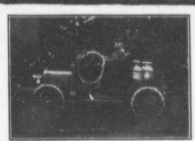


Agricultural Students Conduct Cooperative Business---See page 3

FARM AND DAIRY & RURAL HOME

DEVOTED TO
BETTER FARMING
AND CANADIAN
COUNTRY LIFE

Peterboro, Ont., Feb. 26, 1914



Does It Take You Back To Childhood ?

ISSUED EACH WEEK

Rural Publishing Co., Ltd., Publishers

ONE DOLLAR A YEAR

Never put off until to-morrow what you can do to-day

Time waits for no man, you know, so don't neglect to take a look over your dairy, cheese factory, or creamery, as the case may be, before the busy season commences, and jot down the articles you will need.

Possibly you will want a "Simplex" Separator, B-L-K Milker, a Cheese Vat, a "Simplex" Combined Churn and Butter Worker, or a score of other things.

Better write to-day for full description and special information about any machine you may require.

Bear in mind that we keep in stock, Cream Ripeners, Pasteurizers, Milk Coolers and Heaters, Sanitary Steam Milk Pumps, Sanitary Pipe Fittings, Bottle Washers, Testers, and in fact everything the up-to-date Dairyman needs.

Our "Dominion Cleanser" keeps things "spick and span."

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

They Are Looking For Them NOW

BIG dairy breeders who find it necessary to change their herd sires are out to find suitable ones now.

THERE are scores of herds that will have new leaders next year. Perhaps yours is one of them. You may be demanding one of some special breeding or type to "nick" in with your females, or you may have one of these for sale.

HOW do you propose to get him into the hands of your fellow-breeder who needs him? He doesn't know your herd, or what you have for sale—but a small advertisement fixed up now costs you only \$1.40 per inch, and will take you to 17,000 other breeders.

Let Farm and Dairy help you to sell your surplus. We want you to get results, too, or you wouldn't stay with us. Anything that helps us in advertising has got to help us FIRST. Let us help you to sell your surplus stuff—cattle, horses, swine, poultry, etc. Drop us a line to-night.

ADVERTISING DEPARTMENT

Farm and Dairy - Peterboro, Ont.

The Farmers and The Government

They Tell Premier Borden and Members of his Cabinet What is Causing the High Cost of Living and Rural Depopulation

Burdens on the Farmer—Remedies Suggested. What do You Think of Them?

A practical farmer, in his early thirties, Mr. E. C. Drury, of Simcoe County, Ont., speaking on behalf of the organized farmers of Canada, recently held the wrapt attention of Right Hon. R. L. Borden, Prime Minister of Canada, and distinguished members of his Cabinet, for upwards of an hour while he unfolded to them, simply and clearly, some of the reasons for rural depopulation and the high cost of living. Throughout they plied him with questions. These he answered clearly. At the close the Premier seemed loath to have him cease. The reason was apparent. Mr. Drury was master of his subject.

Mr. Drury's claim was that rural depopulation is a result largely of the high protective tariff first imposed in 1878 and maintained ever since by both Conservative and Liberal Governments. This, he asserted, has increased the cost to the farmer of everything he must buy, including labor and machinery. The price of what he has had to sell has not been affected. This has placed an unfair burden on the farmer, it has enabled men engaged in protected industries to make undue profits and has led many farmers to leave the less profitable for the more profitable industries. This has had the effect of reducing farm population to a point where farmers can no longer supply the city population with enough food products, especially those requiring much labor. This, again, has increased the cost of these products to the townsman and constitutes the problem of the high cost of living.

As a remedy Mr. Drury recommended that the tariff should be reduced

on many articles purchased by farmers, including agricultural implements, and that the British Preference should be increased until within five years there shall be complete free trade between Canada and the Mother Land.

THE OCCASION

Mr. Drury appeared before the Government as a member of the farmers' deputation which waited on the Government in Ottawa during December. The deputation represented the farmers' associations of Ontario and the three prairie provinces. Other members of the deputation spoke. They asked for other concessions on behalf of the farmers of Canada. It fell to Mr. Drury's lot to urge reductions in the tariff as it affects the farmer.

The members of the Cabinet present included Hon. W. T. White, Finance Minister; Hon. Martin Burrell, Minister of Agriculture; Hon. Geo. E. Foster, Minister of Trade and Customs; Hon. Robert Rogers, Hon. L. P. Pelletier, Hon. J. D. Hazen, Hon. A. E. Kemp, and other distinguished men, including members of the Senate and House of Commons.

"No one whose eyes are open," said Mr. Drury in opening, "but must admit that we are facing a serious crisis, as shown by the steadily increasing cost of living. This has not been caused by any recent events. Instead, it is due to conditions that have been developing during the past 30 years.

"When we examine prices we find that the primary products of the

(Continued on page 14)



As a Western Contemporary Sees the Situation

—Prairie Farm and Home.



Trade Incr

Vol. XX

Students a Societies many T

T express culture what they students at the demonstrated that best the same remed and practice The O. A. C.



A \$10,000 Students at the institutions. T this last year puddocks seen used as rins much pleasure of

having laur venture that first of its kind Students' Co three-fold pup dents' paper, ment, and th ing rink.

To really t tion as applie look backward year the stud was first pub decided to h ordinary colle ing to make they would paper. By the year



We Welcome Practical Progressive Ideas

FARM AND DAIRY

& RURAL HOME



The Recognized Exponent 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 FEBRUARY 26, 1914

No. 9

College Students Who Cooperate

B. H. C. Blanchard, O.A.C., Guelph

Students at the Ontario Agricultural College have Three Successful Cooperative Societies in Successful Operation and do an Annual Business Running into many Thousands of Dollars. The story told by one of the Student Cooperators

THE opinion has been more or less freely expressed in different quarters that agricultural students do not always practice what they preach. During the past year the students at the Ontario Agricultural College have demonstrated that they can apply to the troubles that beset them through their college course, the same remedies that they will afterwards advocate and practice as the solution of farm problems. The O.A.C. boys may feel reasonably proud of

of 300. Until then its circulation had been confined almost entirely to the students in attendance at the college, but in that year an effort was made to extend it among the ex-students. The circulation increased rapidly, and considerable advertising was secured. In 1909 a substantial surplus was netted, and by 1913 there were on hand, funds amounting to \$1,800.

The students now felt that the time was ripe for more cooperation, so last spring the formation of a supply department was decided upon. Two hundred and twenty members subscribed two dollars each as a membership fee. There was obtained from the Review executive, the permission to use as backing, the \$1,800 surplus on hand.

But this surplus was never needed. The \$440 of fees proved to be sufficient initial capital. By the time the students returned in the fall, \$1,000 of business had been done, and there was on hand \$4,500 worth of stock. Most of this stock was to be paid for by the first week of October. Enough sales two weeks after the fall to meet all bills. Since then the turnover of business has been rapid.

The stock handled by the supply department consists of the text books and stationery required by the students. All books are sold at the regular retail price quoted by the dealers. Wholesale merchants give a 20 per cent. discount on purchases. This difference of 20 per cent. is more than sufficient to cover all the expenses, including a stenographer and salesgirl.

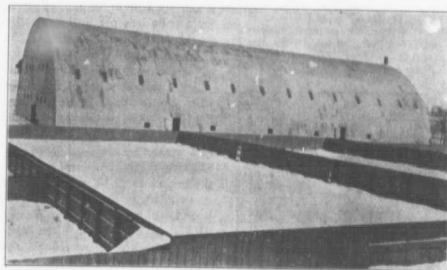


Student Cooperators and Heckey Enthusiasts

One of the features of college life at the Ontario Agricultural College is the annual play-off between the college boys and their coeds, the Macdonald girls. This year the young ladies won. To be fair to the boys it must be explained that they played with bromeliola. The unusual feature this year was that the game was played in the students' own rink, built and owned on the cooperative plan.

It is very gratifying that since last spring the total turnover of business up to the holiday season was \$7,000. The profits are divided among the members in proportion to the amount of purchases made. It is assured that when the year's business is wound up in August that the members will receive not only their investment of \$2, but also a substantial rebate. Those other than members who purchase books, pay the same price, but are entitled to no rebates. Letters were sent out to the district representatives in the province explaining the work and purpose of the book club, with the result that quite a trade has been developed outside of the college.

Early last fall it became apparent that the Review surplus of \$1,800, which had by now grown to \$2,750, would not be needed in connection with the book club, as that institution was quite able to stand upon its own legs. The surplus belonged to the students; for what purpose could it best be used?



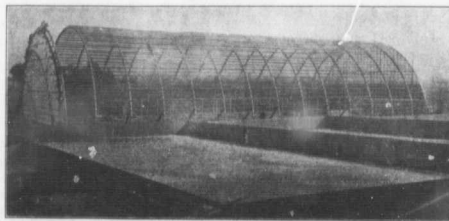
A \$10,000 Rink, Built and Owned by Agricultural College Students

Students at the Ontario Agricultural College operate three successful cooperative institutions. They have their own college magazine, their own bookstore, and paddocks seen in the foreground in the old days were flooded in the winter and used as rinks. The students expect that their rink will not only afford them much pleasure but will also be financially profitable. A student at Guelph tells of their cooperative undertakings in the article adjoining.

having laur-ehd among themselves a cooperative venture that is, we believe, the best, if not the first of its kind, in America. This is the O.A.C. Students' Cooperative Association, forced for a three-fold purpose: The publication of a students' paper, the conducting of a supply department, and the building and operation of a skating rink.

To really begin at the beginning of cooperation as applied by the O.A.C. students, we must look backwards as far as the year 1884. In that year the students' paper, The O.A.C. Review, was first published. The boys got together and decided to have something different from the ordinary college society—instead of merely trying to make expenses on the Review each year, they would save something and improve the paper.

By the year 1903 the Review had a circulation



The Students' Rink as it Appeared When in Course of Construction

Several years before, the question of the students building a covered rink had been broached. The need for such a rink was keenly felt. The small open air rink was half the time filled with snow, and no satisfactory arrangements could be made with the owners of the rink in the city. In 1907 matters so far progressed that the graduating class gave their notes for \$25 each, to be used when the building of a rink might be decided upon. Since then, each graduating class has followed the example.

A \$10,000 RINK

At the beginning of the 1913 fall term there was on hand \$2,750 of cash and \$2,500 of notes. The rink question now became a live issue. Inquiries were made and it was found that \$10,000 would build a rink that would be up-to-date. Student meetings were held, and it was decided to go ahead with the project by taking on a mortgage of \$4,000. The rest of the cost will be paid out of the season's proceeds. To obtain this mortgage it was first necessary to have the land. This difficulty was overcome by the Government leasing a portion of land to the students for 21 years, with the object of renewing.

But some organized body was necessary to assume the responsibility of meeting the obligation of a mortgage. The upshot of the matter was that the students organized themselves under the Ontario Companies Act as the O. A. C. Students' Cooperative Association. This is a no-share society, and is purely cooperative in that all profits, over and above the expenses of operation, will be handed back to the students each year in the form of rebates.

ALL SOCIETIES IN ONE

As the association will not be lawfully incorporated until March, the three branches, the book club, Review and rink, will be run separately until then, but after that the three will be included in the association. Each of the three branches will be operated by separate committees, but a central committee will have control of matters that concern more than one branch. All surpluses will be turned over to the central committee, which will then apportion them. The chief convenience of such an arrangement is that in the event of any department becoming pressed for funds, the surpluses of other departments can be readily diverted to its aid.

A fee of \$4 will entitle members to all the privileges of the three branches. Of course, the main reason why service can be given so cheaply is that a comparatively small proportion of the expenses goes for salaries, the boys doing most of the work themselves. The rink privileges alone would be worth at least \$4 in any city or town. This splendid skating arena is one of the best in western Ontario. The ice sheet is 180 by 80 feet, there are commodious dressing rooms, and the seating capacity is over 1,700.

The benefits that future students of the college will derive from this cooperative association can only be imagined. The possibilities of the supply department are unlimited. Surely it is not too visionary to picture the day when the students will buy not only their books, but many

other articles at their own cooperative store. In addition, the boys will receive at first hand a training in cooperative management, and a knowledge of the cooperative spirit that will be of untold value in after years. Imagine several hundred young men, enthusiastic apostles of cooperation, going back to the farms and into other phases of agriculture in this province.

And what of the skating rink? Its benefits will be reflected in the health of the whole student body. An hour's skating in the rink in the afternoon or evening, spent in that most pleasant and exhilarating of winter pastimes, will put new vigor into any one's veins.

Our story would be incomplete did we forget to mention the whole-hearted cooperation which the



The difference between a healthy sanitary stable and one that is neither healthy nor sanitary, is generally a matter of light and ventilation. The stable of the upper illustration shown herewith is better lighted than many stables in the country, but even it falls down seriously by comparison with the stable of Mr. R. R. Ness, seen below. It is now generally agreed that at least one-half of the linear wall length should be in glass, as is the case in the Ness stable. Sunlight is the cheapest germicide. Such abundance of window glass guarantees a healthier herd and a healthier product.



students received from every member of the faculty. Dr. Creelman gave the movement his hearty support. Prof. LeDrew, who has made a study of cooperation in this country and in Europe, gave much of his time and ability to help the boys along. The cooperation evidenced between students and faculty was not the least important feature of this cooperative venture that is unparalleled among any student body of the same size as that of the O. A. C.

We find that very few farmers take much interest or pride in having and caring for a farm wood-lot. A few give some attention to the wood-lot, if it contains some maples, but very little thought is given to the future wood supply.—F. C. Nunnick.

