

FARM AND DAIRY & RURAL HOME

DEVOTED TO
BETTER FARMING
AND CANADIAN
COUNTRY LIFE

Peterboro, Ont., Jan. 15, 1914



Days and cold Storm
are common Dec 13



"AT HOME WITH HER YOUNGSTER."

ISSUED EACH WEEK

Rural Publishing Co., Ltd., Publishers

ONE DOLLAR A YEAR

As Others See

THE

B-L-K

MECHANICAL MILKER

Mr. Benoit Trude, Sec.-Treas. of
La Cie De Laiterie, St. Laurent, Montreal.

Dear Sir—In reply to yours of the 4th inst., I may say that we are satisfied with the Burrell Cow Milking Machine.

It has now been in use for a few months, and has worked to our entire satisfaction in all respects.

Yours very truly,

R. R. P. TRAPIST,
per Fr. M. Emillion, Asst. Sec.

"Without the Milker I Would Go Out of the Dairy Business"

Note the following

BEAVER MEADOW STOCK FARM

A. M. Zoeller, Prop.

Importer and Breeder of High Class Holsteins.

New Hamburg, Ont., Sept. 25th, 1913.

Messrs. D. Derbyshire & Co., Brockville, Ont.

Dear Sirs,—Yours of the 8th received asking how I was getting along with the B-L-K Milker, I am not only glad but am really proud to add my testimony for something I prize so highly. I have used it for a little over one year and have never missed even one milking with it, except once when the power went wrong. One man soon to purchase another milker so as to milk six at a time. I intend to tell you as I have told many others, that if I had to do without the milker I would give up the dairy business. I have no trouble with my four-cow milker has cost me less than five dollars for the whole time that I have used it. I cannot recommend or praise the B-L-K machine too highly. It would certainly pay any farmer with fifteen cows or more to have the milking machine.

Wishing you every success, I am

Very truly yours, A. M. ZOELLER.

We do not need to say anything further this week about the profitable results that you, Mr. Dairyman, can obtain by the use of the B-L-K. The unsolicited testimonials above stand for more than we could possibly convey to you even in half a dozen advertisements.

We will, however, be glad to send you our literature on receipt of a post card.

Remember, too, that we handle the "Simplex" Cream Separator.

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

Use this on the Farm and in the Home

NO wasting time over a lantern. Wherever you want a powerful light—indoors—outdoors—in any weather—you can get it instantly if you have a

"NINE LIVES" ELECTRIC FLASHLIGHT

Just press the button and get a bright, powerful gleam of light as if by magic, handy on hundreds of occasions. Portable. No danger. Weighs only three. Always ready. "Nine Lives" four times as strong as any other and costs less to recharge. You cannot be injured. Can't explode and the battery can handle it. Sells in a pocket bag.

Mail your order today to—
CANADIAN CARBON CO. Ltd., 92 West King St., Toronto

Only
\$2.00
prepaid

Enthusiasm

You Never Saw The Like of the enthusiasm of people who keep poultry.

They are wide-awake—open to learn. They read everything they can get that will in any way help them make more money.

Our people are not poultry fanciers. They

'oo keep poultry. 98% of them actually keep hens. That's why we devote a whole page each week to poultry, and on Feb. 5th will publish

Our Fifth Annual Magazine Number Wholly Devoted to Poultry

While the enthusiasm of our people is highest over poultry—over what they are learning about it in our Poultry Special, have them next your program. That will be the psychological moment, your opportune time to get next with your goods. You

Advertising Department FARM AND DAIRY Peterboro, Ont.

THE DAIRY INDUSTRY IN A FLOURISHING CONDITION

Declining Exports and a Diminishing Number of Cows more than counterbalanced by Growth of Home Consumption and Higher Average Production per Cow

A Report of Deliberations and Addresses at the Convention of the Eastern Ontario Dairymen's Association at Cornwall;

THE future development of the dairy industry in Canada will be largely dependent on the demands of the home market. At old time conventions of the Eastern Ontario Dairymen's Association the requirements of other markets came in for most serious consideration. Last week at Cornwall, in their thirty-seventh annual convention, the dairymen paid much attention to Canadian market requirements. In all their deliberations they are aware that conditions are changing and that we must adapt ourselves to new demands. All through the discussions were followed with interest and all in all the con-

For Next Week

Editor's Note: Address at the Eastern Ontario Dairymen's Convention at Cornwall last week were so interesting and so well advised, that the Editor makes it impossible to publish a summary of all addresses in this issue. But our folks may expect a summary in Farm and Dairy next week. Some of the best addresses will be published in full in the coming issues in order that all our readers may profit by them as did delegates to the convention.

vention of the last week was one of the most successful yet held in Eastern Ontario. The addresses were of a high standard and with the cooperation of the citizens of Cornwall the evening sessions were rendered most enjoyable to all. Truly, as Secretary Thompson claims, the Eastern Association is one of the greatest organizations for the promotion of dairying in Eastern Canada.

"Last year," said President Gillespie in his annual address, "our hopes were high for a banner year in the dairy business, but as we drew to the close we must admit that it has been a disappointing year. Taken as a whole the 12 months have witnessed at least as great a degree of trade as in 1912, but the gain in the first half alone counterbalanced the loss of the second half and the new year will be entered upon under slowing down conditions." Mr. Gillespie then reviewed the events of the year, making special mention of the effect of the United States tariff changes, which he predicted will have a favorable influence on Canadian dairying, the decline of cheese exports, and the increased interest in cow testing. "In concluding my address," said he, "I would again emphasize the necessity of our standing together shoulder to shoulder at this critical time."

STATISTICAL POSITION OF DAIRYING.
We Canadians are getting a greater liking for the products of the cow. During the past 10 years the per capita consumption of dairy products has increased by 38 per cent. This increased consumption along with the increasing population, made the Canadian consumption of dairy products in 1913 worth \$100,000,000 of the total output of \$120,000,000. Hence decreasing exports cannot be taken as indicative of a decline of the industry. Claims of G. A. Ruddick, Dominion Dairy Commissioner, in his address.

In the main Mr. Ruddick compared the industry in three census years of 1901 and 1911. In that period the annual value of dairy products was increased from \$66,470,963 to \$100,340,024. During that period the number of cows has increased only from

2,408,677 to \$2,504,178. In Ontario the number of cows has actually diminished. This falling off has been more than counterbalanced by an increased production per cow from 2,860 lbs. in 1901 to 3,826 lbs. in 1911. It would thus seem that the lessons of dairy education is now at work. Mr. Ruddick referred to the new United States tariff regulations as an additional guarantee of good prices for Canadian dairy products.

Conditions in Eastern Ontario were dealt with in more detail by Mr. G. F. Publow, Chief Dairy Inspector. He reported 982 factories in operation patronized by 39,885 farmers with 281,489 cows, with an average yield of 3,274 lbs. of milk. From this milk 80,180,383 lbs. of cheese were manufactured, a decline for the whole season of 153,000 lbs. This decline Mr. Publow accounted for by an unusually dry season and also to 1,600 of those who sent milk to cheese factories in cream or patronized butter factories having either shipped milk or cream or patronized butter factories in 1913. A significant fact brought out by Mr. Publow was the effect of the United States tariff on the industry. Over 40 factories discontinued the manufacture of cheese entirely to supply the demands of the new market. Twenty-four factories shipped cream to the United States during the whole season. Mr. Frank Singleton's factory showed 33 creameries in operation in 1913, but with an increased output over 1912 of 280,000 lbs. of butter.

ELECTION OF OFFICERS.

Mr. James Sanderson, Oxford Station, was elected president for the ensuing year. J. Sanderson has long been a prominent figure at dairy conventions, and with his experience on the farm, in the factory, and in municipal politics, the association should prosper under his presidency. J. Nelson Stone, Norham, was elected to the position of first Vice-President. D. G. Leggett, Newboro, second Vice-President, and James McGrath, Mt. Pleasant, third Vice-President. The change on the executive committee is the substitution of W. H. Olmstead, Bear River, for T. H. Thompson.

A Presentation

A pleasing incident during the closing hours of the Eastern Ontario Dairymen's Convention was the presentation to the retiring president, Peterboro, of a fine club bag and association. This incident was well for Mr. Gillespie's popularity and the friendship that exists among the directors of the E. O. D. A.

son of Madoc. James R. Anderson, Mountain View, remains treasurer, and T. A. Thompson, Almonte, secretary.

THE NEW BOARD OF DIRECTORS.
Directors nominated at the district meeting and approved by the association are as follows: H. Glendinning, Manilla; G. A. Gillespie, Peterboro; T. H. Thompson, Madoc; Will F. Park, Camiffon; J. Nelson Stone, Norham; T. V. Whit, Picton; Fred Alexander, Napawan; James McGrath, Mount Chesney; Geo. Leggett, Newboro; J. A. Campbell, Peterboro; Capt. John Gillies, Glenora; Neil Fraser, Vankleek Hill; Wm. Brown, Dickinson's Landing; J. H. Olmstead, Bearbrook; J. B. (Concluded on page 10)

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FARM AND DAIRY

& RURAL HOME



We Welcome Practical Progressive Ideas



The Recognized Expound of Dairying in Canada

Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land.—Lord Chatham

Vol. XXXIII.

FOR WEEK ENDING JANUARY 15, 1914

No. 3

ADVERTISING AS A MEANS OF EXTENDING A RETAIL MILK TRADE

Chas. L. Pitts, York Co., Ont.

The Various kinds of Advertising Discussed. How to Write a Good Letter to the Prospective Customer and the Value of Newspaper and Poster Advertising.

The dairyman living within a reasonable distance of his market, the problem of the middleman is easier to solve than it would be if he lived too far from the market to have his own delivery system. Many dairy farmers living near cities have already established milk routes of their own. These routes they wish to extend. Hence to the retail dairyman the need of advertising.

Considering the small dairy in the light of a business the advertising must be effective and at reasonable cost. A simple statement, "John Jones sells milk cheap," won't mean any more to the reader than that any other man sells anything else. A neat blotter with a good business statement, such as the following, will attract more attention:

THE JONES FARM
DIRECT FROM IT TO YOU
PURE MILK RICH CREAM
SEE OUR BOTTLES
Phone for Free Sample
THE JOHN JONES DAIRY FARM
EMERALD, ONT.
Local Depot at

The attention of the reader is attracted. He wants to know what is peculiar about these bottles and he, like most people, is willing to get something for nothing. Such blotters are cheap, and can be made very attractive. This is one of the forms of house advertising which is beyond doubt the best for the dairyman because it reaches the people in the particular district where he already has some customers. The idea in extending trade is not so much to try to cover a little here and there of the entire city as it is to get established in one district, and then branch out. It costs too much to cover too big a territory with only a few customers on each street.

House advertising also takes in the use of hand-bills, little wall ornaments, small note-books, and the personal letter. Hand-bills are cheap but there is little good to be derived from this form of advertising because they usually have a cheap appearance and are found in the front porch badly crushed by being crammed through the letter box; therefore their end is often the garbage can. Wall ornaments are good but their cost is too great for the average dairy. Then there is the personal letter.

THE BEST MEDIUM OF ALL

The personal letter is of the greatest value. It is reasonably cheap and has been known to give excellent results. Such a letter should be brief and should be addressed to the head of the house personally. The envelope had better be address-

ed in hand writing because then it doesn't look so much like a circular. If there are any reports of expert advice they should be included in the letter on separate sheets. The cost of typewritten sheets is not great. The paper should have the name of the farm in neat letters at the top.

THE JONES DAIRY FARM

Mr. J. M. Henwick,
71 Ludlow St., City,
Emerald, Ont., Date.....

Dear Sir:
We enclose herewith the report of D. L. Erwin, Bacteriologist, in re to our milk. The sample submitted to him was taken from the daily output of this farm. We guarantee to supply milk that is as good as this sample.

