feeding, as the silage molds more quickly on top in summer than in winter. A silo 12 by 35 will give a liberal feed for 20 cows all summer. I would much rather get the ensilage out of the silo and put in the mangers than walk half a mile to bring the cows in to milking. We do not have to go stir them since we begin feeding ensilage at milking time.

Get a good cow and feed her well and you will make money. Dairy products are a good price and sure to be better. Canada is a great and growing country and everybody wants milk and its products to sustain life.

Crop Rotation

When crops are grown in rotation and proper tillage methods are followed, they will suffer less from dry weather than when they are grown continuously. Crop rotation is usually of more importance than the methods of tillage used in this respect, although both are important. In most rotations more roughage is produced than can be disposed of by the work stock on the farm. Hence, more animals must be kept and more manure produced to return to the land to keep up the supply of organic matter. The organic matter in the soil may also be maintained by growing grasses and legumes.

A Unique Stable Cleaning Wreckle

The latest labor-saving device that we have heard of for use in a dairy stable is the invention of an Eastern Ontario farmer, and is in use by him for cleaning out the manure without requiring fork, shovel, brush nor hand labor. He simply starts his engine, which drives the device and loads the manure on to a sleigh or manure spreader placed ready to receive it outside the stable.

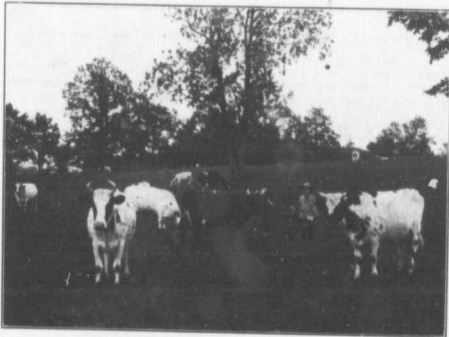


On the Best Farm of British Columbia

The farm of A. C. Wells & Son, Sardis, B. C. is the winner of a cup donated to the best dairy farm in the province. The main barn, here illustrated, is fitted with all modern stable equipment, lighted by electricity and all machinery run by the same power. Pretty up-to-date isn't it?

While we have not seen this truly remarkable innovation it is said to work perfectly. One of the editors of Farm and Dairy was informed recently as to its working by that practical dairyman and authority, Mr. N. G. Somerville, manager for D. H. Burrell & Co., Brockville, Ont., who had inspected the device and witnessed its successful operation.

The contrivance is simply wire netting of fine mesh placed in the gutters and working over a big drum at one end of the stable from which it loads the manure on to the wagon, sleigh, or spreader placed in readiness to receive it. While explaining it to us Mr. Somerville said: "The man is tickled to death with it. He simply starts his engine when he is ready to clean the



A Few of a Herd That Has Produced World Beaters

In the pure bred Yorkshire herd of A. S. Turner and Sons, Westworth Co. Ont., here illustrated, have been bred a good portion of the record-breaking Yorkshire cows of the world. In an adjoining article read Mr. Turner's explanation of his success as a dairyman.

stable, and in three or four minutes the manure is all cleaned out as slick as if one had used fork, shovel and brush. Then he reverses the engine and the netting is drawn back into place ready for the next time. The netting is 'bedded down' slightly with straw to absorb the liquids."

This invention is the child of the brain of Mr. Geo. Roberts n., a young farmer of Lanark county, who is a starter into pure-bred Holstein breeding. He has a splendid big barn, which we are given to understand is modern in every respect.

Why He Succeeded

"To what do you attribute your success in record making?" an editor of Farm and Dairy asked Mr. A. S. Turner, Ryckman's Corners, Ont. Mr. Turner and his son have bred several world-beating Yorkshire cows. At present they have in their herd the world's champion two-year-old producer. With these facts in our mind we awaited Mr. Turner's reply with great interest.

"I do not believe I can tell you right off hand," replied Mr. Turner. "We have always been very careful in the selection of our sires. We want them of good conformation but, above all, we want them of good producing stock. And then we pay a great deal of attention to feeding. We do not feed any two cows alike. We do the feeding ourselves, either my son or I being on hand."

"What feeds do you like best," was asked. "We brewers' grains, barley and oat chop mixed and a little oil cake comprises the grain part of our ration. We do not believe in feeding heavily with concentrated feed. We believe it has a tendency to injure the cattle. We feed as high as 12 quarts of brewers' grains a day. These grains are not watery, but just damp. We feed all cows that are milking well three times a day. We can't get good results from feeding twice a day. The extra milk gotten by feeding three times and milking three times will more than pay for the extra labor involved."

"At what times do you milk?" "At five o'clock in the morning, at one o'clock in the afternoon and nine o'clock at night. You would be surprised at how much difference it makes in the yield to milk three times a day."

The Golden Rule Labor Law

Nelson Monteith, Perth Co., Ont.

The touch-stone of success in farming is good management of the labor problem. When I left college in 1890, I gave this problem careful consideration. I pondered on how I might keep permanent help on my farm. I made preparations then and there to erect a house on the farm, and since then have had satisfactory help. One man stayed with me 12 years, made his pile and retired. The man I now have with me has been on my farm five years and I don't know whether he or I will retire first.

My rule in dealing with hired men is summed up in the words of the Golden Rule, "Do unto others as you would have them do unto you." I find that men treated according to the principle laid down in this rule will respond readily.

I am to follow dairying and stock farming exclusively as they demand attention chiefly in the winter months. Instead of following the beaten track in cropping, we may well look around and see if we can get other crops that require attention at other times—anything to distribute the work over the whole 12 months.

I do not like the way in which some men try to solve the labor problem—by doing without help altogether. A man who is compelled to labor from early in the morning till late at night is too tired to take much pleasure out of life. On any good farm there is room for a good hired man's house and a garden attached thereto. This house, and Golden Rule management, is the only solution of the labor problem.

"Do unto others as you would" is one of the finest rules to apply to almost any problem that I know of.

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The Story of a Prize-winning Dairy Farm

THE development of a prize winning dairy farm is not the work of a day or a year. Young men who oft times become discouraged because of the slow progress that they seem to be making, towards the ownership of a splendidly equipped and up-to-date farm will find much to encourage them in the story of Riverside Farm, a farm which won the award as best dairy farm in Ontario in Prize Farms Competitions conducted by Farm and Dairy, and in the Inter-Provincial Competition of last year was placed second among the dairy farms of the two provinces of Ontario and Quebec. Riverside Farm did not spring at once into prominence when it was purchased by Mr. Matt. Richardson more than two score years ago.

Before the farm was known outside of the little township of Seneca in Haldimand country, is a record of many years of painstaking and often discouraging toil. The same may be said of most of the other prize-winners in Farm and Dairy's Prize Farms Competitions. We hear little of the discouragements with which these men at first contended. We hear much of and honor them much for their success. And Mr. Matt. Richardson, now retired from the active management of the farm, as he drives his auto-



"Some Future Matrons of Riverside"

A point on which Mr. J. W. Richardson lays particular stress in the development of heavy milking cows is the proper development of the dairy calves through the best of feed and attention. He recognizes that the calf of today is the cow of tomorrow. A bunch of his cattle may be here seen.

—Photo by an editor of Farm and Dairy.

mobile over pleasant country roads, can also afford to smile as he looks back on the days of his adversity.

The Riverside Farm of to-day, with its splendid crops, fine buildings and a Holstein herd known from one end of Canada to the other, bears little resemblance to the farm that Mr. Matt. Richardson, the father of the present proprietor, Mr. J. W. Richardson, purchased over 45 years ago. Mr. Richardson secured the first 100 acres that forms a part of the present large farm very cheaply and on easy terms. The former owners were glad to sell. They had not been able to make the land pay the taxes. The soil, none too good in the first place, had been still further depleted of its fertility by constant cropping with grain. There were no buildings on the place worth mentioning, and the Mr. Richardson's capital was limited to \$1,000. The net profits of Riverside Farm at the present time would amount to at least two or three times as much as a year as did the original capital with which it was started.

LIVE STOCK FOR THE SOIL'S SAKE

It did not take Mr. Richardson long to decide that grain farming was out of the question. He started into beef raising, also keeping an eye on the milking qualities of his cows, which were a

What Alfalfa and Cows Did for Riverside



"Holsteins Assumed First Place among the Money Makers"

mixture of pure-bred Shorthorns and Shorthorn grades. With the assistance of Mrs. Richardson they ran a home dairy and made cheese both winter and summer. For a number of years beef was very low in price, and the dairy end of the business kept the farm going. From time to time adjoining farms were offered for sale, most of them because their owners could not make a living thereon, and these too were added to Riverside Farm. The end of 15 years of hard work found Mr. Richardson and his son, who was then taking an active part in the management of the farm, with 30 to 40 cows of a beef strain, a lot of steers that were paying their way and very little more and a big mortgage. It was to reduce this mortgage that the Richardsons decided to specialize in their business. From their experience with their dairy Shorthorns they had decided that a good dairy cow was just as valuable as a steer for enriching the soil, would pay a good dividend over her keep for the season, and afterwards they would still have the cow with which to go on for eight or 10 years more.

To find where their profitable cow were Mr. Richardson commenced to weigh the milk of each individual in his herd once or twice during the season, and to test the milk for butter fat. "In this way," said Mr. Richardson to an editor of Farm and Dairy who visited his farm along with the judges in the Inter-Provincial Farms Competition, "we found that a large number of our cows were kept at a loss. We concluded to get out of these cattle and to select a special breed of dairy cattle.

A START WITH PURE-BRED CATTLE

"We purchased a pure-bred Holstein bull and began weeding out and grading up our herd. We had found that several of our cows were producing from 3,000 to 4,000 lbs. of milk in a season. They would milk well for a month or two and then run short. These cows were generally beefy and 'good lookers,' the style much desired in our section at that time. Our aim was to have an 8,000-pound cow. That first pure-bred sire showed us the way. When his daughters began to come in they were away and ahead better milkers than their dams had ever been. We decided that if Holstein grades were such good milkers, Holstein pure-breds would be better yet, and we decided to lay a foundation herd of pure-bred Holstein cattle. This we did by buying from reliable Canadian and American breeders."

From the very first the Holsteins assumed first place among the money-makers at Riverside

farm, and to-day the sales of pure-bred cattle bring in more revenue than does the milk they produce. But the dairy herd does not go all of the way in explaining the splendid fertile soil that we now find on Riverside Farm. "Alfalfa," said Mr. Matt. Richardson, "has lifted us up from poverty. I secured my first alfalfa seed between 35 and 40 years ago, and found that it would grow, produce good crops and improve the soil, where no other crop would thrive. To the growing of alfalfa more than anything else do I attribute the start that I got on my poor soil and under discouraging conditions."

AN IDEAL DAIRY FARM

Riverside Farm is situated about two miles from the village of Caledonia and about 20 miles from the city of Hamilton. It comprises 370 acres of rolling land, varying in texture from a sandy loam to a clay loam. The farm is ideally fitted for dairying. Here and there through the farm are small patches of woodland that afford shade for the cattle, no matter on what part of the farm the pasture may be located. The farm is also well watered. Where it is necessary under-drains have been laid, but most of the farm is naturally well drained. Lanes through the farm are so planned that any field may be used as pasture, and the lanes too are always pastured, thus making good use of the grass on the lanes and keeping down weeds.

Mr. Richardson finds that his large farm cannot well be laid out in regular fields, and the rotation is varied to suit the shape of the field, and also to meet the varying conditions that are met with on different parts of the farm. The alfalfa fields, for instance, comprising about 70 acres on an average, are not plowed so long as they will yield good crops. To illustrate how the Richardsons manage we will mention one field situated near the buildings, that at the time of the judges' visit was in barley, seeded down to alfalfa. This had previously been in alfalfa, and



The Home on a Prize Winning Farm

"There is more in life than work and money." Note, in the beautiful home shown herewith, how J. W. Richardson is living according to the truth of this Bible-verse in his Haldimand County farm that won first place in Ontario in the Interprovincial Dairy Farms Competition conducted by Farm and Dairy.

was overrun with quack grass. After the hay was cut the field was plowed and thoroughly worked with the disk and drag harrows all through the hot summer weather. It was then seeded to fall wheat. Mr. Richardson secured an excellent crop of wheat, and as soon as possible after harvesting

(Continued on page 37)



Coiling and Capping produces best quality Alfalfa Hay

THERE is a place for alfalfa on every farm in this country on which we find live stock, even if that stock be only hens," once said F. D. Coburn, America's greatest advocate of alfalfa growing. When Mr. Coburn first started his great campaign for the popularization of alfalfa many years ago, we in Canada did not then realize that we were included. We regarded alfalfa almost as a tropical plant. Then came our own apostle of alfalfa growing, Mr. Henry Glendinning. He told us that he was growing alfalfa on his own farm in Ontario county, lots of it, and growing it successfully. Then we begin to find that here and there, in Ontario particularly, there were individual farmers who had been growing alfalfa successfully, but who, unlike Mr. Glendinning, had not realized the immense value of the plant to the dairy farmer.

Milk is rich in protein. Alfalfa is rich in protein. Hence it is that alfalfa is a greater boon to the dairyman than to any other class of live stock farmer. Mr. Glendinning told his audiences at many an Institute meeting that he had cows giving 20 to 40 lbs. of milk a day all through the winter, and never receiving a pound of grain. Alfalfa would take the place of grain. At first, like all pioneers in any educational propaganda, he was not believed; but now a mass of statistics that prove the great feeding value of alfalfa form an incontrovertible argument in its favor. Compare the percentage of digestible nutrients in alfalfa and bran, the latter the standard grain feed for dairy cows:

| | CRUDE PROTEIN, | CARBON | HYDRATES, | FAT, |
|-------------|----------------|--------|-----------|------|
| Bran | 11.9 | 42 | 2.5 | |
| Alfalfa hay | 11.7 | 40.9 | 1 | |

It will be noticed that in composition alfalfa hay compares very favorably with bran. Alfalfa, however, contains a higher percentage of crude fibre, which is very difficult of digestion, and hence it would hardly be safe to say that alfalfa hay is equal to bran in feeding value, although it approaches bran very closely.

PROF. DAY SAYS ALFALFA EQUALS BRAN

Prof. Geo. E. Day, at the Ontario Agricultural College, has conducted several accurate tests on the College dairy herd, comparing the feeding value of alfalfa and bran. Four groups of cows were experimented on, and the results may be taken as an accurate indication of the relative merits of these two foods. Summing up the results of his work, Prof. Day remarks: "In order to hold a large producer to her milk flow it would be necessary to feed a meal ration, but in the case of cows giving less than 40 lbs. of milk a day it is questionable whether the feeding of a meal ration would be found profitable when first class alfalfa hay is fed. The possibilities of alfalfa as a means of saving meal are very great."

Cows giving less than 40 lbs. of milk a day! That includes almost every cow in every dairy

herd in this country. Therefore, every dairyman in this country, if climatic conditions are at all favorable, should be growing alfalfa. If he does not grow alfalfa he must buy and feed bran or some similarly expensive food. Bran costs \$19 to \$25 a ton, depending on situation. Alfalfa can be grown anywhere and put right in the barn for \$5 a ton, and many growers say that it costs them even less than that. Can we afford to pay \$20 for bran when we can grow its equivalent for \$5? And yet it is estimated that only 33 per cent of the dairy farmers of Ontario are growing alfalfa, and in the other provinces the percentage is still lower. Read what some of our most successful dairymen, the men who are right



Successful Where Other Crops Won't Grow

Mr. W. O. Morse, Halton Co., Ont., may be here seen cutting two and one-half tons of alfalfa hay to the acre in one cutting on a gravel bliside so steep that no other crop could be made to grow before alfalfa was tried. The soil is now seven years old.

—Photo by an editor of Farm and Dairy.
up on top of their profession, think of alfalfa. They grow it themselves and hence talk from experience:

25 YEARS' EXPERIENCE

"We have grown alfalfa more or less extensively for 25 years," writes H. R. Nixon, Brant Co., Ont. "We did not consider that it made very good hay years ago, as we did not cut it early enough, and the leaves fell off in curing and the stalks were hard and dry. We used it in those days chiefly for hog pasture, for which purpose it is most valuable. We later learned to cut it early, as soon as a few blossoms appeared, and found it made hay vastly superior to any other we could grow. It also makes excellent pasture,

Alfalfa, the Greatest Dairy Roughage

"Do we consider it advisable to grow alfalfa for our cows? Well, we had 10 acres four years ago and have 125 acres to-day. This I think, speaks for itself. It costs us only \$3.85 a ton to produce this richest and best of forage crops."—R. E. Gunn.

but will not stand too close cropping by stock. We never allow a hoof of any kind to pasture on the fields we cut for hay.

"We cut three crops per annum and get an average of about four to five tons per acre in the three cuttings in favorable seasons. We can store it for \$3.50 a ton. While we consider it the best hay that can be grown for dairy cows, we do not believe it equal in feeding value to bran, pound for pound, as some do. We sow with a nurse crop of barley, using 20 pounds seed an acre and one bushel barley. We allow nothing to pasture on it after harvest or any other time if we wish to retain a good stand of plants. Tramping of stock certainly will thin it out.

"Alfalfa is harder to cure than red clover. We mow in afternoon and run over it twice next forenoon with the tedder and rake and coil in afternoon. It stands in coil next day, and if the weather is fine it may be shaken up the third day in the forenoon and drawn in in the afternoon. Any one who keeps cows should grow alfalfa. We have 30 acres seeded now."

AS A PASTURE CROP

"I put the greatest value on alfalfa as a pasture crop," writes Mr. F. Birdsall, of Peterboro Co., Ont. Mr. Birdsall has 30 years' experience in alfalfa growing to back up his contention that alfalfa can be successfully pastured. "If a man has a large acreage I would pasture part of the first crop and cut a second crop later on when the weather is more favorable. Alfalfa costs me an acre about the same as red clover. For pasture it is infinitely more valuable than clover as it has a quicker growth and stays in the ground longer.

"I sow on well prepared ground, preferably following roots, seeding 15 to 20 lbs. of alfalfa and a bushel of barley for cover crop. I give a light dressing of barnyard manure late in the fall. As early in the spring as possible I run over the field with a horse rake and follow with a roller. I cut when the crop is about one-third in bloom."

EXPERIENCE OF A PRIZE-WINNER

"I have been growing alfalfa hay for eight years," writes S. A. Northcott, Ontario Co., Ont., whose farm stood high in the Inter-Provincial Prize Farms Competition conducted by Farm and Dairy. "In these years my alfalfa has averaged more tons to the acre than has red clover or timothy, and has been produced at \$1 a ton less. As a food for dairy cows, it works in well with corn ensilage. When feeding the alfalfa hay in the stable in conjunction with ensilage, I find that one ton of alfalfa hay gives me about the same results as 1,000 lbs. of mixed grain for milk production. In the regular rations I feed my cows all the corn ensilage and alfalfa hay they will eat, with mixed grain and cotton seed or oil meal added, according to the amount of milk given by each cow.

(Continued on page 18)

A Bigger and Better Crop of Corn.

"Corn will grow in practically every farming section in Canada. Corn provides more roughage to the acre than any other crop. It is easy to grow, easy to keep, is palatable and appetizing. Every dairyman should be a corn raiser."—J. B. Grisdale.



A Planting System Advisable on Dirty Land—In Hills

CORN is the greatest crop that the dairy farmer can grow." This statement is an axiom. An axiom is an expression of an obvious truth; for instance, that if two straight lines are both the same length as another straight line they are equal with one another. That corn is the greatest crop is as self-evident as the truth of the geometric proposition that we have just enunciated. It will produce more digestible food nutrients to the acre than will any other crop grown in Canada. It enables the dairyman to solve the great problem of how to furnish an abundant and cheap supply of succulent food for both the winter and summer feeding of dairy or beef cattle. When properly grown and well preserved as ensilage it is the equal of or superior to roots in feeding value and palatability. It can be grown more cheaply than roots per acre, and on the average will yield twice as much actual food as will roots. It has merits that far surpass in value the points of excellence of the dairyman's newest and much advertised novelty. It has been with us so long, however, that we have ceased to regard it as a remarkable plant. We just take it for granted.

Farmers are coming to appreciate the value of this great crop. In 1910, in Ontario alone, 327,627 acres were devoted to corn for ensilage purposes. In 1911 the area increased to 385,985 acres, and in 1912 we have a further jump to 377,982 acres of corn for the silo, an increase of over 13 per cent in two years. From all indications there will be a still greater area devoted to silage corn in 1913. Corn, however, is a much abused crop. We find that in 1912 the average crop in Ontario was only 10.5 tons to the acre. With intelligent cultivation this yield might well be increased by 50 per cent, and individual farmers here and there are growing more than twice as much on acre. R. R. Ness, Howick, Que., told an editor of Farm and Dairy who visited him last summer, that his crop in the previous year

had averaged about 25 tons of silage to the acre, and this on an area of over 40 acres. Down in Oxford Co., Ont., we have frequently seen fields that ran over 30 tons to the acre, and an examination of official reports from the Ontario Agricultural College show that their yields from good varieties run from 18 to 25 tons. And yet the average yield in the province is only a little over 10 tons.

BEWARE OF SURFACE WATER

Corn will grow on any kind of soil provided there is good drainage. Under drainage is not absolutely necessary. We have seen splendid crops growing on the heavy low-lying lands of the Chateauguay District in Quebec, where underdrains are not known. The ditches and water furrows were kept open all summer. The soil best adapted to the crop is a light loam with a warm bottom. The chief requisite is that the soil be provided with an abundance of humus. For this reason corn should follow clover hay, pasture or meadow. The manure also should be applied at this stage of the rotation. A mixture of one part horse manure to three parts cattle manure applied green at the rate of 12 or 15 tons an acre may be expected to give very good results. Between the rotting sod and the farmyard manure there will then be a bountiful supply of humus.

We have never yet heard a successful corn grower following corn after grain stubble. All of them follow after sod. An exception is the method followed by R. E. Gunn at Beverton, who grows about 50 acres of corn each year, and always on the same field. After the last cultivation Mr. Gunn sows clover seed between the corn rows and gets a most luxuriant growth that fall and in the early part of the next spring. This green crop, along with a dressing of barnyard manure, is then plowed down, affording a great supply of humus, and Mr. Gunn's crops respond accordingly.

Where the corn field is light in texture we

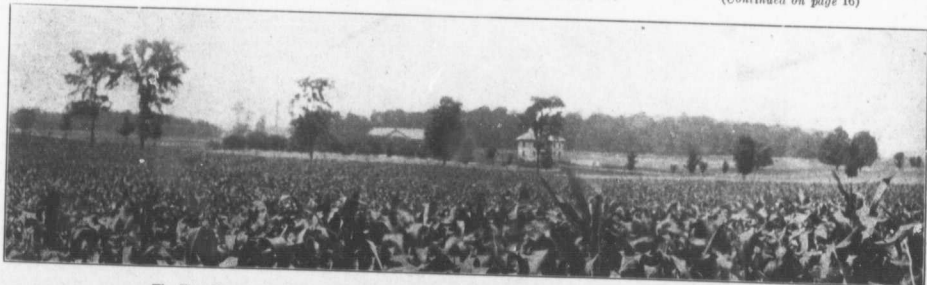
would prefer to plow in the spring, turning a very shallow furrow in order that the plant food may be kept near the surface. Mr. Miles Hartley, one of the most successful corn growers in Oxford county, explains the merits of spring plowing in this way: Corn in its origin is a tropical plant. The manure and sod on being turned over ferments more rapidly than fall plowed sod, and thus produces more bottom heat, giving the young corn plants a good send off. On clay land, however, it is generally well to plow in the autumn, turning a well set-up moderately deep furrow of five to six inches.

One of the common mistakes made by corn growers is to assume that because corn can be cultivated when it is growing that the seed bed does not need to be given the same care as in the case of small grains. The land should be worked down until it is smooth and mellow and then firmed with a roller to provide a solid seed bed. The best implement that we know of for working corn land is the double cut-away disk. In some cases it may be necessary to disk and roll several times in order to get the right seed bed, but in no case should corn be planted on half prepared land. Better be a few days late in seeding, as it is the initial work that determines the success of the crop.

VARIETIES FOR ALL CLIMATES

Now comes the seeding. What variety shall we sow? This depends largely on the district. J. H. Grisdale, Dominion Agriculturist and Superintendent of Experimental Farms, recommends that for the Maritime provinces, for those parts of Quebec north of Montreal and St. Hyacinthe and east of Three Rivers and for northern Ontario and the Western provinces, that the flint varieties be grown most extensively. Some of the best of these early varieties are Longfellow, Compton's Early, Angel of Midnight, North Dakota, White Flint and Sandford. In some of these districts

(Continued on page 16)



The First Stage in Profitable Milk Production. A Corn Field on the Farm of Jas. Dallas, Huron Co., Ont.

There is something about a growing field of corn that brings satisfaction to the dairyman's heart. In the sea of waving leaves he sees the promise of plentiful maintenance for his cattle in winter. He knows that, even if other crops fail him, the corn crop is almost a surety. He knows that it returns more nutritious food an acre than any other crop he can grow. Is it any wonder that the acreage devoted to corn is increasing each year? It is truly called "The King of Crops."

April 10, 1913.



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Any or all of them at the best dealer in your town—write for these **Valuable Books**, free. **Attractive Homes—and Guide to Farm Paint.**

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Farmers on Banking

Representatives of the farmer had their say before the Banking Committee of the House of Commons at Ottawa on Thursday last when some of the shady methods of Canadian banks were properly ventilated by representatives of the agricultural press. The most startling charge of all was that made by Mr. Peter McArthur, representing the Farmers' Advocate, when in supporting the argument for a more efficient audit of banks, Mr. McArthur instanced one case where a general manager with the knowledge and connivance of a director had insisted on a borrower in urgent need of a very large loan, making them a present of some tens of thousands of stock in his business as a condition of the loan. Mr. McArthur promised to acquaint the Minister of Finance privately with the facts of the case, and a criminal prosecution may follow.

Mr. George Waldron, speaking for the Farmers' Sun, of Toronto, took issue with our whole banking system. He favoured more purely local banks as against so many branches of the large institutions.

How Mr. Pat Clarke Solved His Biggest Problem in Dairying

(Continued from page 2b)

"Although the manufacturers recommend the use of chloride of lime and they have a purpose in recommending it, for they want to keep down the bacterial count, I have discontinued using it since I find it favors the milk, and there is objection to the smell and taint from the chloride of lime. I keep the rubber tubes in lime water instead. If the machine is properly cleaned the lime water is strong enough. And if it is not properly cleansed of the lime water, and is simply rinsed, then the lime water will not hurt anything and there is no after trouble as with the chloride of lime."

As suggested earlier in this article it took a great deal of persuasion to get Mr. Clarke to adopt the Mechanical Milker. How sorely he was in straits and required this machine to solve the serious problem confronting him, may be appreciated from the facts that Mr. Clarke ordinarily kept 12 men; six of these he was obliged to discharge at one time on account of their disgraceful conduct while under the influence of liquor. With these six men sent off the farm at one time, and being unable to get help, close as he was to Ottawa, and this being in the summer time in the midst of haying, there were several weeks, during which he was not able to have a team hooked up, and as a consequence many acres of his hay had to be allowed to rot in the field and a considerable acreage of oats he was not able to harvest. It should not require any such a situation as the foregoing to convince other dairymen, who can use Mechanical milkers, that they should install the machines, for now they have the benefit of Mr. Clarke's experience and of a great number of other progressive dairymen who have installed Mechanical milking outfits and from whom advice can be had as to the great success of Mechanical milking.

One of these latter, and who is well satisfied with the B-L-K Mechanical Milkers, is Mr. L. D. Slater, whose farm is not very far from Mr. Clarke's. Mr. Slater had been obliged to make a trip to California on account of his health and was not at home at the time of our visit. We inspected his stable, saw his Mechanical Milkers, and talked with his foreman in charge. Nothing but praise was given by the foreman in favor of Mechanical milking. Some 70 head of cattle were in the stable and 50 of the cows were milking. Mr.

Slater is apparently well satisfied with the machines, which were saving him two men over what would otherwise be required. Four units capable of milking eight cows at a time are being used in this stable. The milkers are washed thoroughly each morning, and water is run through them to

A Paper for Beekeepers

The officers of the Ontario Beekeepers' Association have recently completed arrangements with the publishers of The Canadian Horticulturist, a companion paper of Farm and Dairy, for the publication of a special Edition of The Canadian Horticulturist and Beekeeper, and which will be the official organ of the Ontario Beekeepers' Association. The paper will be published monthly. The first issue will appear May 1st. It will contain many articles and illustrations of deep interest to beekeepers and fruit growers. The subscription price of this new paper will be \$1 a year.

All who are interested in beekeeping and fruit growing should subscribe for this paper. Subscribers can also obtain The Canadian Horticulturist and Beekeeper with Farm and Dairy for \$1.50 a year.

cleanse them at night. The cows had taken kindly to the machine. There were no sore teats when the machine was being used, and had the manufacturers themselves been giving us their testimony it could not have been more in favor of Mechanical milking—C. C. N.

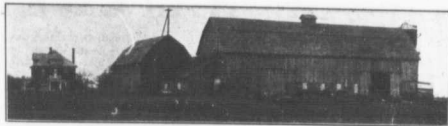
Killing Animal Lice

The killing of lice on animals is too often neglected. It is a very common thing, for instance, for colts and calves to be lousy. They rub and scratch and bite and itch and suffer, wasting much of their energy which should be used for better purposes. It certainly might better be used to graze and development than into fighting lice. Joe Wing of The Breeders' Gazette says: "You cannot afford to feed lice and your stock in the same pen." In other words, to make a profit on live stock you have got to keep your animals free from vermin. Unaided they cannot get rid of these pests. But with a little well directed effort on your part you can free them. Perhaps the most approved method now in use by stockmen and farmers generally is to use Zenoless. That famous little booklet, "Veterinary Adviser," contains sixty four pages and is published by the manufacturers of Zenoless, and we want every reader of this paper to have a copy of it. It is not worth anything more than a won't cost you anything more than a postage stamp to send for it, and if you mention this paper it will bring the book at the quicker. It is a good little booklet for animal owners to consult on many other things besides ridding their stock of lice. All you have to do to get the book is to let the publishers know you want it. Write quickly to the Zenner Disinfectant Company, 308 E. Sandwich St., Windsor, Ont., and they will do the rest, and you won't be sorry.