Some Pointers in Buying Seed

T. G. Raynor, Seed Division, Ottawa

Most farmers have a desire to protect their farms against the spread of noxious weed life, or weed life of any kind, when purchasing seed, even if they have no other motive than that they do not care to pay the price of good clover seed for buckhorn or foxtail.

A good many farmers are badly fooled sometimes. A neighbor, for instance, says he has some good seed. The men who came around with the huller told him he had the best seed they had threshed yet. He believes it, and yet without being a judge himself or securing the services of his District Representative in Agriculture or the Seed Branch, where he could get

the information free of charge, he sincerely recommends it to his neighbors for seeding purposes. His neighbor, because he can get it for a little less per bushel than by buying re-cleaned seed from the local dealer, decides to take a chance, and buys it. Often he buys seed in this way that would be rejected if it were examined by those competent to do it. In other words, he takes his chances on buying more than 400 weed seeds an ounce, or 6,400 a pound, and more. See what that would mean to the acre at, say, a rate of 10 pounds of red clover.

780,120 WEED SEEDS PER ACRE

Take a case in point: A farmer in the eastern part of the Province of Ontario was discovered, who had been sowing 10 per cent. of false flax in his timothy seed, which he bought of his neighbor for a trifle less per bushel than he would have paid had he bought good re-cleaned seed at the store where he bought his clover seed, which was a good lot of seed. We will assume that he sowed five pounds of this timothy seed to an acre. How many weed seeds would this mean per acre? There are 82,200 average sized seed of timothy in an ounce; 10 per cent. would mean 8,220 an ounce, or 131,520 a pound, or in six pounds, 780,120. And then the farmer often wonders where in the world all the weeds have come from.

There are hundreds of farmers who have done this in the past. They have done it with ribgrass, or buckhorn and foxtail in red clover, with catchfly or sticky cockle in alsike, and with false flax and ox-eye daisy in timothy. There are some who are doing it yet, and

will do it this spring. Sometimes farmers have left just this seed at their grocers for sale. An inspector has come along and discovered the seed, taken a sample, and has had to prosecute the grocer, and in some cases the farmer as well. They are both liable under the Seed Control Act for selling for seeding purposes seeds that will not grade No. 3.

WHEN BUYING SEED

When a farmer goes to buy seed of the retailer he should look around to see if the information is on the seed he wants to buy, and which the law requires shall be there, viz., the kind of seed, and in letters not less than half an inch in length the grade of the seed, on the bag, or on a label securely attached to the bag. If this information

Mr. L. D. the first of and Dairy coors at the \$50, and

isn't there suspicion.

Even the assurance I is not N going quite see that it ers them, their custo safeguard, doubt and sure, he ca seed in qu of Agricul and have i just what which the test numb furnished send that the identit dump the look for should b

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The Winner and His Trophy

Mr. L. D. Hankinson, Aylmer, Ont., seen herewith, is the first one to win the trophy presented by Farm and Dairy to the exhibitor of the best 10 ears of Flint corn at the Ontario Corn Show. The trophy is valued at \$50, and must be won three years before it becomes the property of the exhibitor.

isn't there such seed should be regarded with suspicion.

Even then the purchaser might ask, "What assurance have I that the seed represented as No. 1 is not No. 2?" Well inspectors are coming and going quite frequently who examine the seed to see that it isn't misrepresented. Then the dealers themselves as a rule are anxious to supply their customers with good seed, which is another safeguard. If, however, the purchaser is still in doubt and he wants to make assurance doubly sure, he can send a representative sample of the seed in question to the Seed Branch, Department of Agriculture, Ottawa, free through the mail, and have his work done free of charge, and learn just what he has: If he examines the bags from which the seed is taken he will usually find the test number put on by the wholesale house who furnished that seed to the dealer. If he would send that it would be a great help in determining the identity of his seed. However, some dealers dump the seed into barrels, cans, tubs, etc., then look for the labels and the information that should be there.

If you know any of the weed seeds take a small sample, spread it out on a white piece of paper, and look for them. If you find any you don't know look at the dealer's reference collection of seeds, if he has one, if not, take it to your District Representative for identification.

There is a lot of very fine pure seed on the market this year, and red clover is cheaper in price, which is a great boon to the country.

Questionable Bargains

In a United States farm journal recently a chronic bargain-hunter tells of how he "woke up." He visited a sale one afternoon and bid in a fifteen cent pitchfork with a broken handle. He regarded the fork as cheap, and he could manufacture a handle himself. Besides, he did not like to attend the sale without buying. He stood around the barnyard after the sale and gossiped with his neighbors so late that when he got home it was dark, the cows were in the corn field, one of the children was sick, and the wife in very bad humor. That night his wife delivered a certain lecture that was not received

in very good humor; but it contained much solid truth. She told him that he had been picking up bargains for years. Everything that he bought was out of repair and had remained out of repair. She told him that he had not a single implement around the place that did not have a break somewhere. The next morning he started to look over his possessions, all of the bargains that he had accumulated at the sales in the last dozen years. And he found that what his wife had said was strictly true. The result was that he had what machinery he needed properly repaired and he sold his bargains to the junk man for a song.

This man is just a type. With many men attending sales and picking up second-hand machinery is a habit. Their barnyard and sheds are regular junk heaps. Nor are the women immune. The editor calls to mind one woman in his old home who was reputed to have her garret full of old tin pans and nick-knacks which would never be used by anybody, but which were got simply because they were cheap. But were they cheap? There are times when a bargain is not a bargain. Before we buy anything at a sale we can well afford to ask ourselves whether or not we can make good use of the article we plan to buy. In many cases we will find that we have no use for it whatever. And after all is not a new implement, a new set of harness, or a new sewing machine generally the cheapest in the long run.

Safe Handling of Bulls

Have you a bull so savage that you sometimes consider the advisability of doubling your life insurance? L. H. Lipsit, Elgin Co., Ont., has such an animal, but he handles him with perfect safety. The bull is kept in a box stall enclosed with steel fixtures. On one side of the stall is a strong steel stanchion. A little grain in the feed box induces the bull to put his head through the stanchion. A rope is then attached by a strap to the nose ring. This rope runs through a pulley at the far side of the pen. The bull is released from the stanchion and drawn back to the pulley.

The cow is then taken into the stall and fastened in the stanchion, Mr. Lipsit then loosens the rope holding the bull, the snap still remaining on the nose ring. After the cow has been served the bull is drawn back to the pulley again, the cow taken out and the bull freed.

No need for extra life insurance when a bull is handled in this manner, is there

My Experience With Ensilage

Albert Tattersall, Oxford Co., Ont.

I do not know how I would get along without my silo, as I find the ensilage very good feed for milk cows, they producing more milk than when fed dry corn. I would not grow as much corn were it not for my silo.

I am on a rented farm and when building the silo drew the gravel and cement and boarded the men and am satisfied that I am well paid for my work the first winter. I believe it would pay any person not having a silo to build one. It is a good plan also to grow roots as well when one has a silo as the roots and ensilage go well together.

The following figures sum up the cost of building my silo which is 14 feet inside measurement and 40 feet high:

12 loads gravel	\$12 00
48 bbls. cement	79 20
Roof	35 00
Wire	11 00
Lumber for shoot	16 00
Cost for constructing	100 00
Total	\$253 90

Exercise the Horses

James Jack, York Co., Ont.

The other day I had occasion to have some lines drawn and asked a neighbor to assist me. I was surprised to find the condition his horses were in by night. They showed every symptom of fatigue, though there had been no speeding nor overloading. Last fall when those horses quit work they were in as good condition as any horses in the neighborhood, but that day's work showed that they were now anything but "fit."

The whole reason for their present lack of condition is their lack of exercise. Surely this farmer is making a serious mistake. Next spring work will open suddenly and every hour will be of value. Unless those horses are fitted in the meantime for the strenuous days that are ahead of them they will be sure to suffer. Their shoulders will go bad, and tiredness will come long before it should, while digestive troubles will be almost sure to arrive when they are least wanted.

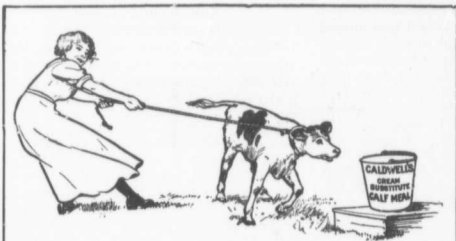
It is in this connection that the farmer who hauls out his stable manure in the winter time has the advantage. At least every other day the horses are hitched for this work. Should the manure be kept in the barnyard it is good practice to sprinkle a little hay over it and to turn the horses out for a run. If the horses have been in the stable for a sufficient time to render them tender, it is important that they be not left out long enough to get chilled. Further, care must be taken that there is no kicking done, as unexercised horses frequently take this method of letting off steam. After a week or two, the horses are likely to play together as harmlessly to themselves as any other of the farm animals.

When there is no work to be done it will pay to hitch the horses every day and to send them off for a 10 mile drive. Daily exercise is the best safeguard against a score of troubles that are likely to show themselves after a winter's inaction, especially when the feeding has been liberal. Daily exercise means sound muscles, good behaviour, clean mills and that indefinable thing, constitution, without which no horse amounts to much.



The Most Lasting Structure on the Farm

Oxford Co., Ont., is one of the banner dairy districts of Canada. Oxford county also numbers a greater proportion of silos than almost any other similar area in Canada. There is a relationship between the two. Good dairying and the silo go together. The one here illustrated is on the farm of Mr. A. Tattersall in that county.



It isn't an easy job
holding them back from

Caldwell's Cream Substitute Calf Meal

—it's the MODERN way
—the ECONOMICAL way
—the PROFITABLE way

of weaning up or raising calves for beef or to replenish your Dairy Herd and you can raise as fine calves with it as you can on whole milk. But—

Keep on selling the milk. Caldwell's Cream Substitute contains the same nutriment and costs far less. Ask your Feedman about it or write us.

THE CALDWELL FEED CO., LTD., DUNDAS, ONT. 39

In the Horse World

* Timely Suggestions for Horse Owners

Cost of Feeding Colts

Many farmers make a practice of buying rather than rearing horses for farm work. They justify this practice by the statement that horses can be bought more cheaply than they can be produced. To test the accuracy of this contention, the Pennsylvania Experiment Station produced a group of 10 grade Belgian and Percheron colts and one pure bred Percheron for use in light stock judging classes. An accurate record was kept of the initial cost of these colts and the feeds consumed. The following table giving a summary of the results of this test shows a profit on producing the colts rather than buying the mature horses:

Nov. 3, 1910—April 18, 1912.	
Initial value of colts.....	\$918.50
Initial weight of colts.....	689.37 lbs.
Final weight of colts.....	1316.96 lbs.
Cost of Feeds:	
Shelled corn.....15985 lbs. at 60¢ per bushel.....	\$171.195
Oats.....14695 lbs. at 50¢ per bushel.....	209.675
Wheat bran.....3383 lbs. at \$28 per ton.....	47.362
Lined meal.....3365 lbs. at \$36 per ton.....	42.390
Silage.....2773 lbs. at \$3 per ton.....	3.927
Hay.....69420 lbs. at \$14 per ton.....	415.940
Pasture.....10 ac. at \$4 per acre.....	40.000
Cost of Labor—336 hours at 15¢ per hour, \$50.400	
Total cost of feed and labor.....	\$960.893
Total cost of ten colts at close of experiment.....	1893.390
Value of ten colts at close of experiment.....	3360.000
Total profit of ten colts.....	466.610
Profit per colt.....	46.661

He needs it in winter as well as summer, and it was put there for a good use.

Don't overcheck your horse, for it is cruel and injurious. Nature's curves are always graceful.

Don't forget that there is more profit in coaxing a horse than in kicking him. Try gentleness and see how it grows on you.

Don't wait till your horse is dead, or nearly so, before you send for a doctor or an ambulance.

Don't kill your horse trying to get him out of a hole before you send for the derrick.

Are Prices High Enough?

Are farmers getting enough for

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Profit per colt.....46.661

Cold Weather Don'ts

1. Don't use cold bits in cold weather. Your horse's tongue is tender and his mouth is formed of delicate glands and tissues.
2. Don't clip 3-year-old horses when the mercury is at the freezing point.
3. Don't fail to blanket your horse when he stands in the cold.
4. Don't forget that nasal catarrh, bronchitis, pneumonia and other ills often result from exposure and the chill which follows suddenly checked perspiration.
5. Don't fail to oil your horse's shoes sharp when streets are slippery.
6. Don't put your horse's feet in unskilled hands. Good feet are spoiled by bad shoeing.
7. Don't keep your horse in an overheated stable, then stand him for hours in a freezing atmosphere, and wonder why he became sick.
8. Don't fail to water your horse the first thing in the morning, but not with ice water.
9. Don't load your horse too heavily when the streets and roads are blocked with snow.
10. Don't force him to back a heavy load over a deep snow bank. A shovel with a little energy will make it easier for your horse and your conscience.
11. Don't try to convince your horse that he is on skates when his feet strike the slippery road.
12. Don't fail to oil your wagon axles. There is a lot of humanity in wagon grease.
13. Don't fail to properly shelter your stock from the cold and to exercise them when the weather is good.
14. Don't fail to have your horse's teeth examined. Of what use is food if your horse can't eat it?
15. Don't dock your horse's tail.

their produce? This question is discussed by Mr. J. E. Elderidge of Bruce Co., Ont., in a recent letter to Farm and Dairy. We reproduce herewith a few paragraphs from this letter. The points brought out are well worthy of consideration:

Don't imagine that if high-class butter produced in high-class dairy buildings should cost 47¢ a pound that I believe it should sell for 47¢. The price of an article has to be kept within bounds. If not the demand decreases. Nevertheless average milk testing about 3½ per cent. fat at four cents and eight cents a quart, is equal to 40 and 80¢ respectively for butter. On the Bow Park farm they place the cost of producing milk at four cents a quart. When we sell butter fat at 20¢ a pound, and allowing 30¢ a cwt. for skin milk for calves, only three cents a quart is realized.