Absolute cleanliness is observed in the handling of the milk. The greatest care is taken to see

Next in importance to the moderately sized dairy is local advertising. This consists of an attractive delivery system, store advertising, local depot and posters. Milk being an article delivered usually in the early hours of the morning, the care of the wagon is often neglected by the out of town man. There is the sale of tickets, for one thing which most dairies now use, that is sufficient cause to have a good wagon because tickets are sold late enough in the day for all the people on the street to see what kind of a wagon delivers milk to the neighborhood, and the dirty wagon suggests dirty milk. The average customer would rather have a neatly uniformed man at his door with a neatly painted wagon than an individual in dirty overalls, and a wagon even worse with mud and dirt. The name of the dairy in large letters on a good wagon is a good advertisement.

Store advertising is a form of publicity inexpensive, efficient and within the reach of the small dairyman. Often an arrangement can be made with a storekeeper to hang a neat card on the wall advertising the dairy. Grocery stores are to



At the Nucleus of One of Canada's Greatest Milk Producing Enterprises

Some months ago Farm and Dairy gave an account of the experiences of Mr. Pat Clarke and Mr. L. D. Slater, both of Ottawa, with their milking machines. Both of these great dairy farms have since been united along with several others into a great dairy company on the joint stock plan. The buildings seen herewith are the main ones on the farm of Mr. Pat Clarke. Notice the window space in the stables. All of the best dairy stables nowadays have about half the length of the walls in glass. Our dairymen are coming to recognize abundant sunlight as the cheapest germicide.

—Photo by an editor of Farm and Dairy.

that the water that the cows drink is pure. Our stables are as sanitary as it is possible to have them. This cleanliness extends to the delivery of the milk. Our delivery system is prompt and efficient; the milk being in bottles and protected from all dust and dirt in properly covered wagons. Our entire system has been rated by the Government Inspector as A1. We invite you to visit the farm at any time.

Our driver for your district will call within the next few days and leave a small sample free. Should you desire a continuation of the service notify him or phone us and we will deliver milk that is always up to the sample. Rates will be quoted by the driver.

Yours truly,
.....Mgr.

be preferred but are not essential. Sometimes it is possible to give a grocer good enough rates to handle the milk from one dairy exclusively. The writer knows of a small grocery where the milk from a dairy some miles from the city is handled in this way. The grocer delivers the milk to all customers near to his store who want their milk later in the day than the dairyman can call. The grocery phone serves as a phone for the dairy also and in this way the farmer has a local depot at little cost. The grocer advertises the dairy, and the dairy advertises the grocery.

HOW TO USE POSTERS

Posters are not the best form of advertising for the small dairyman because they are too expensive, but it is well to make use of any spare

cards he has for this purpose. It is often possible to get the use of space enough for a card a foot square for little or no cost in some of the outlying districts.

Local depots, unless as mentioned above are very expensive to maintain because they mean getting away from the middleman altogether and in having a special staff of employees. Nearly all the large dairies have local depots. They also go in for poster advertising to a large extent.

General advertising may be said to include any advertising that reaches beyond the particular district in which the dairyman delivers. Newspaper advertising is in this class as is the travelling advertisement such as street cars. Newspaper advertising depends upon the size of the business. Naturally, the small dairyman isn't going to derive much benefit from advertising that is read by people to whom he can't deliver, but occasionally there are good little trade papers distributed free for the value of their advertisements, which often have a good circulation, and give good rates. These papers are supported solely by their advertisements and usually have interesting reading included.

The keynote of dairy advertising is that it must be directed to the consumer himself. It isn't like advertisements for mining stock where a follow-up system is used for if a dairyman can't get a new customer by even going to the extent of even giving a free sample of milk, then he is never likely to get that particular customer. The extent of advertising depends mainly upon the cost. If a dairyman can get a new customer for every dollar he spends on advertising he is well repaid in these days of competition.

Advertising is one of the greatest factors in the modern business world. The modern dairyman is a business man as well as a farmer, therefore he must be prepared to meet the conditions of the modern market and to consider his advertising expenses as does the city business man in order that he can compete with the other business men of the day.

Stable Equipment for Winter Milk

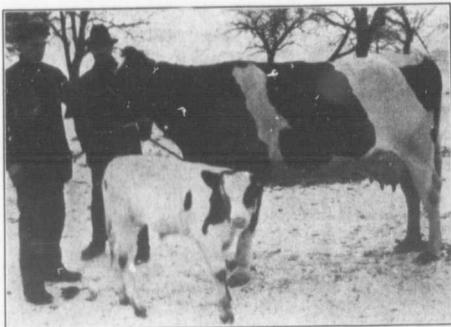
Hy. Glendinning, Ontario Co., Ont.

The management of the dairy herd in the summer months is a comparatively easy matter. In that season the cows are in the fields with plenty of fresh air, sunshine, succulent and palatable grass and pure water. These are ideal conditions for the dairy cow. Winter management is now the problem.

A great change is coming over our dairy methods. Formerly the most of our cows were milked during the summer months only. This system is gradually giving away to dairying the year round. Cows are now milked for a period of 10 months for best results. This new condition has been brought about largely by the demand for milk and cream for town and city trade.

Clean, sanitary milk can be produced from only healthy cows kept in clean, light well-ventilated stables with good food and pure water. I prefer large windows with the sash of one solid piece, the long way being up and down. If the windows are hinged to drop in at the top they may be partly opened on warm days and drafts do not strike the cows directly.

During the cold weather I would keep the windows closed and have the air conducted from near the ground outside, up a flue and discharging into the stable near the ceiling. In removing the foul air the air flue should open near the floor of the stable as that is where the deadly gas settles on being thrown off from the lungs. This flue, made tightly of matched lumber, I would extend above the ridge. I would have

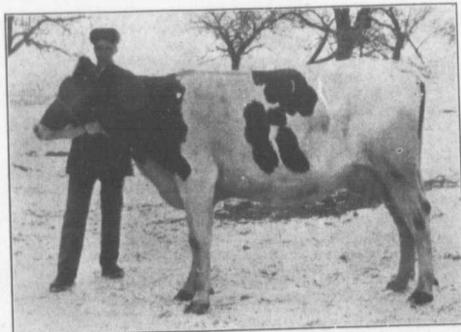


The Right Kind to Produce Milk and Valuable Offspring

Abbekirk Trynjo De Kol Belle, No. 12523. Official record, 3y. 10m., 13.6 lb. butter. Best day's milk, 7 1/2 lbs. Her bull calf is for sale. His sire's 6 nearest dams average over 25 lbs. butter in 7 days. 3 nearest dams average 4 per cent fat. Owned by Arbogast Bros., Sebringville, Ont.

a hinged door on the flue near the ceiling. This door closed in cold weather, would be opened in warm. A common error is to suppose that warm air is foul air and cold air pure. The reverse may often be the case.

Ventilation is of more importance than the most of us are aware. Farm animals could live several days without food or water but not many minutes without air. Fresh air is the most essential element in the maintenance of life. It is the cheapest and most easily obtained of all the life-sustaining elements. And yet many farmers treat it a most costly food. From what I have



Who Wouldn't be Proud of Such an Individual?

Oliva Schuling De Kol. No. 14225. Official record, 3y 7m., 15.64 of butter in 7 days. Best day's milk, 6 1/2 lbs., 8 months 22 days after calving and over 6 months bred. Best day's milk, 11 1/2 lbs. butter. Best day's milk, 4 1/2 lbs. Private milk record for 9 months, 11.25 lb. Her record in the 8 months' division is Canadian record for junior 2-year-old, being over 6 months bred. Her bull calf for sale at reasonable price. Owned by Arbogast Bros., Sebringville, Ont.

seen in some of the best barns in Ontario I know that this is the weakest point in the housing of stock in this country.

The importance of water may be better appreciated if we consider that the average cow as she stands consists of about 50 per cent. of water, her milk about 87 per cent. water, and her blood 90

per cent. All of her food is carried through the body by the agency of water. Hence water should be pure, free from contamination, and I prefer to have it right in front of the cows so that they may drink at will. I notice that when cows can drink at will they never take enough to get a chill. And the cow that gives a large flow of milk requires a great quantity of water.

The day is past when a man can afford to stand and pump water for a large number of cows. I use power. Wind, gasoline or electric power are all harnessed for this purpose. Power pumping permits the well to be located a considerable distance from the buildings, and hence free from sewage contamination. Storage must then be provided, the drinking bowls supplied by gravitation and held automatically in check by a valve.

High prices for lumber and its comparatively short life make cement floors and mangers the best from an economical as well as a sanitary standpoint. Whitewashing every fall adds much to the sanitary condition. Manure should be removed twice daily. Daily currying and brushing adds much to cow comfort and health.

That Restless Spirit

E. McGregor, Hastings Co., Ont.

From time to time one or more of my neighbors pick up stakes and change their post office address, either for some distant part of Ontario or for the still more distant West. They belong to the class of farmers who are always dissatisfied. A season's drought, too much rain or a cold spring always tend to give them the moving fever. They think that almost any other district is preferable to their own.

I got the moving fever myself once. I took a trip all the way to the western prairies to effect a cure. I went as far as Portage la Prairie. What I saw there gave me faith in the old saying, "Distant fields are green." Portage la Prairie may be a very desirable farming centre. The first thing that I saw as I neared the town, however, was a field absolutely yellow with mustard. I never saw such a weedy field in all Ontario. I took a drive into the country and found more weeds. The crops, taken as a whole, were not as good as in my own neighborhood in Ontario.

The homesteads were not as well kept nor as prosperous looking and the scenery was certainly not so attractive.

I am told that even down in the Niagara district that land values have got so high that the men who now move there find it hard to make ends meet and that occasionally an unseasonable frost will cut their income in two.

Not a few of the men who leave this district because of bad seasons, move back again after experiencing several bad seasons in other districts. I have come to the conclusion that the man who will make out best in the long run is the one who sticks at home and makes the very best of home opportunities. I am writing this especially for the benefit of the young men, many of whose eyes are turned west.

To make a good home, which is the centre of a good farm, to make oneself a valued member of the community,—such is the ideal of the ideal farmer.

The Thoroughbred as a Sire

H. G. Reed, V.S., Halton Co., Ont.

The thoroughbred or English race horse is in some respects the most important and in many respects the most interesting of the different breeds of light horses. He is important because all the other light breeds that have attained any prominence have had in their foundation a strong infusion of thoroughbred blood, and it is from this hot blood that they inherit many of their most desirable qualities. He is interesting because of his being the fleetest horse in the world, renowned for courage and endurance. Volumes have been written about the desperate struggles which have taken place between horses of this breed for supremacy on the race track, struggling in some cases even to death sooner than yield supremacy to a competitor.

The thoroughbred is a galloping horse and its outstanding characteristic is speed at the running gait. He is essentially a saddle horse, the running gait not lending itself to harness work. Combined with this he has that springiness of gait, that proved way of going, aristocratic appearance due to his great quality, and greater than all else a certain denseness and toughness of fibre in his organism which gives that stamina which along with speed and courage are almost indispensable in a good riding horse.

AS A SIRE

As a sire he is possessed of great prepotency and will transmit to his progeny his own characteristics in a stronger degree than horses of any other breed. Stallions of this breed are quite numerous over most of the country and farmers are being encouraged to use them. While good results can be and are obtained by using these horses many mistakes are continually being made and a considerable proportion of the half breed horses are not up to the standard which would render them valuable animals. Registered horses of this breed are as a rule valuable only as race horses and as there is not one farmer in a thousand who is breeding race horses we will confine this discussion to half-breeds.

The farmer who uses a thoroughbred sire usually expects to raise a hunter or saddle horse, and if he displays judgment in selecting a dam he ought to meet with fair success. As a rule the first cross or half-breed is the safest for the average farmer. When more highly bred than that it seems hard to get substance enough and while it is quite true that no hunter nor saddle horse ever had too much quality yet it is equally important that they should have weight sufficient for the purpose.

SELECTION OF A MARE

Speaking of the kind of mare (other than thoroughbred) which ought to give good results in producing hunters we should look for considerable size with an absence of coarseness. In such cases the progeny will probably inherit substance from the dam and the other qualities which go to make a good riding horse from the sire. Where the dam is too coarse, especially in cases where there is any draught horse breeding in her, the progeny is likely to be deficient in that quality which is necessary in a good hunter.