Around the World via "Empress of Asia"

The "Empress of Asia" will leave Liverpool June 14, calling at Madeira, Cape Town, Durban, Colombo, Singapore and Hong Kong, arriving Vancouver August 30th. Vessel remains at Vancouver for 14 days at Hong Kong. "Rate for entire cruise, \$639.10." Exclusive of maintenance between arrival in England and departure of "Empress of Asia" to Hong Kong. Particulars from Canadian Pacific Agents or write Mr. G. Murphy, District Passenger Agent, Toronto.

The Story of How a Young Canadian Has Achieved Sudden Fame Through His Record Breaking Dairy Cattle



WHAT do you think of this for a made-in-Canada world's record? A junior two-year-old heifer, Canadian-bred and Canadian-owned, has under official supervision produced 19.07 lbs. of butter in one week almost 12 months after freshening. Mr. W. E. Mason, Tyrrell, Ont., is the owner of this wonderful heifer. Even in this age when breeders of pure-bred dairy cattle are improving the producing ability of their cattle so rapidly, "that the announcement of one world's record is hardly dry on the paper before another greater record is ready to be heralded throughout the land," this record is altogether phenomenal. Another of Mr. Mason's Holsteins, a senior three-year-old, has just established two Canadian records, she producing more butter in one year than any other senior three-year-old entered in the Canadian Record of Performance test, and also for her credit more milk and butter-fat made eight months after calving than any other Canadian cow in her class. Hearing of the great things that Mr. Mason is doing with his Holstein herd, one of the editors of Farm and Dairy recently visited his Norfolk county farm and inspected his champions.

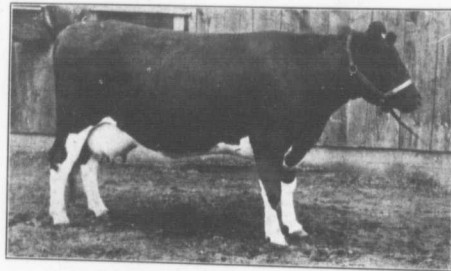
We were most interested in the junior two-year-old, Ardella De Kol Tensen. Mr. Mason started her on her Canadian record-making seven-day test just 357 days after entering her yearly test when she was five months gone in calf.

She produced 304.3 lbs. of milk, 15.26 lbs. of fat and 19.07 lbs. of butter. Her milk tested up to five per cent butter fat and over. The only junior two-year-old with a record comparable with this one is Woodcrest Rifton Lassie, holder of the previous world's record of 383.9 lbs. of milk and 14.79 lbs. of fat. This record, however, was made just 250 days after calving. The highest record made by a junior three-year-old 350 or more days after calving is that of Miss Pieterje Johanna De Kol with 296.1 lbs. of milk and 10.845 lbs. of fat. It will thus be seen that Mr. Mason's heifer has produced almost 50 per cent more milk and fat than has any other heifer in her class, making her record under the same conditions, and reported in the last American year book. Outside of the matron cow classes the only eight months after calving record to compare with that of Ardella is that of the Kol Mutual Countess, with 19.2 lbs. of fat, made 295 days after freshening in the junior three-year-old class. In Record of Performance Ardella produced 16,704.6 lbs. of milk and 668.3 lbs. of fat, or 1.8 lbs. more fat than Jennie Bonerges Ormsby, the champion of the class. Unfortunately Ardella will be a few days late in calving to qualify. For her seven-day records Mr. Mason had two inspectors on hand to certify to the correctness of the great re-

ords he fully expected to make—and did.

HIS COLLEGE TRAINING

Mr. Mason is a Guelph college man. He always intended to be a farmer, and when his father gave him a chance to attend the Ontario Agricultural College, he was quick to avail himself of the opportunity. He spent two years at the O. A. C., Guelph, studying the science of agriculture, which he has since been putting into practice. On leaving college in 1902 he immediately assumed full charge of the home farm, comprising 150 acres of the best soil in Norfolk.



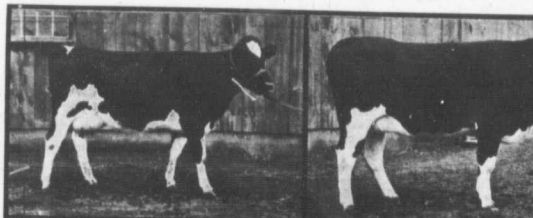
A Grand, Good Cow and Champion Producer in Her Class

In this cow, "Daisy Tensen Pouch," we have embodied the ideals of her owner. Mr. W. E. Mason, Tyrrell, Ont. Note her deep, strong heart girth, her substance in capacity. These are the points that characterize all the animals in Mr. Mason's herd. In R. O. P. under adverse circumstances, she produced 19,630 lbs. of milk and 598 lbs. of fat, freshening within 43 months. In an official test 10 months after calving she made 297.9 lbs. milk and 10.84 lbs. butter. Both of these records are greater than all previous records made by a senior three-year-old in Canada.

Photos by an editor of Farm and Dairy.

Mr. Mason always had good dairy cows, and on three occasions his herd of grade Holsteins took high in the Herds competitions conducted by the Western Ontario Dairymen's Association. In the same district were several pure-bred Holsteins, and these Mr. Mason soon saw were better producers than the best of grades. An uncle of his had two big, strong cows of the Tensen family that were remarkable milkers. They looked so good to Mr.

early breeding, there being no senior yearling milkers in his herd except by accident. As a result his cows are all great, large animals, splendidly constituted, great feeders and as the records that they are making prove, they are milkers that are hard to beat. Mr. Mason has for years had evidence that his ideas were right,—this from the size of his income from his dairy herd, but he never knew just what phenomenal



Typical Representatives of a Herd that has Achieved Sudden Fame

For years W. E. Mason, Tyrrell, Ont., has been keeping big, strongly constituted cows and great milkers but did not start official test work until this last year when he entered to oblige a neighbor. Result, two two-year-olds produced 19.07 lbs. butter in 7 days, 357 days after calving. (Almost 50 per cent greater than for a two-year-old.) In 12 months she produced 16,704.6 lbs. of milk and 668.3 lbs. of fat. How is that fact she is a big strong heifer and will make an exceptionally large cow. As a matter of fact she is a small one at present, consisting of 11 milk cows and some young stock. Two of the cows are half-sisters to her own champion heifer, and almost all of them are bred along the same lines. The pick among the young stock is Daisy's heifer, a yearling, looking as big as a two-year-old. To match his

—Photos by an editor of Farm and Dairy.

producers he had until he started into official test work a year ago.

NO PREPARATION FOR TEST

Mr. Mason might not have been in official test year yet had not one of his neighbors wished to enter some cows in the Record of Performance and induced his friend Mason to go in with him in order that there would be enough cows in the neighborhood to make it worth the while of an inspector to go to Tyrrell. He was not prepared for record making. His two-year-old heifer was only in fair shape and his senior three-year-old, Daisy Tensen Pouch, had been dry only three weeks before freshening. She calved on March 20th, 1912, was started in her yearly test and dropped the next calf in just 10 days over the 12 months. In addition, she was very thin. Mr. Mason soon found, however, that in these two cows he had something worthy of the best attention, and he did his best from then on through judicious and careful management to make up for the handicap under which they started.

Daisy closed her year with 16,704.6 lbs. of milk and 668.3 lbs. of fat to her credit. This gives her a margin of 3,264.8 lbs. of milk over Jennie Bonerges Ormsby, but she is somewhat less the latter cow in fat. This is the greatest milk production credited to any senior three-year-old in Canada, and only two cows in America recorded in 1911 and 1912 in her class have made more milk. Ten months after calving Mr. Mason gave her a seven-day test, in which she produced 247.9 lbs. of milk and 8.68 lbs. of fat, equivalent to 10.84 lbs. of butter. The highest senior three-year-old record reported in the last Canadian year book is 7.6 lbs. of fat. Mr. Mason's heifer being champion by a good margin. Her test, however, will not be reported as Mr. Mason did not realize in time what a grand animal he had, and she was not subjected to an R. O. M. test in the first part of her lactation period. As will be seen by the illustration on this page, she is a grand big cow, and in splendid shape to make a still greater record in her next lactation period.

A COMING CHAMPION?

Another animal in Mr. Mason's herd of which we will hear in the near future is the two-year-old heifer, Nina Tensen, illustrated on this page. She weighs 1,410 lbs., and is in splendid condition for testing. She is closely related to Daisy, and on the sire's side is a sister to Ardella. She is the most promising prospect for record making that we have seen in a long time. Mr. Mason's herd is a small one at present, consisting of 11 milk cows and some young stock. Two of the cows are half-sisters to his own champion heifer, and almost all of them are bred along the same lines. The pick among the young stock is Daisy's heifer, a yearling, looking as big as a two-year-old. To match his

CYCLE HATCHER



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BUY WHITE ORPINGTON
and R.C.W. Leishers Eggs for hatching from prize winners. Price, \$1.50 per 15. Also Leishers' Cockerels.
Geo. J. Northcutt, "Clarens Bras," Salina, Ont.

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To-day there are not enough Canadian CHICKENS or EGGS to go around. Thousands of chickens and hundreds of thousands of dozens of eggs are being shipped into Canada from the United States and other countries to help meet the demand.

Yet there is a shortage! Eggs are commanding a tremendous price—chickens are worth dollars.

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You need this book. It will be mailed free. A post card will bring it.

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high quality females and secure stock up to his ideals in conformation, Evergreen's Teaks, a son of Evergreen March, has recently been added to the herd. This sire possesses the great constitution and substance that Mr. Mason demands that his stock must have. His dam, Evergreen March, and her sire, Mercedes Teak, were both large animals and of show conformation. Evergreen March has the following records: 110.8 lbs. of milk in one day; 730.5 lbs. in seven days; 2,988 lbs. in 30 days and the great record of 20,107.5 lbs. of milk in one year. Notice also her great butter records of 29.45 lbs. in seven days, 122.25 lbs. in 30 days and 1,128 lbs. in 365 days. The sire of Mr. Mason's bull has tested daughters with records as high as 19.18 lbs. of butter in seven days at four years old. Evergreen's Teak himself is a sire of daughters of merit, one of them, Agnes Evergreen, producing 330.3 lbs. of milk and 17.83 lbs. of butter in seven days as a two-year-old. At three years old she produced 509.3 lbs. of milk and 21.34 lbs. of butter. The point that Mr. Mason most likes about his new bull is that he combines, along with a producing ancestry, that are also most desirable in conformation, substance and constitution.

These records which Mr. Mason has made did not happen. He has worked consistently to improve his herd from the standpoints of conformation, constitution and the production of high-testing milk. He is a liberal and skilled feeder, and his great records are but natural results following on right conditions. Mr. Mason himself is young (just entering his thirties), energetic and enthusiastic. He brings to bear on the record work, which he is now entering in earnest, not only a splendid practical experience, but a knowledge of scientific principles gained in his college course. "You can't say too much about the advantages of a couple of years in an agricultural college," remarked Mr. Mason. "I believe that the two years that I spent at Guelph placed me just 10 years ahead of where I would have been with the farm training only." Another remark that Mr. Mason dropped that shows the kind of man he is, was, "I like to read. A man can't read too much. When reading one is always getting new ideas." This marks the student.

We would like to tell more of our visit to Mr. Mason's farm, of his methods of feeding, of his splendid home with all its comforts and conveniences, of his experience with the split-log drag and the numerous other points that mark the progressive young farmer that he is, but space this time does not permit. We are sure that Mr. Mason is one of the coming men in Holstein circles; indeed he has already arrived! With his fine enthusiasm, his ability as a student to study out all of the things that come his way and with his correct ideals of Holstein type, he has in him the things that make for success. It will pay you to keep in touch with him and watch for the great things you may hear from him and the stock he may have for sale.—F. E. E.

The Dairy Commissioner, Mr. J. A. Buddick, announces that Mr. H. W. Coleman, who has been recorder for the Lanark Dairy Record Centre during the past two years, has been promoted to the position of supervisor of cow testing for the Province of Ontario. Mr. Coleman has shown special aptitude for this kind of work, and has made a success of the Record Centre in Lanark. Mr. Joseph Burgess, who has been supervisor in Ontario for several years, will be required hereafter to give more of his time to cold storage work.



A Farmer's Spramotor

The illustration shows a barrel Spramotor. **OUTFIT**, most suitable for farmwork with small orchards, up to four or five acres.

With this spramotor you can keep your apries absolutely clean from scab or spots; keep them free from worms, and make 95 per cent of them first class and salable fruit.

It will be worth your while to spray this year. Remember how badly infested the fruit was last year, and how you could not sell it at a good price because of spots and worms.

We have gotten out at big expense a hand book, telling you all about the insects that affect your apries and other fruit; tells you the sprays to use for each class of the insects, how to mix the sprays and when to apply them so as to do the most good. This book is called

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Spramotors are recognized the world over as the standard and always satisfactory spraying outfit. They are made by the Spramotor Co. which is the only Canadian firm in their line to have an American branch manufacturing in the United States where they have been established for 22 years.

There is a Spramotor made specifically to meet your needs; we will tell you about it when we send you the book.

Write us to-night for your copy of "A Gold Mine on Your Farm." It is bound in convenient pocket size—it is designed to be of great practical value to you. Address me personally—

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and get the quality of wool that will bring the highest price. It is the only machine that can shear the same sheep in 10 minutes that another machine would take 20 minutes to shear. It is the only machine that will shear a sheep in 10 minutes that another machine would take 20 minutes to shear.

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POULTRY YARD

Poultry Education Abroad

Prof. W. R. Guelph, O.A.C., Guelph, Ont.

In studying the educational systems of Denmark, Ireland and England, on my trip to the Old Country last summer, I found that they were most thorough. Education, insofar as it deals with agriculture, is practically the same in system in the three countries. They have district representatives just as we have in Ontario, only they are scattered over smaller areas and hence cover their territory more frequently.

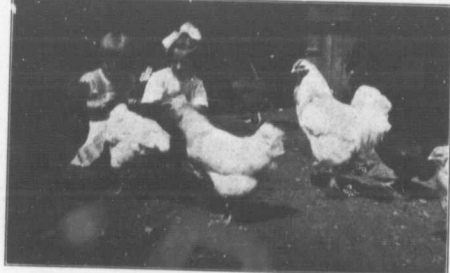
To assist these district representatives in their efforts to encourage farmers to go in for better stock they have breeding stations where a farmer can go to get a dozen of hatching

time in the afternoon or before going to roost. Not being inclined to fill up during the early part of the day is the reason why she can be successfully fed all kinds of grain and fed from a hopper.

THE HOPPER MIXTURE

"Here is the hopper mixture: 300 lbs. bran (local preferred to western), 100 lbs. fine ground corn, 100 lbs. ground oats, 100 lbs. gluten meal, 50 lbs. linseed (oil cake meal), 100 lbs. fine ground or short cut alfalfa clover, 100 lbs. ground beef scrap. I buy the best quality of coarse beef scrap, then grind it fine for mixing with mash.

"During the winter months I stick cabbage and mangels on nails on the wall at just the right height for the hens to peck without having to over-reach to get at it. As soon as the grass has enough growth in the spring I run a lawn mower over it, with carrier attached, and feed the hens all of the clippings they will eat. I would not recommend the above meth-



Pure Breds All Round

The illustration, from a photo taken by H. Gross, Peterboro Co., Ont., in his own poultry yard, shows the interest that his children take in the poultry that are winning first places at such leading poultry shows as those held in connection with our Winter Fairs at Guelph and Ottawa.

eggs for a dozen of his own eggs and 25 cents. Where there are no breeding stations they select a good farmer and supply him with a pure-bred flock on the understanding that he will supply other farmers with hatching eggs at a low price.

How Mr. Marrison Feeds

To keep 60 Leghorn pullets in a 14 feet square and allowing them no exercise except what they get in the pen and at the same time securing a splendid egg yield, is the feat that has been performed by Mr. R. A. Marrison, Cataragui, Ont., and described by him in the Poultry Numismatist of Farm and Dairy. So great was the interest aroused by Mr. Marrison's novel methods, that Farm and Dairy has received several letters requesting more information, especially about the feeding of these birds. Mr. Marrison replies to these enquiries as follows:

"That pen of 60 S. C. W. Leghorn hens were fed from a hopper, with the following different grains: Wheat (milling), corn (whole), oats (heavy, 47 lbs. to the bushel), buckwheat, coarse beef scrap (best quality), granulated dry bone, crushed oyster shell and grit; also four handfulls of millet scattered on the floor every forenoon. Each feed occupied a separate compartment in the hopper.

"The following mixture is moistened with hot water, and fed in troughs early every morning. Enough of this is given to last until about roosting time. Some say—give the hens only what they will eat up clean in 20 minutes. That plan would not give the S. C. W. Leghorn much of a chance as she is not inclined to fill her crop with anything until some

od of feeding, to be practiced, with any other than the S. C. W. Leghorn hen.

House for 100 Hens

What style and size of house would you be advisable?—J. C. G., Prince Co., P. E. I.

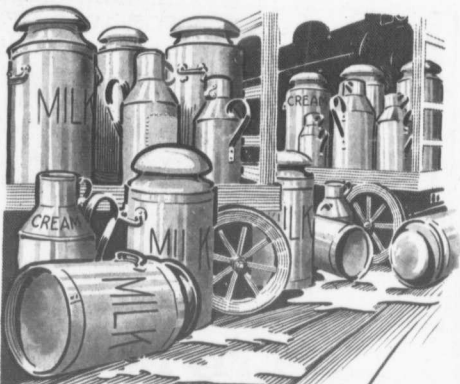
An "A" shaped, open front house such as has been frequently described in Farm and Dairy is the ideal house for the farmer. A house 20 feet square will furnish accommodation for 100 hens. We would suggest that the front be three feet high, facing south or southeast and with wire netting only. Such a house may be built eight feet to the ridge and four feet high at the back. The door and nest box at the back. The sides and back of the house should be wind-proof in order that there will be no draughts on the floor.

Potatoes as Green Food

What is it advisable to feed poultry, especially turkeys, potatoes to take the Ont.

Potatoes fed raw make a most desirable green food for poultry. It would be advisable, however, to first remove the skins, which are not appreciated by the fowl. This operation is comparatively easy where the potatoes are first steamed and then skinned.

Is it a Record?—On March 6th I set 117 eggs under nine hens, and on March 27th I took off 106 live chickens. Who can beat that?—A. A. Farewell, Oshawa.



IF ALL YOUR MILK CANS LEAKED, WHAT WOULD YOU DO ?

No need to ask that question more than once. If your milk cans leaked you would soon stop the leaks or buy new cans. You need no arguments to convince you that leaky milk cans would mean a distinct loss of money.

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A RENFREW HANDY TRUCK SCALE STOPS THE LEAKS

It pays for itself several times every year through what it actually saves you in selling and buying. No matter what anybody says you cannot afford to run your farm without a RENFREW HANDY TRUCK SCALE.

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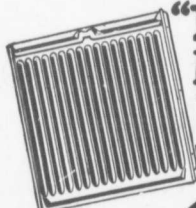
The Development of Jack and Tom
 (Continued from page 8)

There is nothing particularly easy or entiring to the average man in handling a cow for 12 months in official test, but the vision that Jack kept before him of a World's Record for his heifer, made the seeming discomforts disappear and brought that spirit of contentment and satisfaction that always comes to the one that "does not weary in well doing."

What is the secret of happiness anyway? Harmony. Where all are so busy "doing things" that none have time to find faults with trifles. Thus you will find it. If chores on the dairy farm seem very monotonous

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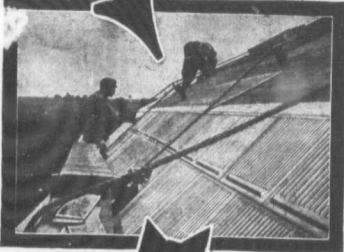


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"YOU can make your barn fire-proof, and cheaper than a wood barn, by using my 'George' Shingle and my Galvanized Corrugated Iron on roof and walls. This is the new way to make barns economically."



A Monument to Intelligence

A silo such as that of John Dickie, Brant Co., Ont., seen herewith, is a monument of the intelligence of the owner. He knows a good thing when he sees it. —Photo by an editor of Farm and Dairy.

and disagreeable, due to having no higher motive than the necessity of getting them done, try for once the plan of lifting those unpleasant duties out of the commonplace by aiming to do them in the best possible way, a little better than anybody else. Get the boy imbued with the thought that his driver is the most handsome one in the district and it won't be commonplace work to him to keep it groomed. Imbue the boy with the thought that his cow can be at the top of her class if given the necessary attention and weighing the milk or any other extra work will not prove tiresome or monotonous to him.

ITS ALL IN THE GAME
 All boys like to play. The pleasure derived is in proportion to the spirit we put into it. Men are but grown-up boys and all like to be on the winning side. As long as we're "doing things" we don't mind the bumps. Dairy farming along the line of Records is one of the best and most interesting games we can engage in today. If we play it hard we win big. The seeming objections that loom up like mountains to the chicken hearted, disappear, fade away, before the enthusiasm and gimp of the winner. Brother Dairy Farmer, for the sake of yourself, of your boys and any financial or social benefit you may derive,

Be not as dumb driven cattle, Be a winner in the strife.
 What is the vital lack in dairy farming today? Men. Enthusiastic men, men who have visions not dreamers, happy men, men that are ready to earn what they get, growing men. These will compensate in any business. How can we get them? Develop them, entuse them, educate them and you have them.


"Hand labor costs so much, and lumber is so poor and high-priced now-a-days, that it pays to use my labor-saving metal specialties. You build a barn that is lightning-proof, fire-proof, strong, warm, dry, as compared with wood. In nearly every case, you save actual money. As compared with wood, you save all after-cost for repairs and paint. My barn doesn't need these things."
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"I SHOW above how simply my big 'George' Shingle is laid on a barn roof. Only 2 men are working. Yet, a single 'George' Shingle equals the laying of 12 cedar shingles. This labor saving more than compensates for the extra cost, and my roof will be good for 100 years on this barn. Learn why in my book."

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COMMUNITY BREEDING OF AYRSHIRES IN CHATEAUGUAY

Gilbert McMillan, Chateauguay Co., Que.

WHAT has community breeding in Ayrshires done for Chateauguay? Well, to use a slang expression, I would say simply, that it "has put it on the map," or in other words it has made Chateauguay the cynosure of Canadian stockmen. It has done even more material things than this. It has built barns and comfortable homes, inaugurated more up-to-date methods of farming, made farmers take a pride and respect in their vocation; in fact, made ordinary farmers business men. Briefly, this sums up the situation, but for the sake of making this more convincing, we will amplify these statements a little.

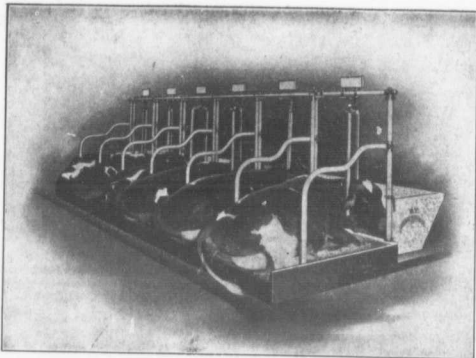
Just when Ayrshire breeding started in this district I am not sure, but as it is largely settled with Scotch, I think we are safe in assuming that the movement dates back to the time of the first settlers. We find records of Ayrshires from Howick, being among the winners at the Columbian Exposition in 1893. In fact I believe

dairies furnishing milk to New York city, pay regular visits to purchase cows, one large concern taking 214 head last year in one consignment.

Now, that the benefit of its reputation to the district is being appreciated, new men are joining the pure bred ranks rapidly. This is not confined to Chateauguay alone, but includes the entire district of Beauharnois, until today I can name off-hand 50 men who are breeding pure bred Ayrshires. This, like every other progressive movement, gains impetus as it grows and from now on we may safely expect to see a more rapid increase. When one stops to consider the benefits derived from a community spirit like this, its success is not hard to understand.

The large number of cattle to be found in a small area is one of the most potent factors in making sales, as the variety to choose from is greater, and the easy assemblage of the purchases afterwards is a big inducement to buyers from a distance.

Photo by an editor of Farm and Dairy.



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BT Equipment saves half the work and time of cleaning the barn—and makes the barn twice as easy to keep clean. It saves half the work and time of feeding, watering and caring for the cows. It saves feed, helps prevent tuberculosis, abortion, ruined udders and other cow diseases and ailments. It keeps the cows healthier, so they produce better milk and more of it. Those are facts! They have been proved hundreds and hundreds of times by dairymen in all parts of the country—dairymen who are now making those savings and extra profits by using BT Sanitary Barn Equipment. And we want to show you how your barn can be made modern—how you can save half the work and time—how you can greatly increase your profits.

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Gentlemen,—Please send me without charge your book on Steel Stalls, and also your book, "How to Build a Dairy Barn." I have answered your questions below.

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 Send us a rough pencil sketch of the floor plan of your barn, indicating dimensions and number of stalls to be bonded, and we will send you a plan for building an up-to-date barn, free of charge.

In Chateauguay, where Community Breeding has Long been Practiced

Without any definite breeding organization, but with a fine friendliness towards each other, the farmers of the Chateauguay district of Quebec have worked together to make their district the most famous breeding ground for Ayrshires on the American continent. Many fine Ayrshire herds, such as that of Mr. J. W. Logan, here illustrated, may be visited in a drive of an hour or two. In an adjoining article Mr. Gilbert McMillan, one of the breeders of the district, tells of what community breeding has done for Chateauguay.

they were from the same "Burnside" since made famous by the energetic "Bob," (R. R. Ness.) At that time they were hardly in the lead, but show records, from then up till 1900 show that Chateauguay was gradually gaining ground as an Ayrshire centre.

GEOGRAPHY IN THE MAKING

The Pan American Exposition in 1901, however, started in earnest the putting of this district on the map, an operation in which there has been no let up ever since, as the records of every exhibition of importance held in this country will testify. From time to time, small importations had been made previous to 1904, but since then importations have been an annual event. In some seasons, three or four different consignments have crossed the Atlantic to strengthen the herds of the district, so there is small wonder that the section should forge to the front. While we do not aim to make special mention of individuals, as this is contrary to the real community spirit, we must say in passing that the pluck and energy of R. R. Ness has been largely responsible for the success of this idea.

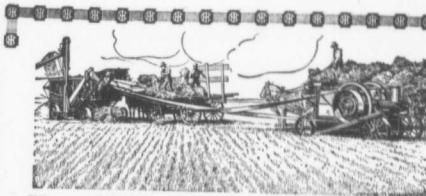
It is not only, however, in its reputation for pure bred that the district has become famous. Its grain cattle now command attention, and men who did not feel justified in founding pure-bred herds, but who held on consistently to Ayrshire bulls, are certainly reaping the benefit, high grades now selling for prices that a few years ago would have gratified the owners of pure bred animals. So great has the reputation of the district become, that cow buyers for the high class

ment to buyers from a distance. Today a buyer can come to Chateauguay and, at practically no expense; (he won't even need a livery, every breeder being willing to drive a stranger to visit the neighboring herds), can review from 1,000 to 1,500 head of Ayrshires in three or four days. Just what this means it takes a man who is in the business to fully realize.

THE COMMUNITY SPIRIT

No local club has ever been formed, but the breeders take an active interest in the Canadian Ayrshire Association, and have given three presidents and a secretary to that organization within the past six years, which is something of a record in itself. There is no lack of "esprit de corps" among the breeders, every man placing the welfare of the breed and the reputation of his district before his own material interests. This in no small measure, is accountable for the success attained, and these are really the fundamental principles necessary for the success of community breeding. Unless all petty selfishness and jealousies are kept in the background, no district can ever hope to gain a name that will become national, or international, as has been the case with Chateauguay.

The greater the udder development of a cow the greater its capacity for milk production. This development can only be controlled by breeding and then by feeding up to the capacity. General care and comfort also aid in reaching that capacity.—J. G. Taggart, B.S.A., Frontenac Co., Ont.



You Will Need Extra Power

WHEN you buy your engine, get it big enough to do more than your present work. If it's an IHC engine it will last a long time. Your farm work is bound to increase in volume. Very likely you can save yourself the price of another engine four or five years from now, by getting an engine a size larger than you need now.

Over-speeding and straining harm any engine. There is one correct speed for each IHC engine, a speed at which the parts balance and at which the engine runs without harmful vibration. When you buy an engine powerful enough to handle your work easily while running at the correct speed you add years to its life. Get your engine big enough and buy an

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An IHC oil and gas engine will deliver 10 to 30 per cent above its rated horse power when occasion requires, but it gives the longest service when carrying a normal load. All parts are carefully, accurately ground and perfectly balanced. The best material obtainable is used. Combustion is perfect and the maximum power is secured.

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The question of feed is as much an economic one as any other one involving profit or loss. You cannot decide the question off hand. It is a question of scientific feeding. Every modern and up-to-date farmer knows the importance of chemical values with reference to soil, manure and feed.

You could almost starve a cow to death on a pure heat-forming ration, or reduce your milk output to a minimum on a bone or muscle building one.

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It is absolutely pure and relatively the cheapest, healthiest and most concentrated form of feed obtainable. It mixes well with all kinds of feed, including bran, shorts or corn meal. Cheap coarse fodder containing little or no nutriment can be converted into good feed by a judicious mixture of "Maple Leaf" Oil Cake Meal. Feed it to your cattle, horses, pigs, live stock of all kinds, and reduce your feed bill.

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The Feeders' Corner

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

Feed for Pregnant Cows

I have two registered Holstein cows, one due to calve in about six weeks and the other in about 10 weeks. They are just dry. What would you feed from now until the calves I have no silo, but have corn stalks, clover hay, roots, etc.—C. A. Durham Co., Ont.

The pregnant dry cow should have such feed supply as will allow her to attain without difficulty a good body condition. She is then in a better condition to produce a strong healthy calf and to make a good milk record than if she calved on the thin side as most of the cows of the country do. Grass is the very best feed for this purpose, but in your case other feeds will have to be resorted to. For roughage silage, roots, clover, hay and fodder corn without ears are all desirable. Bran, middlings, oats and a little oil meal should prove most satisfactory for concentrates. From now until a day or two before calving we would recommend a ration of 30 to 40 lbs. of roots, 12 to 16 lbs. of clover hay and as much of the corn fodder as the cows will eat readily.

The grain feed recommended are all safe and of a cooling character. The amount to feed will depend entirely on the cow herself. She should be given enough to put her in good condition, but not make her butcher fat. Some cows, in connection with the roughage mentioned, would find three or four pounds of a mixture of those grains a day sufficient while others would do as well on from 10 to 12 lbs. The herdsmen must study the individual cow. Immediately before calving the supply of feed should be relatively small.