This is my style of reasoning, showing that in some lines of dairying there is a deficit which cannot be completely overcome unless the price advances. Farmers, therefore, as a body are entitled to political consideration, privileges that they deserve, such as a parcels post system, a tax on excessive values on land, reduced duties on agricultural implements, and so forth, so as to help to reduce the burdens that are nearly everywhere imposed on agriculturists by nature.

"As an illustration, it takes from 50 to 67 per cent. of a full feed to maintain a unit of life; therefore, no production in either milk or flesh can take place except from what is eaten above that quantity. Some of the foods fed to animals have a high and definite value for maintaining human life. This is an inkling of the obstacles encountered by farmers in producing animal products."

Oliver Plows



THE group of Oliver plows built for Eastern Canada includes walking plows, three-wheel sulky plows, high and low lift gang plows, walking gangs, hill-side plows, riding cultivators, and walking gang plows. Each of these is built for a certain purpose, and is the best plow obtainable for that particular purpose.

Back of the whole group is the fifty-nine years of successful plow experience of the Oliver Plow Works. This experience eliminates everything in the way of chance. You do not have to experiment with Oliver plows.

Go to the I H C local agent and tell him what kind of plowing you have to do, and he will sell you an Oliver plow built to do that kind of work and do it in the best possible manner. You can get catalogues and full information of the entire Oliver line from him, or, if you prefer, write the nearest branch house.

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Oliver plows are built at Hamilton, Ont.



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Winter Work that Lessens Spring Rush

J. R. Philip, Grey Co., Ont.

OWING to the scarcity of labor, it is wise for us farmers to get everything done during the winter months that is possible. Get a year's supply of fuel, especially if wood is used. It is a good plan to split the wood ready for the stove, and pile inside. The boys do not as a rule, care for splitting wood for the noon hour meal with the temperature up at about 100 degrees Fah.

Get as much of the manure into the field as possible. Some object to this practice, claiming that they lose a large amount of the fertilizer. We should not be too quick to arrive at conclusions. It has been proved by experimentalists that the sooner manure is on the ground the more profitable it is. Some may say, "That is the very reverse of my experience."

For instance, they may take two pieces of manure, one treated to a given number of loads of manure, one treated in the winter, the other the following summer. The one receiving a summer coat gives much the better results. Possibly so; but there are several things which should be considered before we jump at conclusions of this kind.

WHERE CALCULATIONS MAY BE OFF

(1) Was there any allowance made for the ice and snow; the voids in the load caused by chunks frozen in irregular shapes. Possibly if left until it was thawed out and tramped it would only make half a load.

(2) Do we ever consider the loss we sustain by allowing manure to lie in a pile in the yard? It has been proved by different experimenters that it will

lose one-half of its fertilizing qualities in six months. Then we only have half as much as if taken out at made.

Balancing the one with the other we are only applying one-quarter as much manure in the winter as six months later. How could we expect as good results? There are certainly fields that it is not wise to manure in winter, but as a rule we can get the bulk out in winter profitably. We have known cases in a wet season when it was impossible for some farmers to get their manure out so as to get the benefit that season.

It is not wise to leave cleaning seed until it is needed. Now there is a greater quantity than there will be in a couple of months. The light oats, if any, can be fed to the idle horses. This is one thing we are not particular enough about. Let us look over the reports from those who have been taking a deep interest in this important question and we will not be satisfied with cleaning our seed once, or perhaps twice. We should read more and become more acquainted with facts before we are satisfied to settle down to any theory.

Secondly, our time is not so valuable now as in seeding time, when we should get the seed in the ground as quickly after the soil is in fit condition, as possible, and at a time when there is a lot to look after around the stables. Young stock arriving daily demand a certain amount of attention. Have a system, and keep up to it. There is no time a thing is so easily done as at the right time.



Notes for the Shepherd

Sheep Notes

Make all changes gradually. You won't gain anything by crossing breeds.

Sheep like upland pasture. They need dry footing.

Wet or muddy yards are breeders of foot diseases.

What's the good of a salt box if you don't keep salt in it?

Give your boy a lamb, and he will soon get interested in sheep.

Remember that the lamb crops depends upon the care of the ewes.

Give your sheep good feed and care and they won't need condition powders.

Don't buy a new ram unless you are sure he is better than your old one.

The farmer who tries to raise lambs without roots and clover makes a mistake.

The lamb makes the sheep, and good care or lack of it produces a valuable animal or a scrub.

Don't stack straw where the sheep can get at it. They will fill their fleeces with chaff, which will injure the value of the wool.

See that the water trough, spring or run furnishes plenty of pure, fresh water. Don't make your sheep drink green, slimy water.

Keep an eye out for a good ram, if you need one this year. Don't wait until the breeding season is on, or you might not get just what you want.

It isn't always safe to buy a "how ram"; he is probably fitted up for the occasion. You will get better results

from one that is well bred and in good thriving condition. Good breeding and individuality are the things that count with a ram.

A beginner should not go into sheep, but grow into sheep; that is, start with a few, and breed up a flock by keeping the female increase.—The Farmer.

Danger in Feeding Salt

There is considerable danger in feeding salt to ewes just before lambing time. Many cases have been known where abortion has been traced directly to the use of salt during this period.

Sheep must have salt and plenty of it, but this is one time during the life cycle when it should be withheld. Not only have bad results been noticed from the feeding of salt, but when sheep have been fed a liberal supply of bests, abortion has been more prevalent than otherwise.

This is attributed to the fact that there is more salt in these feeds than in others.

In the same way similar results have followed from allowing ewes in lamb to run on an alkali soil. See to it that your ewes do not get too much salt just before lambing.—Iowa Homestead.

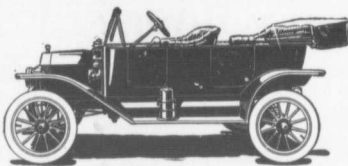
We have taken Farm and Dairy for a number of years and consider that it cannot be beat. We are pleased with the good information it gives each week.—J. A. C.



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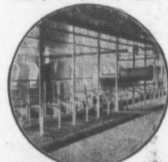
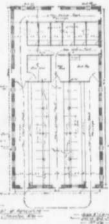
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Computing Amount of Cord Wood

How much cord wood would there be in logs that measure up 1,000 feet of lumber? (Logs averaging from 12 to 24 inches and 12 to 18 feet long)—C. E. L., York Co., Ont.

The rule in general use in Canada for finding the lumber in a log is that known as the Doyle, and is as follows: From the diameter in inches, subtract four, divide by four, and square the result, multiply this by the length of the log in feet. In formula it would be as follows:

$$\left(\frac{d^2 - 4^2}{4}\right) \times L$$

Example: The lumber in a 12" log 12' long would be as follows:

$$\left(\frac{12^2 - 4^2}{4}\right) \times 12 = 4 \times 12 = 48,$$

and it would take about 20% of such logs to make a thousand feet.

The rule for cord wood is as follows: The diameter in inches squared, divided by 144, and multiplied by the length in feet. In formula it would be $d^2 \times L / 144$.

Example: A 12-inch log 12 feet long would contain $\frac{12^2}{144} \times 12 = 12$ feet

of cord wood, and 20% of such logs would contain 246 feet of cord wood, or a shade over 1/4 cords.

Applying the same formula to any size of log that you may desire, you can work out a similar comparison.—Prof. Wm. H. Day, O.A.C., Guelph.

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"Bullrush" Bran	\$1.25
"Bullrush" Middlings	1.35
Extra White Middlings	1.45
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"Gem" Feed Flour	1.70
Whole Manitoba Oats	1.45
"Bullrush" Crushed Oats	1.50
Whole Corn	1.45
Feed Corn	1.50
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"Genova" Coarse Feed	1.55
Manitoba Feed Barley	1.40
Barley Meal	1.45
Oil Cake Meal (old process)	1.70

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Homesekers' fares will be in effect each Tuesday, March 3rd to October 27th inclusive, and round trip second class tickets will be sold via Canadian Pacific Railway from Ontario points (Azilda and East) at very low fares—for example, from Toronto, also West and North of Toronto, to Winnipeg and return, \$43. Other points in proportion. Fares from points East of Toronto will be slightly higher. Return limit two months.

Homesekers' trains leave Toronto each Tuesday during March and April.

Each Tuesday during March and April the Canadian Pacific will run Settlers' Trains to Winnipeg and West and for the accommodation of settlers travelling with live stock and effects, a colonist car will be attached to the settlers' effects train. This car will leave Toronto on regular train at 10:20 p.m., and on arrival at West Toronto it will be attached to settlers' effects train as mentioned above.

For those not travelling with live stock and effects, special Colonist cars will be attached to regular trains from Toronto, running through to Winnipeg without charge. No charge is made for accommodation in Colonist cars.

Tourist sleeping cars are also operated on regular train leaving Toronto 10:20 p.m.

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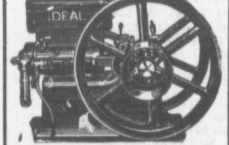
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The Feeders' Corner

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

Do Oats Affect the Flavor of Milk?

The effect of various feeds on the flavor of milk has long been a disputed point. Many dairymen hold that crushed oats result in milk of very desirable flavor, while others are equally certain that corn meal produces the best flavored milk. To get accurate information on the subject the Bureau of Animal Industry of the United States Department of Agriculture used six cows for an experiment. Three were fed a grain ration of corn meal, bran, and cotyledoned seed. The other three were fed a grain mixture of five parts crushed oats and one part cotyledoned seed.

A number of samples of milk from the cows fed these rations were submitted to various persons in the dairy division and they were asked to indicate their preference. In all 50 opinions were passed on various samples. Of these, 16 showed a preference for the milk from cows fed on crushed oats, 23 preferred that from the bran and corn ration, while nine expressed no choice. The results show that in these rations, not only was there no marked difference in favor of the crushed oats as a feed to improve flavor, but, if anything, the ration containing bran and corn was more successful in producing a fine-flavored milk.

Regularity of Feeding

R. R. Hamilton, Wentworth Co., Ont.

I have somewhat unusual views on the subject of feeding. I have been reading all of the articles appearing on the subject, and in these the points most emphasized are the quantity and quality of green foods, their relative proportion to roughage, the most desirable kinds of roughage, and so forth. The one factor that I believe in feeding ahead of all others is, regularity.

Have you ever heard it said of a man that he could do a great amount of work in a day and keep it up year after year? Often the wonderful point has been that these men who are such workers are not men of tremendous physical strength. How did they do it? Invariably you will find it is a matter of regular habits. They never subject themselves to unusual hours or to unusual strain of work. It is moderate, everyday accomplishments that carry them ahead.

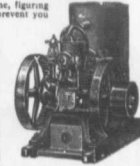
Let me draw an analogy with the cow. I know that the parallel is not exactly a similar one. The cow must each week produce a certain amount of milk that necessarily requires a certain amount of feed to make. After we have accounted for the amount of feed for milk production, however, the analogy is similar. The cow that is fed regularly right to the tick of the clock without any sudden change of feed, will keep in better condition and do better work for her owner than the cow fed much more extensively, but without regularity. And in the long run does not profitable production depend largely on the condition of the cow?

I would like to see a clock kept in every stable and making and feeding kept right up to the minute. With cows, as with men, regularity is a priceless boon.

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POULTRY
Factors in Hatchability
 "Why do eggs not hatch?" has been an eternal and largely unsolved question with poultry keepers. Some experiments that were conducted by Prof. A. G. Phillips when he was at Cornell University, and reported in Farm and Home, serve to throw some light on the question.

In one experiment conducted by Prof. Phillips three lots of 50 eggs each were kept two weeks in average temperatures of 80, 65 and 50 degrees respectively. When they were placed in the incubator the percentage of fertility ran 24, 88 and 90, and the final hatch was 0, 43 and 70 per cent. This indicates clearly the advisability of keeping eggs in a room of not higher than 50 degrees temperature. To determine the effect of age at time of setting or the hatchability of eggs, Prof. Phillips took those lots of 50 eggs each, which were kept one, seven, 14, 21, 28 and 35 days respectively in a suitable place and handled in a proper manner. The longer time the eggs were kept the poorer they hatched, running from 35 up to 86 per cent for fresh eggs.

STAND ON LARGE END

Another experiment proved that eggs held standing on the large end were eight per cent better than eggs held in any other manner. Another experiment in which three lots of eggs were kept 14 days in bran, in an ordinary egg case, and in a rotary egg holder, allowing free circulation and plenty of light, the last lot proved by far the best. The eggs held in bran were second best. Prof. Phillips' experiments did not show that dirty shells have any effect on hatchability.

Another factor in hatchability often discussed, and on which many poultry men have fixed superstitions, is the effect of the shape of an egg on its fertility and hatching power. To determine this point eight sets were set as follows: Ridge around the middle, small end twisted, thin shelled, the usual small end enlarged, short and round, long and narrow, small, double yolk. The fertility varied about 10 per cent except with lot 8, which was infertile. The small, thin shelled and enlarged end eggs had 70 per cent fertility. The others had 80 per cent. Lot 1 hatched 100 per cent fertile eggs; 2, 63 per cent; 3, 28 per cent; 4, 43 per cent; 5, 86 per cent; 6, 33 per cent; 7, 28 per cent; 8, 0.