On the other hand, when light or weedy mares are used the progeny will not have substance enough to make them valuable as riding horses, and in many cases they are too light and spindly to be of much use for any thing. In raising saddle horses mares of considerable quality should

be used. For this purpose the Hackney mare crosses well with the thoroughbred, as also will the well-grown and high-stepping standard-bred mare.

THE MISFITS

In horse breeding operations there is sure to be some misfits, no matter how careful the breeder may be in his methods. The man who is trying to breed hunters up to 1200 lbs. in weight will, if he succeeds in getting anyway near this weight



The Milking Machine Has Here Proved Itself of Inestimable Worth

Mr. LeRoy Cooney, proprietor of Rockfern Stock Farm, Brome Co., Que., has given the milking machine a thorough good test, and now would rather part with almost any other implement on his farm than his mechanical milker. The illustration herewith is from a photo taken in Mr. Cooney's stable at milking time.

with good quality, get a ready sale for his produce. And supposing he does not and again have a misfit with scarcely the quality he hoped for he will likely have an animal that will prove a most valuable farm horse. It is always best to strive for a fairly large animal as a large horse, deficient in quality, is useful on the farm, while a light horse, even if he has plenty of quality is not valuable for any purpose.



The Home of a Progressive Dairyman and an Advocate of Mechanical Milking

This illustration shows only a few of the buildings on the farm of Mr. LeRoy Cooney, Brome Co., Que. The big dairy barn which houses a herd of 60 milch cows is missing. This type of dwelling-house is quite common to the Eastern townships of Quebec.

The good sized thoroughbred stallion ought to give good results, but it may truly be said of a large percentage of these horses that they are undersized and not well adapted to produce any thing but race horses. While the breeding of heavy horses is the safest proposition for the ordinary farmer, yet some persons are impelled by taste for the light horse and a dislike for draught animals to go into light horse breeding, and there is every chance for fair success in the use of a good big thoroughbred crossed with the right class of mares.

Milking Machine Solves Labor Problem

H. LeRoy Cooney, Brome Co., Que.

Owing to scarcity of farm help I decided last year to visit some farms on which mechanical milkers were in use. This I did at considerable expense, as there were none in this part of the country. After my visit I purchased a machine, and had it installed in December, 1912. I began using the machine at once, as I have a winter dairy which consists of 41 Holstein-Friesian cows, nearly all registered. I do not hesitate to use the machine on my most valuable cows, and I have some heavy milkers, getting as high as 16 gallons of 30 per cent. cream in a day from my herd. I ship this cream to the Guaranteed Pure Milk Co., of Montreal, a distance of 62 miles. Thus far I have had no complaints from them regarding my cream.

NO EFFECT ON COWS

I can see no bad effects of the machine on the cows. They take to the machine very readily and seem to prefer it to hand milking. I have not had any trouble from sore teats this season.

Two of us with three pails have milked the cows for the past year, usually taking about an hour and a half for the milking. This includes starting the engine, arranging the pails and washing them. I intend purchasing two pairs this year, making five in all, as we will milk 52 cows this season. It would be impossible for me to have such a large herd were it not for the milking machine, as before securing the machine I had to keep decreasing my number of milkers. Now I can increase them regardless of hired help.

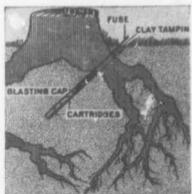
We use a three-horse-power gasoline engine for our power. This also runs my cream separator and root pulper. This engine is stationary, as it is required all the time for this work, and we have an eight-horse-power engine for doing the other farm work.

I am unable to give the exact cost of installation as I had my shafting, pulleys and belting installed some time before, and being of a mechani-

cal turn was able to put up my own pipes. I bought 620 feet of piping, one-half being inch, and the other half-inch. This I secured wholesale at a cost of \$30.40, including freight. I paid \$2 for some three-eighths iron rods for supports, and this pipes my stable for 60 cows, the number I intend milking in the future.

Experiments at the Ontario Agricultural College with the dairy herd indicate that dampening the udder and flanks before milking is a most effective method of keeping down the bacterial content of milk.

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At a cost of less than a cent a day per head of stock, it will increase their value 25 per cent. Permanently cures Colic, Debility, Worms, Bots and Skin Diseases. Tones up run-down animals so that they quickly gain weight and vigor. Increases the yield of milk cows three to five pounds a day, besides enriching the quality of the milk. ROYAL PURPLE is not a food. It is a conditioner—the best ever sold. If there was any better we would be making it. It enables your stock to eat the natural food they should eat and get the most benefit from it. Here is the advice of all thorough veterinary doctors—"Feed your stock on food of your own growing—**not** pamper them with soft predigest mush so that after a time they cannot digest good, wholesome feed. Feed the good food grown on your own farm—hay, oats, bran, chop, etc. You know what these things cost you and what they will do.

ROYAL PURPLE is an aid to these natural foods and if you use it as directed, we can guarantee better results than if you feed any of the concoctions offered on the market as "prepared foods."

Try It On a Poor-Conditioned Animal

If there is a run-down, poorly nourished beast on your farm, see what ROYAL PURPLE SPECIFIC will do for it. A 50-cent package lasts a cow or horse 10 days. The cost is so trifling that no farmer in Canada has any excuse for having out-of-

health stock around his place. Try it on the poorest-conditioned animal you have and we know you'll be surprised at the result at a short treatment. Cattle and hogs fatten up a month earlier than without it, which means you save a month's feed on the pink of condition at the cost of \$1.50. Hens treated in the same way cost no more than \$1.00 each to put in prime state market. ROYAL, PURPLE SPECIFIC fattens and keeps well horses, mares, colts, cows, calves, steers, hogs. Sold in packages, 50c, and all-right tins, \$1.50.

Try ROYAL PURPLE POULTRY SPECIFIC on Your Hens

Do you know that ROYAL PURPLE POULTRY SPECIFIC makes hens lay in winter as well as in summer, and keeps them free from disease? It does, and helps them over the moult, fattens and keeps them in vigorous health. A 50c package lasts 25 hens over 10 days. Shouldn't you try it? We have hundreds of recommendations from all parts of the country. If ROYAL PURPLE does not give you better results than anything we ever used, or give you satisfaction, we will refund your money. No matter what your opinion of other preparations, we want you to give ROYAL PURPLE POULTRY SPECIFIC a chance to show what it can do for your poultry—and a 50c package will show you some fine results. Sold in 25c and 50c packages and \$1.50 all-right tins.

WE ALSO SELL

- Royal Purple Cough Specific for cough and distemper. (Will cure any ordinary cough in 3 days) 50c, by mail 60c.
- Royal Purple Sweet Liniment for lameness, rheumatism, sprained tendons, etc. 50c, by mail 60c.
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- Royal Purple Lice Killer for poultry and animals. 25c and 50c, by mail 30c and 50c.
- Royal Purple Gall Care for scratches, sores, burns, frost, nose sores, etc. 25c and 50c, by mail 30c and 50c.
- Royal Purple Hoop Specific for roup, pip, diphtheria, typhoid fever, cackles, white diarrhoea, swollen head, etc., in poultry. 25c, by mail 30c.

TO STOCK AND POULTRY RAISERS

We will mail for the asking our new revised 80-page book on common ailments of stock and poultry. Tells how to feed light and heavy breeds, mares, cows, calves, steers, hogs; also how to feed and keep poultry so that they lay winter and summer. Covers farm utility birds in their natural colors. This book is lithographed in six colors, showing farm utility birds in their natural colors. IT'S FREE. Write for your copy today.

W. A. Jenkins Mfg. Co. London, Canada

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.

A Real Farm Drama

The modern slogan, Back to the Farm, is the title of a rural drama which is being presented in a number of Minnesota towns, under the auspices of the Agricultural Extension Division of the University of Minnesota, not only as a means of entertainment but to mold public opinion in favor of better agricultural methods. The play was written by a student of the School of Agriculture and the cast is made up of students of the School and College of Agriculture.

The play opens with a scene representing an old, run-down farm, the owner of which does not believe in education or modern farming methods. His son, Merton Merrill, having

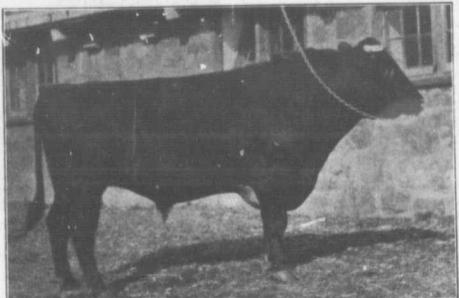
but who also adopts scientific methods and endeavors to teach them to Hulda, the hired girl.

Rations for Milk Cows

I have some ensilage, millet, red clover hay, barley chop and bran. What proportions should I feed 20 cows giving 20 lbs. of milk a day? Also, should I have oil cake or cotton seed meal to make a balanced ration? I have been advised that there is great danger in feeding cotton seed meal, and was told to get oil cake—D. A. Vanderhulst, Oa.

Judging by the fact that the cows are giving only 20 lbs. of milk a day, they are not fresh calvers or it is not desired to produce milk at a high cost. Hence, the selection of the materials making up the ration feed should depend very largely upon the supply of feeds on hand in order to keep the cost as low as possible. Supposing, however, that all feeds mentioned are on hand in unlimited quantities, I would suggest the following as about the most economical method of feeding the cows, being the ration for a day:

Corn Ensilage	45 lbs.
Millet	3 lbs.



An Ingenious Method for Exercising the Herd Bull

Extending between the stable and a stout post is a strong wire cable stretched tighly. The chain that may be seen attached to the ring in the animal's nose is attached in turn to a ring that lies loosely on the cable. A bull confined in this manner is perfectly safe and gets plenty of health-giving exercise.

had a high school education, is dissatisfied with the grind of farm work with no time for recreation, and when the pretty little school teacher refuses to marry him because the life of a farmer's wife is one of "dull drudgery" he decides to try some other line. A young lawyer advises him to go to an agricultural school and learn better methods of farming. His father objects to the plan and as a result of a quarrel between the two the elder Merrill orders his son to leave and "never set foot on this place again."

AFTER THE BALL

The second act shows a ball room scene at a fraternity house. Merton has completed his course in agriculture and has resumed a position with the Agricultural Extension Division of the farm. One of the guests is the young lawyer who advised Merton to go to an agricultural school and learn better methods of farming. He brings Merton news from home, telling him of his father's bad luck and poor health and Merton decides to try the interest on the mortgage and save the old home. His mother appears and begs Merton to come home.

The last act shows the young farmer in his office. He has proved to his father and the neighbors that modern methods of agriculture pay and also convinces the school teacher that a farm home can be made the "happiest place in the world."

Red Clover	5 lbs.
Oat Chaff in Ensilage	5 lbs.
Meal Mixture—	
Barley	100 lbs.
Bran	200 lbs.
Cotton Seed 50 lbs.	1 lb. meal for each 3 or 4 lbs. milk.
Or Oil Cake	
Meal	75 lbs.

The corn ensilage and chaff should be mixed together and fed in two equal portions, night and morning. The more palatable of the two kinds of hay should be fed in the morning; and the less palatable, with possibly a small amount of loose straw, fed the last thing at night after the ensilage and meal have been eaten up. The meal mixture, which, as indicated above, might include either oil cake or cotton seed meal, should be in order to try his new methods on a divided into two equal parts and farm. One of the guests is the young lawyer who advised Merton to go to an agricultural school and learn better methods of farming. He brings Merton news from home, telling him of his father's bad luck and poor health and Merton decides to try the interest on the mortgage and save the old home. His mother appears and begs Merton to come home. The last act shows the young farmer in his office. He has proved to his father and the neighbors that modern methods of agriculture pay and also convinces the school teacher that a farm home can be made the "happiest place in the world."

A fine vein of humor is introduced through the acting of the hired man, Gus, who is always ready to "quit" palatable meal mixture, and one par-



KEEP THEM WORKING

A horse in the field is worth two in the barn. You can't prevent Spavin, Singbone, Thumps, or other troubles from putting your horse in the barn but you can prevent these troubles from keeping horses in the barn very long. You can get

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Why not do some studying this winter on your own line of business?