Feeding Queries

(1) Should oats be crushed or ground for dairy cows? (2) In what quantities and in what proportions would you advise feeding bran and linseed meal to yearling calves, their other feed consisting of timothy hay and two gallons of skim-milk a day. Could a little corn meal be introduced in the other ration, and, if so, how much?—L. H. P. Carleton Co., Ont.

We prefer crushed oats to ground, in that the cow will masticate crushed oats much more thoroughly and like bran, they lie lightly on the animal's stomach and are, we believe, more easily digested.

Yearling heifer calves getting two gallons of skim milk a day are fairly well supplied with protein in the milk ration alone and we believe that more economical grain feeds can be had than bran and linseed meal. Curtis of the Iowa Experimental Station writes of tests that he has conducted with various feeds for heifer calves: "The results of all investigations made at this station indicate that it is not only unnecessary but poor economy and poor practice to use a highly nitrogenous product like oil meal in combination with separator skim milk." In this case a combination of oat meal and corn in equal quantities could be fed to better advantage. A little linseed meal might be added because of its value as a conditioner. Cotton seed meal if fed at all to young cattle must be fed in very small quantities and to young calves not at all.

Two-year-old heifers with calf should receive enough feed to allow them to attain a good body condition, but should not be excessively fat. Grass is the very best feed for this purpose, but where stable feeding is necessary the food should be of a cooling character. Silage, roots, clover and hay are all desirable for rough-

age. Bran, middlings, oats and a little oil meal should prove satisfactory for concentrates. Heating food such as corn meal or even cotton seed should not be fed to pregnant heifers.

Ration for Dairy Cows

What do you think of the following ration for fresh milk cows? Silage, 35 lbs.; timothy hay, 15 lbs.; a mixture of 150 lbs. bran, 100 lbs. oats, 50 lbs. linseed meal and 100 lbs. cotton seed meal fed one pound to every 100 pounds milk produced.—L. H. P. Carleton Co., Ont.

For a cow producing 20 to 30 lbs. of milk a day the ration mentioned is deficient in almost every particular.

Feeding standards call for 29 lbs. of dry matter, two and one-half pounds of protein, 13 lbs. of carbo-hydrates and one-half a pound of fat or its equivalent, and this standard agrees closely with the findings of practical dairymen. The ration mentioned for a cow giving 28 lbs. contains less than two pounds of protein and only about 13 lbs. of starch material, that is carbo-hydrates and fat. The weakest point in the suggested ration is the timothy hay. If clover could be substituted for the timothy and 15 or 16 lbs. fed instead of 10, the ration would balance fairly satisfactorily. For large cows 40 lbs. of ensilage and 15 lbs. of clover hay would not be a bit too much of roughage and for a heavy producer a pound of grain to three and one-half pounds of milk would not be an oversupply. If clover cannot be secured we would advise that the amount of timothy hay fed be increased and that a small portion of corn meal be added to the grain feed. The lack of clover hay necessitates heavy grain feeding for fresh cows and hence expensive feeding.

Some Facts About Cattle Lice

B. Blanchard, Hants Co., N. S.

It often happens that cattle are lousy at this time of year and unless some suitable remedy is applied to rid them of the lice considerable loss results. It is a big mistake to allow lice to work on cattle. Lice exact a terrible toll and it comes out of the pockets of the owners. I used to think that it did not make very much difference and although the young cattle often were lousy at this time of year, I thought that they would soon get over it when they got out on to grass and had a chance to brush themselves. Now I know better and I go after the lice promptly as soon as I find any about the cattle.

I have tried a great many different remedies for lice on cattle. One preparation that has always given me good satisfaction and which I like a little better than any of the others is Zenoleum. Recently I yoked an oxen that I keep for working in my orchard got very lousy and I went after them with the Zenoleum and had them cleaned up in short order. I simply took about a gallon of water and poured about 12 tablespoonfuls of Zenoleum into it as recommended by the firm and I applied it to the oxen with a sponge. I took good care to wash every part of the body and to see that the coat was drenched and wet right through to the skin.

In a couple of weeks I found some more lice on them, these having got on to them probably from the stalls and also from the nits hatching, the nits of course not having been killed by the first application. No matter what preparation is applied on cattle for lice, the second application should be made in about 10 days or so to catch the lice hatching out from the eggs.

When we consider how much it costs to keep cattle in good condition and to make them fat, it is so you will realize it is a very poor proposition to allow lice to feed on them.

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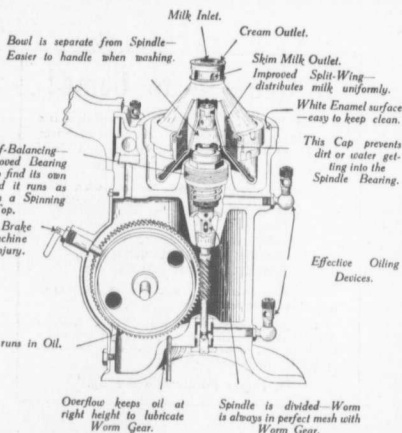
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Are always a good buy since I price my cattle reasonably and so that they will make you money.



The young stuff from my great bull **Prince Hengerveld of the Pontiacs** is turning out remarkably well. You have been told something about it lately in my advertisements.

I intend to keep right on testing this stock as it comes along and thus make it increasingly valuable. Thus there is this decided advantage to you when you buy Holsteins from The Manor Farm.

You may yet reserve one of the best things in my coming crop of bull calves from **Prince Hengerveld of the Pontiacs**, and out of an A.R.O. dam. Enquire about it now.

Remember there are over 100 Holsteins in my herd for you to choose from. Write me of what you want.

GORDON S. GOODERHAM

The Manor Farm, Bedford Park, Ont.

Potash for all Crops. On all Soils.

This most important Plant Food may be obtained in the highly concentrated forms of

Muriate of Potash and Sulphate of Potash

from all leading Fertilizer Dealers and Seedsmen.

Write us without delay, stating what crops you raise, and we shall send you valuable literature, prepared by recognized authorities, on the important subject of Fertilizing.

German Potash Syndicate

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1106 TEMPLE BUILDING, TORONTO

"Bissell" rollers are a specialty

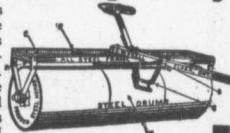
The "Bissell" Rollers are built by men who have made a life study of this work, and are **SPECIALISTS IN THE BUSINESS.**

Search as you may, there are no such perfect Land Rollers on the Continent as the "Bissell." Make a note of these points and compare the "Bissell" Rollers with any other Land Roller in America. If the "Bissell" does not convince you that it is the best Roller, then don't buy, but you ought to know the facts, and it will do you any person good to make the comparison. No need to send special travellers to sell "Bissell" Rollers. Practical farmers see the difference and prefer the "Bissell."

The 18 cold rolled anti-friction Bearings $\frac{1}{2}$ inch thick with lathe cut ends, held in the one piece Malleable Iron Cage, is a single point placing the "Bissell" Roller away ahead.

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| Size | Price each | 50 Tags |
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| Cattle | 75c | \$37.50 |
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No postage or duty to pay.
Cattle also with name and address and numbers; sheep or hog also with name and numbers. Get your neighbours to order with you and get better price. Circular and sam'le free.
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INKERMAN DAIRY FARM

Offers 18 HEIFERS, rising 1 yr. old, 18 HEIFERS, rising 2 yrs., 6 Bulls, rising 1 yr. old, sired by son of PONTIAC KORKDYKE Also Bull and Heifer Calves. Furnished in pairs not akin. Write, phone or come and inspect.
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Frankly, Sir! You'll agree with us that it's a pretty good place for your ad. to be in Farm and Dairy—and especially so in one and all of our great Annual Specials like this one.

There are 5 more in this 5th Annual Series, 1913.

Farm Improvement May 8th,
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Exhibition Special August 28th,
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Breeders and Xmas December 4th

It'll pay you to make a note of these and write us now about your reservation.

All clean, honest, ABSOLUTELY GUARANTEED advertising—mighty good company for your ad. to be in going out to prosperous Dairy Farmers exclusively!

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MONEY IN POTATOES



Don't let any of it slip through your fingers

If the average crop is good enough for you, you are going to miss the big profit on your potatoes. The extra bushels are what count. With potatoes at \$1.00 a bag they are gold. Don't let them get away from you.

You should get 240 bushels to the acre. And you can if you start in early enough. Are you going to let bugs fly away with your profit? Are you going to sit down and let weeds and blight get in their work?

At the present high prices, the average yield of 120 bushels is not enough. It will net you \$48.00 to the acre over and above

expense and labor. But expert potato growers have learned how to double the crop. The extra 120 bushels add \$80.00 per acre to the profit, making a total clear profit of \$128.00 to the acre.

What these men have learned has been gathered together in a little book entitled "Money in Potatoes." This is the best practical potato book we know. It gives you a chance to learn in a few hours facts that it took many years to accumulate.

The \$80.00 Coupon will entitle any bona-fide farmer to a free copy while they last. 16

THE \$80.00 COUPON



The Canadian Potato Machinery Co., Limited
Galt, Ontario

As a Potato Grower I would like to have a free copy of this book.

Name _____
Address _____

A BIGGER, BETTER CROP OF CORN

(Continued from page 7)

White Cap Yellow Dent will give good results. In those parts of Ontario east and north of Toronto and north as far as Muskoka, in the southern parts of Quebec and in the eastern townships Dent varieties such as the Wisconsin No. 7, Leaming and White Cap Yellow Dent will be grown to advantage. Occasionally large southern varieties such as the Mammoth Cuban or Early Mastodon will come to a fair stage of maturity, but they are not recommended. In most cases where these large varieties are grown they have to be ensiled at a stage in their growth where their composition is largely water and their food value very low.

Mr. A. C. Hallman, of Waterloo Co., Ont., has a plan of his own for seeding corn. He seeds a mixture of Leaming and Wisconsin No. 7. In years when seed is poor, as was the case in 1912, at least one of these varieties is sure to grow, and Mr. Hallman is never disappointed in his crop. As he does not grow his own seed, the mixture of varieties is his advantage. Three years ago Mr. Hallman carefully experimented with the two varieties mentioned and Reid's Yellow Dent. He found that the Wisconsin No. 7 was earlier than the other varieties, large in the stalk, well cared and leaved right down to the ground. This is the variety he would recommend to Ontario dairymen.

WHERE MANY GET "BIT"

Many dairymen, outside of southwestern Ontario, where any variety of corn will grow, have got "bit" by following too literally the results of experiments at the O. A. C. Referring to a recent report of Prof. Zavitz' experiments we find that on the Experimental plots the Eureka produced 24.68 tons of green feed to the acre, while the Wisconsin No. 7 produced only 17.92 tons of ensilage. It is well to notice, however, that the Eureka produced only 2.71 tons of ears, while the Wisconsin No. 7 produced 4.67 tons of ears, and would therefore make a much heavier and more valuable silage. Also the Eureka required 104 days to come to full tassel, while the Wisconsin variety was tassel in 80 days. We can provide our dairy cows with water more cheaply than by preserving it in a silo in the form of large southern corn.

When corn is seeded in drills the standard seeding is 12 inches apart in the row, and the plants to eight inches apart in the drill. When seeded in hills, and this method is advisable where the land is particularly weedy, three feet each way should be allowed. It is here that many dairymen are making a mistake that makes it impossible for them to ever grow a good crop of corn so long as they follow present methods. In some sections of eastern Ontario corn rows are invariably only two feet apart, and with the stalks almost as thick in the drill as they will stand. We should not forget that corn takes the greatest portion of its nutrient from the atmosphere in the form of carbon dioxide, hence the necessity of lots of air room. We should also remember that the formation of starch and sugar, which comprises a good portion of the nutrient value of the corn plant, is formed under the action of the rays of the sun, and the process is facilitated by keeping the hills or drills a good distance apart. It is the lack of sunlight that explains the sickly appearance of this thickly seeded corn.

WHEN PLANTING THE CROP

Corn should be sown as soon as soil and weather conditions permit; that is when the soil is warm and dry, from the 15th to the end of May. If no special corn planting machine is

available, the ordinary grain seeder may be used by closing up a part of the seed spots. When planting in hills and by hand cheap hand seeders can be secured that are quite satisfactory. In this case the land must be marked off in three-foot squares, preferably with a corn marker drawn by a horse. Such a marker can be cheaply constructed by taking a six-inch rail nine or 10 feet long and inserting a peg every three feet. To this attach two rude shafts and draw it lengthwise and then crosswise of the field. The amount to seed will depend on its percentage of germination. When sowing in rows and with good seed, 26 lbs. of the firm varieties and 30 lbs. of the dent varieties an acre is sufficient. With hills, 15 lbs. of flint and 18 lbs. of dent corn will meet requirements. The newly planted field may be rolled to firm the soil around the seed, but the roller should be followed immediately with a light harrow. A scheme frequently practiced nowadays is to attach a light smoothing harrow directly behind the roller. It will not greatly increase the draught, and the two operations are done at the same cost as the one.

A few days after seeding, say the third or fourth in warm weather, or the fourth and fifth in cool weather, a run over the field with a slant tooth harrow or a light smoothing harrow will break the crust, destroy any weeds that may have germinated and help warm the soil. When the corn has been up a few days and can be seen distinctly in the rows, it is good practice to run over it again with a light smoothing harrow, passing over the rows crosswise. This operation will not tear up any corn worth mentioning.

DILIGENCE IN CULTIVATION

Eternal diligence should characterize all later cultivation. Once a week is not too often to go over the field with the cultivator. A point of particular importance is to cultivate the whole field within 48 hours of every rain, breaking the crust and reforming it into fine mulch. Until the corn is three feet high the best straddle or two-row cultivator may be used; thereafter the walking single-plow cultivator. And always cultivate shallower and shallower as the season advances until the cultivator teeth penetrate the soil only a couple of inches. The feeding roots of the corn are near the surface, and deep cultivation cuts off this source of supply for the crop. Only in exceptional circumstances should the rows be ridged.

If the proper varieties are selected, if the land is prepared and the crop cultivated according to the instructions given herewith, there is no reason why the average crop of Ontario should not be 15 tons instead of 10 tons. We also believe that the average acreage on our dairy farms could well be increased, perhaps doubled. It will be noticed that corn requires very little hand work. Modern invention makes it possible to cultivate corn in just half the time that was necessary until three or four years ago. Cooperation among neighbors will solve the silo filling problem. Let us go out this year for a bigger, better crop of corn than we ever grew before.—F. E. E.

Cooperative grain cleaning, we believe, will be as common in the future as is the cooperative creamery system. It is increased, and perhaps invest in 40 fanning-mills, and operate them indifferently by hand, when two fanning-mills connected with a small gasoline engine, and operated by a man who gives time and thought to the work, can do efficiently all of the grain-cleaning and grading in the community.—C. R. Barns, Minnesota.

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A RESULT OF 25 YEARS OF CAREFUL BREEDING

Such is the Herd of Mr. A. C. Hallman, Breslau, Ont., the father of the C. H. B. A. Something of Mr. Hallman's Ideals as a Breeder and Their Practical Results as Evidenced in the Spring Brook Holsteins of To-day.

It would be difficult to say whether or not Mr. A. C. Hallman, the veteran breeder of Breslau, Ont., owes to dairying as much as pure bred dairy cattle owe to Mr. A. C. Hallman. On the one hand, Mr. Hallman is indebted to pure bred dairy cattle for lifting him out of debt and from the poor and impoverished farm on which he started many years ago to the splendidly equipped 170-acre farm on which he now lives. But on the other hand, Mr. Hallman stands in the foremost rank of those pioneers who stood by their black and white favorites when the Holstein was the most unpopular of all breeds in Canada. When the registration conditions imposed by the American Holstein-Friesian Breeders' Association were so heavy as to seriously hamper the development of the breed in Canada, it was Mr. Hallman who came to the rescue and he, more than anyone else, was responsible for the formation of the Canadian Holstein-Friesian Breeders' Association. In the showing and through official testing, Mr. Hallman has done much for the improvement and popularizing of the breed. Would it not seem that Holsteins owe more to Mr. Hallman than Mr. Hallman owes to Holsteins?

AN IDEAL SOUGHT FOR

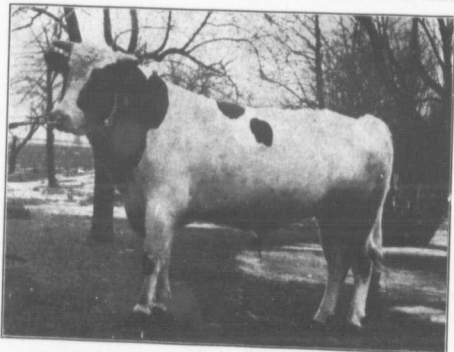
The Spring Brook Holsteins of to-day are the result of 25 years of breeding and selection with three objects in view—production, constitution and desirable conformation. For 25 years milk scales have been used in the stable. Mr. Hallman's ideal of a Holstein is best expressed in his own words. "I wouldn't have a shallow cow in my herd," said he. "A cow that is to be reproduced as well as a producer must have lots of do-both and great constitution. Too many breeders are running after the cows that will make big records irrespective of their ability to produce record-making offspring. I want a cow that will produce a calf that is better than herself."

And Mr. Hallman has succeeded in working out his ideal. Last year his milking herd, comprised almost altogether of young cows and quite a proportion of two-year-olds, averaged 10,000 lbs. of milk. There is not a shallow cow in the stable. They all possess good depth at the heart and

bread baskets that indicate their ability to handle economically large quantities of food. Mr. Hallman is most that does not come up to his ideal is disposed of; and this does not mean that it is sold out of the herd! It is best! "I would not sell to any other

and show that Pontiac Korndyke blood nicks in remarkably well with Mr. Hallman's females.

"THE BEST IN CANADA," SAYS ONE MAN
Sir Korndyke Boon is a splendid individual. He has a strongly masculine head, carries himself with spirit and has the substance, indications of constitution, and the symmetrical conformation that would make him a marked animal in any class. A Holstein dealer, commissioned to buy the best bull in Canada at any price to head one of the best herds in Australia, selected Mr. Hallman's bull and offered him \$3,000 for the animal.



Considered by Many the Greatest Sire of the Breed in Canada

Mr. A. C. Hallman, Breslau, Ont., recently refused \$3,000 for his herd sire, Sir Korndyke Boon here illustrated. He is a son of Pontiac Korndyke, the greatest sire of the breed, and his dam has a four-year-old record of 32.7 lbs. of butter and 595 lbs. of milk testing 4.6 per cent. fat in seven days. As an individual he possesses splendid substance for a junior three-year-old, good depth and has the most masculine appearance. Most of Mr. Hallman's young stock, the majority heifers, are sired by this grand bull.

—Photo by an editor of Farm and Dairy.

breeder, cattle that I do not consider good enough for myself," remarked Mr. Hallman.

A SON OF PONTIAC KORNDYKE

Some months ago Mr. Hallman was under the necessity of selecting a new sire for his herd that would be good enough to retain and improve the high standard of Spring Brook Holsteins. On looking over some of the best herds of America, Mr. Hallman finally decided on Sir Korndyke Boon, a son of Pontiac Korndyke. From this sire he has so far had 12 heifers and eight bull calves. These calves are all straight, growthy animals.

Mr. Hallman, however, considers that he has a bull that will get him splendid stock and would not part with him.

In selecting Sir Korndyke Boon Mr. Hallman got a sire that for breeding cannot be excelled in this country. Old Pontiac Korndyke is generally accredited to have been the greatest sire of the Holstein breed, he having 77 of his daughters with A.R.O. records and three of his daughters have been World's record cows. In fact, the majority of cows with records running over 33 lbs. of butter in seven days are of Pontiac

Korndyke stock. Mr. Hallman's bull has 87½ per cent. of this desirable blood, its dam, Fairview Korndyke Boon, also being a daughter of Pontiac Korndyke. Mr. E. H. Dollar, from whom Mr. Hallman purchased his bull, has a high opinion of Fairview Korndyke Boon, and told one of the editors of Farm and Dairy, who visited him last summer, that he expected her to make a 37 or 38-lb. record. At four years old she produced 32.17 lbs. of butter and 529.5 lbs. of milk testing 4.86 per cent. fat in seven days. She has a 30-day record of 130.31 lbs. of butter; a three-year record of 26.70 lbs. of butter, and in two years and two months she produced 18.97 lbs. of butter. In none of her tests has the milk of this cow tested less than 4.65 per cent. fat. One of her tested daughters has just made 17 lbs. of butter as a senior yearling. It will thus be seen that Mr. Hallman has secured a bull that on his sire's side has no equal and has for his dam a cow that is not only a big producer, but as well is a producer of high-testing milk. Fairview Korndyke Boon is in a fair way to make still higher records, which will materially increase the value of Mr. Hallman's bull and of all his offspring.

Wayne DeKolt Butter Maid 2nd, in conformation and production, is typical of the females in the Spring Brook herd. As a two-year old she produced 16.5 lbs. of butter in seven days. As will be seen by the illustration of her on this page she has good depth, great capacity, as indicated by a well developed middle, has a shapely udder and is a fine handler. In fact, fine handling qualities are a characteristic of Mr. Hallman's Holsteins. Standing near her was Pauline Gervens. At the time of our visit, Mr. Hallman was getting this cow ready for a record; and if large udder development and the conformation that indicates feeding capacity mean anything in milk production, she will do well. Equally favorable mention might be made of the other females in the herd.

Mr. Hallman might well be proud of his young stock. Apart from being big, growthy fellows of fine conformation, Mr. Hallman's youngsters are the finest handlers we have ever seen. Their hair is so mossy as to more resemble fur, and their hide is of the pliable kind that indicates a good dour. Mr. Hallman can spare a few of these. Intending purchasers of Holsteins would do well to write him. The stables at Spring Brook Farm

(Continued on page 35)



Cows such as these, bred both for Production and Reproduction, are Typical of the Spring Brook Herd of Holsteins, the property of A. C. Hallman, Breslau, Ont. in his 25 years as a Holstein breeder. To get cattle possessing all three of these qualities has been the object of Mr. A. C. Hallman, Breslau, Ont. The three Spring Brook maidens here represented are typical. Aema Sadie Pauline, 6992 to be seen on the left, has an official record of 34.1 lbs. of milk and 12.76 lbs. of butter in seven days, and a six-year-old record of 502.5 lbs. of milk and 18.61 lbs. of butter in seven days; Queenie's Ornaby, 17623, seen in the centre, a grand-daughter of King Saggie, one of the greatest sires of the breed, and having a seven-day record of 350 lbs. milk and 14.17 lbs. butter. Totilla G.A.C. 2696, on the right, has a five-year record of 556.44 lbs. milk and 20.4 lbs. of butter in seven days; 991 lbs. milk and 39.99 lbs. butter in 70 days. These records were all made a considerable time after calving and during part of the time Mr. Hallman himself was absent. Hence they do not represent the limit of their production. There are 36 cows in milk in Mr. Hallman's herd at the present time, nearly all officially tested and does not tested soon will be. Their dams too, are all officially tested. The three cows here illustrated are merely an average type of Mr. Hallman's herd and were photographed because freshest at the time. Other cows in the herd would show much larger udder development in their best form, and some of them have 20 lb. records as three-year-olds. Mr. Hallman has on hand a number of young stock, mostly heifers, sired by Sir Korndyke Boon, a son of Pontiac Korndyke. In an adjoining article one of the editors of Farm and Dairy, who visited Mr. Hallman's herd, gives his impression of Spring Brook Holsteins.

—Photos by an editor of Farm and Dairy.

Send for our
Free Silo Book

A 50 page, illustrated treatise on how to prepare and preserve silage, how to select a silo, how to feed. A book worth money to farmers.

Natco Everlasting Silo

The one silo that is absolutely permanent—whose construction is such that it cannot burn, cannot be blown down, will never shrink, crack or swell and clay blocks that keep silage sweet and palatable. The most attractive silo made. Can be built by any mason. The most economical silo in the end.

Professor Van Pelt

The famous cow judge has an article in our Silo Book. So has Valancey E. Fuller and other authorities on feeding stock. Every stock owner should get this book and read it. Send for copy to-day, asking for catalog A.




**NATIONAL FIRE PROOF
ING COMPANY OF
CANADA, Limited**
TORONTO, CANADA

Alfalfa, the Greatest Dairy Roughage

(Continued from page 6)

"Pasturing alfalfa is not recommended, but I find that the second cutting of alfalfa comes in about the time that other pastures are short. I have frequently turned the cows on it, and the extra crop of milk is such that no other pasture produces. This pasturing may be carried too far, but I do not think the cows ever did my alfalfa any harm, and it has done the cows a whole lot of good and at little expense."

A COST OF \$3.82 A TON

More estimates on the cost of producing any crop are apt to be unreliable. One of the few farmers in Ontario who keeps accurate track of Ontario alfalfa crops is R. E. Gunn, of Ontario Co. Here is his estimate of the cost of producing an acre of alfalfa yielding four tons in three cuttings: Rent, \$5; cutting, \$1.30; feeding, \$2.10; coiling, 90¢; mowing and drawing in, \$2.97; seed on four-year rotation, \$1; manure, \$1.20; machinery charges, 90¢. Total, \$15.27, or \$3.82 a ton.

"Do we consider it advisable to have a considerable acreage?" asks Mr. Gunn, and gives his own answer. "We had 10 acres of alfalfa four years ago and have 125 acres now. We have never experienced any trouble in getting a good catch of alfalfa, nor have we ever seen our land in better producing condition than after a crop has been plowed."

The area suitable to alfalfa growing is not all found in Ontario, although so far it has been most extensively grown in that province. We have seen excellent crops growing in Nova Scotia, New Brunswick and in Quebec. Some of the finest stands we have ever seen were on the Macdonald College Farm. Mr. John McIntosh of Ormstown, Que., has also grown alfalfa successfully.

A SUCCESS IN MANITOBA

"Alfalfa is a complete success on this farm," writes W. C. McKillop, Superintendent of the Experimental Farm at Brandon, Man. "We have it growing on very heavy clay land in the river bottom, on rich sandy loam on a higher level and also on very poor gravelly upland. In each location it is doing well. On a 20-acre field we harvested in two crops some 72 and 75 tons in each of the two past years, 1912 and 1911. In experimental plots we have had as high as six at tons an acre in two cuttings. All varieties seem to be hardy under our conditions, but if there is any advantage, we find Grimm's and Turkestan to be somewhat better than the others. We supply inoculated soil to many farmers throughout the Province of Manitoba, and have had very encouraging reports. Inoculation seems to be necessary for success in starting alfalfa on the prairie. In the semi-wedded parts of Manitoba where the native peavine is prevalent, inoculation is not so necessary, though it is usually beneficial."

Alfalfa is being grown commercially in the Lethbridge district to the extent of several thousand acres by the aid of irrigation, though it can be successfully grown in all sections without irrigation. In the dryer sections of Alberta, G. H. Hutton, B.S.A., of the Experimental Farm at Lacombe, believes that alfalfa will produce more hay than any other perennial forage crop. Alfalfa has been successfully grown as far north as Fort Vermilion, this including all of the dairy districts.

Alfalfa is no longer an experimental plant. There are many reasons why every dairyman should grow lots of it. The best reason is that he can't afford not to.

IDEAL GREEN FEED SILOS

Now when you have the time why not settle the silo question.


The more you investigate the advantages of having succulent silage to feed to your cows all winter the sooner you will decide to erect a silo.

We want you to have our Ideal Green Feed Silo Book

It not only describes the best silo made but it also contains much valuable information for all cow owners.

If you are a cow owner a postal card request will bring you the book free of charge.

De Laval Dairy Supply Co., Ltd.
173 William Street, Montreal
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SPECIAL PRICES ON QUANTITIES

O. A. C. No. 21 BARLEY, choice threshed and not plumped carefully, 85 cents. Best cotton seed, 10 bushel extra. Write early and be sure of satisfaction.

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

"Dead Lock" Poutry Feeds Baby chicks feed, grit, beef scrap, ground bone, oyster shell, etc., and all poultry supplies. Prices as low as lower than others can meet.

CRAMPEY & KELLY, Beverton St., Toronto, Ont.

The Call of The North

Do you know of the many advantages that New Ontario, with its Millions of Fertile Acres, offers to the prospective settler? You know that these rich agricultural lands, all obtainable free and at a nominal cost, are already producing grain and vegetable second to none in the world?

For literature descriptive of this great territory, and for colonization as to terms, homestead regulations, settlers' rates, etc., write to:

H. A. MACDONELL,
Director of Colonization,
Parliament Buildings,
Toronto, Ontario

Ploughs—Wilkinson

TRADE MARK

U. S. S. Soft Centre Steel Mouldboards, highly tempered and guaranteed to clean in any soil. Steel beams, steel moldboards and high carbon steel coulters. Clevises can be used either with or without the patented "dotted" spring, using its own pair of handles—dotted spring is a very sturdy running spring. Long level bars, 12 ft. long, 1 1/2" wide, 1/2" thick. Shows steel a beautiful finish, with automatic draw and screw brace.

The Baltimore-Wilkinson Co.,
41 Limited
Toronto, Canada.




"STOP! HERES A DYER FENCE!"

Do you want a strong, durable fence one that holds back the strongest animal, and lasts for years? Dyer's is the best. 17¢ per rod up, freight paid. Law fence 25¢. Cut this ad, out and mail to me.

DYER has the Power Men, Dept. C., Toronto. "Please send me your April special fence and gate offer. I want your special fence and gate offer, and oblige me to buy."

Name and Address: _____
DYER says: "A success postal to me NOW may mean many a \$1 saving to you!"



Pro-fat Molasses Meal

(75% Dried Malt, 25% Pure Cane Molasses)

The wonderful results obtained by the large dairies and dairy-men around Toronto by feeding our Pro-fat dairy feed has led this company after many requests from dairymen, to add 25 pounds of pure Cane Molasses to each 75 pounds of Pro-fat. The result being a molasses meal without an equal, as the following guaranteed analysis will show:—Protein 20%, Fat 5%, Fibre 13%. Compare this with other molasses meals offered to the public and it will leave no doubt in your mind as to the truth of our claim. After a test at the T. Eaton Company's Farm, Georgetown, and other Dairy Centres, we have decided (in order to introduce this meal) to make the following proposition to Dairy-men throughout the province:

30 Days' Trial

We will ship on thirty days' trial, freight paid, one ton of Pro-fat Molasses Meal to any responsible dairyman in the Province of Ontario with an absolute guarantee (fed pound for pound in place of other meal or concentrates) to produce more and richer milk for less money. If it fails to do this there will be no charge for the meal. If it is all we claim for it, the charge will be \$1.40 per hundred, or \$28.00 for the ton. Dairymen who have recognized the value of Cane Molasses for dairy herds have an opportunity here of trying a genuine molasses meal of real merit without running any risk whatever. It is the only molasses meal endorsed by the authorities of the O. A. College, Guelph. Send your orders in or write to us for more particulars if you have any doubt about this offer. This meal is equally good for horses; no dairyman can afford to be without it. Write for list of dairymen who have already used it. We also have this meal for Calves and Hogs.