HOW TO HANDLE EGGS FOR HATCHING

After numerous experiments Prof. Phillips summarizes his deductions as follows:
 "The fresher the egg the stronger it will be in fertility and hatchability."
 "Never keep eggs at all if the temperature is not cool."
 "A temperature of 50 degrees or less is desirable."
 "Eggs should be turned sometime or other during the period of keeping."
 "Washing the eggs affects them but little."
 "It makes little difference what position the eggs are placed in when being kept."
 "Abnormalities in the shell of eggs do not affect fertility and hatchability to any extent."

"I believe the hatching power of eggs is largely controlled by the vigor of the germ and the supply of food material for the growing chick. Too many times cases have been noted of eggs that have been badly abused in various ways hatching large percentage, allowing free circulation and plenty of light, the last lot proved by far the best. The eggs held in bran were second best. Prof. Phillips' experiments did not show that dirty shells have any effect on hatchability."

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For best results, ship your live Poultry to us also your Dressed Poultry, Fresh Dairy Butter and New Laid Eggs. Egg cases and poultry crates supplied. Prompt Returns.
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 Established 1854 TORONTO, ONT.

CORN THAT WILL GROW
 Money back if not satisfied
 Send for Price List
J. O. DUKE, RUTHERN, Ont.



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

BARGAINS—A few Cockerels, Barred Rocks, Brown Leghorns, Houdans and Black Minorcas. Either utility or prize-winning stock. Also Eggs for hatching—3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50.

EGGS
 EXPRESS PREPARED—all the standard brands of Chickens, Ducks, Geese and Turkeys. **EGG CLASS STRAINS.** Write today for catalog describing breeds—the utility standard. **IT'S FREE.**
J. H. RUTHERFORD, Box 62
 Canada, Ont., Toronto.

130-Egg Incubator and Brooder 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. We have branch warehouses in Winnipeg, Man. and Toronto, Ont. Orders shipped from nearest warehouse to your R. R. station. Hot water, double walls, dead-air space between, double glass doors, copper tanks and boiler, self-regulating. Nursery under egg tray. Especially adapted to Canadian climate. Incubator and Brooder shipped complete with thermometers, lamps, egg testers—to use when you get them. Free year guarantee—30 days trial. Incubators finished in natural colors showing the high grade California Redwood lumber used—not painted to cover inferior materials. Machines with address, we feel sure of your order. Don't buy until you see these—130's are more worth to investigate before you buy. Remember our price of \$13.90 for both Incubator and Brooder and covers freight and duty charges. Send for FREE catalog today, or send in your order and save time. Write us today.
WISCONSIN INCUBATOR CO., Box 240, Racine, Wis., U. S. A.

Winter Eggs
 Cooped-up hens must be supplied with egg-making food. What hens get in Summer—the natural laying season—they must get in Winter or the egg yield will fall off.
 Meat and Bone take the place of the live bugs, grubs and grasshoppers that go to make up a hen's summer rations. The Poultry expert, the Government bulletin—everyone that knows says "Feed Meat for Winter Eggs."
 Black Victor Meat Foods are clean healthy meat and bone from which all grease, waste and moisture have been removed; more economical than the cheapest fresh meat.
 Write for complete price-list.
Matthews-Blackwell Limited - Toronto



Black Victor Meat Foods
 Black Victor Meat Straps, \$4.00, per cwt. If your dealer cannot supply you, we will send it all charges prepaid on receipt of the regular price.

Is the Incubator a Practical Success?—The Question Answered

There are 2,000 White Leghorns in this flock. Everyone of them were hatched in incubators. Mr. Chas. S. Bennett, who is in charge of the Prescott Co. Ontario farm on which the photo was taken, has been using incubators for the last eight years. He has had hatches that were not satisfactory, but he claims that it is not the fault of the machines. "Follow the instructions sent by the manufacturer," he writes. "Use eggs from vigorous, properly mated and well-fed stock. Handle the eggs carefully and the incubator should prove a profitable investment. The eggs used in hatch No. 3 of the following table were eggs that we purchased and afterwards found to be the result of poor mating. A large percentage of what did hatch were weaklings. Here is the sum of my incubator experience last year."

Machine No.	Date Set	No. Eggs	1st Test	2nd Test	3rd Test	Hatched in Brooder
1	April 29	392	57	18	317	278
2	April 29	298	73	23	299	243
3	May 9	412	128	38	328	278
4	May 19	412	46	38	346	292
5	May 27	401	47	38	324	282
6	May 27	401	47	38	324	282
7	May 28	404	47	19	336	282
8	June 3	404	47	23	341	282
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Some Incubator Don'ts

Don't forget to study your incubator. Get the catalogue that describes your particular machine, and study every part and the construction in general.

Don't try to run the incubator in a place where there is a draft or near a stove, or in the sun. In such places it will be impossible to maintain a uniform temperature. Set it where the temperature is uniform and you will have much better success.

Don't forget to test the eggs before setting the incubator at three times during incubation. Do not use any doubtful ones. Take no chances with any egg that you are not sure contains a fertile and vital germ.

Don't allow the lamps to burn low. Keep them trimmed correctly and as nearly full of oil as possible. Do not let them smoke. It is a good plan to clean the burners every day to insure a uniform flame and absence of smoke.

Don't place any dirty eggs in the tray. Filth may cause the generation of deadly gases, which will work ruin to many of the fertile eggs.

Don't try to place too many eggs in the trays. Eggs need room in the incubator as much as the chicks need room after they have been placed in the brooder.

Don't forget to turn the egg every second day. The hen generally turns them every day, and the person who attempts artificial incubation should see to this important essential at least each alternate day.

Don't neglect to cool the eggs every morning. The hen leaves her nest at that time for food and drink, and it is natural that the eggs should be exposed for a few minutes to the pure atmosphere.

Don't handle the eggs with dirty hands. There may be enough germs upon the hands to destroy the vitality of the germs in the eggs you touch.

Don't disturb the eggs after the eighteenth day. Better results are obtained by allowing them to remain quiet after that date.

A Youthful Poultry Man

In Farm and Dairy, Oct. 16, the Rural School Fair was described. Among the prizes mentioned was one for the best essay descriptive of how the student cared for his or her poultry. The following essay written by Roy Brookfield, of Simcoe county, is typical of the ones handed in in the competition:

"Received my eggs on May 23, 1913, at the Lynn Valley School, and set them on 24th.

"The way I set all my hens is to clean one of the pens so they may be by themselves. Then get a box and mark it off into comfortable size for a hen. Next put about three inches of damp earth on it and cover the earth with straw. Then in it and cover the earth an inch or so deep with fine straw. Do not get your nest too hollow for the eggs will pile on top of one another and break. Look at your hens once a day at least to see that there is no brown eggs. I find the best food for a hen when setting is one part corn, one part wheat and one part buckwheat. Three days before the eggs hatch sprinkle them with warm water. For this assists in moistening the shell and helps the chicks. All of my eggs were hatched by June 13.

"Eight of my eggs hatched; the other four were unfertile. I can only account for six as the other two must have died. The first four weeks is the making of any chicken's life."—Roy Brookfield.

Remember that variety of ration is as much appreciated by the hens as by their owners.

TWEED DAIRY APPLIANCES

Fig. 3 Your greatest profit lies in keeping pace with the times

STEEL has supplanted wood. It is more sanitary, easier to clean, practically acid proof, and a hundred times as durable. We feature four lines for the up-to-date cheese factory. The "TWEED" Steel Cheese Vat, Fig. 1—Of heavy galvanized steel, perfectly riveted and soldered. Our patent draining system insures perfect draining to the last drop. Water and steamproof asbestos lining, a perfect heat holding device. If not as represented when they reach your station, send back at our expense. Sent on approval.

Fig. 1

Fig. 2 The "LEAL" Milk Agitator, Fig. 1.—Does away with costly equipment. Run at any speed desired. Works smoothly and efficiently on steam connected from boiler, without attention. No engine, shafting, belting or pulleys required. Each **COPPER STEEL WHEY TANK**, Fig. 2.—Practically acid proof. Sulphuric acid test shows ordinary boiler plate dissolves 120 times quicker than the copper steel plate we use. Guaranteed very durable. Price so reasonable no factory can afford to do without. Very sanitary and easily cleaned.

WHEY WEAVER, Fig. 3.—Eliminates drierettes. Each man gets amount of whey due him when his milk is passed through our weaver. Practical and can't lin. Adopted by Dominion Government.

We manufacture a very full line of Tanks, Cisterns, Lavatory Equipment, Food Cookers, Heaters, Troughs, Vats, Gasoline Pumps, Evaporators, etc.

Write for Tweed Dairy Catalogue and Prices.

THE STEEL TROUGH & MACHINE CO., LTD.
135 JAMES STREET, TWEED, ONT.

TALK NO. 5 ON THE

"GEORGE" STEEL GALVANIZED SHINGLE

The New Armouries, Oshawa, Ontario.

ON the question of cost, our METAL SHINGLES have many points in their favor. A "Pedlarized" Roof is cheaper than any other, because the first cost is the last cost. You save time and labor by using either the big "GEORGE" Shingle (24 in. x 24 in.) on your barns, or the "OSHAWA" Shingle (16 in. x 20 in.), of identical design and quality, on your houses, sheds and smaller buildings—a wooden roof takes three days to lay, while a "Pedlarized" roof, of same size is laid in one day. No high-priced labor is required.

The long shingle (24 in.) means a great decrease in the amount of sheathing required—another Big Saving.

Laid with hammer, nails and snips only. Effect a saving of one-third in nails.

Pedlar's Metal Shingles outlast the building and the builder.
PEDLAR'S METAL SHINGLES PROTECT YOU FROM FIRE, WIND, WATER AND LIGHTNING

Get our prices on Siding, Corrugated Iron, Vents, Eaves Trough, Conductor Pipe, Finials and Ornaments. Every article is standard throughout Canada.

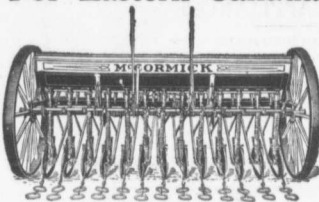
The All-perfect Metal Shingle. No greater cost, but greater service and satisfaction. . . .

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OSHAWA, ONTARIO ESTABLISHED 1861

Large and varied stock always carried at Oshawa, Montreal, Toronto, London, Chatham, Quebec, Calgary, Halifax, St. John, Sydney, Ottawa, Winnipeg, Vancouver.



McCormick Drills For Eastern Canada



A McCORMICK drill prepares the best possible seed bed, and McCormick drills are longest-wearing. Any man who owns one of these implements will assure you that they are facts. When you buy a drill, buy a McCormick.

McCormick single disk and hoe drills have continuous axles, strong, light, thoroughly braced frames of angle steel, and durable, wide running drive wheels. They have a double row force feed which adapts them perfectly to the sowing of all kinds of seed.

Bearings are simple, as nearly as possible dust-proof, and easily oiled. Grain boxes are of large capacity, and they are too firmly supported to allow sagging.

See McCormick drills at the nearest IHC local agent's. All their features are explained in our catalogues. Get catalogues from the dealer, or drop a line to the nearest branch house.

International Harvester Company of Canada, Ltd

Hamilton, Ont.
Ottawa, Ont.

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These machines are built at Hamilton, Ont.

Sydney Basic Slag

the ideal Fertilizer for stiff clay lands and all sour or muck soils. All farmers in Ontario realize that something is lacking in the soil, and thousands of them will this season start using Fertilizer for the first time. They will be pressed to buy all kinds of Fertilizers, but we ask them to

Give Basic Slag a Trial

because it is much more reasonable in price than, and will give as good results as, the bulk of the Fertilizers offered elsewhere. Ask the District Representative of the Department of Agriculture as to the merits of Basic Slag and be guided by his opinion. Do not be misled by the statements of unscrupulous Agents for other goods. Twenty thousand tons of Basic Slag were used last season by the farmers of the Maritime Provinces and Quebec. What is good for Nova Scotia will be equally beneficial in Ontario. If you think you would like to take an Agency for Basic Slag, write at once to any of our

District Representatives

EASTERN ONTARIO—A. L. Smith, 220 Alfred St., Kingston.

OTTAWA DISTRICT—W. H. Dwyer Co., Ltd., Ottawa.

NIAGARA PENINSULA—E. Platts, Pelham Corners, Welland, Co.

WESTERN ONTARIO—W. T. Colwill, Centralia.

The Cross Fertilizer Co., Limited
SYDNEY NOVA SCOTIA

Mr. Macdonald Replies to a Critic

J. A. Macdonald, Carleton Co., Ont.

HOW much does it cost to produce a quart of milk? Any man who makes milk production part of his business, as does Mr. Hamill, whose ideas appear on page five of the Feb. 12th issue of Farm and Dairy, should direct that question to himself. He should proceed to answer it in its entirety. We have accurate records to prove that it costs at a college farm in the Middle West 4.5 cents a quart to produce milk and 5.3 cents on a farm of a similar institution in the East.

The net profit over cost of feed is of practically no value. Such statements are erroneous and misleading. The net profit is what we want to find out, and this is arrived at only when every item of expense has been deducted. By being a member of a cow-testing association and paying from \$1 to \$1.50 for each cow a dairyman can know at the end of the year how much it costs him to produce a quart of milk or a pound of butter-fat under his own conditions. The opportunity is open to hire clerical work done that he has not the time, inclination, and maybe the ability to do.