Our best farmers are almost invariably heavy readers, at least 75 per cent of our information comes through printed matter—papers, books etc.

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cularly well suited to go with the foregoing roughage mixture, is desiccated, then both the oil cake, molasses and cotton seed meal, in quantities mentioned heretofore, might be used.

A New Year Letter to Farm and Dairy

"Farm and Dairy seems to me to grow better every issue, and I think that you have placed yourself in the very front of Canadian papers as a farm paper, and I might safely say that you rank in the very front as a dairy paper, regardless of national boundaries.

"One phase of your issue which I think is particularly commendable is the history and description and treatment of the conspicuous, constructive breeding herds of dairy cattle throughout the country. Nothing gives the average farmer more specifically and definitely an interest in any one breed than to read of the foundation, growth and development of other men's herds. So many farmers think that it takes a great deal of money to establish a herd, and that it is too large a proposition for them to undertake, but from the discussion and presentation of the history of the herds presented by you they learn that these foremost breeders in almost all cases were once just ordinary farmers with an ambition and a courage to attempt to attain in part that which they desired. I like that feature of your paper very much, and I approve of the entire paper.

"Wishing you a continued growth and success, and a full measure of the joys and blessings of the season,"
—J. A. McLean, Professor Animal Husbandry, Mass. Agr. College.

Records are Practical

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

Almost every dairy farmer who commences to weigh and sample his cow's milk individually says at the end of a few months, "I find some in my herd were kept at a loss." Some men find only one or two cows, others state that they have found too many in the herd pay a losing game.

What does this mean? Just this: That despite all the experience gained from years of practical dairying, the farmer finds that in order to become thoroughly "practical" he must have the aid of dairy records. Neither the cow's appearance, nor the owner's knowledge of some short-period yield of milk (extraordinary as that yield may have been for a day, or one week, or a month) will testify with certainty to each individual cow's ability to pay her way for the whole year. Cow testing provides a simple and eminently practical way of discovering, not only if each cow pays, but which cows pay the most profit on the twelve months' transaction of feed consumed, milk and fat produced. These large-profit cows are revealed only by practical cow testing.

Cows are apt to cheat the unsuspecting dairyman unless he keeps tab on the performance of each one; many dairymen have found this out to their utter astonishment and regret. Don't take chances with your herd, be certain that each cow pays; it pays you to find out. Individual cow records help the practical farmer to build up a profitable herd.

When boys were told that the pig's tail accurately registered the animal's condition as the thermometer did the temperature of the atmosphere. If coiled tightly the pig is healthy and happy, but if slack look out for trouble.

Caldwell's Dairy Meal

is not only another Caldwell product, but a feed, scientifically mixed by the best-known feed expert in the Dominion, for the purpose of supplying an existing and insistent demand.

It is manufactured from re-cleaned and carefully selected materials and is guaranteed to contain no mill sweepings, oat hulls or other low-grade ingredients. More than that, its palatability is assured because it contains the correct proportion of our Pure Cane Molasses Meal, together with a large variety of high-class feed stuffs.

Remember this: The ingredients of Caldwell's Dairy Meal are printed on the tag attached to every bag, and guaranteed to the Government.

Here's the guaranteed analysis:—

Protein - 20%
Fibre - - 10%
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Caldwell's Molasses Meal

makes other feeds more palatable and digestible.

N.B.—You will oblige by promptly notifying us if your dealer hasn't Caldwell's Dairy Meal on hand. Write for booklet.

The Caldwell Feed Co. Ltd., Dundas, Ont.
Molasses Meal, Dairy Meal, Cream Substitute, Cali Meal, Poultry Meal.



Little Pigs Got the Barley

The Ontario farmer is "getting wise." A grain-buyer the other day asked a farmer on the market why he did not market his barley. The farmer was ready with his reasons.

He drew a little notebook from his pocket, in which were neatly kept figures. He proceeded to explain them.

Last year this farmer bought a sow for \$41. The sow bore nine little pigs. He reared them, and kept track of their cost. The principal items of their feed were 100 bushels of barley and 40 bushels of oats. Reckoning the barley at 60 cents, the grain fed and the pigs would cost \$72. Slops and other feed were not taken into account.

In due time the pigs were sold, and the farmer received for them \$118. On an investment, accordingly, of \$118, he made a profit in one year of \$75, and will find the sow, reckoning the sow as worth \$35, the price received for the pigs would equal nearly \$1 for the pig bushel for his barley. Of course the farmer's time and work tending the little pigs should be taken into account, but even then, it is worth while, with barley at its present price of around 60 cents—Toronto Globe.

Use this coupon, and make money from now on, breeding pure-bred pigs. Mail it immediately so that you will get your supplies by return mail and can start to work right away.

Farm and Dairy, Peterboro

I will try and secure nine new subscribers for Farm and Dairy to earn a pure bred pig. Please send me sample copies, subscription list, etc.

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Describes all kinds of "Metallic" materials and the articles needed for your house and barn, including the famous "EASTLAKE" METALLIC SHINGLES Corrugated Iron for Roofing and Siding Metallic Siding Halls Ventilators Weather Vanes Have Trough and Conductor Pipe Asbestos Barbed Road Lights

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Get the facts—figure on the cost—make sure that you can get a better building at no greater cost—then decide. If you could get more for your money by reading this book you would quickly send for it. This book you would quickly send for it.

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Cheese and Butter at Cornwall

There were 250 cheese and a dozen lots of butter on exhibit at the Cornwall last week. This, the first attempt of Eastern Ontario dairymen to hold a dairy exhibit in connection with their annual convention, was decidedly successful. The new venture met with the hearty approval of all, and from now on will be a regular feature of the annual meeting. A new departure was made in judging also. Three experts, Geo. H. Barr, Chief of the Dairy Division, Ontario; L. A. Zulef, of the Kingston Dairy School, and E. Deming, of Montreal, scored each lot separately, and then averaged their scores in coming to a decision. This method all of the three judges declared most satisfactory.

"We were agreeably surprised at the quality of the cheese," said Mr. Barr in discussing the exhibits. "I had more trouble in distinguishing difference in flavor than at any other place I have ever judged. The cheese were most uniform; no one cheese stood out clear and distinct as is the usual thing."

"There were a few poor ones," continued Mr. Barr. "Probably five or six were off in flavor, some being better turnip and others 'cows.' A better finish on the cheese, too, would have made a nicer exhibit. A lot of the boys can improve in this respect next year. There were a lot of loose cap-cloths. A few were cracked on the ends, this a result of not enough pressing and cap-cloths not put on with warm water. There was not a dry, hard, acidic cheese in the lot. A few were weak in body."

Speaking of the butter, Mr. Barr said: "The flavor of the October butter was ordinary. The November butter was injured by the usual November dirt. But all in all it was a good, if small, exhibit."

The other judges expressed similar opinions, mentioning particularly the uniformity of make. "You would think," said Mr. Zulef, "that many cheese had been made in the same vat in the same factory by the same man."

The cheese were sold at public auction. Dr. C. A. Puhlov, Pictou, securing the entire lot at 13 1/2 cts. for large cheese and 13 1/4 cts. for flats.

The awards in full follow:

September white cheese (45 entries): 1 2 and 3 tie, E. C. Leonard and Elmer Baker, Algonquin. 2 1/2 Peter Guindon, Vankleek Hill 97; 3 4 and 5 tie, Jas. Irvine, Belleville, and Jas. W. Johnston, Campbellford, 97; 4 M. O. Tricky, Williamsburg, 97; 5 and 6 tie, Jno. P. O'Shea, Wolfe Island and Benson Avery, Kintura, 97; tie for 7th prize, H. S. Channell, Demorestville, Jas. D. Henderson, Smithfield, W. A. Anderson, Peterboro; Jno. J. Kinnear, and Elmer Baker, Algonquin.

September colored cheese (27 entries): 1 J. W. Fritwell, Oxford Mills, 97; 2 Peter Guindon, Vankleek Hill 97; 3 4 and 5 tie, Jas. Irvine, Cornwall, W. D. Clapp, Campbellford, and M. O. Tricky, Williamsburg, 97; 6 and 7 tie, G. W. Owens, Forster; Thom. Jahmier, Lanark; E. E. Chaffee, Summerstown, and H. S. Channell.

October white cheese (41 entries): 1 Benson Avery, 97; 2 3 4 and 5 Geo. H. Rose, Stirling; Geo. W. Chambers, Stirling; J. W. Fretwell, and W. C. Taylor, Charlton Place, 97; 6 Jas. B. Tinker, Onabruk Centre, 97; 7 tie, Peter Guindon, Vankleek Hill, and H. S. Channell.

October colored cheese (42 entries): 1 Howard Holmes, Peterboro 97; 2 Chas. Wilkins, Millie Roches, 97; 3 and 4 tie, Ralph Aigue, Northfield Sea, and Taylor, Charlton Place, 97; 5 6 and 7 tie, J. J. Hogan, Peterboro; H. S. Channell, Demorestville, and B. Duimais, Peterboro, 97.

Two Canadian flat cheese, 54 lots: 1 Gordon Haugh, Perth, 97; 2 3 and 4 tie, Jno. Snelinger, St. Andrews, N. Thacka-berry, New Dublin, and B. Maxwell Halcy, Lanark, 97.

Three Canadian Stilton cheese, 9 lots: 1 2 3 tie, C. A. Puhlov, Pictou, A. Gerow, Napawan; Jno. Snelinger, St. Andrews, and Benson Avery, Kintura, 97.

Butter Awards
66-pound box October butter: 1 D. A. Roe, Manie, 97; 2 F. D. Booth, Pictou Falls, 97; 3 Jno. Anderson, Renfrew, 94; 4 E. K. Chaffee, Summers-town, 97.

(Concluded on page 22)

The Call of the North

Do you know of the many advantages that the **North** offers? Millions of fertile lands rich agricultural lands. Areas already in production of grain and vegetables second to none in the world! For literature descriptive of this great territory, and for information as to terms, home stead regulations, settlers rates, etc., write to

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WE ARE PREPARED TO SEND OUR REPRESENTATIVES TO ADDRESS AGRICULTURAL AND HORTICULTURAL CLUBS AND FARMERS' INSTITUTES ON "The Fertilizing of Crops" and "The Rational Use of Fertilizers." SECRETARIES OF CLUBS AND INSTITUTES ARE INVITED TO CORRESPOND WITH US TO ARRANGE SUITABLE DATES FOR ADDRESSSES.

The publications referred to above are:

- "Artificial Fertilizers: Their Nature and Use"
- "The Potato Crop in Canada"
- "Fertilizing Grain and Grasses"
- "Fertilizing Orchards and Gardens"
- "Principal Potash-Crops of Canada"
- "Farmers' Companion," etc.

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For many crops all the available plant food that is needed is one grain to each pound of soil. When such a small quantity of food must do all the work for your crop, it is exceedingly important that what you put into the soil in the form of fertilizer shall be available—that it shall have not only the right quantity, but the right quality and right crop value.

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accomplish also the more difficult task of getting the right blending, the right solubility into a mixture which will run readily and freely from the farmer's planter, and which will remain dry and drillable as well as efficient until used in the field. We make a brand to fit every crop need.

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We want you to have our Ideal Green Feed Silo Book. If you are a cow owner a postal card request will bring you the book free of charge.

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A man wanted in every dairy district to collect renewals and get new subscriptions. Hustlers needed who will cover the district thoroughly. State occupation and if can work entire or spare time.

FARM AND DAIRY, Peterboro

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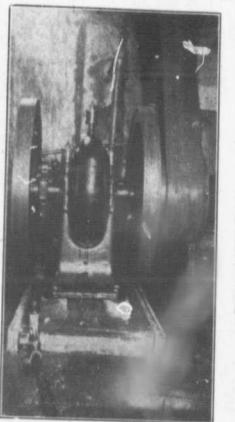
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"We've got the greatest power on this farm that I know of. Talk about Niagara power, it isn't in it with gas power. No matter whether it lightnings or storms our power is always ready." Thus did Mr. L. H. Lippsett, Elgin Co., Ont., eulogize his gas engine, an illustration of which appears herewith in this issue, to an editor of Farm and Dairy.