Feed Pro-fat Molasses Meal and Watch the Milk Flow Increase

THE FARMERS FEED CO., LIMITED
DEPT. A., 108 Don Esplanade TORONTO, ONT.

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APICULTURE

A Living from Bees

D. Anguish, Middlesex Co., Ont.
Great are the possibilities of the small farm. I see by the C. B. J., February issue, that Mr. J. W. Clark of Brant county, gives a statement of what he produced from 25 acres, devoted to fruit, poultry and bees. After deducting expenses he claims he had \$3,751. Nearly as good as lots of farmers are doing on 200 to 400 acres. What has been done by Mr. Clark in Brant county can be duplicated in any other county. There are several bee-keepers in Middlesex county who are doing as well as Mr. Clark. The only difference is that they are only occupying from one-quarter to one acre, and devoting all of their time to bees; or I may say



CHALLENGE COLLARS

Acknowledged to be the finest creation of Waterproof Collars ever made. Ask for one, and buy no other. All stores or direct for \$5.

THE ARLINGTON CO. OF GUELPH, LTD.
88 PRATER AVENUE TORONTO

All "ARLINGTON COLLARS" are good, but our CHALLENGE BRAND is the best

Seed Corn

We have 4,000 bushels of Good Corn—leading varieties grown in Kent County, and cured in our own cribs, which we will sell in small quantities—on the cob or shelled.
Dent varieties ... \$1.40 per bushel
Flint ... \$1.75 " " " "
Special prices on orders of 10 bushels more.

Terms cash with the order.
MONEY REFUNDED IF NOT SATISFIED
M. W. SHAW & CO.
MERLIN, ONT.

EGGS, BUTTER and POULTRY

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

PROMPT RETURNS

Established 1856

Wm. DAVIES Co. Ltd.
Toronto, Ont.

If you are building or re-building this Spring—you need the

Louden New Catalogue

Just Published

"Everything for the Barn"



Honey Bees Did It

Mr. D. Anguish, Middlesex Co., Ont., is a bee man first, last and all the time. He built the attractive home here illustrated and makes a good living, and then some, from his bee yard.

only half of their time, for the bee-keeper has to work only in the summer. If he has taken good care of his or her bees in the fall, they will take care of themselves in the winter, and the bee-keeper can take trips to any part of the world he may see fit, as long as he is back by the first of May, that is if the bees are packed on summer stands as they should be.

I will give you a hint as to what we have done since we came to the banner bee county (Middlesex). We landed in this county 13 years ago with 80 colonies of bees, and a small debt. Now we have as nice a home as there is in the thriving village of Lambeth. We have all the conveniences of city homes as we have an elevated tank which holds 55 barrels of water, that is piped all through the house. We have hot and cold water in the basement, kitchen and bathroom, also hydrants in the barn and beeyard, and spraying fountains on the lawn. We also have 200 colonies of bees, and all appliances to produce both comb and extracted honey by the tons, as we have been doing for a number of years. If there happened to come a few years of reverse we would not suffer badly, neither would we have to place a plaster on our home.

We have started another industry on our one acre plot. We have just completed a double-deck hen-house, capable of housing 200 hens. One of my sons went to Guelph and took a short course on poultry. Now he intends to try to eclipse Mr. Clark, for he has gone into pure bred poultry—Barred Rocks and Ross, and Single Comb Rhode Island Reds. Later on I will let the readers of Farm and Dairy know he succeeds.



Sanitary Steel Stalls



Feed and Litter Carriers



The best Carrier ever made



Barn Door Hangers

1847-1913

For 47 Years

—the Louden Line has been finding easier ways to farming—saving labor—saving time—saving money.

Since 1867, when Mr. Louden took out his first patent on a hay carrier, right down to his latest patent on a cattle stanchion in 1912, the Louden perfect barn equipments have been taking the backache out of farming.

In these days when farm help is so scarce, expensive and independent, let the Louden tools and equipments reduce your labor problems.

LOUDEN Barn Equipments

have attained their enormous popularity out of sheer merit. Years of experience, experiment and constant improvements, have made them perfect to meet present day conditions.

You can't go wrong if you choose Louden Goods. We make

Everything for the Barn

- Cow Stalls and Stanchions
- Lull Pens
- Feed Racks
- Litter Carriers
- Overhead Tracks and Swivels
- Managers and Partitions
- Ball Pens
- Feed Carriers
- Hills Can Carriers
- Swinging Ceases

We are pioneers and inventors of the largest and best line of

- Harpoons
- Pulleys
- Hay Silos
- Hay Forks
- Hay Carriers
- Balance Grapples
- Barn Door Hangers
- Trucks

and every kind of Farmers' Hardware.

You surely should get a copy of our Catalogue Write for it today. Free for the asking.

The LOUDEN MACHINERY CO.
Dept. 201, GUELPH, Ont. 2



"Cow Comfort" Steel Stanchions



All kinds of Pulleys



Louden Balance Grapple



Hay Silos



Double Harpoon Fork



FARM AND DAIRY

AND RURAL HOME

Published by the Rural Publishing Company, Limited.



F. FARM AND DAIRY is published every Thursday. It is the official organ of the British Columbia, Eastern and Western Ontario, and the Dominion Dairy and Dairymen's Associations, and of the Canadian Holstein Cattle Association. Its Canadian U. S. Representative: W. H. Stockwell, 629 Peoples Gas Buildings, Chicago, Ill.

3. SUBSCRIPTION PRICE, \$1.00 a year. Great Britain, \$1.50 a year. For all countries, except Canada and Great Britain, \$2.00 for postage. Notices of the expiration of subscriptions are sent to all subscribers, who then continue to receive the paper until they send notice of discontinuation. No year subscription is continued for more than one year after date of expiration. A year's subscription fees for a club of two new subscribers.

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

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

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

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

CIRCULATION STATEMENT.—The paid subscriptions to Farm and Dairy exceed 15,700. The actual circulation of each issue, including copies of the paper sent subscribers who are not slighted in arrears, and sample copies, varies from 14,500 to 17,500 copies. No subscriptions are accepted at less than the full subscription rate.

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

OUR GUARANTEE

We guarantee that every advertiser in this issue is reliable. We are able to do this because the advertising columns of Farm and Dairy are as carefully edited as the reading matter and because to protect our readers, we turn away all unscrupulous advertising agencies and advertiser herein dealt dishonestly with you as one of our paid-in-advance subscribers, we will refund the amount of your loss, provided such transaction occurs within one month from date of this issue, that it is reported to us within a week of its occurrence, and that we find the facts to be as stated. It is a condition of this contract that in writing to advertisers you state: "I saw your advertisement in Farm and Dairy."

Refusers shall not ply their trade at the expense of our subscribers, who are our friends, through the medium of these columns; but we shall not attempt to adjust trifling disputes between subscribers and honorable business men who advertise, nor pay the debts of dishonest bankrupts.

FARM AND DAIRY

PETERBORO, ONT.

THE DAIRY SITUATION

The dairy industry of Canada is progressing; but it is not progressing as it should. The total value of the dairy products produced in the Dominion last year were valued by the Dairy and Cold Storage Commissioner at \$105,000,000. This is a small increase over the year previous. In the same year the number of dairy cows shows a falling off of several thousands from the number kept in 1911. Our export trade in dairy products declined, not only relatively, but actually, the value of these exported in 1912 being almost two and one-half million dollars less than in the previous year. In the case of butter, Canada is now an importing country. This falling-off is explained in part by an increasing population, and hence an increase in the demands of the home market. But with such a large area suitable for

dairying, we would expect a development of the industry sufficient to meet both home and foreign demands. We may well ask what factors are hindering the extension of dairying.

In the first place, we need better cows. There are enough cows in the country now to supply the growing home demand and to maintain and increase our export trade. The trouble is that many of these cows are not paying their board. The average production of dairy cows in Canada is only a little over three thousand pounds of milk a year. We may, however, look for a better day. More interest than ever before is being taken in cow testing, due largely to the enthusiastic work of Mr. C. F. Whitley, and breeders of pure bred dairy stock report that never before in the history of the trade in Canada has the demand for good stock been so keen.

In the second place we must grow more suitable crops. We need a larger acreage devoted to corn and more silos. Instead of, as in the case of Ontario, thirty-three per cent. of the dairy farmers growing alfalfa, one hundred per cent. should be growing this greatest of all milk producing crops. A good acreage of corn and alfalfa on every dairy farm would mean more milk at less cost.

But at the basis of all improvement must be more interest on the part of dairymen themselves. Too many of us are accustomed to regard dairying as a kind of a side line and the milking as chores. Dairying, where properly conducted, is a business worthy of the first attention, and when it gets this attention it is the most profitable branch of live stock farming. Farmers, we believe, are coming to see the merit of the dairy cow as a money maker. In the growth of this new interest we foresee a great expansion of the dairy industry in Canada.

THE NATURE OF MONOPOLY

Every millionaire-making trust derives its immense profits from some form of monopoly. Some trusts already are world-wide in their operations. William E. Cory, a former president of the United States Steel Corporation, testified in 1910 that there was an understanding with foreign rail manufacturers in which each corporation agreed not to compete with the others in their own countries. Mr. Andrew Carnegie, before an investigating committee recently, further testified that competition in steel within the United States is not possible, because the corporation of which he is the head have cornered all the best ores. The Standard Oil Company, too, cannot be reached through the lowering of the protective tariff, as there is a world-wide agreement among leading oil dealers who own most of the oil wells. Where lies the monopoly in these two cases?

The steel and oil trusts represent a form of monopoly that is fraught with much danger to humanity. They represent a monopoly of the resources

of the earth itself. Did the God-Creator, when he placed iron ore in the bosom of the earth, intend that that ore should be cornered by any one concern? Has any combine of capitalists any moral right to take unto themselves the God-given wealth of the earth, to keep others from using what they are not using themselves and set an exorbitant price on the small portions that they deal out from year to year? Similarly, were the oilfields intended to make millionaires out of a few oil magnates such as John D. Rockefeller?

We contend that concerns such as these, which have secured a monopoly of some natural resource, should not be allowed to benefit unduly, but that, through taxes, much of the benefit should be taken by the state for the benefit of all the people. Every natural resource should be taxed at its full value. For instance, valuable coalfields held out of use should not be taxed as if growing scrub spruce, but at the value of such a proportion of the wealth they represent as is readily available. Such a system of taxation is in line with that endorsed by every farmers' organization in Canada.

WHY COOPERATION FAILS

It is a mistake to assume that business methods that have proved most satisfactory in the city are equally applicable to the country. It is this tendency to "townification" of country business that explains the failure of so many of our so-called cooperative societies. We say "so-called," because many of these societies are not really cooperative in nature, but are formed on the joint-stock plan. There is an essential difference between joint-stock and cooperation that makes the former peculiarly adapted to the town and the latter most desirable in the country. Speaking before the South Commercial Congress at Washington, Sir Horace Plunkett, who established the cooperative system in Ireland, emphasized the difference between these two systems of doing business.

"The ordinary joint-stock corporation," said Sir Horace, "is a pooling of business for more economic or thorough conduct of an investment of capital for profit. The majority of those who join part with all control of their business. The farmers' combination is wholly different in its purpose. He who enters it does not wish to part with his business or with its control, and he does not seek an investment for his capital. He joins with his neighbors with the sole object of bettering the conditions under which he conducts his own business."

Hence it is that a farmers' organization, formed on the joint-stock or capitalistic basis, almost always breaks down. The control of the profits of the joint undertaking falls into the hands of those who happen to have the most stock in it. In the truly cooperative concern the reward of capital is limited to a fixed percentage and the remainder of the capital is divided among the partici-

Protection and Wages

The average wages of the 72,571 women wage-earners employed in the manufacturing industries of the Dominion in the year 1910 are shown by the Dominion census of manufactures to have been \$1 cent a day, or \$17.75 per month. These women were all over 16 years of age, and many of them had children or parents to support. Upwards of 10,000 of these women 16 years of age were also employed in the mills and factories of Canada in the same year for 100 days a month, or \$12.50 a month. The 17,572 men working for wages in our great manufacturing establishments received an average of \$1.46 a day, or \$38.33 a month. While women work for \$17.75 and men for \$38.33 a month, in order that mill-owners and multi-millionaires should be created it cannot be claimed that protection protects the worker.—Grain Growers' Guide.

pants in proportion to the business they each do in the concern. This is the form of cooperation that has been so successful in Ireland, that has made Denmark one of the most talked of countries in the world, and it is also the system on which our own most successful cooperative concerns here in Canada are based. It is the failure to adopt the truly cooperative principle which rewards every man according to the business that he does rather than the money that he invests in the stock of the association, that explains the failure of many cooperative enterprises in rural Canada to accomplish the purpose for which they were formed.

BOOK FARMERS

The book farmer was once a subject of ridicule. By book farmer, we mean the man who studies dairy papers and all agricultural text books available in an effort to inform himself on the problems of his occupation. But the book farmer has made good. Our most successful farmers are all more or less bookish. If any further proof were needed of the practical dollars and cents value of dairy literature to a dairy farmer, it is afforded in a review of the cow census work conducted by W. D. Hoard of Wisconsin, and published in a recent bulletin.

Conditions in Wisconsin, which is almost entirely a dairy state, are very similar to conditions we find there in any of the dairy districts of Canada. The owners of four hundred and sixty-four herds investigated, having six thousand three hundred and three cows, were registered as readers of dairy papers. They fed their cows at an average cost of \$34.78, securing \$1.42 for each dollar spent for feed, and had a net profit of \$14.54 a cow. The cow owners, whose minds were not illuminated or their methods improved through the influence of dairy literature, had seven hundred and fifty-three herds, composed of nine thousand one hundred and twenty-two cows. They fed their cows for \$35 each, and had an average annual profit of \$1.85 a cow as compared with the average profit of \$14.54 a cow made by the "bookish" ones. Of the non-readers forty-eight per cent. actually lost money in following the dairy business.

A further point brought out in con-

nection the greater country, by dairymen, profitably exactly successful investment great milk silages, buying cement words, the "books"

Most of their board not they will city.

Of our peculiar or mobile achieved moreable than this it is Norval A. ager of the recently s Adcraft Criticisms

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It is worth over Mr. H also to note Ford Motor Farm and D "A Paper F

nection with this great dairy census, the greatest ever conducted in any country, is that the points emphasized by dairy papers and dairy instructors generally as those necessary to profitable cow keeping, correspond exactly with the practice of the successful farmers whose methods were investigated by Governor Hoard. The great majority of the dairymen who were making money were feeding ensilage, had cows of dairy type, had good, comfortable stables, and were buying concentrated feeds to supplement those grown at home; in other words, they were doing just what the "books" tell us we ought to do.

Most farm boys earn more than their board and clothes. If they are not paid for that additional work they will soon find their way to the city.

AD. TALK
LXXIV.

Of course you have noted the peculiar display of the Ford automobile advertising. It has received many criticisms, both favorable and adverse. Because of this it is interesting to note what Norval A. Hawkins, sales manager of the Ford Motor Company, recently said before the Detroit Adcraft Club in answer to the criticisms:

"The Ford Company believes in advertising. It knows full well what a tremendous power advertising really is. The right sort of advertising should reduce the selling costs by increasing the demand and consequently lowering the cost of manufacturing and distributing.

"Ford's small space and peculiar copy are being commented on all over the country. Some of the comments are favorable and some are unfavorable—but at any rate, so long as interest is excited, the ads. are probably read, and we benefit accordingly.

"To-day there are 500 things offered to readers' attention where there were twenty a decade ago. News and stories, gossips and books and advertisements almost without end, fairly yelling for attention. If more of us got into the receiving end of our advertising the copy turned out would probably pull more prospects, and, you know, to-day's prospects are to-morrow's business builders to a far greater extent than to-day's buyers.

"Advertising is not unlike any other operations in business requiring a few well-grounded principles—backed with an ordinary supply of common horse sense.

"Besides, an advertisement must make a successful appeal to the eye if it is to force the hand to the pocketbook; so use taste in the lay-out."

It is worth your while to think over Mr. Hawkins' statements—also to note in passing how the Ford Motor people value and use Farm and Dairy—

"A Paper Farmers Swear By"

Anent Demonstration Farms

"Subscriber," Ontario Co., Ont.

So Dr. C. C. Creelman thinks that the demonstration farms will be a failure, his main reason for thinking so being that there was a slovenly farmed 50 acres next the Agricultural College Farm at Guelph.

I would like to ask Dr. Creelman what his method would be of demonstrating good farming. Mere telling people has little weight. They want to see the problem worked out. In my neighborhood at one time the farmers thought of nothing more than plenty to eat and wear. What cash they had outside of this went to keep up the social part of life. The thought of maintaining fertility or of making improvements of any kind never seemed to enter their heads. They considered that tilling was burying their money, improving buildings would never get back and as for keeping up their land, well, if clover was \$1 or upward, it simply didn't pay to buy it at that price. The men who merely kept their hoo crop ahead of the weeds were considered the leading farmers of the community. It was no uncommon occurrence for others to have the weeds at complete start of their hoo crop. One of my neighbors once said to me: "I will not pay any more than one dollar a day to any man to hoe corn. And he didn't either. His field of corn showed it before cutting time.

AN INSTANCE OF IMPROVEMENT

I remember particularly one 50-acre farm, all cleared and tillable land. That farm was never at a complete start for a meal save when they chanced in on him shortly before meal time. Two hours' threshing would be the limit. A wind of thistle down always marked the place at thrashing time. And seeding began on this place when corn should be going in, and corn seeding accordingly, all on account of water. The owner of this property finally found his man as he thought and sold out for \$2,500.

The new man thoroughly tilled this place. He tore the whole fence system right out and up in a pile for the buzz saw. He arranged the farm for a four-year rotation of crops consisting of corn, oats, clover and pasture. He remodelled the house and also the barn buildings. Now he has been offered \$4,600 for the property, but asks \$5,000.

In the meantime while he was making these changes everybody's eyes were on him. They admired his clean corn fields. They noticed his oat crop increase from 20 bushels to 50, and even to 70 bushels an acre later on; other crops accordingly. His neighbors became ashamed of their dirty corn fields and their low crop production. They watched him and took pattern from him and there was a marked reformation in the whole locality. I believe the credit is due to this one man.

This is a sample of what a demonstration farm could do for any community. All will not benefit therefrom, but those with spirit will. No method ever devised would ever more to better things than man on the 50 acres next the Agricultural Farm, but thank goodness all are not like him.

The Ontario Agricultural and Experimental Union is prepared to distribute into every township of Ontario, material of high quality for experiments with grains, fodder crops, roots, grasses and clovers. Any person in Ontario wishing to work in co-operation with the Union's experimental work are advised to write Prof. C. A. Zavis, Ontario Agricultural College, Guelph, Ont., for full information as to the 80 experiments that will be conducted.

TRADE
in your old separator
on account of a new
DE LAVAL

An up-to-date De Laval Separator will, on an average, save its cost every year over any other separator.

In addition to the actual saving in more and better cream there is also a saving in time of separation and cleaning, in easier running, greater durability, and fewer repairs.

Because of these savings more than 40,000 users of inferior and worn-out separators of various makes last year took advantage of the De Laval exchange allowance and traded in their machines on account of De Laval's.

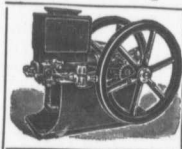
USERS OF OLD DE LAVALS, on account of the many improvements in the modern De Laval over machines sold to 25 years ago, including closer skimming, easier running, better oiling, etc., will also find it to their advantage to exchange their old De Laval for an up-to-date De Laval.

SEE THE NEAREST DE LAVAL AGENT. He will tell you how much he can allow on your old machine, whether a De Laval or some other make, toward the purchase of a new De Laval. If you don't know a De Laval agent, write to the nearest De Laval office giving make, number and size of your present machine, and full information will be sent you.

DE LAVAL DAIRY SUPPLY CO., LIMITED
MONTREAL PETERBORO WINNIPEG VANCOUVER

"MONARCHS" Make Farm Work Light

A willing, easily-moved "Monarch" Engine saves hours of work sawing wood, pumping, grinding, cutting silage, cream separator, etc. It pays to have one. The "Monarch" has spark retarder, throttle, speed regulator, priming cup, carburettor, steel shaft, sight fuel gauge, etc.—the quality features of an automobile engine. Sizes from 1½ h.p. to 3½ h.p.



Get our "red circle" folder for a post card. It explains every feature.

CANADIAN ENGINES Limited, DUNNVILLE, ONT.

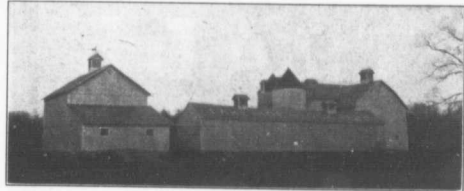
Sole Selling Agents in Eastern Canada
THE FROST & WOOD CO., Limited, Montreal, Que., St. John, N.B. SMITHS' FALLS, ONT.

DOBBS
CALF MEAL

CREAM EQUIVALENT FOR RAISING CALVES AND YOUNG PIGS
CONTAINS A MUCH HIGHER PERCENTAGE OF REAL VALUE THAN OTHERS
SOLD BY LEADING MERCHANTS, OR DIRECT FROM **W. B. RENNIE CO. LIMITED**
TORONTO • MONTREAL • WINNIPEG • VANCOUVER

A STORY IN WORD AND PICTURE OF TWO SUCCESSFUL AND PROGRESSIVE AYRSHIRE BREEDERS

Men who, for over ten years have been at the business of breeding the best in Ayrshire Cattle and lately qualifying them in the Canadian Record of Performance. Foundation stock purchased from the best available and supported year by year since with the choicest brought out by that noted importer and breeder, R. R. Ness, of Howick, Quebec. The Barcheskie, The Morton Mains, The Auchenbrains, etc., and right royally good blood predominates throughout the herds. Information and photographs secured by the editor of Farm and Dairy, who visited these farms two weeks ago.



The Barns at Lakeside Stock Farm, the Property of Mr. Geo. H. Montgomery

There is something always fascinating about the Ayrshire cow. She appeals to the rich as well as to the becoming rich and to the poor alike because of her comeliness, her ability to take care of herself better than other breeds, and because of her great practical utility in making profits over and above cost of feed and care.

W. F. Kay, M.P. This being a rent-paying, mortgage-limited kind of cow to keep around. Can you wonder, then, that it afforded one of the editors of Farm and Dairy great pleasure two weeks ago to go carefully through two great herds of high producing, show type Ayrshires at Phillipsburg, Que., these herds being at the Lakeside Stock Farm and at the Ravensdale Stock Farm, owned by Mr. Geo. H. Montgomery and Mr. W. F. Kay respectively? While making these visits and inspecting the stock we gained a great deal of information and many photographs, which space forbids us giving all in entirety at this time, and therefore will be held over for Farm and Dairy readers in future issues.

It was over 10 years ago that Mr. Montgomery and Mr. Kay started in to breed the best in pure-bred Ayrshire cattle. They both became interested in the pure-bred Ayrshires about the same time, and being good neighbors, they did at good neighbors should and profitably can do,—went in together in their buying. Thereby they were enabled to provide themselves with the very best of blood and individuality in herd sires, and this at only half the cost it would entail for any one herd alone. The result of this policy is most remarkably evident in the superior class of show yard type and high production Record of Performance Ayrshires, cow after cow and many of them in these two herds to-day.

Their latest purchase in the way of herd sire is Auchenbrain Sea Foam, the first prize and champion Ayrshire male last year at Toronto, imported and shown by R. R. Ness, of Howick, Que., who is so well and favorably known to Farm and Dairy breeders. He was purchased in connection with this article, as does also another one of their great bulls, "Hobbsland Jolly." Any informed breeder or up-to-date cattlemaster can at a glance, with this information and these illustrations before him, picture in his mind the superior class of Ayrshires that to-day are in the herds at the Lakeside and Ravensdale Stock farms. Both Mr. Montgomery and Mr. Kay have always been enthusiastic about their Ayrshires; they have

spared nothing when the improvement of their herds has been concerned. Just at the time of writing we have a letter to hand from Mrs. R. R. Ness, writing in from Mrs. R. R. Ness, who is in Scotland, and she says of them: "They will have nothing but the best when they are selecting animals for their herds."

As is only to be expected, both of these men took up some years ago the progressive work of keeping records of daily milk production for their individual cows; during recent years they have been qualifying their cows in the Canadian Record of Performance. This, to-day, having given attention to the production of their cattle, always demanding that their Ayrshires have good teats, and taking into the herd so many of the best imported stock, heifers and cows, as well as the superior imported herd sires, which they have purchased, they have in their herds and offer for sale a selection of stock probably difficult to surpass or equal elsewhere.

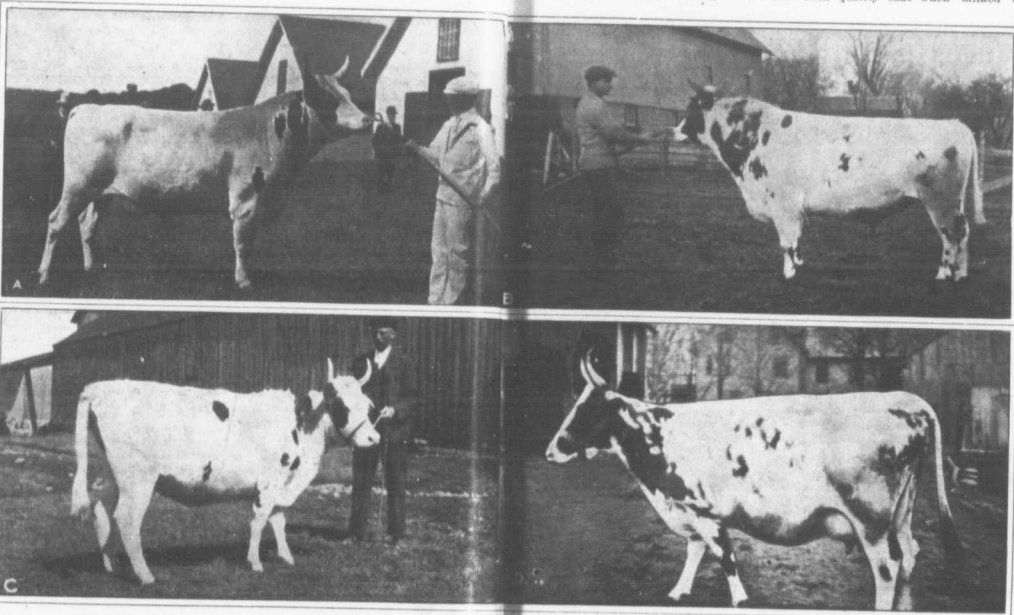
There is one handicap under which these men have worked, and this the location of their farms. They are located considerably out of the way of the usual beaten track ordinarily thought of as being travelled by prospective buyers. The little village of Phillipsburg is a summering place on Missisquoi Bay, at the head of Lake Champlain. To reach it you take the Central Vermont Railway from Montreal, 52 miles to St. Armand Station; and we thought at the time what an ordinary would care to purchase. The result is to-day evident in the great advantage to those who may go to Phillipsburg to see these farms to purchase bulls or foundation stock. These illustrations show: (A) Barcheskie Cheerful Boy, imported and used at Lakeside and at Ravensdale until he met an untimely end through blood poisoning from taken into his stomach; (B) Hobbsland Jolly, (Imp.), four-year-old out of Menkland Primrose, sired in Mr. Montgomery's herd, developed to a deep likeable sort and a producer. (C) Barcheskie Favorite Rose, (Imp.), sired in Mr. Montgomery's herd, developed to a deep likeable sort and a producer. (D) Barcheskie Favorite Rose, (Imp.), sired in Mr. Montgomery's herd, developed to a deep likeable sort and a producer.

many years' experience. He, along with Mr. Montgomery, is right up on the breeding of Ayrshires, too. As a consequence this herd has had the advantage of two viewpoints—the business man's as well as that of the practical breeder and feeder. Mr. Kay lives right at home on his farm; his father had it before him. He now represents his own constituency of Missisquoi, Que., in the House of Commons, or as you might put it, he is an M.P.

The Lakeside Stock Farm contains 250 acres of the finest arable soil

have given over 10,000 lbs. of milk, while qualifying in the Record of Performance, and several between 9,000 lbs. and 10,000 lbs. of milk in one year. They have not been showed outside of the county fairs save at one time a Shepbrooke and captured their goodly share of the best prizes offering.

The bull, Auchenbrain Sea Foam, was in this herd at the time of our visit. He headed Mr. R. R. Ness's Junior Ayrshire herd at Toronto and at Ottawa last fall, Mr. Ness having



The Ayrshire Cattle at "Lakeside" and at "Ravensdale" are of the very best and from imported stock of which the above individuals are representative.

It is over 10 years since Mr. Montgomery and Mr. Kay commenced the breeding of his own herds on their respective farms at Phillipsburg, Que. They have always worked in together, and we thought at the time what an ordinary would care to purchase. The result is to-day evident in the great advantage to those who may go to Phillipsburg to see these farms to purchase bulls or foundation stock. These illustrations show: (A) Barcheskie Cheerful Boy, imported and used at Lakeside and at Ravensdale until he met an untimely end through blood poisoning from taken into his stomach; (B) Hobbsland Jolly, (Imp.), four-year-old out of Menkland Primrose, sired in Mr. Montgomery's herd, developed to a deep likeable sort and a producer. (C) Barcheskie Favorite Rose, (Imp.), sired in Mr. Montgomery's herd, developed to a deep likeable sort and a producer. (D) Barcheskie Favorite Rose, (Imp.), sired in Mr. Montgomery's herd, developed to a deep likeable sort and a producer.

for which most of the Eastern Townships farms are noted. Some rough land, and maple sugar bush in addition, comprise this farm. Fine springs, excellent pastures, and good soil for producing all sorts of crop, corn inclusive, makes the farm a superior one for stock-raising. Two large silos are used for storing the corn in its natural succulent state, which is best for cattle.