The items which go into the cost of keeping a cow one year can perhaps be best set forth by the use of the summary of the Lydeboro Cow-

Testing Association, New Hampshire, which conditions apply, in almost every particular, to general Ontario conditions. Here are the items:

Cost of feed	\$73.03
Labor	32.33
Delivery of milk	7.18
Comds. of bull	0.56
Depreciation on cow	0.53
Holding	4.00
Service of bull	0.79
Taxes and interest	4.55
Ice, coal and wood for heating	1.27
Veterinary services and medicine	57
Tools, utensils, salt, etc.	53
Cow-Testing Association expenses	1.40
Total	\$147.73
CREDIT	
Manure	\$15.00
Gain	3.00
Total	\$18.00
Total cost	\$129.73

The fixed charges, other than cost of feed, are found to be \$56.70, representing 11 items. The milk of Mr. Hamill's 8,000-lb. cows (marvelous yields everyone will admit) would have to sell at 4.05 cents a quart, or \$1.02 a cwt. the year round to pay cost of production. The average price of milk in Ontario is a little over \$1 a cwt. Better, we think, have that \$27 profit and leave winter dairying alone. Mr. Hamill is losing money on his cows, and apparently does not know it.

Where Calculations Are Off

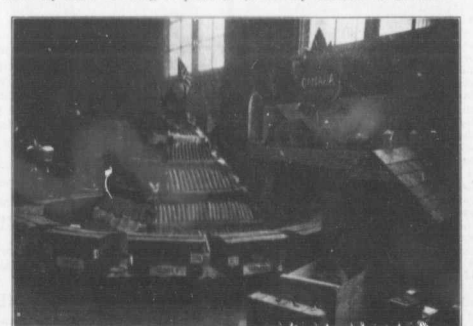
R. J. Kelly, Oxford Co., Ont.

"HOW the Profit is Made!" I should say that a much more appropriate name for that article of Mr. Macdonald's would have been, "How the Profit is Not Made." It seems strange that any one with the reputation as a writer that Mr. Macdonald possesses should think it worth while to try to make the readers of Farm and Dairy believe that the right way to make money out of dairy cows is to milk them for only six months of the year, and that for the six months when milk is cheapest.

In the latter part of the article he says, "The old pastoral system, so much in vogue, is, strangely enough, the only system having a profit." Now, Mr. Editor, the article in question is a strange mixture of contradiction, and as I have not the time at my disposal, and I know you would think my letter too long to print if

I were to write a reply to the whole article, I will try and give you in as short a time as possible my reasons for saying that the dairyman who is keeping 2,700-pound cows and selling the milk to the cheese factory for \$1 a cwt., and probably paying eight cents or 10 cts. a cwt. to have it drawn, is really too far behind the times to be called a dairyman.

We will use as a basis of calculation two things Mr. Macdonald mentions, that is, \$1.00 a cwt. for milk when a man has his cows milking the year round. And lots of cheap feed such as the man who stables and cares for his cows well the year around is able to grow. I have prepared a table that, while I know it is not infallible, still I think it does not come far from an estimate of the true profit of cows producing from 3,000 to 15,000 lbs. of milk a year at \$1.00. My estimate is as follows:



One of Several Unique Exhibits at the Ontario Corn Show

The exhibits here illustrated was staged by the Essex Farmers' Club at the Ontario Corn Show at Chatham two weeks ago. Notice the miniature railroad, one car representing each township of the county and all loaded with seed corn. This part of the exhibit progresses the day when seed corn will be shipped from southwestern Ontario to all parts of America.

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Club Together

On Your Seed Grain

We can supply you with any quantities — all kinds of seed grain and clovers. **SEED CORN and CLOVER SEED** our SPECIALITIES. You'll be wise to buy before the spring rush. No order too small for our prompt and careful attention.

SPECIAL RATES TO FARMERS' CLUBS

Write us for prices
M. W. SHAW & COMPANY
MERLIN ONT.

Seed Corn For Sale

High germination test. White Cap, Yellow Dent. Grown on our own farm. Write

TISDELL BROS.,
TILBURY, ONT. ESSEX CO.

SEED BARLEY, O.A.C. No. 21

A very choice stock of this great barley, second generation from the hand-selected seed plot. Took 2nd prize at (English Winter Fair, Ill., in registered seed class. Pure and clean, \$1 per bush.

Siberian Oats, a bright heavy sample, 1st in Field Crop Competition. The best oat for this Province. 60c per bus. bags included.

We take the greatest care to keep our stocks pure and clean, and have never offered such a big selection as we have for sale this year.

Empire State Potatoes our specialty, sent in limited quantity of selected New Ware and Rural New Mount Forest, Ont.

Alfred Hutchison

POTASH

FOR ALL CROPS ON ALL SOILS

POTASH IS AN INDISPENSIBLE Plant Food.

No soil will produce a maximum crop unless it contains a supply of potash sufficient for the crop's requirements. POTASH is the dominant ingredient in a fertilizer for Potatoes, Tobacco and most Fruit and Vegetable crops, and is essential to all other crops.

Muriate of Potash AND Sulphate of Potash

Can be obtained from the leading fertilizer dealers and seedmen. Buyers of "Ready-Mixed" fertilizers should purchase brands containing a high percentage of POTASH.

A new edition of "Artificial Fertilizers: Their Nature and Use," has been prepared. This is a complete treatise of 80 pages on this important subject, and contains a complete index. This is a most helpful bulletin in the intelligent study of fertilizers and the fertilizing of various crops. It will be sent FREE on request, together with any of the following:

- "The Principal Potash Crops of Canada."
- "Fertilizing Orchard and Garden."
- "Fertilizing Grain and Grasses."
- "The Potato Crop in Canada."
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- "Farmer's Companion."

STATE WHICH YOU REQUIRE

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1102-5 Temple Bldg., Toronto, Ont.

Yield per year.	Cost of feed.	Cost of milk at \$1.60 a thousand.	Cost of milk at \$1.00 a quart.
3,000 lbs.	\$36.00	\$12.00	\$12.00
4,000 lbs.	45.00	30.50	19.00
5,000 lbs.	53.00	39.00	26.00
6,000 lbs.	57.90	9.65	38.50
7,000 lbs.	65.45	9.35	46.55
8,000 lbs.	68.00	9.00	54.00
9,000 lbs.	76.50	8.50	67.50
10,000 lbs.	82.00	8.00	80.00
11,000 lbs.	85.05	7.55	93.55
12,000 lbs.	87.60	7.30	104.40
13,000 lbs.	92.95	7.15	115.65
14,000 lbs.	98.70	7.05	125.30
15,000 lbs.	105.00	7.00	135.00

Some Farm and Dairy readers may ask how I would feed a 15,000-pound cow for \$105. In the first place I would take 15 lbs. of this rough grain a day for the year or a total of

5,475 lbs. at \$20 a ton \$ 54.75

210 bush of roots at 9 cts. a bush 18.93

11,500 lbs. of silage at \$3 a ton 11.51

Hay, 15 lbs. a day for seven months at \$6 a ton 9.45

Pasture, five months at \$2 a month, 10.63

Salt 43

..... \$105.00

So, some will say that I am figuring the cost of feed too low. If I am too low on the 15,000-pound cow, what about the 3,000-pound one? A glance at the foregoing table will show that at although I have allowed almost three times as much for the feed of the

The Value of Occupation

In literature the great names are accorded with a statement also of the occupation which was part of the experience of preparation for great and enduring social service. When one thinks of Abraham Moses and David one is reminded of the farmer and keeper of sheep and how the race has been comforted and benefited by the words of the poet: "The Lord is My Shepherd, I shall not want, before he became the voice of the soul of a nation. Our whole civilization moves under the influence of the fishermen of Galilee, the tentmaker of Tarsus, and above all, the carpenter of Nazareth. — Dr. Jas. Robertson.

15,000-pound cow as for the 3,000-pound one, she will take 11% of the 3,000-pound profit maker that Mr. Macdonald speaks of to make as much as one 15,000-pound cow. And that is only for feed alone, never speaking of the extra labor of 11% cows as compared with one. "Nuff said."

Fine Maple Sugar and Syrup

In the days of crude sugar bush methods there was little opportunity of learning the difference between the inferior dark products and those of fine quality, but now consumers are learning to appreciate the excellence of superior goods and to accept no other so long as these are available. This appreciation is leading to better returns for those who produce the light color, fine flavored sugar and syrup.

The up-to-date maple sugar maker recognizes that sap, like milk, is a very perishable product, being an excellent medium for the development of fermentative organisms. To make a fine sugar or syrup it is necessary, therefore, for the maker to have an equipment which will allow for the least possible contamination of the product in all stages of manufacture.

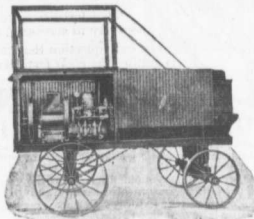
Not only must thorough cleanliness be observed but transformation of the sap to the finished product must be direct and speedy.

Bulletin No. 2B, "Maple Sugar," issued a few months ago by the Department of Agriculture at Ottawa, deals fully with this subject, and is therefore useful to the consumer in making clear what constitutes fine products and to the producer in showing how such goods are made. It is mailed free upon request to any address in Canada.

AT LAST

Just The Outfit You Are Looking For

The most practical, efficient and simple high pressure Power Spraying Outfit ever offered.



"GOES LIKE SIXTY"

Light Weight High Pressure Direct Geared No Racking Pump Jack

100% SERVICE

Engine can be used for other work all the year round.

Truck makes a capital farm wagon.

Sills of channel steel, with steel platform.

Price of Complete Outfit, Only \$230.00

This includes all Acc. tools, Engine, Pump, Tank, Truck, Bamboo Extensions, Agitator, Hose, Nozzles, Etc.

Do not buy a Sprayer until you have investigated the "Goes Like Sixty" Power Sprayer. Send for Sprayer Catalogue today.

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422 YORK STREET - GUELPH, ONT.

SEED BARLEY

O. A. C. No. 21

Choice Samples, Pure and Clean. Yield this season 52 bush. per acre. 90c. per bush. in small lots: Ten bushel lots or over 80c.

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WHICH TREE DO YOU WANT

The slow grower, with few and shallow roots and fruit of poor quality, or the vigorous, quick and steady producer of fruit.



Blasted the hole in which the tree to the right was planted. The hole for the other was spade dug. Compare the two trees, note the development and then decide how you are going to do your Spring planting. Trees set in exploded holes bear fruit one year earlier. Write for booklet.

BLASTERS WANTED

Many farmers prefer to hire blasters. Demand exceeds the supply. Write for information.



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EVERY FARMER KNOWS

That fertilizers are an absolute necessity to successful farming. The only question that confronts him is getting the right fertilizer.

GUNNS

SHUR-CROP FERTILIZERS

are prepared under the supervision of chemical experts—are backed by forty years' reputation, and are guaranteed to be in perfect condition chemically and mechanically. Gunns' fertilizers are finely ground, insuring an even, easy distribution. For users of our fertilizers we are ready at all times to analyze samples of soils and recommend the fertilizer best suited, making it up especially if necessary.

For fertilizer book and other information, write

GUNNS LIMITED, WEST TORONTO

The Farmers and the Government

(Continued from page 2)

farm, such as wheat and oats, are low in price. This is because they require comparatively little labor to produce as compared with secondary products, such as cheese, butter, beef and pork. The high prices paid by our consumers are paid for these secondary products. There is a wide divergence also in the prices paid the producers and the prices paid by the ultimate consumers. Wheat is low, but flour is high. Until recently cattle prices have been low, but meat has been expensive to the consumer. These conditions are not due to anything the present Government has done. They have been developing for years. They are both the cause and the result of our declining rural population.

"When we examine the census figures we find that the high mark of rural population in Ontario was in 1881. While it is true that many of our farmers have moved from Ontario to the west this has been offset by the immigrants who have come to this country, but who have declined to settle on our farms.

"In Ontario conditions growing out of this decreasing rural population have become serious. I have here the census figures for 1881 and 1911 of five representative townships in Ontario. These show that during the 30-year interval the rural population of these townships decreased as follows:

Township. County.	1881.	Population.	1911.
Oro-Rimous	4,566	3,485	
West Zorra-Oxford	5,099	3,499	
Wellington-Wellington	5,782	4,757	
McKillop-Huron	2,665	2,259	

"This decline in rural population is not due to increase efficiency on the farm. In the eighties our farmers devoted most of their attention to grain growing. Now they are engaged largely in the production of secondary products, such as dairying and hog raising. This change necessitates the employment of more labor than formerly, and farmers have not the help they need to enable them to reach the maximum of production.

FARMER CONDITIONS
 "In the early nineties my father hired men for \$16 a month and board. He was able to obtain farmers' sons on those terms. To-day we have to pay \$30 a month and board for immigrants and give these immigrants more privileges than were given formerly to farmers' sons. Not only has there been a lowering in the quality of farm help we employ, but in the general character of our rural population as well. Many of the old families have moved to the cities, and their places have been filled, for the most part, by an inferior class. In consequence the standard of living in many of our rural sections is distinctly lower than formerly.

"Not long since, Prof. Reynolds, of the Guelph Agricultural College, made this statement: 'We cannot expect college trained boys to go back to the farm. This is because they can't make a living there equal to the standard of living they can attain elsewhere.' This statement reveals a very serious condition.

"Within a radius of two miles of my home there are 16 vacant houses. We know that in the early days people have been cleared and that they have since abandoned this land. The main reason, however, for our declining rural population is entirely economic. It is due mainly to the fact that farmers as a whole have not been able to obtain the returns they should for

the capital they have invested and they labor they spend in their farm operations."