The Lippsett farm in Elgin county, is located near the natural gas region. The gas is piped some five miles for the use of Mr. Lippsett and his neighbors. They pay 25 cents a thousand for the gas, which is used for lighting,



From Gas into Power

Farmers who are located in the natural gas regions in Mr. L. H. Lippsett, of Elgin Co., Ont., will find gas their cheapest farm power. Mr. Lippsett tells of his engine here illustrated in the adjoining article.

—Photo by an editor of Farm and Dairy.

cooking and for running the gas engine, and the whole at no greater cost than the bill that they used to receive for gasoline for the engine alone.

The engine which cost \$900 stands in a small room adjoining the stable and is used to run the milking machine, turn the separator and can be made to pump the water. In running the milking machine Mr. Lippsett considers that his power more than pays for itself each year.

Does Not Favor Free Trade

Jno. Eldridge, Bruce Co., Ont.

Our ideals and luxuries are greater in this new country than in the old. For this reason I am not in favor of free trade with the Mother Country because across the sea a great many don't get a living wage.

With sufficient protection for our artisans and not stooping to the serfdom of Europe, but maintaining the ideals and standards of living set up among the workers of this country, will in the end enable the farmers to get their rights, because we have a long battle ahead of us, a battle against the rich and the mighty, the crafty and the educated. Therefore, it behoves us to first be sure that our foundation is right, then go ahead. As Prof. Dean states "Nothing is settled until it is settled right."

What good are my opinions or the opinions of others? No good, unless they are scientific, consistent and truthful.

MAKES HENS LAY MAKES HENS PAY

A CHALLENGE FROM
NEBRASKA

D. M. ALLAN writes: "I am now feeding INTERNATIONAL POULTRY FOOD my stock of Black Minors, and I am open for competition against any flock in this or any other State."

15,000 EGGS FROM 30 HENS IN 60 DAYS

"I feed my hens INTERNATIONAL POULTRY FOOD and my 30 hens laid 1,500 eggs in sixty days," says I. C. Eldridge.

INTERNATIONAL POULTRY FOOD. It doubles the number of eggs by doubling the health of the hens. It keeps eggs in perfect condition—makes them luscious and vigorous—keeps them scratch and eat—and lay all winter.

INTERNATIONAL POULTRY FOOD protects fowls against Cholera—in fact, many breeders say that it is the best Chicken Cholera cure for fowls in existence. Price, 25c, 50c, and \$1.00. Write for free copy of our \$3.00 Stock Book—of interest to every man who raises horses, cows, sheep, pigs and poultry.

INTERNATIONAL STOCK FOOD CO., Limited, TORONTO

130-Egg Incubator and Brooder

Both for \$13.90

If ordered together we send both machines for only \$13.90 and we pay all freight and duty charges to any R. R. station in Canada. Orders shipped from nearest warehouse to your R. R. station. Hot water, concrete walls, dead-air space between, double glass doors, copper tanks and boilers, self-regulating. Nursery under your gaze—30 days' incubation, lamp, egg tester—ready to use when you get them. Brooder forms feedwood lumber, self-pointed to cover inferior material. If you will compare, send us your measurements and we will point to cover inferior material. If you will compare, send us your measurements and we will point to cover inferior material. If you will compare, send us your measurements and we will point to cover inferior material.

WISCONSIN INCUBATOR CO., Box 348, Racine, Wis., U. S. A.

Say

"I saw your ad. in Farm and Dairy" when you write Advertisers. Then you get full benefit of our absolute Guarantee.

TANKS FOR EVERY PURPOSE

Fig. 1

We are proud of our well-deserved reputation as makers of high-grade tanks for every purpose. May we quote on your requirements for sheet steel or galvanized tanks? They have taken the place of the leaky and unsanitary wooden tank.

Fig. 2

ROUND GALVANIZED STOCK TANKS (Fig. 1). Added strength assured by heads instead of hoops. No place for dirt to accumulate. In a variety of sizes or to your order.

BARN TANKS OR CISTERNS (Fig. 2). Made from heavily imported galvanized steel. Absolutely water-tight. Thoroughly rivetted and soldered. Fitted with heavy angle iron, greatly adding to strength.



Fig. 3

WAGON WATER TANKS (Fig. 3). Cover supported with angle steel. Fitted with man hole and outlet. Strong bulk heads.

MILK COOLING TANKS (Fig. 4). Cools milk rapidly and keeps it at proper temperature. Clean, sanitary and durable. A real convenience to the Dairyman.

GASOLINE TANKS (Fig. 5). For underground storage. A first-class tank that will not rust. Thoroughly rivetted and soldered.

We sell the best Self-Measuring Pump on the Market.

These are only a few of our many tanks. Let us know your requirements.

The Steel Trough & Machine Co. Ltd.

Fig. 4 135 James St., Tweed, Ont. Fig. 5



Write for Catalogue.

POULTRY



Marketing to Advantage

By R. V. Mitchell

The question that is asked by poultry raisers is, "How can I market my chickens and eggs so as to get better prices for them?" In order to market quality products to the best advantage, we must break away from the time-honored custom of selling to the huckster at the back door and taking eggs and poultry to town and trading them for groceries or other commodities.

The producer never receives as much as he should in selling in this way. No matter how good a poultry raiser he is or how carefully he handles his eggs and poultry, he receives just the same as the man who will sell a lot of poor birds or a lot of eggs of poor quality. This condition exists generally throughout the country, and is one reason why so many poor

Incubator Experience Wanted

Is the incubator a practical success? Many of our folks who are interested in poultry are asking themselves this question. Many others consider the question already settled, so satisfactory has been their experience with the incubator. For the benefit of those of our folks who are considering the advisability of purchasing an incubator this spring, Farm and Dairy would like to have some of the experienced ones tell of their experiences in the Special Poultry Number of Farm and Dairy which comes out Feb. 15. A brief listing such details as the number of years you have operated an incubator, the ease or difficulty with which it is managed and the average percentage hatch would be much appreciated by the rest of our folks and by the editors. These letters would need to be in Farm and Dairy office not later than Jan. 25th in order to secure a place in our Special Poultry Number. Let us have a little experience meeting.

eggs and poultry are found on the markets.

There are markets in the different cities and towns where people are willing to pay a premium in order to get good poultry and eggs. The poultry products which are sold or traded to the country merchant are shipped to the wholesaler or commission man, who pays for them according to their quality, condition and the current market prices. When poor products are sold on the good they are all paid for on the basis of a poor product. In order to get a good price there must be enough of the article to be worth while, and also to have the quality running even or nearly so all the time.

Poultry producers in some sections of the country have overcome this difficulty by forming an organization to market their products together. They have a set of rules as to how the products must be handled and appoint one of their numbers to look after the marketing. For this work he gets a commission. The products are delivered to a central point regularly, so that shipments can be made as often as possible. By this method the producers take better care of their products and in turn will receive better prices.

Vessels and troughs in which feed is placed should be frequently scalded or disinfected with a five per cent. solution of carbolic acid.



Progressive Jones Says:

"Watch for this Sign"

If you want to get right on the fertilizer question, friend, take my advice and visit the nearest agency for

Harab Fertilizers

You will know the Harab agency by the sign shown above. It will be found over the door of our dealer in your nearest town or village. Every agent is thoroughly posted about profitable fertilizing. I say here—that fertilizing the Harab way is like sowing pennies for harvest dollars, for it not only gingers up the present profits by providing a bigger crop—but also nourishes the soil for future dividends.

Every one of the Harab Fertilizers is a proven success—one of them is the right fertilizer for your soil and for the crop you wish to raise. Harab experts will give you enquiry individual attention. By their aid your proper fertilizer is easily selected.

The Harris Abattoir Company have an interesting booklet of information about their twenty-five successful fertilizers. Just write for a copy to-day—and keep a weather eye open for the Harab sign—visit the Harab agency.



Years for luncheon conf.
Progressive Jones

Fertilizer Department

The Harris Abattoir Co., Limited
Toronto

Planet Jr



No. 3 Planet Jr Hill and Drill Seeder

Sows all garden seed accurately in hills and drills. Sows in a narrow line making wheel hoe cultivation quick and easy. Sows seed in rows, graduated for both hills and drills, is always in plain view.

Planet Jr Farm and Garden Implements cut down the cost of cultivation, lighten labor, and give better results. \$2 to \$100, according to requirement. Fully guaranteed.

FREE Our new 72-page illustrated catalogue describes in plain language the full range of implements for all kinds of cultivation. Write for it today.

S. L. ALLEN & CO
Box 12025 Philadelphia
Write for the name of our nearest agency



No. 11 Planet Jr Double Wheel Cultivator, Plow and Rake

The greatest cultivating tool in the world for the grower of garden crops from drilled seed. The plow opens furrows for manure, seed etc. and can be reversed for covering, or shallow work and for marking out. Crops can be worked both sides at once until 20 inches high.



No. 4 Planet Jr Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow

This is a practical every day time, labor- and money-saver for the woman in tending her vegetable garden as well as for the market-gardener. It combines in a single implement a capital seeder, an admirable single wheel hoe, furrower, wheel cultivator, and a rapid and efficient wheel garden plow. Sows all garden seeds in drills or in hills.



No. 41 Planet Jr Orchard and Universal Cultivator

The most efficient tool ever invented for cultivating vineyards, hopyards, and orange, walnut, etc. It is equipped with Currier's sweep, furrowers, plow, etc. Works deep or shallow and cuts from 4 to 6 1/2 feet wide. Convertible into disc harrow and alfalfa cultivator.



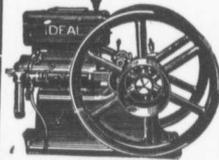
Planet Jr 12-tooth Harrow, Cultivator and Pulverizer

An invaluable tool in the market-garden, truck and strawberry patches. Its 12 chisel-shaped teeth cut out all weeds and melon-weed conditions without throwing dirt on plants. Can be set exactly to desired depth making delicate work easy.

Write for name of our nearest agency

GASOLINE ENGINES

1 to 80 H.P.
Stationary Mounted and Tractor



WINDMILLS
Grain Grinders, Water Saws, Steel Saw Frames, Pumps, Tanks, Etc.
COOLD, SHAPLEY & MUIR CO., LTD.
Brantford Winnipeg Calgary

Is Your Farm Paying?

A great many farmers at the present time find that their farms are not paying, but they do not know just where the leak is. In other words these farmers are keeping no books. Start the new year right by getting a

Farmer's Record and Account Book

These books are most complete and have been prepared especially for you to meet all the needs of the dairy farmer. An account book is something every farmer should have, and this is the best and most complete you can get. Send us one now subscriber with one dollar and we will mail this book to you. Should all your friends be subscribers to Farm and Dairy, and you are desirous of securing one of our account books we will send you one upon receipt of 50 cts.

FARM AND DAIRY
Ad. Dept. Peterboro, Ont.

FARM AND DAIRY

AND RURAL HOME
PUBLISHED EVERY THURSDAY

SUBSCRIPTION PRICE, \$1.00 a year. Great Britain, \$1.20 a year. For all countries, except Canada and Great Britain, add 50c for postage.
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The paid subscriptions to Farm and Dairy exceed 15,000. The actual circulation of each issue, including copies of the paper sent subscribers who are but slightly in arrears, and sample copies, varies from 17,000 to 18,000 copies. No subscriptions are accepted at less than the full subscription rates.
Solemn detailed statements of 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 sifted as the reading columns, and because to protect our readers, we turn away all unscrupulous advertisers. Should any advertiser herein deal dishonestly with you as one of our non-advance subscribers, we will make good 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 the contract that in writing to advertisers you state: "I saw your advertisement in Farm and Dairy."

Refunds shall not pty 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 honest bankrupts.

The Rural Publishing Company, Limited
PETERBORO, ONT.