The cattle there have never been rushed, forced or pampered for the sake of making large records. They have been fed in just an ordinary way and milked twice a day only as an ordinary farmer would think of doing. Yet in the herd there are some that

we noted a young bull a year old last November from the imported cow Barcheskie Derby, now qualified in R.O.P. This fellow is sired by Barcheskie Cheerful Boy. He is straight and deep and of great length, excellent in heart girth, and with a head just such a one as you would like. Another young bull over a year old is out of the imported cow Morton Mains Greenside, and by Cheerful Boy. He is of a right good sort, and lower set than his stable mate. His dam gave milk enough to qualify as a two-year-old—something over 7,500

strong cow, deep and of good size, possessing the desired type, and has a pleasing level udder, as indeed has practically all of the stock in the Lakeside and also in the Ravensdale herds.

We'd like to describe in detail Sheila of Glenora, the first cow Mr. Montgomery bought when starting, and her daughter, Snowdrop of Glenora, and her second calf, Dewdrop of Lakeside,—big, strong, deep-bodied, heavy-working cattle and very attractive, with udders pleasing in shape, and of such quality that when milked out

thing of approved conformation, two years old; the imported cows, Ardina Pomona, and Morton Mains Greenside, both qualified as two-year-olds in R.O.P., a right good kind to buy, deep and straight, long in the quarter and just the kind that a person would want for a mother to a bull he would buy (the latter is the dam of one of the yearling bulls offered for sale); another imported heifer, Netherhall Kate, bought at the Ormaton sale last year; Cynbill of the Willows, a good stamp of a heifer and a great milker, qualified with over 9,000 lbs. milk; many others too numerous to mention here.

Then Mr. Montgomery is into horses also, pure-bred Clydesdales being his favorites. We noted in his stables a dandy pair of Clydesdale mares, which Mr. Ness brought over. One of these is Rose of Lee, in foal by Baron Barleigh, a son of Baron's Pride; the other Rose Cooper. Her foal of last year, a horse colt by Sir Spencer, was also in the stable, he being an unusually good one, well put up, having a good set of legs, good bone, deep in the chest, well balanced and possessing a very nice full eye.

It was Mr. Kay and his Ayrshires that we journeyed especially to Phillipsburg to see. It was through his kindly interest that we went over to the Lakeside Stock Farm and got the foregoing information about the Ayrshires there as well. Mr. Kay was home during the Easter recess of Parliament. When we arrived he had just come in from a ride on his Thoroughbred stallion, Floral King—a great racer in his day, and of the kindest disposition. Since we found Mr. Kay in his new horse stable we first looked over his Thoroughbreds and then his pure-bred Clydesdale mares and the stallion Baron Barleigh, by Baron's Pride. He works these right along even to the stallion, which is a really good worker, besides being all you would want in a Clydesdale to look at.

Having looked over the horses we repaired to the Ravensdale comfortably-fitted stable, where the Ayrshires are quartered; and they are a jandy lot. Many times the space we have available would be required to adequately set forth the merits of the Ravensdale Ayrshires in which Mr. Kay takes such delight and makes his profit. On entering the stable the first one we noticed was a Glory of Ravensdale, a four-year-old, qualified last year with her first calf. She is a cow of Mr. Kay's own raising. She is a thick, strong heifer, and can do the work of the Record of Performance has proven. Next her was the imported cow Barcheskie Lady Margaret, also of approved Ayrshire type and qualified in R.O.P. By means of an attached manger and front in the stall, and not tying the cows other than by means of a rope in place at the rear, the Ayrshires there enjoy every comfort and keep themselves spotlessly clean. It was therefore a greater delight to look these cattle over.

Since we must hurry along we shall give but briefest mention to Sheila of Ravensdale, Ravensdale Snowdrop; the imported "Little Kilmorey Green-doline"—the very low-set, thick-straight kind, and her daughter, her first calf next her; the two-year-old Ravensdale cow Barcheskie Favorite Rose, also in the stable and which had again freshened a few days before our visit, dropping an unusually superior heifer calf. An illustration of this cow appears in connection with this article. It is cows of this type all through that Mr. Kay has in his stable. As may be noted from the illustration it is the correct type and it is being proved doubly correct by the splendid records Mr. Kay is piling up in the Record of Performance with his Ayrshires.

The young heifer calf from the last mentioned cow is from Barcheskie Cheerful Boy, four of his heifers being in the herd, they all being of a most excellent kind. Morton Mains Katerina, a four-year-old is another of his imported cows as is also Morton Mains Glamourie, very type Ayrshires, very low-set, and therefore giving a little suspicion of being under size. These are now running in the Record of Performance.

The stock bull kept at this herd is Hobbsland Jolly whose photo we took and reproduce with this article. You can see that he is a grand breeding bull with wonderful strength of constitution, lots of size and showing masculinity to that extent where it robs him slightly of that uniformity of balance, which he might otherwise have. He was imported by Mr. Ness. Several bull calves attracted our attention particularly for being remarkably good and of such excellent breeding from R.O.P. dams. One of these is 18 months old, by Barcheskie Cheerful Boy and out of Clarice of Ravensdale, one of Mr. Kay's own breeding and qualified as a two-year-old, with 7,600 lbs. milk in R.O.P. He is a well-developed, strong, compact, tufted bull, straight and good in his lines, and makes a very attractive appearance. Another bull, his stable mate, is over a year old and is out of Gertrude of Ravensdale, a cow sold to Mr. Ness. Mr. Kay especially wants to get rid of these two as he needs the room. He priced them away down at only \$75 each. In bull calves we noticed one out of "Sheila" and one out of "Snowdrop" and one of Morton Mains Katerina, the imported cow mentioned before, and she is now piling up a good record in R.O.P. for her first calf and herself more valuable. For sires and names of others visit Mr. Kay direct. One bull in this younger bunch is Buchan Surprise, out of Buchan Breeze, a Peter Pan heifer. Mr. Kay is keeping him for his next herd sire.

While there is much that is worthy of note about the older Ayrshires in this herd there is even much more occasion for comment on the younger stock. The heifers and heifer calves are a very worthy lot. We might like columns to properly mention and describe a Peter Pan, two-year-old heifer, and Buchan Nora, Ravens-

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Partial View of the Buildings at Ravensdale Stock Farm.—W. F. Kay, M. P.

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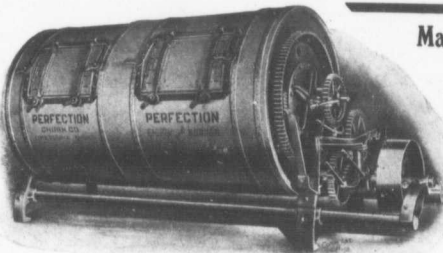
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Creamery Department

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.

Creamery Problems

Frank Hens, Chief Instructor for Western Ontario.

The creamery industry in Western Ontario is rapidly expanding, especially in the northern and southeastern section of the peninsula. It is just possible, however, that creameries may be erected too close to each other. This does not mean that too much good butter is likely to be made (in view of the fact that butter is imported into Canada) but that, unless the production of milk increases, the chances are that in time the territory of competing creameries will be narrowed to the point where, in some cases at least, the output will not be sufficient to insure a profitable business. It is to be hoped the creamery industry will not suffer from the mistake made in the cheese industry which in some sections of Ontario built too many small cheese factories. Possibly one commendable feature of the smaller factory is that less ground will be covered by each wagon which should mean more frequent collections. This should tend towards a better quality of cream.

If the cream could all be pasteurized it would improve the quality of the butter. Pasteurization will be encouraged through a better and cheaper method of cooling the cream than that now in use.

In some instances where creameries have started in sections formerly given over to home dairy buttermaking, most of the cream is sent only during the warm weather. This is surely a mistake as it makes the creamery season too short. Increases the cost of manufacturing and throws quantities of home dairy butter (often of poor quality) on the market during the spring and fall months, which seriously affects the price of good butter. It is becoming more and more difficult to sell poor butter.

GOOD BUTTER IS CREAMERY MADE

The present creamery system is based on the constantly increasing and insistent demand for butter of uniform quality and such butter can best be produced in the creamery. Some farm dairies turn out good butter that finds satisfied consumers, but when the cream can be sent to the creamery and there made into butter of uniform quality by an experienced buttermaker there can be no question but that it is in the best interests of cream producers to patronize the local creamery during the whole season.

If the patrons will visit the creamery occasionally, see the cream tested and encourage the buttermaker to explain points on which the patron is in doubt the differences which sometimes arise between patron and buttermaker will soon disappear. Variations in the test of cream from month to month are almost bound to occur and if the patron will study the causes of these variations he will conclude that the test is not always to blame. The chief causes are: Variations in the per cent. of fat in the milk, inflow, temperature, speed of machine and quantity of flush water.

WATER VARIATION IN PRODUCTION

In the old creamery systems many producers did not at yet seem to realize the great possibilities for increasing the production of fat per cow. To illustrate this point we quote from a summary of a dairy census taken of the patrons of an old established creamery for the season of 1912 in a so-called "beef" section. To the fol-

lowing third to production per cow.

The three highest fat per cow.

Forty-25 to 48 pounds of 175 lbs. of fat.

the wide prevalence from the ten per cent.

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lowing figures may be added one-third to the fat totals to make up for production during the remaining lactation period.

There were 125 herds and 752 cows. The highest average lbs. of milk fat per cow per herd was 187.5.

Forty-eight herds produced between 25 to 50 lbs. of fat per cow per herd; 48 produced 50 to 75 lbs.; 22 produced 75 to 100 lbs.; six produced 100 to 125 lbs.; and some produced over 125 lbs. of fat.

This points out in no uncertain way the wide field that is open for improvement in increased production from the individual cow. More attention given to selection and breeding would in time build up herds that would average double the quantity of milk and fat per cow and furnish skim milk to raise a still larger number of young stock for beef purposes. There is probably no more important work to be done in creamery sections

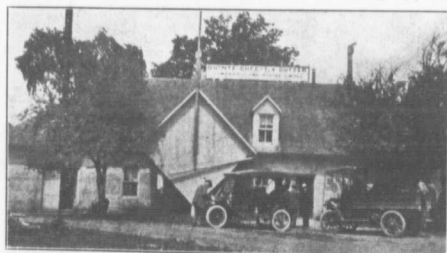
cream grading, we should not hesitate to advocate it to our patrons. We hope, that in the near future, Ontario creamerymen and patrons will favor its unanimous adoption.

Why Tests are Low

By "Butter Boy," Victoria Co., Ont.
Cream tests will soon be going down. Patrons will be kicking. It always seemed funny to me that patrons could never understand why their tests should go down and at the same time it always seems the most reasonable thing in the world to them that their tests should go up. I have never yet had any trouble in explaining to a man just why his tests went up. But to me one is just as funny as the other.

Of course it is easy to understand why the test does go down from now on. Cows are freshening everywhere.

Photo by an editor of Farm and Dairy.



A Dual Purpose Factory such as is Ever Becoming More Common

The growth in winter dairying has made a winter market for milk and cream necessary. This market is best supplied in many districts by a combined cheese and butter factory such as the Quin's factory of Prince Edward Co., Ont., here illustrated.

than that of convincing the producers of the possibilities and value of cow testing.

The Need for Cream Grading

M. F. Jackson, Brant Co., Ont.
I realize that cream grading is a subject in regard to which both the maker and the patrons will need considerable education, especially in the parts of Ontario where the gathered cream system was established and continued on the old method of paying a flat price regardless of the grade of sweetness. Considering these disadvantages we should not become weary of well doing, as history has told us before, that new reforms come slowly. I believe if we are up-to-date in the manufacturing end of the business, our patrons will be more likely to be progressive in the production and care of raw material.

Coming back to the subject of cream grading: Last November I persuaded the Forest Creamery Co. to hold a dairy campaign in the month of December, with the chief object in view, of introducing the grading system. Nothing definite was done at our meetings regarding the grading system, but I am satisfied that our patrons are in a better position to accept a grading system, when the Forest Creamery Co. sees fit to introduce it, than they were before our campaign.

The grading system is convincing in itself from the fact that it is being introduced and carried on in a province where extremely long hauls are common. The matter of long hauls is one of the chief objections that the Ontario creamerymen and patrons put forth. If this system can be carried on successfully in Alberta, why not in Ontario?

It occurs to me that when dairy authorities agree on such a subject as

milk is not as rich as it was a month or so ago, while the cream screw in the separator remains at the same old place. Consequently, the cream is, proportionately with the milk, poorer in fat. I also believe that in winter the milk is colder when separated and that cold milk gives a thickener cream than does the warm milk although there is a greater waste of fat in the skim milk. We know these facts perfectly, but what are we going to do with the patron who doesn't or won't understand them?

One of the mistakes that butter makers are making is to keep the patron in ignorance of his declining test until the end of the month and tell him. If he is of a particularly pugnacious character there will then be trouble right away. Most of us are connected with our patrons by phone and I always make a practice of letting the patrons know through the month how his test is going. I have some patrons whom I know will make a fuss when the test declines, and always keep a duplicate test bottle for them so that, if necessary, they can see their cream tested right before their eyes.

Patrons should understand that the dishonest buttermaker is not the one who allows their test to decline in the spring or from month to month, but the one who gives them the same test, or approximately the same test right along. It is natural that the tests should vary. A uniform test all the year round is apt to be an indication of dishonesty.

The silo and dairying should go together. On Wolfe Island in this county there are 30,000 acres. All the land is good for dairying and yet on the whole area there is only one silo.—A. Rankin, Frontenac Co., Ont.

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The Export Cheese Trade

"A Duller," Montreal, Que.
Mr. Ballantyne's prediction that within five years Canadian exports of dairy produce will cease, threatens to come true. Butter, once an important item in our export trade has already ceased to leave Canadian ports and instead thousands of tons will be brought in from the United States and from New Zealand this year. Figures furnished by the dairy and cold storage commissioner show a serious decline in our cheese exports for 1912 as compared with previous years.

Many factors may be brought forward to account for our declining exports, but I believe that one of the factors seriously hindering our foreign trade is that we are not producing the right quality of goods. It is a well-known fact that Danish and Irish butter were both preferred to Canadian and quotations sent out by leading dealers on the other side show that now New Zealand cheese sells at a premium over the Canadian. The green cheese evil is slowly but surely giving the New Zealand product an entree on English markets.

The great majority of our cheese factories are not equipped to hold cheese. In hot weather the whole output of the maker is as good as shipped as soon as possible when they are still green and before they have lost too much weight or develop bad flavors. The only real cure that I

can see for this condition of affairs is the installation of a cool-curing room in every factory in order that cheese may be held for 10 days at least. This may come hard on the small factory man, but I believe that did we have large factories everywhere such as they have in Prince Edward Co., Ont., that it would be much better for the industry and the driving out of the small factory men a blessing in disguise.

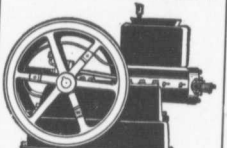
I do not believe that factory needs to be as large as some people think to make a cool-curing room a profitable investment. Mr. Geo. Barr, of the Dairy Division, Ottawa, has told me that a 30-ton factory can well afford to install a cool-curing room and can easily pay off principal and interest in three or four years. Patrons and proprietors of factories would do well to get together to discuss this subject of cool-curing and a better milk supply if they decide that we retain our export cheese trade.

An Old Country Opinion

Lowell & Christmas, London, Eng.
In our opinion, the quality of Canadian cheese in 1912 was not equal to that of previous seasons, the September and October makes, especially, leaving much to be desired. The most noticeable defects were looseness of texture and excess of moisture, which caused great shrinkage. The cheese did not improve by keeping, in many instances developing ill-flavor. We consider that this result is attributable, in a large measure, to the extremely wet season which was experienced.

We may add that similar defects to those found in the Canadian cheese have also been present in the New Zealand cheese this season, the majority of which have contained an excess of moisture, causing the tex-

GILSON ENGINE GOES LIKE SIXTY



Anybody can operate the simple "GOES LIKE SIXTY" Engine. Ready for work the moment you get it. Built strong and solid to last a lifetime. Will give long unflinching satisfaction. Gas, gasoline or kerosene can be used for fuel—dependable service. Great durability, highest economy, and perfect satisfaction; freedom from trouble, delays and expense.
Every engine absolutely guaranteed. You can try this engine on your own farm before setting for ever. Write your address to the "GOES LIKE SIXTY" Line has an engine for every purpose. Always and sizes from 1 to 40 hp. Write for catalogue.
GILSON MANUFACTURING CO., LIMITED
98 York Street, GUELPH, ONT.

"FARM DAVIES' WAY"

Learn how by visiting us
The WILLIAM DAVIES CO., LTD.
West Toronto Ontario

CRUMB'S IMPROVED WARRIERS STANCHION

Prof. F. G. Helyar of Mt. Herman School, Mt. Herman, Mass., writes: "We could not get along without Warriors Stanchions."
Send address for book of information to
WALLACE B. CRUMB, Inc., 1000
You can order direct from Canadian factory. All correspondence should be in English or French or English. Write in inquiry if you prefer booklets in French or English.

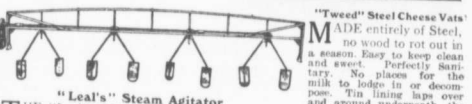
A Message to Cheese-makers

THE life of the average Cheese-maker is not exactly a bed of Roses. His troubles are many and constant. Not the least of these troubles is giving each patron with keeping the cheese-vat sweet and wholesome. Other troubles relate to the actual making of the cheese—the problem being at all times how to make the best cheese at the lowest cost and with the least trouble. We claim that the Cheese-Maker's troubles and problems are very satisfactorily solved by

"TWEED" DAIRY APPLIANCES

IN this advertisement are given brief particulars relating to four equipments which are worthy in every respect. They represent the best mechanical yet produced for the making of high quality cheese and for lessening the Cheese-Maker's troubles. These equipments may be described as

Sanitary Modern Best



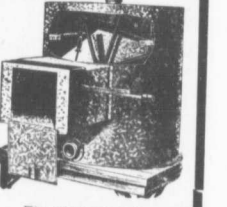
"Leal" Milk Agitator does away with the usual costly equipment, and is therefore well within the reach of small factories. This agitator is complete with Engine attached, and from boiler. Can be connected with your steam pipe—ready motion does not break the small outlet. Therefore retain more. The agitator makes it possible for 2 men to do the work of 3, thus saving the cost of one man.
No engine—no line shaft—no pulleys and not being required. Run at any speed.

"Tweed" Steel Cheese Vats
MADE entirely of Steel, easy to wash and to rot out in a season. Easy to keep clean and sweet. Perfectly Sanitary. No places for the milk to lodge in or decompose. Tin lining laps over and around underneath the edge, making an ideal surface to work on. Fitted with inch by inch bars, and so can be raised or lowered inch, by proper share, and some—the late comers—getting little or nothing. The Hohlsbehn Whygei doesn't cheat, but treats all alike.

"Tweed" Steel Why Tank

THE "Tweed" tank will hold whey in a satisfactory manner. It is Sanitary and can be kept clean this day of rigid Government inspection.
Made of 1/2 inch steel boiler plate. Will last 25 years, and so the best investment any factory can make.

We draw particular attention to Hohlsbehn's Automatic Skim Milk Weigher. Literally it is the patron's friend. Where this old method the patron helps himself—some getting more than their proper share, and some—the late comers—getting little or nothing. The Hohlsbehn Whygei doesn't cheat, but treats all alike.



The "Hohlsbehn" Automatic Skim-Milk Weigher

THE Hohlsbehn Automatic Skim Milk Weigher will weigh whey as accurately as it can be done on a scale. The Cheese-Maker supplies each patron with checks representing the amount of skim milk due him. These checks are inserted. This handle is operated, valves are opened, and the right amount of milk is forthcoming. The weigher is the most simple and durable made. It can be set up in any convenient place. Write us for fuller particulars.

Send for Complete Catalogue of "Tweed" Dairy Appliances. "Tweed" made equipments can be relied upon in every respect; they are sanitary, modern and of the best quality.
The Steel Trough & Machine Co., Limited
6 James Street, - - - - -
TWEED, Ont.

ture to be loose and open and the shrinkage to be very great. It is to be hoped that the faults mentioned will be remedied in the coming season's make of Canadian cheese.

The English home make was very large last year and this caused lower prices to rule as compared with 1911.

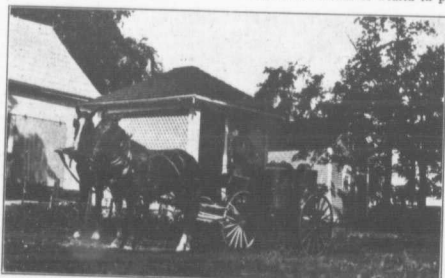
Two Methods of Protection

Shall irresponsible cheese merchants be allowed to deal longer with the farmer without giving a better guarantee than the cheese purchased will be paid for? Speaking before the Royal Commission appointed to investigate the cheese business of Eastern Ontario, Mr. R. B. Faith, of the Ottawa Valley Journal, estimated the losses due to the failure of cheese buyers during the last 15 years at over \$1,000,000 of which farmers have lost more than one-half. Mr. Faith suggested two methods in which cheese producers might be protected. Mr. Faith said:

the farmer for his wheat at point of shipment to do business without first having furnished the Government commissioner with a bond covering the amount of business he intends to transact.

"I will not go into detail as the matter is fully covered in the Grain Act, which amended up to 1910 fully protects the Western farmer from losses through failures. Our fellow-farmers in the West ship their grain with perfect safety to the dealers in Winnipeg, Port Arthur and Fort William, the Government bond protecting them in the event of the dealer failing in business.

"Since the Government has seen fit to come to the rescue of the Western grain grower, providing legislation practically making losses impossible, thousands of dairymen in Eastern Ontario and Western Quebec feel that they are entitled to similar protection, both industries being identical in method of marketing and bringing in the same amount of wealth in pro-



Fully Equipped to do the Square Thing by the Cheesemaker

In the foreground may be seen Mr. J. A. Anderson, Stormont Co., Ont., and his covered milk house. In the background to the left is the ice house. Mr. Anderson is prepared to eliminate his share of the 30 per cent of defects in cheese that are attributed to the carelessness of patrons.

"Two methods of protecting the farmer from losses have appealed to me as being fairly practical. The one is that legislation be enacted compelling merchants engaged in the buying of cheese to send instead of an 'unaccepted' cheque, a cheque marked 'accepted' by their bank, and make it a criminal offence for any merchant to sell or dispose of any cheese before it has been paid for as in the aforesaid manner, neglect on the part of the cheese buyer to comply with this regulation to be punishable by 'fine' and 'imprisonment.'

"The other system is that of asking merchants to give bonds covering the amount of their purchases. This plan of compelling buyers to give bonds is no new idea. The only other farm product not paid for at point of shipment is wheat, produced in the Western Provinces of Manitoba, Saskatchewan and Alberta. The farmers out West transact their business on very much the same basis that the dairy farmers do here in the East. The only difference is that the grain grower ships all his wheat in one or two shipments in the fall of the year, while the dairy farmer makes weekly shipments covering a period of six to eight months. This makes the only difference in the marketing of the two products so far as payment is concerned.

THE WEST GETS RELIEF

"Previous to 1901 the Western farmers lost considerable money annually through failures of grain dealers. They asked for protection, and the Dominion Government enacted legislation, making it impossible for any grain dealer, track buyer or commission merchant who does not pay

portion to acreage devoted to the industry."

A Further Increase in Dairy Production in Ontario Expected

(Continued from page 2)

cheese. If all the patrons were sending all of their milk in 1913 I could make 10 times that amount."—C. C. Travis, Elgin Co.

"Prospects are good as farmers are going into dairying more extensively and devoting more time to their herds."—S. Buckborough, Norfolk Co.

"We increased our make last year. We will have another increase this year. Cattle are in better condition."—W. L. Bongard, Middlesex Co.

GOING OUT OF COWS

"The make of cheese will be smaller. Some farmers have gone out of cows entirely. The tendency is towards fewer cows and better cows. We would keep more cows if we had the labor."—Jas. Shelton, Middlesex Co.

"There is plenty of feed, stock is in good shape and we expect an average make."—Robt. McMillan, Middlesex Co.

"Prospects for the season are fairly good with the number of cows the same. Labor is very scarce."—J. W. Symington, Lambton Co.

I have worked in factories in both Eastern and Western Ontario and a weak point in Eastern factories that I see is the lack of curd sinks. If you take the curds out of the vat into a sink you can control mixture to perfection, while in the vat you work in a puddle of whey.—J. E. Proudiv, Peterboro Co., Ont.

Turn Waste Land into Profit



STUMPING POWDER

A Well Cleared Field of Stumps Split so they will Burn Easily

YOU are losing money every day by allowing Stumps and Boulders to occupy the richest and most productive parts of your farm. Why not remove them with CXL Stumping Powder. The cheapest and quickest method known for clearing land.

Write To-day for our Free Booklet

CANADIAN EXPLOSIVES LIMITED
MONTREAL, QUE. VICTORIA, B. C.

CREAM CREAM

Sweet or Sour

We are buyers of Cream and will pay the highest price for it per Butter-Fat test. We will supply the cans. Make prompt returns by Bank Draft, payable at par, at any Bank in any town. We will operate the year around.

References Bank of Montreal.

THE BOWES COMPANY, Limited
74-76 Front Street E. - - - Toronto

The Record-Breaker

THE Standard Cream Separator has justly been named "The Record-Breaker" by creameries and dairymen. It has certainly made some remarkable skimming records at Ontario Agricultural College, Guelph; at Dominion of Canada Experimental Farms, Ottawa; at Wilton Creamery, at Stratford Creamery, and others. The report of the records made by the



Standard

at the Eastern Dairy School at Kingston, and at the Kerwood Cheese and Butter Factory, were published a short time ago. They proved, conclusively, that the Standard Cream Separator was unequalled for close-skimming. They go to show that right Separator—a fact, we believe, all Canadian dairymen will be proud of. If you are not familiar with the skimming records established by the Standard Cream Separator write us. We will gladly send you particulars.

But the best record of all will be the record the Standard will make for you in everyday use in your dairy. It will do the same for you as it has done at Experimental Farms. All Standard Separators of the same capacity are identically good as another, no matter who owns it.

The Renfrew Machinery Company, Limited

Head Office and Works: RENFREW, CANADA

Agencies Everywhere in Canada.



THE pleasantest things in the world are pleasant thoughts, and the greatest art in life is to have many of them as possible.—J. Foster.

Rose of Old Harpeth

By MARIA THOMPSON DAVIES

"Copyright, 1912, The Bobbs-Merrill Company"
(Continued from last week)

Point point of fact it was a thick and impenetrable veil that the Senator had for long hung before his face from behind which to view the world at large. And through his mouth, as through a rent in the smie, he was wont to pour out a volume of voice as musical in its drawl and intensified southern burr as the bass note on a well-seasoned cello.

He was performing the obligato of a prohibition hymn for the group of farmers around him when he caught sight of Everett as he came across the street. Instantly his voice was lowered to a honeyed conversational pitch as he came to the edge of the porch and held out a large, fat, white hand, into which Everett laid his own by courtesy performed.

"I'm delighted to see you, Mr. Everett, suh, delighted!" he boomed. "And in such evident improved health. I inquired for you at Bollivar as soon as I returned and I was informed that you had come over here to find perfect restoration to health in the salubrious climate of this wonderful town of Sweetsbrar. I'm glad to see your looks confirm the answer to my anxious inquiries. And is all well with you?"

"Thank you, Senator, I'm in pretty good shape again," answered Everett with a counter smile. "Ten pounds on and I'm in fighting trim." The words were said pleasantly, but for the life of him Everett could not control the hostility of a quick glance that apparently struck harmlessly against the veil of smiles.

"That there ten pounds had oughter be twenty, Senator, at the rate of the Alloway feeding of him, from milkhouse to cellar preserve shelf," said Mr. Crabtree from behind the counter where he was doing up a pound of tea for the poet, who found it impossible to take his eyes off the politician. "Miss Rose Mary ain't give me a glass of buttermilk for more'n a week, and they do say she has to keep a loaf handy in the milkhouse to feed him 'fore he gets as far as Miss Amandy and the kitchen. We're going to run him in a fattening race with Miss' Rucker's fancy red hog she's gitting ready for the State Fair and the new Potet baby, young Master Tucker Potet of Sweetsbrar."

"So there's a new Potet young man, and named for my dear friend, Mr. Alloway! My congratulations, Mr. Potet!" exclaimed the senator as he pumped the awkward horny hand of the embarrassed but proud Mr. Potet up and down as if it were the handle of the town pump. "I must be sure to have an introduction to the young man. Want to meet all the voters?" he added, shaking out the smile veil with energy.

And at this very opportune mo-

ment he looked down the Road and espied a procession of presentation approaching. The General in the midst of the Swarm was coming at a breakneck speed and clasped firmly in his arms he held a small blue bundle. On his right galloped Tohe with Shoofly swung at her usual dangerous angle on his hip, and Jennie Rucker supported his left wing, with stumbling Pettie pulled along between her hand and that of small Peggy. Around and behind swarm- ing the rest of the Potet seven, the Ruckers and the Nickels, with Mrs. Sniffert and the five little dogs bring-

ing up the rear.

"Well, well, and what have we here?" exclaimed the great man as he descended and stood in front of the lined-up cohorts.

"It's the Potet baby," answered the General with precision. "We brought him to show you. He's going to be a boy; they can't nothing change him now. Shoofly is a girl, but Miss' Potet didn't fool us this time. Besides if he'd been a girl we wouldn't a-had him for nothin'." "Why, young man, you don't mean to discredit the girls, do you?" demanded the Senator with a gallantly propitiating glance in the direction of Jennie, Peggy and the rest of the bunch of assorted pink and blue little calico petticoats. "Why could anything be finer than a sweet little girl?" And as he spoke he rested his hand on Jennie's tow-pigtailed head.

"Well, what's sweet got to do with it if we've got too many of 'em?" argumentative tone. "Till little Tucker comed they was three more girls than they was boys, and it wasn't fair. Now they is just two more, and four of Sniffert's puppies is boys, so that makes it most even until another one comes, what'll just have to be a boy." And the General cast a threatening glance in the direction of the calico bunch as he issued this ultimatum to feminine Sweetbrar.

"Till ask Maw," murmured Jennie bashfully, but Miss Peggie turned up her small nose and switched her short skirts scornfully as the men

on the porch laughed and the Senator emitted a very roar in his booming bass.