THE REAL REASON

Hon. Martin Burrell: "The farmer does not have to buy so much as the man in the city."

Mr. Drury: "No; but farmers do not live on it. It costs them something to produce. The reason for the rural decline is because farmers have to buy most of their goods from protected industries. These industries have so advanced the prices of the goods the farmer buys they have increased the cost of living not only to the farmer but to ministers, teachers, lawyers, and other classes in the community as well, with the result that all these people have to be paid more now by the farmers than formerly. In the face of these handicaps our farmers, until in the last couple of months, have had to sell their products in the lowest markets while buying their goods from protected interests who have charged the most the tariff would allow."

A QUESTION AND ANSWER:

Hon. Mr. White: "The tariff has remained practically unchanged since 1878, while the capital increase in the cost of living has taken place during the past few years. How do you account for this?"

Mr. Drury: "As I stated at the outset, the effect is cumulative. Great changes in the character of the rural population of a country, such as have been going on in Ontario, do not take place in a few years. When the present protective tariff was instituted in 1878 we had a large rural population and small cities. It was some years before the full effect of the new tariff became apparent. In time the large manufacturers began to absorb the smaller concerns and later to combine and advance prices. The new tariff gave an advantage to the manufacturers over the farmers and enabled the protected interests to pay wages to the working man which the farmer could not equal. This helped to build up the cities at the expense of the country. For a number of years farmers expected that each year would bring about an improvement, but as conditions continued to oppress them they began to leave their farms in an effort to do better elsewhere. While some may have left because of the so-called 'bums' of the city, I believe their numbers were few. The people I know who have left their farms did so because of the better opportunities they had to invest their money elsewhere while obtaining a more liberal return for their labor.

THE DECREASE IN FARM POPULATION

"The best evidence of how serious this decline in rural population has been is shown by the fact that in 1881 the rural population of Canada was 4,324,810, and the urban population in towns over five thousand, 640,942. In 1911 the rural population, in spite of our increased immigration, had decreased to 3,024,394, while the urban population had increased to 3,580,444.

"This condition is utterly unnatural. Under ordinary conditions, people would flock to our unused land. While the free food proposal of the Liberal party would be a step in the right direction, it would not, in my opinion, prove to be a panacea for the evil conditions existing. The high cost of living is due largely to the high cost of secondary products, such as pork, canned goods, and flour.

WHAT IS NEEDED

"What we must do is lift some of the burden of the farmer by enabling

DON'T FORGET that we have still a few copies of Giverson's Veterinary Hand Book. You can secure a copy free by sending one new subscription to Farm and Dairy, Peterboro.

FOR SALE—A quantity of White Cap Yellow Dent Seed Corn Carefully selected. Well cured and guaranteed to grow. Price, \$1.25 per bush—John Wallace, Rucomb, Ont.

363.1 Bushels Potatoes

From One Acre of Massachusetts Land

A. Webster Butler of Brockton, Mass., won the first southern zone prize offered by the Bowker Fertilizer Company for the largest yield of best quality potatoes grown exclusively on Stockbridge Potato Manure. His acre was a "rocky loam" producing about 2 1-2 tons of hay per acre in 1912 on manure. Rows were 36 in. apart and Green Mountains cut to two eyes were planted 14 inches apart. The piece was cultivated five times. The acre was sprayed with Pyrox.

STOCKBRIDGE POTATO MANURE

was applied 2100 lbs. broadcast and 700 lbs. in the drill. No other fertilizer or dressing of any kind was used. The entire crop weighed 21,783 lbs. or 363.1 bushels. His total score including quality points was 589 points, the highest in the southern zone.

Other Winners secured yields ranging from 311.1 bushels to 502.6 bushels in the northern zone, (Me., N. H., Vt.), and from 183.8 bushels to 363.1 bushels in the southern zone, (Mass., R. I., Conn.)

Send us your name for complete and instructive statement concerning the results of the contest and how these great yields of potatoes were obtained. No other fertilizer than the Stockbridge Potato Manure was used.

BOWKER FERTILIZER COMPANY
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him to buy the articles he needs more cheaply. It is for this reason that our farmers' organizations favor an increase in the British Preference. I have always liked this idea. Free trade with Great Britain would have many advantages. In the first place it would be a benefit to Great Britain by widening her markets in Canada for manufactured articles. Great Britain has gone to war to obtain smaller advantages than this. In the second place, our steamship companies, which now find difficulty in obtaining return cargoes from Great Britain to Canada, would be able to bring back more of these British goods, thus reducing freight rates on Canadian goods to Great Britain. In the third place it would lower the cost to farmers of all articles thus imported.

"By making it easier for the farmer to buy such articles as nails, cement, and agricultural implements, we will lower the cost of production

the pretence that the Canadian tariff was not high enough to protect it sufficiently against the competition of British manufacturers. When the employees struck, the Government appointed a commission to investigate the circumstances. This commission found that the company had been making 50 per cent. on its investment, and in order to hide this fact had watered the stock and made it appear that they were paying only five per cent. on their investment, whereas the fact was 50 per cent. of their stock was water. If we open a barrel of apples in the dark and pull out a rotten apple, the first thing we conclude is that a good many more apples in the barrel are of the same kind. That is the way we farmers feel about many of the protected industries in Canada. It is natural for us to suspect that we have many more like the Dominion Textile Co.

"This is a question of national importance. We should consider it from



One Does Not Need to Grow Special Crops to Use Commercial Fertilizers

The argument is often advanced that while commercial fertilizers may be all right for truck growers they can not be profitably used on the average farm with average crops. The illustration herewith shows a turnip field on the farm of D. J. McKenzie, Antigonish, N.S. The fertilized crop to the left produced 912 bushels an acre. The unfertilized crop to the right 32 bushels of turnips an acre. A complete fertilizer was used in the first case.

and thereby encourage more people to remain or settle on our farms. One objection to this policy is that a lowering of the tariff would hurt our manufacturing interests."

THE PREMIER'S OBJECTION

Premier Borden: "The objection is not so much that it would hurt the manufacturers as that our present tariff helps the working man by providing him with labor."

Mr. Drury: "If this is the case, I would point out that the two industries that show the greatest developments are binder twine and cream separators. These have no protection. The fact that they have grown without protection indicates that other industries could also. As a matter of fact, as our census figures show, the combines that have been formed behind our tariff walls have enabled the large factories to drive the smaller ones out of business, with the result that even less labor is employed in these industries than 20 years ago."

A NOTABLE EXAMPLE

Hon. W. T. White: "Do you believe that our smaller industries can stand the competition of the great specialized industries of the United States?"

Mr. Drury: "Under natural conditions we believe that they could. Under existing conditions many of our manufacturing concerns are making undue profits. Let me cite the case of the Dominion Textile Co. Some years ago this company reduced the wages of its employees under

the standpoint of Canada as a whole. Nothing but national disaster can happen, if the character and number of our rural population continues to decline as it has of recent years."

This concluded Mr. Drury's evidence. Premier Borden invited him to proceed, but as there were other speakers to follow, Mr. Drury gave way to them. It is well that farmers are beginning to think and talk out on these subjects. We will obtain the attention and respect of all other classes in the community only in proportion as we manifest that we are thinking for ourselves and that we are prepared to defend our opinions in any company.

Recipe for Black Paint

I would like to give a recipe for mixing black paint that will stand up around the inside of the stable wall. I have seen a recipe composed of lampblack and whitelead recommended in Farm and Dairy and would like to know how to make the mixture. — W. M. L. Perth Co. Ont.

We the desired quantity of lampblack in vinegar, then pour into ordinary white wash and apply. It must be mixed very dark because, when applied, it is considerably lighter in shade. We have this style of waincoating in our own stable. — A. S. Turner & Son, Wentworth Co. Ont.

It is well to strain milk, but it is better to never allow dirt to enter the milk.



Grimm's Sap Spouts and Covers

The Grimm Sap Spouts are guaranteed to flow one fourth more sap than any Spout made, or money refunded. Price \$2.75 per 100.

Save Honey by Using Grimm Covers
The past Maple Syrup making season was a rainy period, and more sap wasted than would pay for the cost of covering twice over.

Price per 100
12-inch Galvanized Iron Covers... \$2.00
14-inch Galvanized Iron Covers... \$2.50

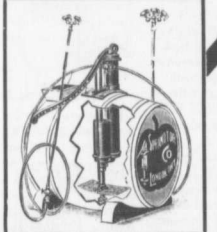
Now is the Time to Send Your Order
We are headquarters for all Improved Maple Syrup Makers' Utensils.
The GRIMM MFG. CO. LIMITED
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FARM AND SHOP BLACKSMITHS' FORGE 6.85
A well built portable Forge with 8 inch top, 14 inch back, 10 inch high. Weight 20 lbs. **MADE AND COMPLETELY EQUIPPED BY THE HALLIDAY COMPANY LIMITED** MONTREAL, CANADA
SOLELY STANLEY MILLS & CO., ESTABLISHED 1882

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

Two Ways to Grow TOBACCO

On the left we illustrate Tobacco grown without Fertilizers—on the right Tobacco grown with DAVIES Special Bush FERTILIZER. Do you want more profitable crops? Then write for free booklet to **THE DAVIES CO., INC.** 1700 TORONTO, ONT. We have an agent near you



There is a big difference between the Spramotor and any other spraying machine made. We have been over twenty years in this line, to the exclusion of everything else. Over twenty patents have been granted covering tested features that you can get on no other machine made. During our long experience, we have discovered what to use and what to avoid in the manufacture of Spramotors. We have also overcome some seemingly impossible obstacles and found the solution to many difficult problems. To-day, the man who buys a Spramotor gets the utmost in spraying efficiency.

These are the reasons why Spramotors have won over a hundred First Awards and Gold Medals in different parts of the world, and why the Canadian Government, the State and Federal Governments of the United States and the leading agricultural colleges and universities in America use our machine.

You owe to yourself to know all about the Spramotor before investing in any spraying machine. We cannot tell the points of superiority in one advertisement or in twenty. Take advantage of the following offer.

FREE Write us a short letter, giving some idea of your spraying needs, and we will send you a copy of our valuable illustrated work on Crop Diseases, also full particulars of a Spramotor that will do your work to best advantage at lowest cost.

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1781 King St., LONDON, Canada



\$100 to \$200 PROFIT PER MONTH

Selling Farmers What They Need

Every farmer in Canada needs and uses our kind of goods. Over 2,500,000 bushels of money selling Rowleigh Quality Products, Household Remedies, Extracts, Spices, Soaps, Toilet Articles, Stock Remedies, Poultry Supplies, etc. Every article of the highest quality, well known and reliable.

We want a man at once in every locality to represent the greatest Drug, Manufacturing, Distributing and Selling Organization in North America. Established 19 years. Capital and Reserves over Ten Million Dollars. Referees: Dr. A. Braden's, etc. any bank in Winnipeg.

Get Into Business For Yourself

With little competition. We are the only concern of our kind who own and operate a factory in Canada. No day. Freight services sent by express.

We want men of good standing in their community, who can furnish satisfactory bondsmen, and team for the business. Capital and Reserves over Ten Million Dollars. Referees: Dr. A. Braden's, etc. any bank in Winnipeg. We teach you how to handle the goods successfully and stand back of you with the services of our great organization.

If you can meet our requirements, write in particulars of our machines offer.

The W. T. Rowleigh Medical Co.
86 Henry Street
Winnipeg, Man.

HIGH-GRADE SEED CORN, CLOVER, AND GRASS SEED FOR SALE

FLETCHER PAYS THE FREIGHT on orders of five bus. and over to any station in Old Ontario. Special inducements to farmers and farmers' clubs. All orders receive prompt attention. Write to-day for prices. **F. A. FLETCHER** 100 R. I. MEBLIN

Bigger Crops of Better Quality!

That's What a **Spramotor**

Will Get For You

Compared with what it will do for you year after year, a Spramotor's initial cost is trifling indeed.

We can prove to your complete satisfaction that you can increase fruit yields fully 50 per cent. over the Spramotor. Also that it has brought 400 bushels of potatoes to this from one acre that formerly yielded practically nothing.

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FARM AND DAIRY

AND RURAL HOME
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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 17,200 to 12,000 copies. No subscriptions are accepted at less than the full subscription rate.
Sworn 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 edited 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 paid-in-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 this contract that in writing to advertisers you say: "I saw your advertisement in Farm and Dairy."

Refusals shall not prejudice their trade at the expense of our subscribers, who are our friends, through the medium of this guarantee, 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 Selling End

"You farmers are positively the poorest market men in the world. You never seem to study market conditions at all. Take the matter of dressed poultry, for instance. Fowl can be marketed to far better advantage in June and July than in the fall. But the greater portion of the supply is marketed in the fall of the year, causing a glut on the market and prices that are not much more than fifty per cent. of the June price. My colleagues in the grain business tell me that the same condition prevails there. You have to get wise to this selling end." Thus did a produce merchant of Montreal deliver himself to one of Our Folks. Our friend was offended at the time, but when talking it over with one of the editors of Farm and Dairy a few weeks later, he admitted that in too many cases the produce man was "just about right."

Perhaps the greatest reason why we farmers are not better marketmen is that the problem is a comparatively new one. The farms of our grandfathers were practically self-sustaining. The marketing of surplus produce was a comparatively unimportant consideration. Only in the last few years has the selling end become of equal importance with the producing end. As individuals, we farmers can hardly hope to become marketing experts. The city produce merchant devotes all his time to buying and selling. The chief function of the farmer, however, is at the producing end, and in that one department he requires quite as much expert knowledge as does the merchant in the entire management of his business. Our best plan is to employ selling ability rather than to attempt to develop it in addition to our numerous other duties. And here and there we are doing it.