The Short Course Season

January is short course month. Agricultural colleges from one end of Canada to the other have become imbued with the short course idea. They realize that they owe a duty to the farmer and his son who cannot attend the regular courses of the college. To the farmer, with his multitudinous duties, a full winter at an agricultural college is well nigh impossible. Many boys who have not the opportunity to attend the regular courses have the same thirst for knowledge as those with greater opportunities. The short course in a large measure meets the requirements of both of these classes. It enables the farmer to collect many valuable ideas. It does as much for the boy, and more. It gives him new ideals and starts him reading and thinking in the right direction.

The short courses as conducted in our colleges are essentially practical. Theories and abstract science are left behind when the professor enters the short course room. Time is limited and all talk must be right to the point. The discussion among visiting farmers and the exchange of experiences is a valuable part of the short course. The expense of attending such a course is within the reach of all. Farm and Dairy heartily commends a short course at the nearest agricultural college to every one of Our Folks who would like to spend a very profitable week in this the slack season of the year.

Who Should Pay?

Farmers are not very enthusiastic over the great national highway scheme that is brought to light every time that motor enthusiasts are given an opportunity to discuss the good roads problem. Most farmers never have occasion to haul their produce to Halifax, Montreal, Toronto, Winnipeg, or any of the other large centres lying along the route of the proposed highway. The highway that interests the farmer is the one that leads to the nearest railway station.

We suspect that our automobile driving friends who would very much like to see this highway a reality are coming to realize that they may expect very little support from county councils

or even from the Provincial Government. Both of these sources of supply are too closely under the eye of the taxpayer. Hence they are turning their attention to the Federal Government. They know that the sources of revenue of the Federal Government are so far from the supervision of the individual taxpayer and collected so indirectly that they may be able to get the money there for their highway without raising violent opposition. But let those of us who pay the taxes be not deceived. Whether the money for such a highway come from the county council, the Provincial Government, or the Federal money chest, we pay the piper just the same. Let us make our position clear to those who have the spending of the Dominion revenues. If our automobile owning friends want a Federal highway, why don't they go to work and build it and pay for it, even as the advocates for a national highway in the United States are now attempting to do?

The British Preference

A few months ago the protective tariff of the United States was reduced from its position as the highest in the world to an average of twenty-six per cent. For months previous to the reduction of the tariff the manufacturers and their lobbyists filled the halls and corridors of the Capitol at Washington, telling the members of the ruin that would come to the country in general and their industries in particular were the proposed tariff measure actually made law. They predicted that the immediate result would be closed factories and hundreds of thousands of men out of work.

The proposals against which the manufacturers protested have been the law of the United States for some time now. So far as we have heard not a single factory has closed, nor have men been thrown out of work. Does not this result of United States tariff legislation throw some light on question No. 5 of Farm and Dairy's referendum: "Are you in favor: (a) Of increasing the British Preference to fifty per cent? (b) Of increasing the British Preference year by year until within from five to ten years we shall have complete free trade with the Mother Land?"

Canadian manufacturers, who have always been loud in their protestations of loyalty, are now advancing exactly the same arguments against an increase in the British Preference as United States manufacturers advanced against the reduction of their tariff. We farmers wish to be fair to all and if we had reason to believe that an increase of the British Preference would ruin manufacturers and leave laboring men without employment, we would go very slow in advocating such a change. But would an increase be followed by such dire results?

If there is any industry in Canada that should fear Old Country competition it is the manufacture of cream separators. English manufacturers are selling their cream separators in every country in the world. One machine of English manufacture, the Mellotte, is everywhere recognized as a standard make. And yet Canadian manufacturers of cream separators have been conducting a thriving business without tariff assistance. English cream separators can enter our market without any tariff hindrance and yet the separator manufacturing industry in this country is one of the most prosperous that we have and is making much more progress than the great majority of protected industries. May we not ask, if separator manufacturers can meet British competition why cannot manufacturers in other lines?

A concern that is ever loud in its denunciation of the British Preference is the Dominion Textile Company. A few years ago the employees of this concern in their factory at Valleyfield, Que., struck for higher wages. The company

circulated a statement among its employees that they would like to give higher wages, but that it was impossible as the protective tariff was not sufficient to justify them in so doing. An investigation was conducted by the Department of Labor, Ottawa. It was found that while the nominal dividend of the concern was only five per cent on common stock that that common stock was ninety per cent of water, and that the company was paying fifty per cent dividends on every cent of capital actually invested in the concern. A farmer who could make five thousand dollars on a ten thousand dollar investment in his farm over and above his own salary would be a wonder. And yet this is the profit that was being made by this protected concern that did not believe they could successfully compete with the manufacturers of Great Britain.

The farmers' organizations of Canada can give many such instances as the two we have mentioned in support of their request for an increase in the British Preference: gradually leading to free trade. They object to the principle of the tariff against British goods. They believe that this would be the most practical method that could be adopted to prove their loyalty and at the same time build up the ties with the Mother Country.

We would like to know if Our Folks are in favor of increasing the British Preference until we have free trade with the Mother Land? We ask you to fill in the Farm and Dairy Referendum ballot that will be published in the January 29th issue, and in this way aid us in making known the real views of our farmers on this and kindred subjects of national importance.

Dollars and Cents Values in Bulls

At a recent sale of pure bred Holstein cattle, a pair of twin heifer calves, scarcely a week old, changed hands at two hundred and forty dollars each. Fifteen or twenty years ago such a transaction would have been considered, even by Our Folks, on a par with buying gold bricks, or investing in wild cat mining stock. To-day we can see such incidents duplicated at any sale of high class cattle. Why the change?

There is an old saying that has been handed down from our fathers,—"A good cow is better than a good cow's calf." Observation and experience taught our fathers that a good cow did not always transmit her milking qualities to her offspring. But they realized only the half-truth. Had their observation taken them farther, they would have seen that the reason a cow was often better than her calf was because she had been bred to a nondescript sire.

Nowadays we have learned to profit by their mistakes; we realize the importance of the sire in the development of the herd. Those twin calves were out of a fine cow, but that fact alone would not account for the value that was placed upon them. They were sired by a bull that has in his veins the best producing blood of the breed.

At that sale the mere fact that a cow was bred to that bull added from fifty to one hundred dollars to her own intrinsic value. If then that bull adds to least fifty dollars to the value of every cow at which he is bred, what is his capitalized value? He is cheap at several thousand dollars.

Possibly some of Our Folks are considering the purchase of a bull, or are pondering on the merits of the one they already have. Is he one that is producing, or likely to produce, heifers that will be better than, or at least as good as their dams? If not, then he is dear at any price, for everyone of his offspring is decreasing the per head value of the herd. Would it not be the part of wisdom to pay the bigger price for the sire that will increase, rather than decrease, that value? His ability to do so is the true criterion of his worth.

Thinks Women Should Vote

Harold Childs, Kent Co., Ont.

I have read with interest the article in the December 15th issue of Farm and Dairy on "Farmers and the Public Issues of the Day." As a constant reader of Farm and Dairy I congratulate you on the article and also on the fact that your paper is among the first Canadian farm papers to take up the referendum with reference to public questions of the day. More particularly would I con-

AD. TALK
CCXXIV.

"If I Had My Life to Live Over I'd be a Farmer."

Have you ever heard that remark before?

This back-to-the-land cry is constantly in our ears these days, mostly by those who never farmed, or possibly they had been brought up on a farm—years ago.

On the train the other day this subject was up for discussion by two apparently prosperous business men. I tried to explain to myself their regrets for having spent their lives in a great metropolis and the abundance of God's fresh air and sunshine in the country? Was it the lack of natural beauty in our cities? Was it because 60 per cent of our population lives in the rural districts—the 60 per cent, that actually produces the prosperity of our country—creating new wealth by the billions every year?

It was none of these. These men knew full well that farming was a most attractive occupation—secure, independent, and moderately profitable. But they knew better still that business life then offered even greater opportunity to accumulate more of that form of human energy—money. They knew that in business there was the possibility of a larger margin on the investment. They knew that the bulk of fortunes were being amassed not in production but in buying and selling and particularly so in the manipulation of the prices. To-day we find these men wealthy.

There was a day not so long ago when our farmers did but little of the actual selling of their products.

The other fellow simply bought them from him, giving largely what ever price he saw fit. This condition is by no means entirely changed.

This was and is the great detriment to farming—the fact that the other fellow has largely set the price for us.

But there is light ahead—even now scores of our best farmers have caught the "business" vision. If they have goods—their products—for sale, they are adopting the methods of our big manufacturers and sales houses of making possible buyers well informed of these goods. In other words they are "in business."

They are advertising. If they have choice seed wheat, corn, potatoes, or surplus pure bred pigs, poultry, cattle, or horses for sale—in fact any products of high quality they find it pays to let a large number of possible buyers know about them. This insures them a wider market and higher prices. Our most successful fellows are known not by the goods "bought from them," but by the "goods they sell." The farmer of to-day is too "the business" man. He pushes his business—pushes his products to the attention of the people who need them—and in doing so he is finding it pays to use those live, spicy farm papers that have the "business" confidence of its readers—such as Farm and Dairy.

"A Paper Farmers Swear By."

gratulate you on your decision to allow the women to vote on your referendum. I agree with you that women are just about the most intelligent class of readers we have and are, in my opinion, capable of voting, not only on your referendum, but on general public and political affairs as well. I do not think that our farm women would neglect their household duties if given the franchise, but would, on the other hand, endeavor to bring about legislation for the betterment of the community at large. With this idea in view, when challenged to take part in a debate on the question of suffrage, I decided to take the woman's side of the question.

Government Control of Utilities

"Farmer," Waterloo Co., Ont.

It is my opinion that express, telegraph and telephone companies should be taken in hand by the government for the reason that they are in many cases running their business for their own gain and not for the public service, and they are also holding charters and franchises so that there can not be any real competition. The telephone company is the one which comes in most direct touch with the rural population. The opposition that The Bell Telephone Company puts up when some independent line is in process of development is out of all reason. They refuse to give satisfactory service. They will tell us that they cannot come to our homes unless we pay some exorbitant figure, but as soon as the farmers start an agitation to put up an independent line they are on the spot with their gang of men.

It would be a good thing if the government would make a thorough investigation of these doings and have them published so that wherever a rural line is in process of organization they will know something of the means that are used to retard its progress. In fact if there was opposition to government ownership in Farm and Dairy, it would be hard to tell where it came from. History teaches us that there are often dark ways used to carry out projects by corporations and trusts. I would say let the government take full control of these affairs and have a decisive vote that way.

ARBITRATION INSTEAD OF WAR

If our military and naval expenditures were cut down to the actual police requirements of a country and not to be used for fighting with other nations, it would be a great thing. Let national disputes be settled by arbitration and the money thus saved used for developing the resources of the country and for the service of the people. I believe there is enough money taken from the people in a few years by corporations, trusts, mergers, combine and unnecessary customs taxes to pay for all public utilities. Let the farmers speak.

I am in favor of legislation for the incorporation of cooperative societies. It has been my desire for many years to cooperate with my neighbor farmers, and we should favor anything that will make that easier. I am at a loss to know why it is that we, the backbone of the country, are slow to grasp each other's views. When dealing with agricultural interests we must all be aware of the fact that societies mean strength, and by cooperation we are sure to improve our conditions in every line of agriculture. I trust that the splendid opportunities that are offered to us each week in Farm and Dairy will tend to bring to each one of us new ideas on the important question of cooperation.—A. J. Keane, Peterboro Co., Ont.



Horse Sense About Gas Engines

Here is a Gas Engine Book you will read with interest from cover to cover

The Alpha Engine Catalogue
is full of "horse sense" about farm power

It tells all about an engine which is so well built that you can always depend on it; which is so simple that a boy can run it; that can be run on either gasoline or kerosene; an engine that starts on the magneto and that does not stop until you want it to.

This book is free. Send to our nearest office for it.

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LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA
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BUSINESS SEARCHLIGHTS

OUR 1914 SPECIALS

No. 1 - February 5

**SIXTH ANNUAL
POULTRY MAGAZINE NUMBER**

Poultry Keeping to-day offers a higher return on the investment than any other branch of farming.

The 'business hen' is one of the big factors of profit on our farm.

"Our People" are alive to this. 99% of them are wide awake poultry keepers.