"Well, well, we'll have to settle that later," he said in his most propitiating urge-voter voice as he cast a smile over the entire Swarm. "Haden't you better carry the young man back to his mother? He seems to be restless," he further remarked, taking advantage of a slight squirm in which young Tucker indulged himself, though he was not at all uncomfortable in Stonie's arms, accustomed as he was to being transported in any direction at any time by any one of his conferees. And with this skillful hint of dismissal the Senator bent down and bestowed the pink Potet head, smattered one or two over Shoofly and Pettie, landed one on the tip of Jennie Rucker's little freckled nose and started them all up the Road in good order as he turned once more to the men in the store.

But the advent of the Swarm had served to remind the group of his friends that the time for the roof-tree gathering was fast approaching, and Mr. Crabtree was busy filling half-forgotten supper orders for impatient waiters, while most of the men in the wake of the scattering Swarm. For a few minutes the Senator and Everett were left on the porch steps alone.

"I hear from some of the men that you have been able to do some prospecting in the last weeks, Mr. Everett," remarked the Senator, casually, from behind the veil, as he accepted and lighted a cigar.

"Just knocked around a bit," answered Everett carelessly. "The whole Mississippi Valley is interesting geologically. There is quite a promise of oil here, but practically no outcrop."

"Your examination been pretty thorough—professional?" queried the Senator, still in an equable careless voice, though his little eyes gleamed out of their slits.

"Oh, yes. I thrashed it all out, especially Mr. Alloway's place. I'd like to have found oil for him and the rest of Sweetsbrar, too, but it isn't here. Everett spoke decidedly, and there was a note in his voice as if to end the discussion. His own eyes he kept down on his cigar, and as he lounged against a post he had an air of being slightly bored by an uninteresting shop topic. The Senator looked at him a few seconds keenly, started to make a trivial change in the conversation, then made a flank movement, bent toward Everett and began to speak in a suave and most confidential manner.

"I'm sorry, too, you didn't find oil on the old gentleman's place," he said in his most open and dulcet tones. "I am very fond of Mr. Alloway; I may say of the whole family. Farming is too hard work for him in his years and I would have liked for him to have had the ease of an increased income. Some time ago a phosphate expert examined these regions, but reported nothing worth working. I had more hope of the oil. As I say, I am interested in Mr. Alloway and the family—I may say it to you in confidence, particularly interested in one of its members." And the smile that the Senator bestowed upon Everett aroused a keen desire for murder in the first degree. There was a challenge and a warning in it and a cunning, too, that was deeper than both. Controlling his impulse to smash the mental bulldog jaw, Everett's Senatorial instantly after the cunning.

"So you only got the phosphate in your examination report of the Alloway place?" he asked in a



Your Examination Been Pretty Thorough?

(Continued on page 34)

The Upward Look

Are We Growing in Grace?

The Lord make you to increase and abound in love one toward another and toward all men, even as we do toward you.—1 Thess., 3:12.

Do we pause frequently along the pathway of life to ask ourselves whether or not we are growing spiritually or deteriorating? As in any other kind of work it is impossible to be at a standstill in God's work. When we accomplish some good thing in this world, do we not sometimes stop to congratulate ourselves in that we have done something to lighten another's burden or have made the way brighter, for a short time at least, for someone? Then is there not a tendency on our part to "rest on our laurels," as it were, instead of seeking to attain to a still greater height? Everything that we achieve should make us capable of greater things, and if we are true followers of Christ we will realize that our best is but a step forward towards making us more like Him. We see all through the world to-day that it is the men and women who accomplish most who are honored with the heaviest responsibilities.

We know that no two people are fashioned alike; therefore, we can readily see that each one has his own

special weaknesses of character that must be improved if he is to make a steady advance. For instance, some of us may be inclined more than others to selfishness. We do not like to admit this fault; but if we do realize our shortcomings what a vast field lies before us in which we may increase, not in selfishness, but in self-sacrifice. It is only by broadening our outlook and seeking to live for others that we will be able to overcome this obstacle of thinking only of our own petty desires. If we desire to help others we must get away from self and study our fellow-creatures,—their surroundings and their characters before we can accomplish the greatest good.

Another way in which we may advance is in cultivating our minds to look on the bright side instead of the dark. We are all prone to cross the bridges before we come to them. We may unconsciously let fall little words of discontent that, while they may be in our minds only for the moment, leave an impression on those around us and cause them also to look on the dark side. On the other hand, we never know the boundless good we may do by being optimistic ourselves and striving to get others to see the silver lining of the clouds. James Whitcomb Riley forcibly expresses this idea in his little poem, "Just be Glad," a part of which we quote below:

Oh, heart of mine, we shouldn't worry so,

What we've missed of calm we couldn't have, you know,
What we've met of stormy pain,
And of sorrow's driving rain,
We can better meet again,
If it blow.

For, we know not every morrow can be sad;
So, forgetting all the sorrow we have had,
Let us fold away our fears
And put by our foolish tears,
And through all the coming years
Just be glad.

—R. M. M.

The Opening of Spring

By Ella G. Flanders

The crocuses are budded, the early birds are calling, the brook is singing on its way and something tells me even though the winds haven't lost their icy chill, that spring is on the way.

To those born and bred on a farm the early spring days bring with them a desire for labor and out-door work. It has been my custom to plant each year something that will be permanent in the flower garden, and as I look out upon the hedge row of hardy roses, the lilacs, laburnum and honeysuckles that have been planted from time to time there is a feeling of satisfaction, for they serve as land-marks for the passing years, and by their fragrance and beauty bind us more closely to our homes.

Many of the old-fashioned flowers are coming into their own in these days, and receiving more attention than many varieties of late introduction. Among them the hollyhock is a favorite,—and in clumps, hedge rows and as screens to hide unsightly places they have no equal. Although regarded as perennials, and non-blooming the first season from seed, if started in the house this month and transplanted as soon as danger from frost is over they will often bloom the first season. I have found they are not always true to seed, but many of the sports are of wonderfully delicate shades and colors and are often as desirable as the standard varieties.

Mold can be kept from the top of preserves by putting a few drops of glycerine around the edges of the jar before screwing on the cover.

If it is necessary to catch the thread through the right side when sewing hooks on dresses, a neat finish may be obtained by making French knots where the threads appear.

When hemming children's dresses on the machine use a fine cotton, No. 90 or 100; then, when hems or tucks must be ripped to lengthen the dresses, you will find the fine thread easy to rip. Often a quick jerk will be all that is necessary to pull it out.



Add water to milk—
You *weaken* the milk.
Add soft wheat to flour—
You *weaken* your flour.
Cheapens it too.
Soft wheat costs less—*worth less*.
Soft wheat flour has less *gluten* less *nutriment*.
Your bread is less nutritious, sustaining, economical.
Soft flour has less *strength*, less *quality* *gluten*.
Giving less good things for your money and things less good.
Use Manitoba flour—Manitoba *hard* wheat flour.
Having everything the soft stuff *lacks*.
Five Roses is *all* Manitoba.
Without a grain of cheaper wheat.
Strengthen your food values.
Use FIVE ROSES.

Five Roses Flour

Not Bleached



Not Blended

ALL HAIL TO THE CONQUEROR



OF WASH DAY DRUDGERY

COUPON
BELOW
SAVES YOU
\$2.00

THE

I. X. L.

COUPON
BELOW
SAVES YOU
\$2.00

VACUUM WASHER

Price \$3.50

For the Following Reasons:

- 1-It is compressed air that does the work.
- 2-You can wash a tub of clothes in THREE minutes.
- 3-COMPRESSED AIR and SUCTION are the latest known science for perfect cleaning.
- 4-There is no wear or tear on the clothes.
- 5-It eliminates all the hard work of washing.
- 6-You can rinse or blue a tub of clothes in 30 SECONDS.
- 7-One hour's work will do any ordinary family washing.
- 8-It will last for years.
- 9-Anything that can be cleaned by soap and water or gasoline can be cleaned perfectly without breaking a thread.
- 10-THREE minutes in the suds, Two minutes in the boiler (if you boil your clothes), 30 SECONDS in the rinse water and 30 SECONDS in the bleaching water, will wash a tub of white clothes.
- 11-Lace Curtains, Bed Comforts, Fancy Shirt Waists, Woolen Blankets, Overalls and even Horse Blankets can be washed perfectly without any wear or tear on the goods.
- 12-It forces the water through the fabric.
- 13-The finest fabrics can be washed in the same tub with ordinary white clothes with no possible injury.
- 14-The work that takes from 40 minutes to one hour to do on a rubbing board can be done in THREE minutes without any hard work.
- 15-You can use the machine in the boiler, thereby forcing the steam through the clothes, which bleaches and whitens them.
- 16-It only costs \$3.50 and will save at least \$50.00 per year in your home by not wearing out your clothes.
- 17-The Washing Machine only weighs 1 1/2 pounds.
- 18-You can do all your DRY CLEANING with the machine. You simply use gasoline in place of water.
- 19-Because the I. X. L. Vacuum Washer is sold under a money back guarantee to price and construction.
- 20-Because, if you use the coupon below, you can get one of these wonderful washers for \$1.50.

To wash a tub of clothes perfectly in 3 minutes
Not only washes, but rinses and blues
No rubbing or batting. Absolutely no friction

NO SEVERE EXERTION REQUIRED

A child can do an ordinary washing and have it ready for the line in one hour.

Sent Under a Money-Back Guarantee

ALL CHARGES PREPAID

Send For One, You Run No Risk

DO IT NOW

YOU WILL NEVER REGRET IT. YOU WILL BE DELIGHTED

FARM AND DAIRY COUPON

Present or mail this Coupon and \$1.50 to Dominion Utilities Mfg. Co., Ltd., 482 1/2 Main Street, Winnipeg, Man., and you will receive one I. X. L. VACUUM WASHER.

All charges prepaid anywhere in Canada on condition that your money is to be refunded if the Washer does not do all that is claimed.

NAME 34-33

ADDRESS

PROVINCE

A Canadian Farm Home

Time was when "conveniences" and "the city" were mentioned in the same breath. Such, however, is no longer the case. We have found that the farm home is exactly what we make it. Today, at the price of a new binder the farmer can equip his home with many conveniences that make life more livable for the whole family and house work much easier for the wife or mother. There are now many homes in the country thoroughly well equipped, but even among well equipped homes, that of J. W. Richardson, Haldimand Co., Ont., is an exception. It is one of the most complete farm homes that one would wish to see.

The residence itself as will be seen by the illustration herewith, is a

fine. The manner in which our hostess turned her plants to display all of their good points explained her success in their culture. She is in love with them.

We noticed that the walls were painted instead of papered and Mrs. Richardson explained that they found that the paint could be easily washed off and made to look fresh at any time. A paper border next the ceiling set the wall off and relieved it of the plain look that painted walls too often have.

Riverside Farm is in the natural gas region and the Richardson's have taken full advantage of this convenience. There are several gas wells on the farm and Mrs. Richardson cooks by gas both summer and winter and the house is fitted throughout



The Home and Family of Ontario's Best Dairy Farm

Mr. J. W. Richardson, Caledonia, Ont., his wife and two daughters, may be here seen in front of their fine home. First place in Ontario is the Inter-Provincial Dairy Hearty Competition conducted by Farm and Dairy was won through the hearty cooperation of all the members of the Richardson family. The best feature of it is that Mr. Richardson is willing to give the rest of the family full credit for the part that they have taken in making Riverside Farm what it is—

one of the best dairy farms in Canada. large and imposing brick structure. One of the advantages that the farmer has over his city cousin in the establishing of a real home, is in his surroundings and the Richardson's have taken full advantage of their opportunity. The effect is pleasing from the first. The road on which one drives to the farm is lined with trees. Nearby is the Grand river and surrounding the home itself are spacious lawns and beautiful trees. These are things that every farmer can well afford. They cost little and add much to the attractiveness of the country home. The best that the city man can do is to make his very immediate surroundings pleasing. A short distance away is the inevitable succession of brick walls, dirty streets and the roar of street cars.

Right alongside of the square front hall is the business office where Mr. Richardson keeps his books, pedigrees and records. A typewriter, in the management of which Mr. Richardson's daughter is expert, facilitates correspondence and pays for itself every year that it is used. Passing through the office we enter the drawing room which, like all of the rest of the first floor of the house, is finished in hard woods that grew on Riverside farm. Off of the sitting room is a very large bay window which Mrs. Richardson uses as a conservatory. Between the windows are mirrors which throw back a reflection of Mrs. Richardson's splendid plants. Her begonias were especially attract-

with gas chandeliers. Out on the back veranda Mrs. Richardson called our attention especially to a large refrigerator which she considers an inestimable boon to the housewife. It almost goes without saying that there is running water and a bathroom.

We have not here space to describe all of the good points of the Richardson home or of the care that is lavished on it to make it attractive. We will let the illustration herewith speak for itself. A feature that attracted our particular attention and one that must go a long way towards explaining the success that has attended the proprietors at Riverside is the spirit of friendly cooperation that prevails. Every member of the family down to the youngest child seemed to be interested in the success of Riverside. And this is as it should be.—F. E. E.

If you are troubled with ants try a little quick lime in the infested places. This will drive away any kind of ants.

It pays to invest in a meat grinder, so much can be saved by its use in turning tough, cheap meat into tender appetizing dishes, and in preparing meat for warming over it is indeed a great help. They are not very expensive, and, with ordinary care, will last a lifetime. See that it is thoroughly clean and dry before putting it away.

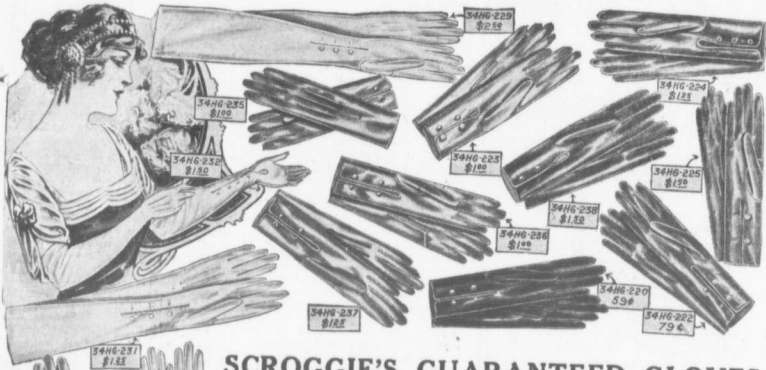
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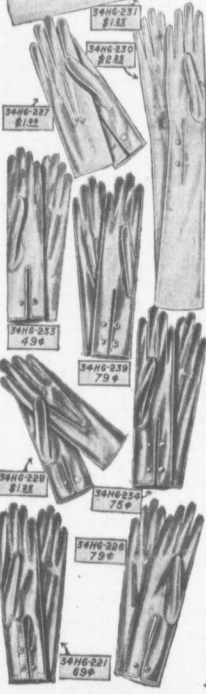
M O N

Scroggie's Personal Mail Service



SCROGGIE'S GUARANTEED GLOVES FOR WOMEN

SPECIALY SELECTED AND PRICED FOR OUR MAIL ORDER CUSTOMERS



- 34-HG224—Extra Special Quality Ladies' Fully Guaranteed French Kid Gloves, braided and stitched backs; all colors. Sizes, 5½ to 7½. \$1.25
- 34-HG225—Very Fine Ladies' French Kid Gloves, fully guaranteed, braided and stitched backs, 2-dome. All colors. Sizes, 5½ to 7½. \$1.50
- 34-HG226—Ladies' One-Dome Tan Cape Gloves, pique sewn backs. 79c
- 34-HG227—Ferrins' One-Dome Tan Cape Gloves, fully guaranteed, pique sewn backs. Sizes, 5½ to 7½. \$1.00
- 34-HG228—Ladies' Two-Dome Fine Austrian Kid Gloves; colors: tan, brown, black, white, grey, etc.; sizes 5½ to 7½. 59c
- 34-HG229—Special Ladies' Austrian Kid Gloves; two-dome, braided backs; colors: tan, brown, navy, slate, black, white, etc. Sizes 5½ to 7½. 69c
- 34-HG230—Extra Special Quality Ladies' 1-Dome Tan Cape, English make, pique sewn backs. Sizes, 5½ to 7½. \$1.25
- 34-HG231—Ladies' 16-Button Length, White and Black Glace Kid Gloves, moquette wrist. Sizes, 5½ to 7½. \$2.50
- 34-HG232—Special Ladies' 16-Button Length, White Glace Kid Gloves, moquette wrist. Sizes, 5½ to 7½. \$1.79 and. N. \$2.25
- 34-HG233—Ladies' White Glace Kid Gloves, 12-button length, moquette wrist. \$1.25
- 34-HG234—Very Special Ladies' 12-Button Length, White Glace Kid Gloves, moquette wrist. Sizes, 5½ to 7½. \$1.50
- 34-HG235—Children's Tan Cape Gloves, One-dome, pique sewn backs. Sizes 000 to 6. 49c
- 34-HG236—Misses' Tan Cape Gloves, 1-dome Ferrins' English make pique sewn backs. Sizes, 000 to 6. 75c
- 34-HG237—Dents' English Tan Cape Gloves, pique sewn backs, fully guaranteed. \$1.00
- 34-HG238—Ladies' French Suede Gloves, 2-dome grey and black only. Size, 5½ to 7½. \$1.00
- 34-HG239—Ladies' French Kid Gloves two-dome; attached backs; colors: tan, brown, white, black, navy, etc.; sizes 5½ to 7½. 79c
- 34-HG240—Ferrins' and Alexander's Fully Guaranteed French Kid Gloves; shades: tan, brown, navy, grey, champagne, black, white, etc.; sizes 5½ to 7½. \$1.00

One of our Biggest Glove Values

34-HG227

Special Quality Ladies' French Suede Gloves, fully guaranteed. A glove that can't be equalled in style, fit, finish and wearing qualities at our price. Buying tremendous quantities we are able to give you a \$1.50 quality

BLACK, GREY AND TAN

for \$1.25

Scroggie's Personal Mail Service is a new service—it has just been inaugurated—it is not Mail Order—it has no relation to Mail Order the way it is at present conducted elsewhere. Your letter for Merchandise is not dropped into a bag or pigeon-hole, taken out in routine order, filled without regard to your evident taste, jammed into a box and rushed back the easiest way possible.

The Scroggie Personal Mail Service is altogether different. It places at your disposal a personal representative, a trained and experienced shopper, one with an intimate and varied knowledge of this large store's stocks. When your letter reaches us it goes straight to the desk of the Correspondent who will act as your personal agent, serve you and continue to serve you as long as you desire. It will be to his or her interest to serve you well, for their success will depend on their record of Satisfied Customers.

This new service will eliminate delays, prevent errors and stand as an insurance against the disappointments of the present old style Mail Order System. Try it!

We prepay transportation charges on all orders amounting to \$5.00 and over in Quebec, Maritime Provinces, and Ontario, except West and North of Sudbury and Sault Ste Marie.

To Customers living in the West we will allow a discount of 5% to help pay your transportation charges. This 5% will be refunded when the goods are shipped.

OUR high quality and low prices are famous from coast to coast. When ordering be careful to give your name and address, so as to avoid delays.

W.H.Scroggie
Limited
MONTREAL, QUE.

Write for a copy of our new Spring Catalogue. It's the greatest style book published. When ordering, mention the name of this paper and save delays.

Big Ben



Use Big Ben All Day Long

Big Ben not only gets you up on time every morning, but he serves the whole family all day long as a reliable clock to tell the right time by.

He's really two good clocks in one—a cracklerjack of a time-keeper—a crackerjack of an alarm.

He can ring you up in the morning just when you want and either way you want—five straight minutes or every other half-minute for all of ten minutes.

If you're a light sleeper, turn on the half minute taps before you go to bed. If you sleep heavily, set the five-minute call and you can slumber then without the get-up worry on your mind.

Then when you're up and doing,

carry Big Ben downstairs into the living room so that the whole family can use him to tell the right time by. He stands seven inches tall and his great big open face can be seen distinctly across the largest room.

Big Ben is three nickel-plated and wears an inner vest of steel that insures him for life. His big, bold figures and hands are easy to read in the dim morning light. His large, comfortable keys almost wind themselves. He rings five minutes steadily or ten intermittently. If he is oiled every other year, there is no telling how long he will last.

He is sold by 6,000 Canadian dealers. His price is \$3.50 anywhere. If you can't find him at your dealer's, a money order mailed to his designers, *Branson, La Salle, Illinois*, will send him anywhere you want, express charges prepaid.

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

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



SEND \$1.00

Receive by mail 4 Shirt Waists, one of White Lawn, lace trimmed, and 3 of Print, light, with sky design; all different size to 44; add 10c for postage. STANLEY GARMENT COMPANY, LONDON, ONT.

Bruce's Big Four Field Root Specialties

BRUCE'S GIANT FEEDING BEET—The most valuable Field Root on the market; combines the rich qualities of the Sugar Beet with the keeping, large size and heavy cropping qualities of the Mangel. We offer two colors, WHITE and ROSE. $\frac{1}{2}$ lb. 15c, $\frac{1}{4}$ lb. 25c, 1 lb. 50c, postpaid.

BRUCE'S MAMMOTH INTERMEDIATE SMOOTH WHITE CARROT—The Best of all Field Carrots. $\frac{1}{2}$ lb. 25c, $\frac{1}{4}$ lb. 35c, 1 lb. 65c, postpaid.

BRUCE'S GIANT YELLOW INTERMEDIATE MANGEL—A very close second to our Giant Feeding Beet, and equally easy to harvest. $\frac{1}{2}$ lb. 15c, $\frac{1}{4}$ lb. 25c, 1 lb. 50c, postpaid.

BRUCE'S NEW CENTURY SWEDEN TURNIP—The best shipping variety, as well as the best for cooking; handsome shape, uniform growth, purple top. $\frac{1}{2}$ lb. 15c, $\frac{1}{4}$ lb. 25c, 1 lb. 65c, postpaid.

FREE—Our handsomely illustrated 112-page Catalogue of Vegetables, Fruits and Flower Seeds, for 1913. Send for it.

JOHN A. BRUCE & CO., Ltd. Hamilton, Ontario
Established Sixty-three years



Do Away with Spring Cleaning

By Mrs. W. C. Kohler
"Spring and housecleaning!" groaned one of the ladies at the thimble party. "I just dread to have spring come, because of the nasty housecleaning. It's all very well for people with servants to talk about the beauties of spring flowers and warm days, but I never feel happy till the house is in apple and spar order."

Several other ladies echoed the groan, but one newcomer in the neighborhood said that she cleaned houses whenever she thought it necessary, without waiting for spring, and it didn't dread the task very much. Of course, the others wanted to know how in the world she could say such a thing, and she replied that it was because she had no carpets in her house.

CHEAPER THAN HARDWOOD
"I once visited in an elegant house where they had hardwood floors," she explained, "and I was fascinated with the idea of having a floor that could be kept clean. After I went home I thought the matter over, and concluded to have rugs instead of carpets, myself. Of course, hardwood floors were beyond my purse, but I just painted them or stained them, as

seemed best. The bedroom floors were painted all over, but downstairs I just did the edges of the rooms."

"But what did you do with your carpets?" inquired a lady. "I should think it would be very expensive to throw them away and buy rugs."

"I didn't throw them away," said the newcomer. "The parlor Brussels I had made into two rugs at a small cost—one for the parlor and one for the sitting room. I had to buy the border, but then two rooms were provided for. The dining-room carpet was worn out, so I made a druggist by sewing three strips of new rag carpet together and putting fringe around the edge. I could have made a much nicer rug if I had planned to have stripes just at the ends, but I will know better next time."

CLEANING RUGS EASY
"For the bedrooms I have yard-and-one-half rugs homo-made, to put on both sides of the beds, and in front of dressing and washstands. You have no idea how easy housecleaning is now. I can easily shake or beat the short

ENTHUSIASM is the element of success in everything. It is the light that leads and the strength that lights men, on and up in the great struggle of scientific pursuits and of professional labor. It is the robust endurance of difficulty and makes a pleasure of duty.

rugs, mop the floors, sweep down the walls and wipe the woodwork, where it used to be a terrible task to get all the furniture out of the room or lift the men to carry the rugs in and bring them out into the sunshine to beat, but usually I manage the cleaning

"And you really like the rugs as well as the carpets?" inquired the hostess. "Don't the floors look rather well, rather bare?"

"I wouldn't go back to carpets for anything," said the other lady with energy. "When I get my floors wiped clean with hot water and a clean mop and my well-aired rugs down, every week or two, I feel exactly as I used to when I got my floors spring cleaned. My doctor says it is much healthier, and I am sure it is much easier."

"It is very easy to make six or eight new rugs every winter and have them fresh and dainty for spring, where making a whole carpet would be quite an undertaking. I never will go back to the old way of having a regular tearing-out every spring and fall. Not as long as I have my houses, anyway."

"I am going to try that plan with my one room," said the hostess. "If I like it, I'll do the rest of the rooms." —Farm and Home.

What Needles to Use

A good list to follow when sewing by hand, and one that has experienced needle-woman suggests for the various numbers of needles and cotton, includes: A No. 9 needle for 70 and 80 cotton; when sewing and tuck-cotton for No. 8 needle, overhanding and overstitching; a No. 7 needle for 40 and No. 6 needle for buttonholes; thread for No. 7 needle for 36 and 40.

When working buttonholes or gathering, it is well to rub the thread with a small piece of beeswax. This will keep it from knotting and will also help it to resist strain.

If a new broom is soaked for half an hour in strong brine it will remain crisp much longer.

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\$2 per bag
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J.H. Connors

THIS WASHER MUST PAY FOR ITSELF.

A MAN tried to sell me a horse once. He said it was a fine horse and had nothing the matter with it. I wanted a fine horse, but I didn't know a thing about a horse. And didn't know the man very well either.

So I told him I wanted to try the horse for a month. He said "All right," but two days later, and I'll give you back your money if the horse isn't all right. Well, I didn't like that. I was afraid the horse was "at all right" and that I might have to whistle for money if I once parted with it. No, I didn't buy the horse, although I wanted it badly. Now, this is me thinking.

You see I was washing my children—the "1000 Gravity" Washer. And I said to myself, lots of people may think about my Washing Machine as I thought about the horse, and about the man who owned it. But I'd never know, because the machine'll write and tell me. You see I sell my Washing Machine by mail. I have sold over a million of them that way. So, thought it, it is only fair enough to let people know the "1000 Gravity" Washer for a month, before they pay for them. Just as I wanted to try the horse.

Now, I know what my "1000 Gravity" Washer will do. I know it will wash the clothes, without wearing or tearing them, in less than the time they can be washed by hand or by any other machine.

I know it will wash a tub full of very dirty clothes in less than half the time that any other inventor can do that, without wearing the clothes. Our "1000 Gravity" Washer does the work so easy that a child can run it almost as well as a strong woman, and it doesn't wear the clothes, fray the fine or break the buttons, the way all other machines do.

It just drives soapy water clear through the fibres of the clothes like a force pump might. So, said I to myself, I'll do with my "1000 Gravity" Washer what I wanted the man to do with the horse. Only I won't wait for people to see me. I'll offer first, and I'll make good the offer every time.

Let me send you a "1000 Gravity" Washer on a month's free trial. I'll pay the freight out of my own pocket, and I'll send you the machine when you've used it a month. I'll take it back and pay the freight, too. Surely that is fair enough, isn't it?

Doesn't it prove that the "1000 Gravity" Washer must be all that I say it is? And you can pay me out of what it saves for you. It will save its whole cost in a few months in wear and tear on the clothes alone. And then it will save 50 to 75 cents a week over that in washwoman's wages. If you keep the machine after the month's trial, I'll let you pay for it out of what it saves you. If it saves you 50 cents a week, send me 50 cents a week 'till paid for. I'll take that cheerfully, and I'll wait for my money until the machine itself earns the balance.

Drop me a line today, and let me send you a book about the "1000 Gravity" Washer that washes clothes in 10 minutes.

Address me now—
O. U. MORRIS, Manager, 1900 Washer Co., 337 Yonge St., Toronto, Ont.



GRANGE NOTES

Elgin County Grange Meet

The annual meeting of Elgin County Grange was held in the St. Thomas Court House on Wednesday afternoon, March 10th, with a good attendance. Owing to the unavoidable absence of the Worthy Master, Bro. W. Wardell, Master of Apple Grove Grange, presided over the meeting. The committee appointed at the last meeting to report on the advisability of getting a Grange Room in St. Thomas for the convenience of members, suggested arranging with either the Young Women's or Young Men's Christian Association for the use of a room in their new buildings. The report was referred back to the committee to work out the details. The following resolution was moved by T. Hunt, seconded by Neil E. Burton: "That considering the superior qualities of the lands on the lake shore counties, bordering on Lake Erie-west of St. Thomas and the wealth and progressiveness of the farmers in these counties, and the large number of growing towns and villages therein, and considering the greatest benefits to the greatest number and the financial result, this Grange is of the opinion that the Hydro-Electric Commission should extend its line from St. Thomas to Windsor, on what is known as the Southern route."

FRESH MISREPRESENTATION
This motion was thoroughly discussed and carried unanimously. Bros. Hunt, Burton, Fisher, Spague and Lylo were appointed as a committee to attend the meeting of the Commission to be held the next day. Mr. Frank Baird, Glenworth, Ont., delegate to the Dominion Grange from Forest Rose Grange, gave a very interesting and concise report of the meeting held in Toronto in January and called attention to the fact that the newspapers had stated that the Grange was opposed to the good roads movements, rural 'phones, etc., through the haste of the reporters to discuss in the copy before the discussions on the subjects were over. Mr.

Old Dutch Cleanser

Takes the hard work out of SCRUB WORK

Many other uses and full directions on large silver can

NEW CENTURY WASHING MACHINE

The Washer of the Present and the Future

(Editorial) Tell us that some day you will use hand manual labor—machines will do it all. The five gross size has already been recognized, so far as household work is concerned. The New-Century Washer not only takes the best manual labor away from washing, but it washes clothes more than twice as fast as ever been done before. The value this furnishes the people, the New-Century Washers only all the rest.

Washing machines are sold for the New-Century. The other kind's old form of the work, the New-Century does it all the work. The others give trouble, the New-Century saves money. The difference is in the machine's best features of the New-Century. Ask your dealer about them or send us for full information.

CUMMER-DOWSWELL, LIMITED
HAMILTON, ONTARIO

A MOTH EXTERMINATOR

For 25c Post Paid

I like moths, but they don't like me. I have no disagreeable odor. I take away all your trouble and worry with moths. Try me, you're sure to like me.

For sale by Leading Druggists, or sent by mail, postage paid, on receipt of 25 cents.