Fifteen farmers at Chatsworth, Ont., last summer established an association for the marketing of their produce. They employ a special agent, who makes it his duty to study markets and place their produce where it will bring the greatest returns. This association has now been running for several months. Their returns from

the sale of butter, poultry, and other products are larger than they were sold through the commission houses, and the organization has proved very satisfactory. The association has recently established its own store in Toronto. Each member on joining the association subscribed \$100. This \$100 is forfeited when it is learned that a member is selling his produce outside of the organization. The business is conducted on profits alone, no paid-up capital stock being necessary. This cooperative plan offers one good solution to the farmers' marketing problem.

Is This Economy Wise?

Last year's grain crops were decidedly short in many sections of Eastern Canada and the bare space in the bottom of the feed bin will be a little larger than is usual at this time of year. The size of this bare space is apt to be in direct proportion to the urgency of the temptation to cut down the cow's ration to match the depleted supply. This practice of apportioning the feed so that cows may be carried until grass without buying is followed probably by half the dairy farmers of the country, if not more. This practice usually goes under the guise of thrift. But is it true thrift?

A cow uses about 60 per cent. of her ration for maintenance. If you get below that 60 per cent. she has to draw on the reserve of her body. The consequence is not only a reduced milk yield but a poor bodily condition that makes it impossible for a cow to do her best even when she is turned on the best of pasture. A still more serious result of reduced rations where summer dairying is followed, is that the calves are apt to be weak and stunted. To breeders of pure bred cattle in particular this is a serious consideration.

In calculating our rations from now on we may as well decide that we have to feed a 60 per cent. quarter ration anyway to maintain the cow and that if we wish to feed to make any profit over and above her maintenance we must buy feed. Starvation economy does not pay in the long run with good dairy cows. This line of reasoning of course does not apply to scrubs; they do not pay anyway.

"Back to the Land"

Every now and then Farm and Dairy receives a letter from a city address asking for advice as to the advisability of settling on a farm. Just last week a young man yet in his twenties, who has been working in the general post office in one of our large cities for the last seven years, with \$1,000 of capital, told us that he was considering starting a poultry and dairy farm, and asked for advice as to the best locality in which to start, whether or not it would be advisable to keep pure bred cattle and closed by admitting that he has had very little practical farming experience.

The craving for life on the land, the privilege of holding some little portion for one's use, the desire to delve in the soil, is one of the primal passions of mankind. Even city bred men many generations removed from the soil, often feel the tug of nature and desire to return to the country from which their ancestors came. This "Back to the Land" fever has afflicted almost every city man at some stage of his career. Our friend in the city post office is only one of many with similar desires.

We wonder how Our Folks would have answered such a letter. It seemed hard to advise this young man to stay at an occupation that had come to mean little more than a treadmill existence for him. But we did not dare to advise him to start on a farm, even had he been able to get one with his limited capital. A man with so

little experience would be certain to make costly mistakes during the first couple of years. True, he would get experience and, having the advantage of being free from prejudice, would probably be quick to adopt up-to-date methods. But it takes plenty of capital to cover such mistakes as one is apt to make at the start. In fact the greatest drawback to this young man's starting on a farm is his lack of capital! The usual advice given to such a one, to go and work as a hired man on a farm for a couple of years, is almost impossible in this case as the young man has a wife and family, and a city-bred girl would hardly care to live the life of the wife of the average hired man in the country.

But what is the lesson for those of us who are now on the farm? We wonder if the men who today are leaving their farms realize that their sons may some day be in exactly the position of this young man,—tied to a treadmill existence, and unable to get away from it. Boys who leave the farms may find themselves in the same position after a few years. We know that farming seems unprofitable to the young man, who sees expensive motor cars filled with well-dressed, pleasure-seeking people rolling past the home farm day after day. These visiting motorists represent to him the city and its advantages. He does not realize that nine-tenths of a city's population is composed of people who eke out an existence by hard and continual labor in unhealthy shops and factories. Farming may not be a ready road to great wealth, but the man who owns his farm is one of the most independent men on earth. He has a diversified occupation that never lacks interest and he is living next to nature, which we believe is the place where God intended man to live. We would do well to consider carefully every phase of the question before leaving the old farm.

Fire Protection

If fire were to break out in your buildings to-day, would you be prepared to fight it? This is a question that we fear is well calculated to keep many of Our Folks awake at night if they allow themselves to think of it. And yet it is an important one and presents a problem that must be solved. We farmers have from twenty to sixty per cent. of our capital tied up in buildings and stock. The loss of this capital through fire would give us a setback from which it would take years to recover.

One of our Folks in Ontario County has pondered this question and his solution is a graduated fire insurance policy. His policy is so worded that during the summer months before the crop is put in the barn and when the loss from fire would be at a minimum, the insurance is proportionately low. During the early part of the winter when crops and stock might be lost along with the buildings, the insurance is strongest. By following this system our friend is enabled to get a maximum of insurance at a minimum price.

Another precaution that all can afford to take is to discard all of the old-fashioned lanterns that start a blaze every time they are upset. Safety lanterns can now be had at small cost that are perfectly safe even if upside down. Chemical fire extinguishers are not expensive, and might be distributed at convenient points throughout the buildings. Fireproof roofing material on all buildings and an efficient system of lightning rods guard against loss.

In the nature of things an efficient fire fighting service such as we find in all of our cities and towns is an impossibility in the country. The best we can do is to take all precautions against fire, and carry a paid-up insurance policy that will give us a fresh start when we are unfortunate.

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A Preachment to Hired Men

"A Hired Man," Northumberland Co., Ont.

Rural depopulation is still a subject that is attracting much attention and causing many debates and discussions. In spite of the countless articles written in our agricultural papers and our dailies, this influx into the cities and towns continues.

Reader, you have only to pick up your daily or weekly paper to see the struggles of the unemployed in our cities. A well known business man and manufacturer was heard to remark in one of our large cities that "a successful business must be established in a town or city where labor is easily obtained, and where men can be hired and fired at will." Note the words "hired and fired." Yes, this is exactly what happens; yet the farm hands rush to the city (instead of remaining with the farm and living a comfortable life), where they can be hired and fired at any moment.

What about the farmer's sons and daughters, you say. Well, what about them? They are of an entirely different class. They do not as a rule have to earn their own bread, but attend some business college or are apprenticed to some trade. They do not have to worry about board and the hundred and one little things that confront you when in the town. They are more or less wealthy and can return home to a fine farm house whenever they feel so disposed.

In the town you are under the beck and call of many bosses, the chief being the whistle or buzzer of your factory, which calls "Hurrah for work!" I, you are a minute late it

is booked against you, or you lose a half hour. Then if you lose many you are fired.

Let me ask, are you ever at the command of such an instrument in the country? If you are a few minutes late with the horses does your boss stop any pay? Why not! Again in summer, what do you do in town? Rise at six a.m., be at work at seven and work nine or 10 hours a day; then work harder at night by walking the streets or giving your hand-earned money to proprietors of picture shows and theatres. When winter comes with its stormy blasts you are stumped, without a cent, and consequently find times hard. Then you long for the good old farm again.

Think this over, hired men, before quitting the farm, and when hiring, hire by the year only or not at all. I think the time will come when many of the laborers and toilers in our cities and towns will be compelled to return to the land. So stay right with the land, men, and have an occasional good time in town. What is nicer than to walk into your nearest town with your pocket well lined on an occasional need, knowing that a good home and plenty of work giving good returns, is yours for 12 or eight months, as the case may be?

Spring will soon return with all its majesty, and so I think of the following words by Longfellow: "Gentle Spring in sunshine clad,

Well dost thou thy power display! For winter maketh the light heart sad And thou, thou makest the sad heart gay."

Marketing of Farm Produce

Editor, Farm and Dairy.—I contend that so long as the country merchant takes in farm produce for the purpose of trade, so long will matters remain in the unsatisfactory condition they are at present. It is impossible for the country merchant to discriminate between two baskets of butter or eggs brought in by two women. One basket may be worth 25 per cent more than the other in quality, yet the merchant were to make a difference in the price he would soon lose a customer.

I believe that the only way out of this difficulty would be for each village or town to have one, two or three reliable men to pay cash for all kinds of produce and pay according to quality. In this way it seems to me that the producer would soon come to realize that it meant money in his pocket to produce a good article.

The great cry nowadays is for fresher eggs and better produce of all kinds, but I have yet to find anyone offering to come forward and put up the extra price for this good quality of goods which is in such demand. If those who are advocating a better quality of produce would give us an idea where to ship our produce in order to get these high prices, I think things would certainly start to move. "One Interested."

The annual convention of the Ontario Branch of the Dominion Alliance will meet in Massey Hall, Toronto, on Wednesday, Thursday, and Friday, February 25 to 27. This convention is now recommended as the great provincial prohibition parliament of Ontario. It is hoped that the convention this year will be a record breaker in attendance, enthusiasm and business done.

Properly conserved and applied the manure from a single cow is worth \$20 a year, says a United States exchange. If this be true it is certainly worth the trouble to prevent this waste in the barnyard.

DE LAVAL EQUIPMENT

For Farm, Dairy or Creamery

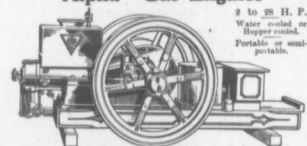
DE LAVAL equipment is first, last and always high grade and dependable and includes only such machines and supplies as are known to be absolutely reliable and "standard."

Ideal Green Feed Silos

It isn't too early right now to plan for the erection of a silo next summer.

The more you investigate the advantage of having succulent silage to feed your cows all winter, the sooner you will decide to erect a silo; and if you thoroughly investigate the silo question you can scarcely escape the conclusion that the Ideal Green Feed Silo is the best silo for you to buy.

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Water cooled or
Hopper cooled.
Portable or semi-portable.



Uses all fuels.
Easy to start.
Equipped with magnets.
Develops full power.

The most convenient, reliable and economical power for the farm, dairy, creamery or shop

THE "ALPHA" Gas Engine is the highest grade and most reliable engine that you can buy for any purpose whatever; but on account of its simplicity of construction and reliability of operation it is unusually well adapted for farm use.

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THE DE LAVAL line of dairy and creamery supplies for milk dealers, creameries, cheese makers and dairy farmers is by far the largest and most complete in Canada. We handle nothing but high grade goods, and successful dairymen know that this is the only kind they can afford to buy.

Our Service Department insures proper installation of all machines and supplies and is always ready to cooperate with our customers.

We issue catalogues of each line
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Why Not Cut Off the Two Cars of Filler?

It takes 400,000 cars to carry American Fertilizers to our farmers and planters every season. Forty per cent—4 cars out of 5—of this filler is Nitrate, which requires 160,000 cars! Order less filler, higher grade and

Nitrate of Soda

for your active Nitrogen and save freight bills.
The greater productive capacity of high-grade fertilizers without so much filler means a greater outboard tonnage for railroads and greater purchasing power for farmers, so that railroads and everybody would be benefited.

DR. WM. S. MYERS, Culean Nitrate Propaganda

NO BRANCH OFFICES 25 Madison Ave., New York

AD. TALK

COXXX

"The progressive farmer is always on the lookout for new helps, methods and bargains."

In sending along his copy the other day, Mr. Foster of Markham, incidentally told us that from his two small ads. in Farm and Dairy last spring, he sold over 2000 bushels of oats.

When you find readers of a farm paper reserving quarter, half, and even full pages for advertising their farm products, don't you feel like investigating a little?

Of course you know at once there's something different about that paper and its readers—the editorials must be "spicy" and "quench the thirst." And, further still, you know that the advertising readers must expect the others to buy from them. The readers must have confidence in each other and in their medium. Yes, you'll find our readers selling each other pure-bred cattle, horses, hogs, sheep, poultry, grain—in fact everything they produce—"We're a medium of exchange" for "Our People."

The farm paper that can do this has LIFE within it.

There's opportunity with it for every maker of things used on a farm. There's people behind it, too, who are in the buying mood.

We've been trying to teach "Our People" to both advertise and buy from advertisers—and we've succeeded. Moreover, they have proved that it pays, and pays well, as they tell us from time to time. Does this interest you? Isn't that where your appeal ought to be—in among the live ones?

Consider it in making up your new lists—keeping in mind our specialists. They give you wider service—on special phases of farm life.

Our next special number comes out March 5. What space will you need in it?—The Orchard and Garden Number of Farm and Dairy.

"A Paper Farmers Swear By"



WTF grow broader, not by seeing error, but by seeing more and more the truth.—James Freeman Clarke.

A Slip of the Tongue

By M. GIBSON
(New England Homestead)
(Continued from last week)

"HUMPH!" observed Miss Manda again, and made no further remark on that subject.

Although Miss Manda helped Mrs. Hopton by the day, during the busy season, it was more like an old friendship than the relation of employer and employed. Mrs. Hopton was thirty-four, scant, and Miss Manda a good sixteen years in the lead. Besides, they had been neighbors, friendly and equally poor, for all of the six years since Mr. Hopton had died—a well-meaning, incompetent man, who had left his plump, little wife no legacy but the struggle for bread. It had been a hard struggle, and had taken the light from her eyes, the color from her cheeks, and had left her a thin, toil-worn woman. Content and happiness and an unscrupled table might yet make her a pretty woman again; but these things were luxuries.

It was about three weeks after they had sheltered the stranger that Miss Manda with the freedom of long acquaintance proceeded to entertain herself by putting Mrs. Hopton through a catchism.