We emphasize the importance of the poultry business by devoting our big issue of February 5th to it's problems. From cover to cover it's pages will sparkle with live, interesting articles for poultry keepers, from practical and leading authorities.

This feature gives it the power for your message. Get after us now for special space and placing. You know the advantages of reaching us early. DO IT NOW.

FARM AND DAIRY
PETERBORO, ONT.



THE best portion of a good man's life is his little nameless, unremembered acts of kindness and love.—Wordsworth.

The Washerwoman's Son

By DEBORAH DREW

Copyright, The Frank A. Munsey Co.

(Continued from last week)

At the end of the evening Dan had enough money for the hall, to secure a cheap lodging, and to buy a breakfast for himself and his dogs. But he saved the price of the lodging for sleeping on the ground back of the hall, with his dogs beside him.

All that summer Dan tramped from town to town. In time he had printed some handbills which read: "Dan Black and his dogs to be seen at—" with the name of the place left to be filled in upon arrival at the town.

Gradually his cause was helped by the reports of the local newspapers.

Dan Black and his dogs began to be known.

Back in Haytown, Moll D. washed and ironed and fluffed round the corner as of old. She hired various ones to deliver the clothes on the hill. She had several postal cards from Dan stating merely that he was well and safe.

But a day came when she received a letter in which a five-dollar bill was folded.

"Dear mother," it read. She straightened visibly. She had been "Moll D." all her life and "Ma" to her relatives ever since her first baby had learned to talk.

"At 'dear mother'" she felt a thrill of self-respect new to her.

"I am sorry it is only a five I am sending you; but if things go on as they are going now I know I can do more for you some day. I wish you could spend it for something you like; but I suppose you need it more than ever, now that I am away."

The summer had passed.

It had grown to be of weekly occurrence that Moll D. received her letter containing a five-dollar bill; and gossip was rife in the village that Dan Black had two more dogs now and was a "towerin'" the country just like "a circus man."

Then a year passed.

Moll D., with the weekly letter in her hand, was fitting around the corner from the post-office.

A little girl was waiting at the icky gate to hear the letter read. She was breathless from her surreptitious run down the long hill. She had evidently been there before, for Moll D. led her in without comment.

As Moll D. opened the letter a money-order for ten dollars dropped into her lap. She read aloud:

"Poor, tired Mother: Can't you get something you want—some little thing that I do not know how to send?"

Moll D. put her parboiled hands over her tired face and cried. She who was not given to tears.

The little girl threw her arms around her and they finished the

letter together. Then the girl sped someward up the hill.

And still Dan tramped from town to town, from city to city, and was

Disipation had no temptation for him; he needed no temperance lecturer to draw glowing pictures of its effects. He had been familiar with them in their bare, hard, unromantic aspects, robbed of all picturesque or sentimentality.

All unconsciously he had been reared in a great university of



Progressive Home Making in a Western Province

One of the sights of the district around Starbuck, Man., is the garden of Mr. and Mrs. Thos. Blake whose fine farm home may be seen in the illustration. This is surely a model farmstead, one that would do credit to anyone!

thought and feeling and observation. There had been humor, too; the quaint, dry humor which his mother disseminated on her hurrying way as though others might have it if they liked, but as for her she had not time to laugh at it.

And the blood of her sturdy perseverance was in his veins. He was fortified against the attack of the world.

After much tramping, much sleeping out of doors, many scanty meals, he awoke as from a dream to find himself in demand at vaudeville houses throughout the country.

In five years, when his popularity had increased and he needed an assistant, he remembered the brown-legged, one-suspender boy, and sent for him.

"Never mind about your clothes," wrote Dan, "come on, if you want the work; I'll send you a ticket and we'll see to less important things when you get here." And the boy went.

As time wore on and the boy proved resourceful and teachable, Dan found time for study, occasionally looking up a needy tutor and paying him more than he asked for a few hours' study.

Ten years had come and gone. The big tent which had formerly exhibited "Baker and Jeffries' Big Show," and later "Jeffries' Big Black's," but now simply "Dan Black's Trained Animals," was lighted to the utmost and all abum with

It was filled with human beings, though he would have risen, but, re- membering his act at civil war, he

They had transported through the performance of the fearful polar animals, and coared with merriment at educated elephants and dancing bears, "chucked at the monkeys, guffawed at the clown, and still were in a state of high expectancy.

All that had gone before was secondary to seeing the man who owned the show come on with his dogs. The man who owned the show was at that moment in his dressing-room reading a letter from his mother.

It was pleasant to know that his mother now had time to write letters—still new letters—misspelled, but full of the things he wished to know.

He learned from them that Margaret Haines was still Miss Haines. He learned also that she need not have been, for among the fashionable set that visited her father's house she was most popular. Why did she remain Miss Haines?

At such times as this a wild hope made Dan's heart beat fast, and the home-call was strong.

Some one was announcing to him that the last performers had left the stage.

One would hardly think that human throats could make such a noise as broke forth when the man who owned the show stepped upon the stage.

One marvelled at his power—this

"Jack!" Another responding yap, and from out the group emerged a little black dog that ran to the back of the stage and sat down, all attention still.

So on through the group went Dan quickly until they were all lined up at the back of the stage, awaiting orders.

It was a memorable performance! There were long-legged dogs that made wonderful loops, and short-legged dogs that did funny, irresistible things. Dogs that said their prayers; dogs that danced the minuet; dogs that died at the mere suggestion; dogs that did the fire-drill; and not once did Dan drill them to the point of fatigue.

If confusion greeted him when he came on the stage, bedlam broke loose when he prepared to leave. But when, with Tim gathered in his arms and his dogs following him, he stepped close to the front and spoke familiarly with the boys, they gazed up at him, as with one pair of eyes, in a rapturous silence.

If he had offered to adopt them all, there would have been a number of bereft parents in the city that evening.

When it was all over a group of men were surrounding Dan's assistant, who was no longer a boy, and was "Charlie" to Dan.

"How does he do it?" they were asking. "What is it they obey?"

"Search me," said Charlie. "All I know is I'd crawl under the old table and squeeze myself if he wuz to tell me to in that soft way. Ye ain't afraid; ye know nothin' 'll happen to ye, except he might get disappointed ye 'n't give ye up." And I guess that's the way the dogs feel—they don't want to be give up; for I tell you he's on the square to live with 'em. Why, thunderation, I'd rather be bossed by him than to lord it over anybody else!"

The years are too many to recount them all separately.

But there came a day when Dan Black and his trained animals were known the world around; when Jim Black had ceased to trust, and Moll D.'s washings were only a memory.

It was fifteen years since Dan had started on his dry road to fortune.

Among the aristocratic homes of Haytown, standing well back from the road, was a quiet house, with fine, straight lines and a spacious veranda, upon which were awnings and wicker chairs.

In the yard at the rear a slender, gray woman imitated her habit of energy, acquired by long years of labor in cultivating roses in her garden.

Up the road some distance, in the president's office of the Avery Bank, was a tall man who, though there were gray threads in the closely cropped hair, was still young.

There was an old-time candor in the blue eyes, but firm lines had formed around the kindly mouth. He had the bearing of one who had seen the world.

People who passed in and out of that bank lifted their hats to this man, but the slender gray woman at the quiet house still called him "Danny."

Margaret Haines was still Miss Haines. The Haines residence, upon the shaded avenue, wore the same prospect as it had in the month of May. It was still had awnings and wicker chairs.

(Continued next week)

"Tim!" And old Tim responded with a little yap and a movement as

Send in your subscription to Farm and Dairy. You won't regret it.

A Church Service in the Home

In many parts of Canada local conditions may prevent people from getting to church, especially in the country during winter. Perhaps at that time of the year go public services are held. There may then be a desire on the part of the head of the family to hold some simple kind of service in the home, that the Sunday may not pass entirely without a recognition of the higher things of life. The question arises—What form shall the service take, and how long should it last? This is how some Church of England people have solved it. Of course those of other denominations would probably do things more in accordance with their own religious observances.

The service begins with a hymn taken from "Hymns Ancient and Modern." Next comes a prayer from a very interesting little book entitled "Great Souls at Prayer." Fourteen centuries of prayer, praise and aspiration, from St. Augustine to Christina Rossetti and Robert Louis Stevenson." These prayers are selected and arranged by Mrs. Mary W. Tilston, and published by H. R. Allenson, Ltd., of London, England. This little book is quite handy for the pocket, yet contains one and some times two prayers for every day in the year.

Next are taken the Psalms for the day, which are either sung to a well-known chant or read, one verse by

the father, and the alternate verses by the remainder of the household. Then comes another hymn, and after that the Collect, Epistle and Gospel be read aloud. There happened to be in the house a copy of "The Teacher's Prayer Book," with introductions, analyses and notes, by Alfred Barry, D.D., D.C.L., Canon of Westminster." These explanatory notes are read immediately after Collect, Epistle and Gospel. These notes are short, yet very helpful and instructive.

Then follows the third hymn, and after that "The Reading," as it is called by the wife, who generally chooses the hymns and writes out the little order of service for each Sunday. This used sometimes to consist of "The Upward Look" from Farm and Dairy. Occasionally two would be read together, as they are rather short. At other times the following order for a reading. They were not specially purchased for the purpose, several being the gifts of friends at various times. They are: "The City with Foundations," by John Edgar McFadyen, formerly Professor of Old Testament Literature and Exegesis in Knox College, Toronto; "Concerning the Christ," by J. D. Freeman, M.A.; "The Art of Life," by F. B. Meyer, B.A.; "Happiness," by Hugh Black; "Sermons on Bible Subjects," by Frederick W. Robertson. One more hymn (generally for chil-

dren) concludes the service, which usually lasts a little less than an hour, and is generally held in the morning, at some convenient time when chores are finished, and breakfast things all put away. Some of the hymns are vout, Christmas, Easter, etc., and others are from the general hymns. The morning is preferred to the evening, so that the children may be present. They soon learn to keep quiet and attend the service, and it has a good effect on their behavior when it is possible to take them to church.

Wanted—A Drink of Water

If the baby that lies cooing and smiling in its mother's arms, could talk, here is, perhaps, what it would say: "This is a very strange world to me. I have not been here long enough to get acquainted with it, and to understand its ways; but I hope and trust you are going to be good to me. Oh, yes, I understand that you are mighty glad I came and that all the money in the world would not tempt you to part with me, still I am beginning to be a little bit doubtful as to your good intentions. "For example, yesterday when I wanted a drink of water and asked for it the only way I knew how, the nurse took me up and trotted me on her knee and then turned me over on my stomach and patted me on the back, still I kept on yelling for that drink of water, until at last the nurse

concluded I had the colic and put a few drops of something on a tea-spoon, added a little milk and forced this nasty stuff down my throat in spite of the fact that I kicked with all my might and just cried and howled to beat the band. But with all my kicking and yelling the nurse got most of the stuff down my throat and in a little while I went to sleep and woke up with a heep worse thirst than I had before.

"My, how I did want a drink of water; so I just set up another howl—I guess that is what they call it when a baby tries to tell what it wants—and just then my grandma came in, took me up in her arms and after cuddling me a little bit, she said to my nurse, 'Jane, bring me some of that cooled boiled water. This boy wants a drink of water and I know it.' My, how good that water tasted.

"Grandma said I took three whole teaspoonfuls, which I did, and wanted more, but Grandma said I'd had enough. I felt just fine after that big drink of water, the first I'd had for a week, and I just kind of lolled over and went to sleep in Grandma's lap and had a nice long nap. When I woke up I was so hungry that I took all the food there was in the bottle that nurse gave me, and wanted more. I wonder why it is that baby people don't understand that a baby wants a drink of water two or three times a day instead of having milk all the time. I wonder why?"—Chicago Health Dept.




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AMUSEMENTS

Conducted by MARION DALLAS

Geographical Games

One of the most difficult problems in entertaining in the home is the average young man; there are so few indoor games which appeal to him. The game of "Counties" is a good one and one which should appeal to him.



For it affords not only active amusement but instruction as a well. Prepare a large map of Ontario, cut out the counties separately, and with these as patterns cut from white cardboard two patterns of each county. Divide the counties into two sides. Choose a captain for each side and provide them with a set of counties, then give both sides floor room on which to make the map. The side putting the map together first wins the game.