A. C. FAULKNER MANUFACTURING CO.,
Sole Canadian Manufacturers PETERBORO, ONT.

Capable Old Country Domestic

Parties arriving about
March 25th and April 7th

MAKE APPLICATIONS AT ONCE TO
The Guild, 71 Drummond St., Montreal
and 47 Pembroke St., Toronto

FREE catalogue giving descriptive list of rural books for farmers, stock raisers, poultrymen, etc. Write for it Hook Dept., Farm and Dairy



IT matters not what heating system you use—Steam, Hot Water or Warm Air, you cannot get that much desired atmosphere — gentle restful and wholesome—without proper humidity.

WATER SHOULD BE EVAPORATED FREELY, and the

GOOD CHEER

WARM FURNACE AIR

With its big CIRCLE WATERPAN, holding from four to six gallons, presents the one heating medium which does afford a really comfortable and healthful warmth. Catalogue mailed on request.

THE JAMES STEWART MFG. CO., Ltd.
WOODSTOCK, ONT.
Western Branch, WINNIPEG, MAN.

Seed, Grain and Potatoes

Siberian Oats, clean and pure, 70c per bus. No. 2 barley, from hand selected seed, absolutely pure, \$1.25 per bus. Em. sira. Hays, Delaware and Satisfaction Potatoes, all from selected registered seed, \$2 per bag. Cash on order, or bus free.

A. HUTCHINSON, MOUNT FOREST, ONT.

ECONOMY

RUBBING clothes on the washboard, for a few minutes, wear them out faster than several weeks' use. You save all that wash-board wear with the

Connor Ball Washer

Your clothes last that much longer. In that way the washer soon pays for itself. And then continues to save for you. Saves labor, too. Runs on ball bearings so easily, so swiftly, it almost runs itself. Write for booklet, giving full description.

J. H. Connor & Son, Ltd., Ottawa, Ont.

The Joy of The House Wife

Mrs. J. W. Richardson, Haldimand Co., Ont., is particularly proud of her fine bogomias. A few of them may be seen in the illustration herewith. Who has a display of plants to match it?

Neil Burton also spoke along the same line.

The next meeting will be near Aylmer by invitation of Dufferin Grange in Malton on Thanksgiving day. The following officers were elected for 1913-14: Worthy Master, Wm. Prangin, St. Thomas; Overseer, James N. Fletcher, Apple Grove; Secretary-Treasurer, Miss H. Robinson, St. Thomas; Chaplain, Charles Sawyell, Forest Rose; Lecturer, Frank Hunt; Steward, W. E. Leeson, Aylmer; Assistant Steward, Gordon Tufford, Middlemarch; Gatekeeper, N. E. Burton, Port Stanley; Correspondent, Miss Jessie Tufford; Pomona, Miss Clara Humphries; Flora, Miss Carrie Fletcher; Stewardess, Miss Mary Bell McBane.

FARMERS' DAUGHTERS

With their good stock of common sense and a good general education make splendid business women. A special course of training with us has made thousands of them independent as stenographers because they receive good salaries. We would like to send our Catalogue, describing our work, to every one who wishes to move out into better things. Address—

SHAW'S BUSINESS SCHOOLS,
TORONTO, CANADA.
W. H. SHAW - President.

Say You take a half hour now and get busy on the telephone to your friends and neighbors and tell them about the many valuable things in Farm and Dairy. Then ask them to subscribe, and tip up a real write-up club. We'll pay you well.

SEED CORN FOR SALE

Seed Corn that will grow. White Cap, Bailey and Early Learning. Satisfaction Guaranteed. Write for prices.
J. K. WALLACE,
RUSCOMB, ESSEX CO., ONT.



HAWK BICYCLES
An up-to-date High Grade Road Bicycles with *Wolter Chain, New Distributor, Cassette Brakes and Hub, Detachable Tire, High grade equipment, including Mudguard, \$22.50 Pump, and Repair Material.* You can buy your bicycle from us at Wholesale Prices.
T. W. BOYD & SON,
377 Bloor Street W., West, Montreal.



The mark of quality. Write for booklet on lines of interest to you.
THE WILLIAM DAVIES CO., LTD.
Commercial Dept., Ontario

SURE CURE FOR THRUSH

Worst Cases Yield To Douglas' Egyptian Liniment

Mr. J. L. Boyce, secretary of the Napanee Driving Park Association, has had a good deal of experience with thrush on horses' feet, and has tried various remedies. He writes:

"I have cured had cases of diseased feet or thrush on horses with Egyptian Liniment with two or three applications, after castor oil, coal oil, etc., had completely failed to do the work. I consider it a waste of time to use anything but Egyptian Liniment for thrush."

Such an emphatic statement from an experienced horseman speaks volumes for Douglas' Egyptian Liniment. Another man who has found it most effective is Mr. John Garrison, Morven, Ont. He says:

"One of my horses had thrush so bad that his feet became offensive, and the neighbors advised me to shoot him. Before doing so I decided to try Egyptian Liniment, and in a short time my horse's feet were as sound as ever." \$5 to \$10 at all drug stores. Free sample on request. Douglas & Co., Napanee, Ont.

FOR SALE AND WANT ADVERTISING

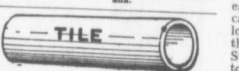
HIGH-CLASS EXHIBITION AND BREED-TO-LAY strains of Barred Plymouth Rocks, Rose Comb Brown and Single Comb White Leghorns. Stock and Eggs for sale. Write for B.S. mailing list, giving prices—Ohas, N. Kitch, Elmira, Ont.

FOR SALE SEED CORN THAT WILL GROW

Send for Prices.
D. CAMPBELL
AMHERSTBURG, ESSEX CO., ONT.

Seed Grain All standard varieties of Oats, Barley, Wheat, Peas, and Seed Potatoes. Write for prices and quotations. Eighty percent off. Satisfaction assured.
CHAMPRET & KELLY, GOVERNOR RD., TORONTO, ONT.

"LONDON"
Cement Drain Tile Machine Making all sizes of tile from 3 to 16 in. Cement Drain Tile are here to stay. Large Profits in the business. If interested send for catalogue, London's Concrete Machinery Co., Dept. 1, London, Ont. Largest manufacturers of Concrete Machinery in Canada.



For Sale Cement, Sewer Pipe & Drain Tile, all sizes. Concrete and Townships send in your orders to JOY & SON, 100 Adelaide St. W., Toronto, Ont. Agents for Acme Tile Machine and Six Brick Machine.

Rose of Old Harpeth

(Continued from page 28)

friendly tone, as the hint had failed to make a landing. The cunning in his own glance and tone he was shrewd enough to hide.

"That was about all—nothing that was worth taking up then," answered the Senator. "I must be going. At that moment Mr. Crabtree came out to join them.

In a few minutes Everett threw away his cigar, glanced across at the Briars, where he could see Rose Mary and Uncle Tucker establishing Miss Lavinia, in her high company cap, in the big chair on the front porch, and without a word he strode out of the back door of the store and across the fields toward Boliver. He stopped at the Rucker side fence and entrusted a message to the willing Jenny, and then went on into the twilight in the direction of the lights of the distant town.

And as he walked along his mood was, to say the least, savage, and he cut, with a long switch he had picked up, at some nodding little wild bells that had begun to show their colors along the side of the road. He was hungry and he was having

The Sewing Room

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

SPORT OR MANNISH SHIRT, 7783



The shirt that is made in a true style is one of the fashionable garments of the season. It is made up in linen, cotton gingham and similar materials and it is shown in the washable silk that never grows about. Altogether it is an exceedingly practical and eminently smart in effect.
For the medium size will be needed 27 inches wide, 2 1/2 yards 26, or 2 1/2 yards 27 inches wide for the collar. This pattern is out in sizes 34, 36, 38 and 40 inches bust measure.

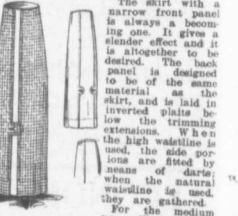
GIRL'S SAILOR DRESS, 7785



Every variation of the sailor costume is shown in the younger girl. The middle blouse that is always worn with the skirt and buttoned down the front is something of a feature this season and much to be commended, but some girls like the regulation blouse and it can be cut off at the waist as shown in the back view.
For the 12-year size will be needed 27 inches wide, 2 1/2 yards 26, or 2 1/2 yards 27 inches wide for the collar, 2 1/2 yards 26, 2 1/2 yards 27, and 2 1/2 yards 28.

This pattern is out in sizes for girls 12 and 14 years of age.

THREE-PIECE SKIRT, 7796



The skirt with a narrow front panel is always a becoming one. It gives a slender effect and it is altogether to be desired. The back panel is designed to be of the same material as the skirt, and is laid in inverted plaits between the side panels. When the high waistline is used the side panels are fitted by means of darts; when the natural waistline is used, they are sewed in. For the medium size will be needed 27 inches wide, or 3 1/2 yards 26, with 1 1/2 yards 27 inches wide for the collar. This pattern is out in sizes 22, 24, 26, 28, 30 and 32 inches waist measure.

BOY'S KNICKERBOCKER SUIT, 7668



No variation of the knickerbocker suit is better liked by the little boys than this one. It is a perfectly plain one, drawn on over the head and closed with facings, and was suggested in that way. The suggestion of the sailor style is in the young welcome. The Mother will be pleased if because it is simple and easy to make.
For the 4-year size will be needed 3 1/2 yards 27, 2 1/2 yards 27 inches wide for the collar. This pattern is out in sizes for boys of 2, 4 and 6 years.

Playmates and Friends

He answers to the name of "Jed." His mistress is Miss Anna Brethen, daughter of G. A. Brethen, Peterboro Co., Ont. One does not need to be told that these two are the best of friends. Just look at the picture.

—Photo by an editor of Farm and Dairy.
his supper in detached visions. Now Rose Mary was handing the Senator a plate of high-piled supper rolls, each with a golden stream of butter cascading down the side, and as her lovely bare arm held them across to the guest probably she was helping Stonie's plate with her other hand to a spoonful of cream gravy over his nicely browned chicken leg. On her side of the table Miss Lavinia was pouring the rich cream over her bowl of steaming mush and the materialized aroma from Uncle Tucker's cup of coffee that Rose Mary had just poured him brought tears to Everett's eyes. Then came a flash of Aunt Amanda helping herself under Rose Mary's urging to a second crisp waffle, and the Senator was preparing to accept his sixth, impelled by the same solicitous smile that had landed the second on the little old lady's plate. Again Rose Mary was pouring the Senator's second cup and stirring in the cream. If she had lifted the spoon to her lips, as she always did with her got and did with hers, Everett would have—And at this point he turned the bend and ran smash into the dramatic scene of a romance.

(To be continued.)

Graniteware should not be left to dry over a hot fire, as the heat in expanding may cause the outside to scale.

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International Stock Food Co., Limited, TORONTO

A Result of 25 Years of Careful Breeding

(Continued from page 17)

are of almost as much interest as the Holsteins. Mr. Hallman has used only steel and concrete in their construction. They are well lighted, sanitary and built to last forever.

A SELF SUSTAINING FARM

As a farmer and feeder Mr. Hallman's object has always been to make the farm self-sustaining. "I grow what I feed and feed what I grow," is the way he puts it. This does not mean that Mr. Hallman does not buy feeders. Cows that are as heavy producers as his are, demand something more concentrated than home-grown grains. Each year Mr. Hallman grows about 20 acres of wheat, and with the money realized from the sale of wheat purchases such feeds as bran, oil cake and cotton seed meal. He also grows a few sugar beets in order that he may have a claim on the beet pulp of the sugar factory.

To give a history of Mr. Hallman's Spring Brook herd of Holsteins is to give a history of the development of the Holstein breed in Canada. The Hallman's have ever been Holstein men. Away back in 1882 Mr. Hallman's father imported Holsteins from Illinois. There were among the first Holsteins brought into Canada. Mr. A. C. Hallman in partnership with his father started to keep Holsteins in 1888 and in the 25 years that have since elapsed has worked continuously and faithfully for the good of his chosen breed.

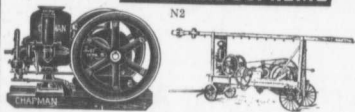
FOUNDER OF HERD BOOK

Perhaps the greatest service that Mr. Hallman has rendered the Holstein was the part that he played in the formation of the Canadian Holstein Breeders' Association, and establishment of the Herd Book. He was the first president of the Association. It was on Mr. Hallman's own initiative that the special meeting was called at Guelph at which he put forward the proposition of the Holstein Association conducting their own records department, instead of going in with the Agricultural and Arts Association, whose shortness of influence was strong. His suggestions were adopted in full by his fellow breeders and Mr. Hallman has good reason to be proud of the fact that it was he who laid the foundation of the present successful system of Holstein registration.

Nor have Mr. Hallman's efforts been directed solely to the good of his breed. Agriculture generally, has benefited from his services. As a Farmers' Institute lecturer, as a judge at leading fairs from Atlantic to Pacific, and from the work to which he now devotes a good part of his time, demonstrating dairy cattle in judging courses. In progressive methods he has ever been a leader. He has used a silo for 25 years and built the first round cement silo in his county. Like most pioneers he was criticised by his well-meaning friends, who themselves 10 or 20 years later adopted his methods. He is also a breeder, importer and exhibitor of Tamworth swine.

While Mr. Hallman has not been showing of recent years, his cattle still retain the show yard type that made them famous a few years ago, when he was a well known figure at our leading shows. In official test work also they have made good. With a son of Pontiac Koridyke at the head of the herd Mr. Hallman is now in a better position than ever before to supply a few customers with the highest class of Holsteins. A few hours spent with Mr. Hallman and his Holsteins would be time profitably invested by any breeder who is looking for the best class of stock. Of course he prices them and has the real good kind for sale.—F. E. E.

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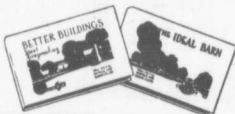
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A Story in Word and Picture of Two Ayrshire Breeders

(Continued from page 23)

dale Coquette by Cheerful Boy, and a pair of heifers out of Barchesskie favorite Rose and Barchesskie Royal Rose. Six of the young heifers in one stable are all from the one bull, Hobbsland Jolly, mentioned in the foregoing. They testified admirably to the remarkably good breeding qualities of their sire. Several of these heifers are out of qualified dams in Mr. Kay's herd.

Before concluding we must make mention of Ravensdale Flirt, whose sire is qualified in R.O.P., four of the daughters registered in Mr. Kay's herd. All through the Ravensdale Ayrshires have every appearance of being heavy workers. They possess abundance of size, capacity and constitution, capacious, sharply underlaid with large, easily-milked teats. Just in this connection it is interesting to note that as long ago as early in 1908 Mr. W. F. Stephen, Secretary of the Ayrshire Breeders' Association, at



A Result of the Storm

Western Ontario farmers can run up a good bill of damage against old Mother Nature for the recent pale. The principal corn crib is in the County of Oxford.

Huntington, Que., writing in Farm and Dairy of the Ravensdale Ayrshires, said of them: "One thing I particularly noticed in the herd was that the cows have all good udders and large teats." Thus it is evident that this most desirable characteristic has been bred into these Ayrshires.

Similar to Mr. Montgomery's manager, Mr. Symington, Mr. Kay does not attempt at all to force his cows. The records he has made are such as could be greatly increased and could be equalled by any one with the same cattle on ordinary feed and care. For a grain ration he feeds a mixture of bran, oats, gluten feed, and cotton seed meal, about six pounds a day. They also receive ensilage, this being supplied from two large silos.

At another time we will have more to say in Farm and Dairy about Mr. Kay's farm of 250 acres, and about Mr. Montgomery's farm. A goodly number of photographs, which we secured two weeks ago on these farms, will be published in Farm and Dairy from time to time.

In closing we cannot refrain from commenting upon the admirable practice carried out in both of these herds of raising all of the heifers to maturity and weeding out undesirable and selling off cows as they mature. It has made possible the great uniformity of these herds, which you would be pleased to go and inspect and to buy from them the stock you may be wanting. Neither Mr. Kay nor Mr. Montgomery are anxious to sell any females just now. If you can use one or more of their bulls, then get in touch with them for an assurance that they have the right kind and at a price most reasonable.—C. C. N.

Scours is a germ disease. Made w. on this germ.

he plowed ridges and... In the sp... bushel of h... used to be... the grass... follow... was excell... formed us... fields of qu... ing the pa... lowing this... A boy... hered to is... has been f... plant corn... as the corn... next year... ed to affa... grows a co... clover and... standby. J... derived from... seed. Mr. R... dressing an... quent appli... ing is done... in the wint... least expen...

The River... numbers, all... at the time... cows of whi... ly all have... have A. R. C... ance tests t... the 20 years... have been i... they have... every part... for instance... were among... Holstein clas... At Calgary... plon herd f... male and fe... of Mr. Richa... "There is no... brods and g... said Mr. Ric... be able to m... we do witho... our sala of... more to us... cheques."

There are... the Richards... accommodat... stock is amp... a good... stock as well... barn where... under Mr. R... errision. Th... years ago at... oughly remo... date. The b... oughly well... is increased... of whitewash... litter carrier... other conven... the stock co... and to facilit... of the calf p... ardon drew... stanchions in... fed. Mr. Ric... if the calves a... time after fe... each other... Richardson's... tracted our... calf pails. O... dry pails ar... ardon. "The... of scours."

FEB 1... The Richa... 60 acres of... connection with... ings are three

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THE STORY OF A PRIZE WINNING DAIRY FARM.

(Continued from page 5)

he plowed the field again, worked it, ridged and top-dressed in the winter. In the spring he seeded it with a bushel of barley and 20 lbs. of alfalfa seed to the acre. At the time of our visit the field appeared to be free of weeds and grass and this without a summer fallow and the stand of alfalfa was excellent. Mr. Richardson informed us that he has cleared three fields of quack grass with success during the past three years always following this same method.

A ROTATION WITH ALFALFA
As a general rule the rotation adhered to is to break up a field that has been five to 10 years in alfalfa, plant corn, seed to fall wheat as soon as the corn is removed, and follow the next year with barley and oats seeded to alfalfa. Mr. Richardson also grows a considerable acreage of red clover and timothy, but alfalfa is the standby. A considerable revenue is derived from the sale of red clover seed. Mr. Richardson believes in top dressing and his meadows receive frequent applications. This top dressing is done by hand and, of course, in the winter when it can be done at least expense.

The Riverside herd is now composed entirely of pure bred Holsteins, and numbers, all told, 80 head. Of these, at the time of our visit, 30 were milk cows of which 25 were milking. Nearly all have been officially tested and have A. R. O. and Record of Performance tests that do them credit. In the 20 years of the Richardson's have been breeding pure bred stock they have sold animals in almost every part of Canada. Last year for instance, stock bred at Riverside were among the winning winners in Holstein classes all through the West. At Calgary, particularly, the champion herd, including the champion yearling and female, were all products of Mr. Richardson's skill as a breeder. "There is no comparison between pure bred and grades as profit makers," said Mr. Richardson. "We would not be able to make the good living that we do without our pure bred stock as our sales of pure bred stock are worth more to us than the milk and cream cheques."

THE BUILDINGS AT RIVERSIDE
There are two sets of buildings on the Richardson farm and hence the accommodation both for cattle and stock is ample. All of the milk cows and a good proportion of the young stock as well, are kept in the main barn where they are more directly under Mr. Richardson's personal supervision. This barn was erected many years ago and has since been thoroughly remodelled and made up-to-date. The basement stable is thoroughly well lighted, which lightness is increased by frequent applications of whitewash. It is equipped with litter carriers, cement floors and other conveniences that tend to keep the stock comfortable and healthy, and to facilitate chores. A feature of the calf pens to which Mr. Richardson drew our attention, were the stanchions in which the calves are fed. Mr. Richardson has found that if the calves are kept tied for a short time after feeding they do not suck each other. Another point in Mr. Richardson's management that attracted our attention were the clean calf pails. "We can't afford to have dirty pails around," said Mr. Richardson. "They are a prolific source of scours."

FRESH IS NEVER SCARCER
The Richardson's grow as much as 60 acres of corn in a year, and in connection with the two sets of buildings are three large silos. With such

a plentiful supply of ensilage and their immense crop of alfalfa there is never a scarcity of feed at Riverside.

There is a bigger labor problem on this farm than on most, and Mr. Richardson is tackling it in good fashion. In the first place, he provides suitable housing accommodation for his men. Instead of the fifth rate shacks with which the hired man of farm has to be content, the double frame houses provided by Mr. Richardson affords a home of which any man might well be proud, and in connection with the second group of farm buildings is a neat cement block house, also used by Mr. Richardson's help. In the second place Mr. Richardson is devoting a large area of his farm to a crop that can be handled with a minimum of labor, alfalfa. Mr. Richardson also makes large use of up-to-date machinery, as horse labor is much cheaper than manual labor. For inside work an engine, run by gas coming from wells on Mr. Richardson's own farm, pumps the water, runs the grindstone and chops the grain.

MANY SOURCES OF INCOME

So far we have spoken only of the dairy features at Riverside Farm; but Mr. Richardson does not believe in putting all of his eggs in one basket. He believes that several departments are more profitable than one specialty and among others of this money-makers he numbers hogs, horses, wheat, honey, apples, poultry seed, small fruits, cherries, poultry and eggs. In fact, the hogs bring in more money than does the cream. Each one of the smaller side lines is worked for all there is in it. "When one has not time to pay attention to any branch of his farm work it is time for him to drop that branch," was the trite remark that explained the progressive management that characterized every department of the farm. So far as possible all the animals on the farm are fed on home grain feed. Corn ensilage and alfalfa form the basis of the dairy ration. Mangels too are fed in large quantities. Mr. Richardson believes that they go a long way towards increasing milk flow and general healthfulness. Home grown grains are largely fed, but Mr. Richardson also purchases bran, shorts, oil meal and linseed when required. Where one has good milk cows such as are found in Mr. Richardson's herd, there is no question as to the profitability of purchasing concentrated feeds. The hogs are fed as cheaply as one could well imagine. In winter they receive roots, alfalfa chaff and meal; in summer clover pasture and the run of the orchard.

A BEAUTIFUL HOME

Improving their farm and stock has not taken all of the time of Mr. Richardson and his son. They have found time to plan and build one of the finest farm homes I have ever visited. A description of this splendid home and its beautiful surroundings will be found in the Household Department of Farm and Dairy this week. In the home one finds the utmost cooperation. Mrs. Richardson is just as interested in Holsteins as is her husband. And that Mr. Richardson takes an interest in his wife's special part of the home is proved by the up-to-date labor-saving device with which it is equipped. "The success of Riverside has been largely due to the cooperation of all the members of the family," writes Mr. Richardson.—F. E. E.

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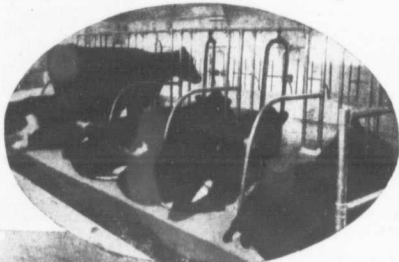
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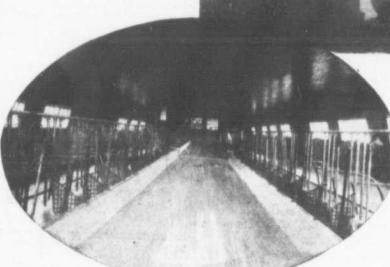
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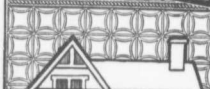
Farm and Dairy, Peterboro, Ont.—

Dear Friends—I have read your offer in Farm and Dairy, April 10, and I will try to get nine of Papa's friends and neighbors to take Farm and Dairy each for one year. They will be new subscribers to Farm and Dairy.

(Signed)
Post Office Prov

FARM & DAIRY, PETERBORO, ONT.

METALLIC WALLS FOR THE HOME

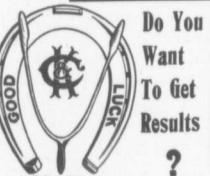


"METALLIC" Ceilings are artistic, sanitary and will last as long as the building.

In the kitchen and bathroom they are of particular sanitary value as they can be easily cleaned and are absolutely rust-proof. While inexpensive, they give an air of distinction to any home.

Write us for free booklet. 690

THE METAL ROOFING CO. LIMITED MANUFACTURERS TORONTO & WINNIPEG



Do You Want To Get Results ?

CRAMPSEY & KELLY
Dovercourt Road Toronto, Ont

Elmdale Dairy Holsteins

FOR SALE—Two choice Bull Ormsley, light colored, sired by Paladin Ormsley, sire of 19 R. O. M. daughters. 2 year-olds up to 30 lbs. and one 3-year-old, 25.80 lbs. butter in 7 days.
No. 1 Dam, R. O. M. 435 lbs milk, 15.17 lbs. butter in 7 days. Full sister to calf. R. O. M. at 2 yrs. 2 mos., 345 lbs. milk, 16.13 lbs. butter in 7 days.
No. 2 Dam, R. O. M. 326 lbs. milk, 15.15 lbs. butter in 7 days. Full sister to calf. R. O. M. at 2 yrs. 1 mo., 16.63 lbs. butter in 7 days. 25 lbs. 1 mo. For prices write FRED CARR, box 115, ST. THOMAS

cowful of the three held by the club, and the most successful Holstein sale of the kind ever held in Canada. This was what remarkable in view of the fact that some of the best known local breeders did not take part in this sale, including A. D. Foster, of Cambridge, J. B. Mallory, Belleville; J. A. Caskey, Madoc; and others. The animals were all sold in one afternoon. The auctioneer was, Mr. Norman Montgomery, of Wooler, who was highly complimented on his successful sale. The contributors included, G. A. Brehm, of Newscod; Wesley Dawson, Niagara; S. J. Foster, of R. Leavenworth; Wm. A. Gough, of Bloomfield; G. A. Kingston, Campbellford; C. H. Saylor, and Peter Caye, of Richmond Park; Wm. Napane; B. E. Hagerman, Minto; John Haskin, The Quilly; W. G. Huffman, of Gilead; and W. A. Hubbes, Bloomfield.

Sale Talkers

Other high priced records were the following: Jesse Inla De Kol, a seven-year-old cow with a record of 91 lbs. of milk one day, 2.67 lbs. in 30 days, and over 17,000 lbs. in nine months. This cow was consigned by B. E. Hagerman, and purchased by G. A. Perrin, of Northport, for

May Echo Verbell

8540 Rawdon Pridon, a first calving of May Echo, consigned by G. A. Kingston, was bought by T. A. Durran, of Campbellford, for \$500. Korrdyde, of Kol Bos, our long-year-old daughter of De Kol Plus, also consigned by De Kol Plus, was sold for \$400 to B. E. Leavenworth, of Bloomfield.

Animals that sold for \$300 or over included Stirring Queen, a three-year-old heifer, consigned by Mr. Kingston; Ann, an aged cow, consigned by W. P. Allison, of Huffman, and bought by W. B. Allison, of Chateaufort, for \$225; Sylvia, consigned by Wesley Dawson, of Thos. W. Holmes, of Harold, paid \$200 for baby Fidelwickia, consigned by B. E. Mallory. This latter animal had a four-year-old record of 896.2 lbs. of milk in seven days and a seven-day butter record of 23.57 lbs.

BURNBAE AYRSHIRE OFFERING.

Editor, Farm and Dairy.—Burnbae Ayrshires are coming out of fine spring shape and are ready for a good summer's work.

The two bulls we offer for sale in our ad are both fine specimens. The 16-month-old bull is a fine husky fellow, good in color, white with a few brown spots. His three-week-old brother is of the top, splendid in conformation and color. The dam of this bull, Fanny, 3496 lbs. and 950 lbs. milk and 400 lbs. butter fat; average test 42. She fattens and calves fresh in a few days inside the 15 months. For this 400 lbs. milk received on the average \$320. On securing her herd we find we cleared just about one-half of which I think is pretty good money to make in a year from one cow, sold, some of the best record work late in the year. She finished her year at the end of March with over 10,000 lbs. of milk, but we don't know what butter fat yet, she is carrying a herd of 20 milkers like these in her care, and is going behind. Anyone will have a good idea of her herd by buying either of these bulls.—Joe. Hudson and Son, Leno, Ont.

Pontiac Hermes

He is a son of Henerveul De Kol, who has 316 A.E.O. daughters, 20 over 20 lbs. but test 7 days; 69 others have made from 20 to 29 lbs. and some and daughters of this class are for sale from official record. For prices write Males, \$50; Females, \$30. Write for extended pedigree.

A. D. FOSTER & SONS
Bloomfield, R.F.D. No. 2, Ont.

AYRSHIRES

AYRSHIRE-CATTLE AND YORKSHIRE PIGS for Sale. Ayrshire Cows and Bulls fit for service. Yorkshire Pigs, \$6.00 each. A regular sale. All the above are from first prize stock. Send in orders now, with instructions re shipment later. Apply to: **BON. W. OWENS, Prop., or ROBERT SINTON, Man.** Riverside Park, Monte Bellis, Que.

TANGLEWYD AYRSHIRES

3 YOUNG BULLS (Sept. and Oct. 1912), sired by Royal Star of Bonnie Brae, 3074 R.O.P. of dams a year-old, A.I.F.A., 3274, 5.27 lbs. milk, 41.29 lbs. fat; average test 6.81. New Year, 2857, 7.45 lbs. milk, 50.10 lbs. milk, average test 4.70; Pansy, 3273, 7.26 lbs. milk, 38.94 lbs. fat, average test 4.52.
WOODSIDDE BROS., - ROTHSAY, ONT.
G. T. R. Station, Dayton

Burnbae Ayrshires

Offer one 16-month-old bull, fit for service. His dam's R. O. P. 577-old record, 9200 lbs. milk and 399 lbs. butter fat. His sire's dam record (3 years old) 10,352 lbs. milk and 375 lbs. butter fat. Sire G. A. D. Primrose of Tanglewyd (1905) R. O. P. record 1618 lbs. milk and 62 lbs. butter fat.
Also a 3 weeks-old Bull Calf, a full brother to above. Both good, up-to-date in color bulls. Write
JOS. HUDSON, SON., - LYN, ONT.

AYRSHIRE BULLS

Of choice individual merit, sired by Duke of Ayr, the particularly good cow (one of the best bull-bred) of the champion E. of P. cow (1419 lbs. milk and 750 lbs. butter) and from dams of heavy milking strains. All aged. State about what age you want and all information as to breeding and records of the girls giving. Can spare a few heifers of fall of 1913 birth. Write to
R. R. No. 1, - STRATFORD, ONT.