If the company is not very large, use a map of the Dominion and try to put the provinces together, instead of counties. Maps of the Dominion and of Ontario may be secured from the Parliament Buildings upon request.

SOMETHING FOUND IN THIS COUNTY

For another game, give each player a card out in the shape of the county or province. On the wall have numbered pictures, each one representing something found in every province or county. The rebus are made from advertisements, pictures, letters, and so forth. They are mounted on plain paper and may represent homes, games, churches, mills, lakes. For example, a lumbering scene may represent Parry Sound. Pictures of the Lake. Peterboro county: The Ideal Worker. Durham; Muskoka Lakes, Muskoka; Hamilton Mountain. Wentworth, and so on. It would make the game more interesting if samples of the articles manufactured were displayed. Each side scores for every rebus guessed.

SELECTING PARTNERS

The selection of partners for refreshments may be made by placing cards in one dish bearing the name of a county or province, in another place the names of the capitals. This little diversion will refresh the memory and recall pleasant hours spent in school.

CREATING FLAGS

This is a world wide game. Have a number of small flags of different nations and give one to each guest as they enter the room. Distribute paper and pencil and ask the guest to write out the form of government and the name of the ruler represented by this flag. Small flags will be found in any unabridged dictionary. They may be cut out and pasted on white paper.

CANADIAN MAIL

After a writing contest this game will be welcomed. The players stand in a circle and each one is given the name of some town. The postmaster stands in the centre and calls out the name of the mail that is to be exchanged, and while the players are exchanging places, he tries to slip into either of their places. If he succeeds, he takes the name of the town and they in turn call out the mail. For instance he calls out Toronto to Winnipeg, or Peterboro to Port Hope. Sometimes he calls three or four in rapid succession so that several are moving at the same time. When he calls General Delivery, it means a universal scramble.

GEOGRAPHICAL MATCH

Try a geographical match if you want more fun. Sides are chosen at in a spelling match. Select a teacher, and have a few simple questions to start the game. If a contestant gives a wrong answer, they must drop out. For instance, they say "A lake is a body of land surrounded by water." Such answers have been given because the players get excited.

GEOGRAPHICAL CONUNDRUMS.

Write these conundrums on separate sheets of paper and pin them around on the walls and let the guessing be general.

What country in Europe would you carve at Christmas? Turkey.

What country in Europe describes the perpetual condition of the small boy Hungary.

What city in Southern France would be dangerous to meet in the desert? Lyons.

What town in western Ontario would represent where you would go on a hunting expedition? Forest.

What country in Europe would you use on the griddle before making pancakes? Greece.

What sea in Europe would make a good sleeping room? Adriatic.

What island in the Irish Sea is in great demand, because of its scarcity at summer resorts? Man.

What bag in New York should be served with salt and pepper? Oyster.

If you were commencing a dairy business what summer resort in the south of England would you buy? Cowes.

The High Cost of Living

Editor, Farm and Dairy.—I have read the letter written in Farm and Dairy on the high cost of living, and I would like to express my ideas on that question as it affects our fair Dominion.

Miss Canada the owner of several very large farms, consisting of several millions of acres each. One we call her Ontario farm and the other her great North-West farm. Some years ago she decided to go into grain raising on this Western farm where many millions of acres of the very best virgin soil awaited the plow. In order to do this she set to work and built a railroad, having many branches, and known as the Canadian Pacific Railway to reach this North-West farm. She then took from the Ontario farm several thousand of her best young men to operate these railway lines, and also many of the best young men and women who wished to farm, along with car loads of effects, such as horses, cattle and so forth.

NOT SUFFICIENT TO SUPPLY DEMAND

This has left a few of the older men to take care of the Ontario farm. Those who did not wish to farm have gone to the towns and cities to become consumers. It is written, "Man cannot live by bread alone," and we have the results right at hand—the high cost of living. The number of farmers left on our Ontario farms is not sufficient to supply the consumers in the towns and cities. Abandoned farms and buildings are going to ruin.

The government has done everything to induce our best farmers to leave Ontario and boom grain-raising in the North-West, but through the rural districts nothing has been done for the farmer. Not only this, but our children are receiving an education that leads them to believe that farming is not a pleasant occupation and does not pay.

There must be farmers: we cannot do without them. God gives the seed, the bread we need, man's labors must provide it.—Mrs. O. Moore, Frontenac Co., Ont.

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Farm and Dairy patterns shown in these columns are especially prepared for Farm and Dairy's Women Folk. They can be relied upon to be the best models and include the most modern features of the paper patterns. When sending Farm and Dairy your order please be careful to state bust or waist measure for adults, age in years for children and the number of patterns desired. Price of all patterns is Our Folks, six each. Address all orders to Pattern Dept., Farm and Dairy, Peterboro, Ont.



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IN that way you can make the Renfrew Standard gasoline engine pay for itself. You can readily get from \$7.50 to \$12.00 per day for your engine and your own services. Your expenses would not exceed \$1.50 per day for gasoline and oil. That gives you a net \$6.00 to \$10.00 profit for a day's sawing. One of our customers made \$350.00 in six weeks, and another customer, with a small-sized engine, made \$175.00 in thirty days. You can do the same.

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THE Christmas season is over and we are now well launched on an-
other year. In all probability dresses for young girls as on those the home dressmaker busy preparing dainty little knick-knacks and gifts of various descriptions during the last few weeks to attend to the ordinary sewing for the family. Now that the rush is over, however, and things are settling down to the usual routine the sewing machine and work basket will be given a prominent place in the weekly time table of household duties.

This week one of our practical designs is for developing an overcoat for the small boy. In model 9446 we have a plain, easily made overcoat for the little man. This coat is double-breasted and has the popular circular collar. Cheviot, chinchilla, serge diagonal and other coat fabrics could be used in making a coat after this model. Cut in sizes from four to 10 years.

An attractive model for the growing girl is shown in design 9488. This frock is made with a vest front outlined by pointed revers and a deep collar in sailor style. The sleeves may be finished either long or short. The pattern is cut in four sizes: 8, 10, 12 and 14 years.

The draped skirt in normal or raised waistline shown in design 9708 is a splendid model for treating in velvet, satin, silk or the various other soft materials so popular this season. The right front is draped and stitched over the left side under a deep tuck. The sides of the front gores extend over the back gore plaits at the waist. Five sizes: 22 to 30 inches waist measure.

Considerable ingenuity has been exerted in designing new blouses this season, both for special occasions and for the simpler requirements. In 9728 we have a becoming style showing the long shoulder. The neck edge is cut square below the chemise, which may be omitted if preferred. Striped silk could be featured after this model to good advantage. Six sizes: 32 to 42 inches bust measure.



The Makers' Corner

Butter and Cheese Makers are invited to send contributions to this department, to ask questions on matters relating to cheese making and to suggest subjects for discussion.

Selecting Milk for Starter

Freeman Brown, Grenville Co., Ont.

When selecting milk for starter I make it a point to get the best milk coming to the factory, morning milk preferred if cooled at the farm. I get in touch with one or two men who make it a practice of furnishing good milk to the factory, then make it known to them that I am depending upon their milk for the condition of my starter.

I have two cans for holding starter. The one which is first washed and scalded and left to air from the day previous is again scalded with dry steam and taken to the weigh stand, into which the milk intended for starter is strained through two thicknesses of cheesecloth direct from the owner's can.

Even after selecting good milk for a starter great care should be exercised in preparing it. First, I see that all utensils are perfectly clean, using only clean water for washing and scalding with dry steam if possible. After the milk has been well pasteurized I cool to 70 degrees F., then add culture and try to maintain that temperature if at all possible by placing the can in a tank of water, which will protect it greatly.

I use two glass sealers for holding culture for propagating starter, so that one can be filled with the pasteurized milk before culture is added. The culture does not require to be as heavily seeded as the starter when propagating till later in the day. By following these rules I have carried on the same culture during the whole season with good results.

Why Cream Tests Vary

C. A. Metcalf, Saltcoats, Sask.

There is probably no one thing in connection with commercial dairying which causes the patron so much uneasiness as the variation of test of cream sold to receiving stations and creameries. This variation may not only result in the patron being dissatisfied but also causes the creamery buying the cream uneasiness in holding harmonious relations with the patron.

It has been my experience, first as a cream producer and second, as a creamery manager, that the complaint of test variation is on account of the patron not having a full understanding of the causes which affect the density of percentage of fat in hand separator cream. It is the policy of all reputable creameries that their agents and employees be very careful to obtain accurate results in sampling and testing. Unless the sample represents a fair average of the cream delivered, the test, while correct of the sample, will not be a correct test of the cream delivered. Therefore, the fire requisite for a correct test is an accurate sample.

It must be well understood by patrons who have observed the workings of the separator, or who have handled the cream themselves with variation in the percentage of fat in the cream. A variation of from five to eight per cent in test with one change in the cream screw is not at all unusual, and this difference is chargeable to the varying condition of the machine from time to time. But we have known of instances

where there was a variation of from eight to 15 per cent in tests due to the thoughtless and careless handling of the separator, milk, or cream. The variation of the speed of the bowl of the separator causes a difference of from two to 15 per cent in the test of the cream, depending on the variation of speed. The variation in steadiness of the bowl makes a wide difference depending on the amount of vibration. The amount of flush water used makes a difference as great as 10 per cent in extreme cases and from one to five per cent in ordinary cases. The temperature of the milk makes a difference of from one to five per cent, greater variation being caused in extreme cases.

Acid developed in the milk will have an effect on cream density. This is not the case when separating is done at milking time, but when the night's milk is held until morning or vice versa as is the case on some farms. As the separator bowl clogs the cream will gradually become thicker until the cream will not flow. Another cause of variation of test is imperfect straining of the milk before separating. The milk allowed always be strained through a fine wire strainer into cans. Over the receiving can a piece of close cotton cloth or flour sack should be placed. (For convenience this could be fastened with a string under the can.) This will catch all sediment and will give the separator clean milk.

If the separator is fed unevenly, or any time during the run the inlet should be clogged by dirt so that the bowl does not take the full inflow of milk, wide variation in test of cream must be expected.

Users of separators may sometimes realize that their cream screw has not been changed in years, and that their cream should test now as it did years ago. The fact that the screw has not been changed is good reason why the cream test should not be the same as when the separators were new. With such a separator wears off and takes the cream further from the centre of the bowl and therefore produces a thinner cream. Thicker cream is produced by drawing the cream from the centre of the bowl and thus the outside.

If the bowl is not washed properly after each operation, this will also effect the test. If the openings are not all clean and free from dirt the capacity is effected. We have been told that some farmers do not wash their separator bowl after each operation. Any farmer or farmer's wife practicing such neglect has no regard for public health. The separator bowl removes substances which no system of straining will remove, and if this matter is allowed to remain in the bowl even after the separator has run, it is an ideal breeding place for millions of the worst kind of bacteria.

It is impractical under farm conditions to operate the separator in such a way as to secure an even density of cream, but the farmer should use every care to secure as even work as possible. The creamery patron can, at little expense, secure his own man regarding his treatment and also give him insight into many things of inestimable worth. The man who knows the most about his business is always the best satisfied.

Much of the dissatisfaction of patrons with their cream test and monthly cheque is caused by their separators being changed. The cream may be thin one day and thick the next. In such a case a patron cannot get a uniform test. His separators should be changed only at the beginning of the month.—M. J. Lewis, Victoria Co., Ont.

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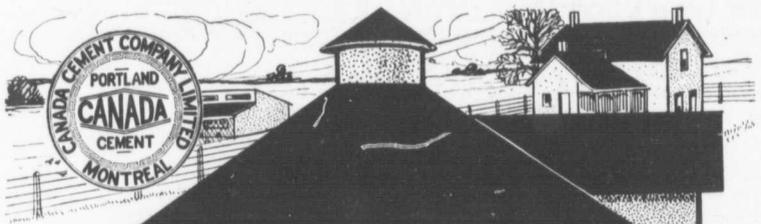
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