Burnside Ayrshires

Winners in the show ring and dairy tests. Animals of both sexes, imported or Canadian bred, for sale.
Long distance 'Phone in house.
R. R. NESS, - HOWICK, QUE.

Ravensdale Stock Farm

PHILLIPSBURG, QUE.

Special offering of Bulls, fit for service. Write for breeding and prices.
W. F. KAY, M. P., Proprietor.

MISCELLANEOUS

MAXWELTON FARM

Has some of the **BEST JERSEY CATTLE** in the land. Also **BURGHELY SWINE**. Make your wants known to the Manager.
MAXWELTON FARM
STE. ANNE DE BELLEVUE, QUE.

HOLSTEINS

Top-Notch Holstein Bull Calf For Sale

Out of **PONTIAC HERMES—The \$700 Bull**

This calf was born March 10, 1913, and is out of an A.E.O. daughter of Pier-et-Herme Hervengend Cows De Kol.
He is a dandy, more white than black, deep, straight and of good heavy bone, and strongly masculine in appearance.

First choice for \$100 gets him. Write at once or come and see him. I'll meet you in Peterborough appointment.
JOS. O'REILLY, ENNISMORE P.O., ONT.

The Graceland Farm Holsteins

Foundation Cows

Susy DeWitt, 5 lbs. less than 800 lbs. butter 1 year.
Duchess D.K. Calamity, 23.39 lbs. R. of M.
Belle Mercedes Pous 23.32 lbs. A. R. 3-year-old.
1 daughter of Brook Bank Butter Baron.
1 daughter of Gladstone, 54.13 lbs. milk R. of P. and one-half brother to (Lady Paul) D.K., 28.4.
1 grand-daughter of Bonheur Stateham, 14 R. O. daughters and 4 Bonnie Jean 24.40, and B. Talman 21.34.
No females for sale, but spare early for the bulls.
ELIAS RUBY, TAVISTOCK, Ont.

HOLSTEINS

Bull Calves, a week to 3 mos. old, from SARA JEWEL, HENGERVELD'S SON

Whose dam produced 2312 lbs. butter in 7 days and was first cow to make over 100 lbs. milk in 7 days, also she is dam of Sara Jewel Hengerveld's son, 40.39 lbs. milk in 7 days; 22.37 lbs. in 30 days. These bulls are sired by dams sired by her. For full particulars address: **B. E. HAGERMAN, HAROLD, R.M.D., ONT.**

OXFORD DISTRICT

The Holland of North America

Is the place to buy Holsteins of quality. The Third annual sale will be held in the City of Woodstock on March 25th, 1914. Full list of breeders in the Oxford District with post office and station addresses sent on application to:
R. J. KELLY, SECTY. TILLSBURG, ONT.

North Star Holsteins

Bulls ready for service. One O. M. dams, sired by a son of Natsy de Kol 613, record of 91 lbs. in 7 days, 106.23 lbs. in 30 days, and all sired by 7 days eight months after calving—largest record in Ontario.
Also Females, any age, excepting heifer calves.
J. W. STEWART, - LYN, ONT.

LYNDEN HERD

High Testing HOLSTEINS For Sale
Bulls, fit for service, one son of Spot-bellied Lady, sired by Count George Walker, a son of Lulu Glavin, 25.77. Also Bull from want and all information as to breeding and records of the girls giving. Can spare a few heifers of fall of 1913 birth. Write to
W. L. MALLATRE & SON
W. L. LEMON, - LYNDEN, ONT.

Elmridge Farm Offers

Highly bred Young Holstein Bull, born at July 14, 1912, sired by Count George Walker Pieterje, whose dam has world's record 555 lbs. at 3 yrs. butter 22.27 milk 62.70. His dam is a young cow set yet tested—a grand-daughter of May Echo. Write for particulars and price.
W. A. PATTERSON, AGINCOURT, ONT.

Ourvilla Holstein Herd

Full of serviceable age all sold. If you want to buy from here we would advise you to buy young. Only two Colantha Sir Abekirk and from 23.17 lbs. milk in 7 days and all sired by Dutchland and 23.16 lbs. 4-year-olds grand individual. LAIDLAW BROS., Aylmer, Ont.

FOR QUICK SALE

Two Registered Holstein-Friesian bull calves. 12 months old, and 1 richly bred dam. Sired by King Hengerveld Korrdyde whose dam is Meadow Brook Queen Korrdyde. Both are of 34, milk 62.70. Calves are nicely marked, more white than black. Price \$25 and \$30. Those animals should be worth \$100 each considering the fact that the price of the phone. JAS. MOORE, ALMONTE, ONT.

Lyndale Holsteins

Offers Bull, 12 mos. old, nicely colored. Weighs 600 lbs. His sire's dam and second calf. His sire in 7 days with 23.16 lbs. milk. His dam is sired by SARA DE KOL Van Buren, 40.10 lbs. in 7 days. 25 lbs. 10 months.
LYN, ONT.

HAMILTON HOUSE DAIRY FARM

The Home of Lulu Kaye, the World's Record Senior 2 Year Old Cow
WE SELL BULLS AND BULL CALVES ONLY
and offer now

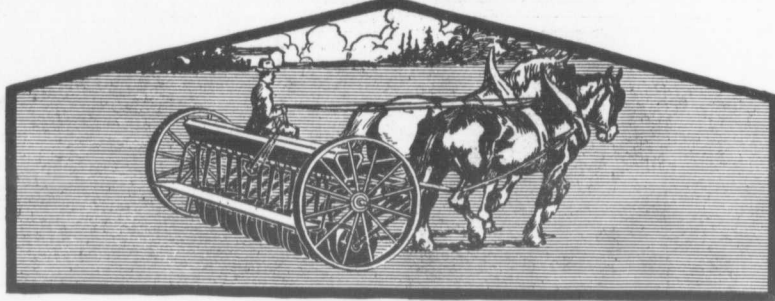
A Bull Ready for Service

Write or come to see him. His Pedigree showing High Records sent on request.

THE PRICE IS RIGHT

D. B. TRACY
COBURG, ONT.

COCKSHUTT DRILLS SAVE SEED



How It Gets More Crop

The "Cockshutt" gives you "more" crop from the same seed by sowing just at right depth in the center of the drill. No seed is killed, stunted or delayed by too-deep sowing from a machine sagged at the center, for the "Cockshutt" has a strong I-beam, proof against hard usage, to absolutely prevent sagging.

You get "more" crop also from the zig-zag, close setting of the discs only 6 inches apart, instead of 7 inches. The crop is so close that evaporation is prevented, and sturdy growth insured. The ground cannot "crust" easily—a big cause of drought trouble in June and July.

THE drill you use must be able to make every seed it sows count towards your harvest. By construction and design, the "Cockshutt" Seeder sows at right depth, sows evenly, sows without choking, sows without clogging, sows without gathering trash, and sows 1 inch closer than ordinary drills, row beside row.

Learn everything about the "Cockshutt" Drill, and you will certainly buy it. Buy it, and it will give you 3 to 5 extra bushels of crop per acre, year after year.

WRITE for Catalogue of Cockshutt Drills, or see the nearest Cockshutt or Frost & Wood Agent. He will gladly explain the Drill to you in full.

How It Saves You Cost

The "Cockshutt" is a speedy machine. The discs have ball bearings and a season's supply of oil. The wheels are large, and have wide tires, giving easy draft. The grain boot "draws away" from the disc in front of it, and trash or gravel will not wedge between the disc plate and the boot. This avoids stops every few minutes for cleaning and freeing the discs.

The net result of these features is the important one of saving you considerable money during planting time, and the more important result of getting your seed in promptly to take full advantage of growing weather.

For Sale in Western Ontario and Western Canada, by

COCKSHUTT PLOW CO., Ltd.
BRANTFORD, ONT.

For Sale in Eastern Ontario and Eastern Canada, by

The FROST & WOOD CO., Ltd.
SMITH'S FALLS, ONT.
MONTREAL, QUE. ST. JOHN, N.B.

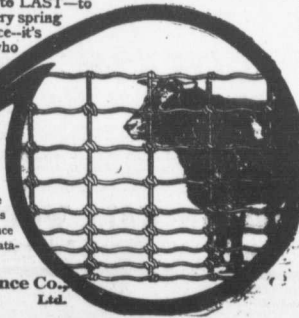
"IDEAL" FENCE----"MADE-TO-LAST"



When you invest good money in a wire fence you want that fence to LAST—to stay taut and staunch year in, year out, without needing repairs every spring. And you get fence that lasts when you choose "IDEAL" Farm Fence—it's made with you in mind—made to be THE fence for the man who invests his money wisely. Every inch of every "IDEAL" Fence is FULL SIZE STANDARD Number Nine Gauge hard drawn steel wire—tough, highly tempered, springy, heavy wire of the best quality possible. Some fence-makers use 9 gauge for the horizontals and softer, weaker wire for the stays—but not "IDEAL" Fence. It's ALL heavy hard wire—that's why "IDEAL" is the fence that outweighs all others; and THAT'S why you get more wire and more wear for your dollars when you buy this perfected farm fence.

Just Trust "Ideal" Woven Wire Fence
The galvanizing stays with it; the lock won't loosen under any strain; a fence ever conceivably will have to stand; and the strength, the tautness, the springiness, the SERVICE is THERE—there every time in every foot of "IDEAL" Fence. Look into the matter carefully and you'll agree that here's the fence that WILL last.

Glad to send you details of all the many "IDEAL" styles—there's one for every fence purpose. Drop a card for catalogue 178



The McGregor Banwell Fence Co., Ltd.
Walkerville, Ontario

YORKSHIRE PIGS, all sows, either sex. Choice Young Boars, fit for service. Also Boars of all ages, bred and heavy with pig—H. C. Bourdell, Woodstock, Ont.

FOR SALE—Select Clydesdale and Holstein stock. R. M. Holtby, Manchester, Ont.

FOR TANKWORTH SWINE—Write John W. Todd, Corbin, Ont. R. F. D. No. 1.

Strawberry Plants

I have chice Strawberry Plants for sale in large or small quantities at very reasonable prices. Write me. **WILLIAM B. LEAVENS**, "Leavens Orchard," Bloomfield, Ont.

HOLSTEIN-FRIESIAN NEWS

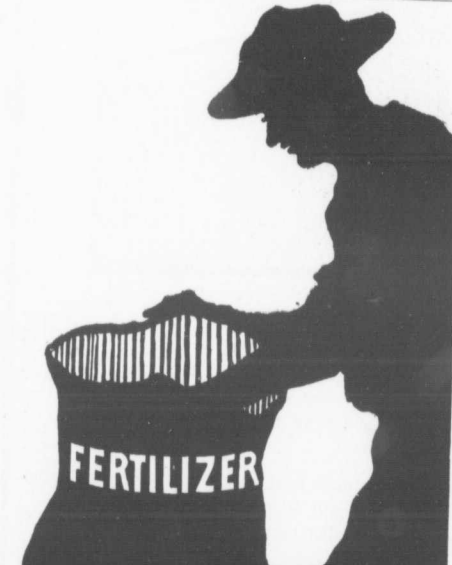
Farm and Dairy is the official organ of The Canadian Holstein-Friesian Association, all of whose members are readers of the paper. Members are invited to send specimens of interest to Holstein breeders for publication in this column.

MR. TANNABILL BUSY.

John J. Tannabill, White Station, Que., who writes us, says that he has sold the two cows advertised to Mr. Allan Mark, of Clyde's Corners, Que., who has just purchased them as a foundation herd. Mr. Tannabill states that he was just gotten home from Syracuse, where he bought and shipped a nice lot of cattle for a customer in San Francisco. He to 18 months old from the Stevens Bros. Several of these bulls are sired by King of the Pantulas who is probably the greatest young sire of the breed considering what his daughters are doing in yearling work. I bought 20 heifers from Dondegan Bros. in New York State, these heifers being strong in King Soga and Pontiac breeding, bought eight from C. E. Aberill, another New York State breeder with a celebrated stock farm.

PRICES REALIZED AT WOODSTOCK.
The following is a list of the animals offered, price and buyers at the Oxford

J. W. STEWART'S HOLSTEINS AT LYON.
Holstein cattle have been making progress in Canada to an extent not yet fully realized by even the most progressive breeders and champions of these cattle. There are a great many of fairly white cattle breeders of the black and progressive breeds, and a recent year have not come out as a result of their having taken occasion to seek sales for their stock and to build up a reputation through advertising. In our travels from time to time we have chosen upon Holstein breeders who have gotten exceedingly good stock out of whom we and the outside committee have had very little or nothing. One of these men, W. Stewart, of Lyon, Ont., we have heard of a little for some time, but we have not presented himself for us to call upon him and inspect his Holsteins.
It was a very stormy day when we arrived at his farm. Mr. Stewart and his help were inside that afternoon and had been putting time on the cattle, trimming, clipping and cleaning them, and polishing the stable into attractive shape. Stewart is a cattle man, and he is thoroughly enthusiastic about his Holsteins. He has been handicapped this year through falling to get his silo filled, and he has consequently had to take his cattle through some rough weather. The heard comprises some 38 head of pure bred all told, and a lot of these are very richly bred. Until four years ago Mr. Stewart had only a few pure bred and previous to that time he had paid



FERTILIZER

On Their Way to Convert Prairie Grasses into Holstein Milk

Growing wheat, marketing the grain and burning the straw, is a farming system that never appeared to us in W. J. Trevigne, of Calgary, Alta. He has been in the Holstein herd in the province, numbering 70 or 80 head, and he has made more money than his grain growing neighbors. A few of the Recordbook Holsteins may be seen in the illustration.

Breeders' Consignment Sale at Woodstock, March 25, on all animals selling for \$300 or over:
Consigned by T. I. Dunkin, Norwich: Canary Triton Jewel, price \$300, now owned by L. Lippsitt, Stratfordville; Anilda's Bonnie Lassie, \$240, Sir H. M. Pellatt, Whitby.
Consigned by C. Bollert and J. Leussler, Tavistock: Rachel Lee, \$300, T. L. Dunkin, Norwich; Daisy Isabella, \$350, Jesse Looker, Scherbriville; Gustav Howitz De Kol, \$265, Sir H. M. Pellatt, Whitby; Muckle Ann, \$200, W. L. Cowing, Inverkip.
Consigned by A. E. Hulet, Norwich: Madam Pauline Abbecker, \$350, A. C. Hardy, Brockville; Madam Pauline Canary, \$305; C. Hardy, Brockville; Rose Abbecker, \$300, Sir H. M. Pellatt, Whitby; Geneva Pieterie De Kol, \$225, Sir H. M. Pellatt; Homestead Howitz, Sir H. M. Pellatt; H. J. Kelly, Tilsonburg; Perfection's Canary, \$200, R. Smith, Scherbriville; Della Schilling De Kol, \$350, T. H. Deut, Woodstock.
Consigned by P. D. Eds, Oxford Centre: View Gentle Canary Norrie, \$250, Sir H. M. Pellatt; Centre View Wagie Norrie, \$300, Sir H. M. Pellatt; Corrie Pouch, Gornapooce, \$250, A. E. Cromwell, Norwich.
Consigned by M. Malowell, Oxford Centre: Rock Maple Alle, \$225, Sir H. M. Pellatt, Whitby.
Consigned by Jas. Bettie, Norwich: Canary Butter Girl, \$250, J. A. Wallace, Simons; Olive Mercena, \$210, D. B. Gony, Burgessville.
Consigned by A. T. Walker, Burgessville: Canrina Pouch, \$320, Sir H. M. Pellatt; Jennie Pouch Princess, \$210, Sir H. M. Pellatt.
Consigned by Geo. Oliver, Bright: De Louisa Belle, \$355, Louis Seaman, Scherbriville.
Consigned by H. Bollert, Gamsel, Ont.: Empress Josephine 2nd, \$240, R. J. Kelly, Tilsonburg; Maple Grove Mercena, \$300, R. Smith, Jr., Scherbriville.
Consigned by E. Ruby, Tavistock: Beauty De Wit, \$330, Sir H. M. Pellatt; Whisky Nancy Pieterie, \$250, P. Smith, Scherbriville.
Consigned by C. G. Hove, New Durham, Ont.: Canary Clothed, \$225, Sir H. M. Pellatt.
Consigned by Fred Rowe, Curries, Ont.: Kent's Albino Howitz, \$210, R. J. Kelly, Tilsonburg; Abbecker Bright Belle, \$300, Sir H. M. Pellatt.

but little attention to them. Then he moved across the river and bought in four good ones from a U. S. breeder, Mr. Frank Ames. Two of these cattle now stand side by side in Mr. Stewart's stable, one of them being Natus Dakota 4th, she having made a record after coming in 7 days, 10 lbs. in 30 days, and nearly two and a half months after calving. Mr. Stewart claims this to have been his highest record at that time for a cow carrying a calf, but her name does not appear in the Canadian records because she was not far enough forward in calf-bodied and nice, strong, straight, correct conformation, inclining to the extreme dairy type, and she is sired by a bull of Mr. Ames's whose dam heads the herd. A son out of this cow, a December calf, by King Pontiac Artie we noted in the stable as Hardy's great bull.

Some of the young stock is by Rag Apple Korydke 2in, the bull which Mr. Dollan, of Heuvelton, N. Y., was a standard sire. The herd, comprising old Pontiac Korydke, Mr. Gordon Mather's, and Mr. Stewart went it "snooks" and had this bull over for a month about a year ago.

One of Mr. Stewart's best pure bred was Dairy S. of Lynn, now in Canada, was a grand type of deep-bodied, low-set cow, and with a record of 22 1/2 lbs. butter at 15 years of age. A lot of the stuff in the herd traces to this old cow.

Amongst other good things we noticed in the herd was a senior two-year-old heifer, better than any we saw, and she appears to be an unusually hard worker and shows the stars well, but, "as handsome is as handsome does," could not well get over her. Then there were two grand daughters of Rag Apple Hengrevold 1st—the 55th record cow of note a few years ago. We thought them much as good as any we saw. Mr. Stewart's lot of this cow is in his herd for some time, and it was always one of the best bull available, using the best when it was available, meanwhile allowing his own good bull to receive the best of the stable. Some of the stuff in the herd is in calf to King Soga, and some to Pontiac Duplicate, which bull is now being Dr. Barwood's herd at Vandreuil.

What's in This Bag?

FERTILIZER—Yes, but what kind of fertilizer? This is the all-important question.

The average mixed fertilizer does not contain enough Potash to produce the biggest crops.

Agricultural authorities will tell you that most crops remove from the soil two to three times more Potash than Phosphoric Acid. Yet the average mixed fertilizer contains about 8% Phosphoric Acid and only 2% Potash.

Fertilizer for grain crops should contain at least as much Potash as with foods of the above analyses. High grade fertilizers are always cheaper per pound of plant food and plant food is what you pay for when you buy fertilizer.

If he cannot supply you and you are compelled to buy low grade fertilizer, add enough Potash to this to increase the Potash content to the required amount.

If you will write us our experts will tell you how. We will also send you proof that

"POTASH PAYS"

Decide now to get the right crop from your soil by using high grade Potash fertilizers. Your harvest will be larger than ever before—and of improved quality.

If you want to, you can mix your own fertilizer at home—our Scientific Bureau will tell you how. We are at your service at all times with regard to proper fertilization of your crops.

If your dealer cannot supply you with Potash, write us, sending his name, and we will see that you are supplied immediately. We can sell you direct if you wish. We have large stocks of Potash stored at Toronto, Montreal and St. John, N.B., and can ship promptly.

GERMAN KALI WORKS, INC.

Room 1842, Temple Building, Toronto

Hill-Crest

"De Kol Mutual Countess"

3 Years, 3 Months of age (2nd Calf) and her Dam

Rauwerd Count De Kol Lady Pauline
Jr. 5-Year-old. In

12 MONTHS

SIRE—Sir Admiral Ormsby

DAM—Rauwerd Count De Kol Lady Pauline

Weight at 11 months—840 lbs. His Sister by Sire "Jennie Bonerges Ormsby," made 33 lbs. Butter in 7 days. His first Sister in milk by Dam made World's Record as Jr. 3-year-old.

De Kol Mutual Countess

Dam of DeKol 2nd Count DeKol and 1st sister in milk of "Hill-Crest Ormsby Count" and "H.C. Ormsby DeKol." Has following records in milk and butter:

Milk 1 day, Jr. 3-yr-old, 29.5 lbs. (Can. Record).

Milk 1 year, Jr. 3-yr-old, 20.66 lbs. (World's Record).

Best previous 19.49 lbs.

Milk 7 days 8 mo. after calving, 415.8 (World's Record). Best previous 321.

Butter 7 days, 8 mo. after calving, 19.22 (World's Record). Best previous 16.4.

Butter 14 days 8 mo. after calving, 36.04 (World's Record).

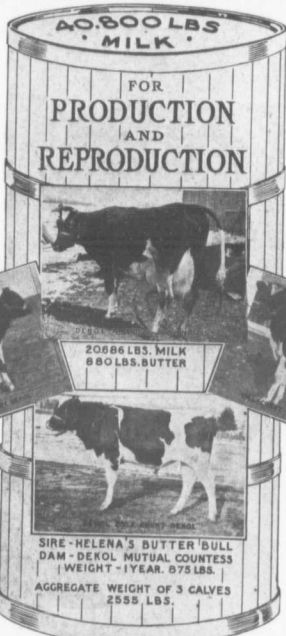
Butter 3 yr. R. O. P. 800 lbs. (World's Record). Best previous 790 lbs. in 8 mo. duration.

As a Jr. 3-yr-old (2nd calf) she exceeds best Canadian 7-day Record made by cow any age, held by "May Echo," by 60 lbs. milk and 2.5 lbs. butter.

HILL-CREST HOLSTEINS have Type, Production, and Reproduction. Hill-Crest Herd Bulls each have a Dam and Gr-Dam with over 20,000 lbs. milk in 3 year. We sell HOLSTEIN Bulls that WILL Reproduce these good qualities in a marked degree.

PRESENT OFFERING HILL-CREST ORMSBY COUNT HILL-CREST ORMSBY DE KOL

You want your next Bull to be something better? These two will fill the bill. Their Brothers head nearly all the Government Herds in Canada. Their Dam gave 92 lbs. milk in 1 day, 20,000 in



Holsteins

1 MAKE 40,800 MILK
After giving birth to
3 CALVES

Whose Aggregate Weight at 11½ mos. is
2,555 lbs.

SIRE—Sir Admiral Ormsby
DAM—Rauwerd Count De Kol Lady Pauline

Weight at 11 months—840 lbs.

His Sister by Sire made 33 lbs. in 7 days at 5 years, 832 lbs. Butter in 1 year R.O.P. at 2 years (World's Record).

His Sister by Dam at 3 years 3 months made 19.22 lbs. Butter, 415.8 lbs. Butter 10 months after Calving—World's Record, 20,686 lbs. Milk, 880 Butter in 1 year R. O. P. (World's Record for Jr. 3-year-old).

about 11 mos., (her sire is full brother to "Beauty Rauwerd De Kol," 119.6 lbs. in 1 day), and best of all, she has produced a "World Record Sister on BOTH Sides."

Send for extended pedigree, and know Why you should buy "Count" or "De Kol." Just take in their make-up. They look the part. If you want an ordinary bull, don't write us about these. If you want the BEST, we will be pleased to have you ask us to show you. Write, 'phone, or better, Come.—Yours for the Best in Holstein Cattle.

C. P. R. Main Line Toronto to Montreal.

G. A. BRETHEN, NORWOOD, ONT., Belleville District

"Yes, it Pays To Advertise Live Stock in Farm and Dairy."

Do You Ever Consider That it will Pay You?

Bloomfield, March 27, 1913.
Farm and Dairy.

Peterboro, Ont.
Dear Sir—My advertisement in Farm and Dairy is doing good work. When you have the right kind of cattle for sale and advertise them in the right paper, you get results.

Yours truly,
A. D. Foster & Sons.

St. Thomas, Mar. 17, 1913.
Farm and Dairy.

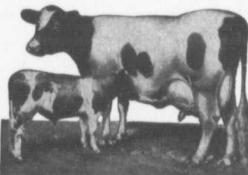
Peterboro, Ont.
Gentlemen—I wish to change my advt. in Farm and Dairy. I have had splendid satisfaction through my advertisement, made some very satisfactory sales, and had a great number of enquiries from New Brunswick to British Columbia, and expect to do some business with some of them, too.

Yours truly,
Fred Carr.

Frankford, March 14, 1913.
Mr. Chas. G. Nixon,
Peterboro, Ont.

Dear Mr. Nixon—From the full page ad. you placed in Farm and Dairy for me December 5th issue, financial results were very gratifying. It has proved to me that the cheapest way to advertise is to do plenty of it. A cheap buyer looks for a cheap salesman and finds him by his ad.

Yours very sincerely,
F. B. Mallory.



Just consider for a moment what you get when you have your ad. in Farm and Dairy! Over 16,000 POSSIBLE BUYERS get your message. These possible buyers are LOCATED ALL ACROSS CANADA, away down in Nova Scotia and New Brunswick, through the Prairie Provinces, and a big lot out in British Columbia! You get answers from these people. You discover exactly the state of the market. You get the most advantageous mar-

ket for your pure bred live stock. You get your own prices when your stock is worthy and you have confidence in it.

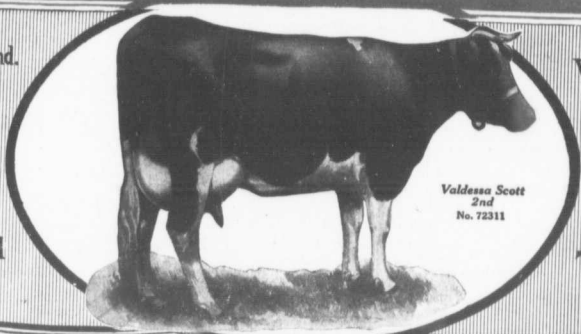
Consider Mr. Brethen's big ad. above this week, and Mr. Gordon S. Goodenham's advertising in Farm and Dairy every week! How else could they get that information to you and to over 16,000 other possible buyers as well, and at so little cost?

Have your stock and have you the desire to make the most of it, and make good sales for it now, and in the years to come? Then get in touch with Farm and Dairy and arrange to have us put up invaluable service like this for you, and which will pay you well!

The Rural Publishing Co., Limited, Publishers, Farm and Dairy, Peterboro, Ont.

Greatest Cows in the World

Valdessa Scott 2nd.
Beats
All Ages
All Breeds
of
The World



Valdessa Scott 2nd.
The
First
40 Pound
Cow
in
The World

Smashes All Previous Records to Smithereens!

Take off your hat to Valdessa Scott 2nd—the "Wonder Cow" of the world. She certainly is entitled to such recognition. She has more than done herself proud and accomplished a feat **never before** attained by any cow in the world of any breed or age.

In thirty days' test she produced 2933.9 pounds of milk and 165½ pounds of butter. Her one day record is 108.6 pounds of milk and 6 pounds of butter.

Her one week record (7 days) is 695.1 pounds of milk and 41.875 pounds of butter. What do you think of that? Remarkable! Phenomenal! Unparalleled! Her milk tested 4.70 per cent butter fat.

All of the above tests were conducted by W. D. Golding and Prof. Alfred S. Cook, of the New Jersey Experiment Station. Naturally you wonder—what sort of ration was fed. Here are the words of her owner—he tells it in a letter just received.

THE QUAKER OATS CO., Chicago Ill.

Customer: During the past two or three years we have been feeding your SCHUMACHER FEED and have secured splendid results. SCHUMACHER was incorporated in the ration fed Valdessa Scott 2nd during her wonderful record producing test. Used as a base with a good protein concentrate it is a winner. Yours truly, B. MEYER, Owner.

Schumacher Feed

Now read what the owners of other World's Champion and World's Record Breaking cows have to say of this wonderful feed.

Springvale Stock Farm—Home of Colantha 4th's Johanna.

THE QUAKER OATS CO., Chicago, Ill.

Customer:—Replying to yours of the 3rd we are making Schumacher Feed one-third part of our herd ration and we are getting results. Several of our cows are milking up to over 75 lbs. per day with this as part of our grain ration.

Rosedale, Wis.

W. J. GILLETT.



Colantha 4th's Johanna

Owned by W. J. Gillett, Rosendale, Wis. is the champion long-distance cow of the world. Her official record for 365 days is 2432.5 pounds of milk, and 998.26 pounds of butter fat.

Stevens Brothers Co., Home of Pontiac Artis.

THE QUAKER OATS CO., Chicago, Ill.

Customer:—For several months Schumacher Feed has been our principal ration and the best evidence of our success in feeding it is the fact that during this period a dozen or more of our cows have made official 7 day better records. We count ourselves fortunate in finding a ration that answers our requirements so fully as Schumacher Feed. Yours very truly, THE STEVENS BROS. HASTINGS CO.

Lacona, N. Y.



Pontiac Artis and Son, King Pontiac Artis

Owned by Stevens Bros Co. Liverpool, New York. PONTIAC ARTIS is one of the greatest cows living, always keeps a large, consistent and permanent production. Her work on a two-year old three-year old, junior four-year old and six-year old has never been equaled by any other dairy cow.

SCHUMACHER FEED is composed of finely ground, kiln-dried corn, oats, barley and wheat products, giving just the variety, balance and appetizing flavor which your cows relish so keenly. They will lick it up greedily, digest it easily and won't get "off feed" as they do on rations that do not have this necessary variety. For heavy, steady milk production without injury to the cow the following Schumacher Feed Plan has no equal. A trial quickly proves our claims

Try This Feeding Plan NOW!

Mix three parts of Schumacher with one part of any good high protein concentrate you are now feeding, such as Gluten, Cottonseed Meal, Distillers' Grains, Oil Meal, Malt Sprouts, Blue Ribbon Dairy Feed—and note the results. You will be surprised at the increased yield—how eagerly your cows eat it and thrive on it—how their condition improves. It affords that much needed variety of grain products which you know are so essential and also that **Stamina** so necessary to withstand "forced" or heavy milk strain. There's nothing like it—nothing can touch it for results and condition. Schumacher Feed is sold by all good dealers.

Here is Your Opportunity

Never since you started in the dairy business have you had a better opportunity to make big money from your cows. Conditions are especially favorable right now. Crowd your dairy to the limit—earn money while you can. **Milk prices are good—feed prices are low**, especially if you follow the Schumacher Feeding Plan endorsed by the owner of Valdessa Scott 2nd and other successful dairymen.

Write for Free Sample

Just tell us how many cows and hogs you have and we will mail you at once **free** a liberal sample of this wonderful record breaking feed.

Send today

(10)



The Quaker Oats Company
PETERBORO, CANADA