"I see you got your umbrella back Miss Hopton. (This title of Mrs. Manda was not formal, being purely a concession to Mrs. Hopton's dignity as a married woman. Unmarried it would have been plain Hester, just as Miss Manda was plain Manda to all her friends.)

"Yes," Mrs. Hopton threaded a needle with some precision.

"Took Nellie for a drive, didn't he?"

"Yes." Mrs. Hopton evidently felt the need of an explanation. Miss Manda had not been sewing for her for over two weeks of the interval; but she did not live next door for nothing. "When he brought the umbrella home he came in a buggy, and asked if Nellie wouldn't take a ride in the country. It sort of made me mad, too. I didn't want any charity, and it seemed queer to send her out with a stranger; but he was real nice about it, and Nellie was so crazy to go. It did her good, poor child."

"Humph! Guess he thought Nellie's ma needed the air, too, didn't he?"

Mrs. Hopton's color heightened, and she laughed a little as she looked over at Miss Manda.

"You seem to know a lot, Manda. Yes, he took us both out on Sunday, and it was lovely. Maybe I shouldn't have gone; but I knew I mightn't get another chance to go driving from now to eternity, and I didn't care if I didn't know him very well. I felt like another woman; but my, it was hot coming back to the city and this stuffy little box."

"What's his name?" inquired Miss Manda relentlessly.

"Dunbar. He lives a little way out on a farm. We went past of it, and it was beautiful."

"I s'pose he'll do, then?" Miss Manda suggested dryly, and her eyes twinkled again as the color flamed into Mrs. Hopton's thin cheeks.

"Manda, suppose you mind your business. I don't believe he heard me say that at all."

Miss Manda shook with noiseless mirth over the ruffle she was heaping, but knew her friend too well



"We Are All Ready For Fun."

to take offence at this vigorous retort.

Mrs. Hopton had neglected to tell Miss Manda that George Dunbar had come twice during the previous week at evening, and that Nellie and she were to ride again on the following Sunday afternoon. Nellie was conscientiously sent to Sunday School in the morning, while her mother baked and swept and scrubbed for the ensuing week; and when Mrs. Hopton stepped into the carriage that afternoon, under the stare of a score of neighbor's eyes, she sighed in weary relief at the comfort of it all.

"You're tired," Dunbar said in friendly fashion as he helped Nellie in after her. "I believe you're trying to see how near you can come to killing yourself without going clear off."

"It's a hard season now," she said apologetically, knowing full well that she was nearly killing herself, because there was nothing else to do.

They drove out through the suburbs by the shortest route and breathed freer as the breezes came to them across the fields. Then he went back to his first remark.

"I don't believe in taking the world too hard. I like to be comfortable. I'd rather have fewer fancy things in this world, and take a little more human comfort as I go through it. I'd rather have a good driving horse

and a little time to enjoy him, than to slave myself to death to get automobiles and frills, and die of overwork before I could use 'em."

"It is better, a great deal better," Mrs. Hopton looked rather wistfully over the broad fields they were passing. She was thinking that some people must come near to dying of overwork for the bare necessities of life.

"There's my house, the white one on the rising ground," he said, indicating it with deprecating pride.

"Tisn't as fancy as some, but it's old and solid, and I like that kind. If you don't mind I'd like to have you stop and rest a moment. We'll have some of Mrs. Smith's sponge cake"—this in a friendly aside to Nellie.

"Mrs. Smith's my house-keeper. She and her husband look after my things and keep me straight."

"It's a pretty house. It's better than the fancy ones," said Mrs. Hopton soberly, looking toward the well-built old house set back from the road, with the straight pillars gleaming immaculately white through the trees. It was plain, because it had been built in the days when a solid plainness was the fashion; but it looked cool and roomy and very homelike.

"My next door neighbor thinks I'm

dreadfully extravagant, because I wasted so much good land in grass and trees," observed Dunbar jubilantly, as they went swiftly up the driveway.

"He'd like to see a potato patch clear up to the front door, but my folks always had it this way, and I wouldn't miss all that shade and the rose bushes my mother tended, for a dozen patches. Maybe you think a man ought to be more ambitious and get rich?"

"I think you show good sense," said Mrs. Hopton emphatically, and she laughed as he helped her out before the broad, old-fashioned veranda.

"I like my fields and orchards, and I like to work in them; but I'm forty-five now, and it's time I got some enjoyment out of both ends of the place. Don't you think it looks nretty trim for a bachelor's quarters?"

"That's Mrs. Smith's work."

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want them to taste my sponge cake and blackberry wine."

She bustled off, but Dunbar called after her:

"S'pose you show Nellie the bantams, Mrs. Smith. I was telling her about 'em."

He curved back to Mrs. Hopton with a twinkling smile as Nellie danced delightedly off.

"Didn't I do that neatly?" he asked, and then sat down in front of her with an appalling businesslike manner.

"I want to say something," he continued earnestly, "and I won't have more than five minutes to say it in. I'm forty-five and I've got a good many grey hairs, too many to have the right to get romantic, maybe, but after knowing you for four weeks, I've got this much to say: I love you, and if you'll take a crotchety old bachelor, I want you to come here and call it home. Tisn't rightly a home after all, unless there's a woman in it."

He spoke somewhat doggedly, finding it hard to get the right words out, but the remarkable suddenness of his declaration left Mrs. Hopton mute and breathless. Her hard-worked little hands trembled in her lap, and the tears were not far away. Presently, as she hesitated, looking far over the blue sky, a boyish twinkle came into his eyes.

"I've got a steady job, Hester," he suggested meekly.

Mrs. Hopton turned upon him with blazing cheeks, and lips which quivered in shamed pride.

"You heard?" she said tragically, and her voice broke. What could he have thought of her? Dunbar leaned forward impulsively, laying his big hand upon her wrist.

"Oh, now, don't you take it so hard. I knew you were in fun. As soon as I knew you at all, I knew you weren't the kind of woman to be man- crazy. I couldn't help hearing, and that was why I ran into your house out of the shower, rather than any other. I was amused then, a little, and I was sort of curious when I litte and I remembered what I heard. And then I wanted to come again. Now come, you haven't answered me. I want to have you here as soon as you can pack your trunk and take time to be married. And Nellie can get as fat and healthy as I am. Now, Hester dear, please."

Mrs. Hopton's answer is not on record, but a few moments later, when Nellie came dancing back to the cool little sitting room, Dunbar turned to her unhabashed by the interruption.

"Nellie," he said jubilantly, calmly keeping one arm around her warmly blushing mother. "Nellie, come kiss your dad."

Paralytic may be kept green and fresh all winter. Put it in a strong boiling hot brine of salt and water. Leave in a half hour and then hang it in a dry room with the blossoms down.

Keep it in this way it is as nice for flavoring soups, dressings, etc., as when it is freshly grown and gathered.

"Well, my love," said Mr. Duddikins, with his wife's return from the polls, "did you get your vote at last?"

"Yes," said Mrs. Duddikins, with a happy smile. "There it is!"

She placed the ballot upon the table.

"Why," said Mr. Duddikins, "didn't you cast it?"

"Cast it?" retorted Mrs. Duddikins. "Cast it? You don't suppose for a moment that now I've got it I'm going to let you do it, do you? Not if I know myself—I'm going to have it framed."

The Upward Look

Strength in Time of Need

"As thy day so shall thy strength be."

This strength means not only the mere strength of body, but also that of soul, mind and nerves, which we need so sorely in the great crises of life.

Is there a time now which you are dreading with a great inward terror? Then cling with all your strength to this verse, because God never fails in His promises though His help often comes in most unexpected ways.

A very dear one had to undergo a critical operation. For those loving her the hours of suspense when it was to take place were most dreaded ones. After this in thinking of a hospital it will not be of those in pain or of those about to have an operation that they will think of, but of those waiting to hear from the physician if the loved one has successfully passed through the ordeal. Yet in those hours of anxiety there was not much time even to think what the outcome might be as at the last moment there had arisen some complications about spec-

IT is not rare gifts that make men happy. It is the common and simple and universal gifts; it is health, and the glance of sunshine in the morning; it is fresh air; it is the friend, the lover; it is the kindness that meets us on the journey; it may be only a word, a smile, a look—it is these and not any rarity of blessing that are God's gentle art of making happy.

—G. H. Morrison

ial nurses. Then came the hard days in the hospital when the loved one hovered between life and death, when the doctors allowed even her nearest and dearest to be with her but little.

How wonderfully God has planned it that the tragic and the commonplace details of life should be so closely linked together. During those same days some alterations were going on in the house which had to be completed before the return of the sick one, so that mind and thought and time were so much occupied with them that there was not the time to worry as might have been the case had they not been especially occupied.

Recently a young friend not yet out of her teens, was passing through her first and very deep sorrow. The doctor had said there was no hope for the beloved mother. The daughter's first anxious thought was "How will mother bear it when she realizes she must leave us, for she knows what life will be without her?"

But when the dreaded hour came, the sufferer was so worn from pain, that her last words were: "I want to go; don't keep me. I want to go home. I want to die." And yet life held everything for her for which we could wish. There had been the agonizing fear that she would suffer much at the last moment, and although the doctor, who had been superintendent of a large city hospital for many years, said a painful death was a rare exception, peacefully and quietly she slipped away from them.

The thought often comes, how can we live without a certain dear one. A friend, whose beloved father had been taken away suddenly, was asked, "How could you bear it?" "Because at that time," she said, "I had had a great happiness into my life, so that with the bitter sorrow there was the keen joy." "As thy day, so shall thy strength be."—I. H. N.

OUR HOME CLUB

The Passing of a Member

Readers of our Household Department, and Home Club members particularly, will learn with sorrow that Mrs. Ivan V. Follitt, of King, Ont., known to our Home Club as "Cousin Ivan," has passed away. Home Club readers will no doubt remember the very interesting and helpful letters Cousin Ivan used to send in, when, with good health, she was one of our most faithful members. We received the following letter last week from Miss. Alice Ferguson, a well-known contributor to our Household Department and a very intimate friend of Mrs. Follitt:

"I regret to say that Mrs. Follitt passed away on Thursday morning, Feb. 12th. For over two years she had been fighting a weakness of the lungs, but it was only during the last two weeks that she became seriously indisposed, the heart and lungs together giving out. She was confined to her bed for only a few days, but so full of pain that death was a happy release.

"In death her face was illumined

with a smile as it ever was in life; a smile that leaped from lips to eyes. In the midst of circumstances which would make most of us rather 'blue' she was always full of a high courage and a faith that raised her above the worries of life. She was a kind neighbor, a true friend, a good mother to her four little children and an inspiration to her husband. Her ideals were high and she and Mr. Follitt were full of plans for beautifying their farm and for bringing up the children to be good and useful citizens. When in health she was a worthy church worker, a bright member of our Women's Institute and a living argument for Christianity.

"Farm and Dairy was read in their home from cover to cover, and talked over and quoted, until as our hired man said, 'it was their Bible,' only they always gave the Holy Bible first place.

"Mrs. Follitt has passed away at the age of 30 years leaving her husband and four little children bereft of their best earthly friend. I, too, have lost one of my most companionable and helpful of all friends."

Little Jim, though he attended Sunday School every week, did not know quite so much about scriptural history as he ought to have known; but when his sister asked him, "Where was Solomon's temple?" he was rather angry that she should think him unable to answer a simple question like that.

"Don't you think I know anything?" he asked.

"Well, where was it, then?" his sister repeated, and then he informed her.

"On the side of his forehead, of course—the same as other folks'. Do you think I'm a dunce?"

HERE'S A BARGAIN THAT IS A BARGAIN WHY

First—Because we give you this beautiful China Tea Set, pictured below for *nothing* but a little of your spare time.

Second—Because this spare time could be spent in no more profitable way than getting your friends to subscribe to Farm and Dairy, even if you got no premium at all.

Third—Because we have had letters from over a Hundred persons who have received these Tea Sets from us and they all claim they certainly were *bargains*.



If you could only **SEE** these Tea Sets, we would not be able to pack them up and ship them out to you fast enough. But since you cannot see them, we will have to tell you about them as best we can. Here is a letter from a lady who has seen one and is now particularly anxious to get one:

Rednersville, Feb. 12, 1914.

Farm and Dairy, Peterboro.

Dear Sirs:

Have you any more Tea Sets like the one you sent to Miss Carroll Weese, Rednersville? It has just a plain gold band. If so, I will **GLADLY** get you four new subscriptions for one. I do not wish a set decorated with flowers, as I already have one. If you have not one like hers let me know as I like hers very much, it just suits me.

Sincerely,

MRS. JOHN A. WILSON.

We have now Three Different Sets to choose from: Pink Roses, Yellow Roses, and the plain white with the gold band.

In answering please state which set you prefer

A SET SENT TO YOU ON RECEIPT OF FOUR NEW SUBSCRIPTIONS TO

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Edison's Latest Wonder The Blue Amberol Record

is so faithful and lifelike in its tone reproduction, so fine and broad in the scope of its selections, so high in its plane of artists, that you can almost see the stage setting.

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Now is your chance to make your home attractive. Until March 1st we will tell you, free of charge, how this may be done.

Write us about any room you want to fix up and how much you want to spend (\$10.00 will do wonders) and until March 1st we will send you, free of charge, samples of material with information how to use them, where they may be bought and at what price.

Write at once. Ask us anything you want to know about fixing up your home, and we will gladly give you the benefit of our experience free until March 1st.

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The Winter Dining Room

THE decoration of a dining room depends largely on whether it adjoins the living room, or is across a hall. If the dining-room and living room adjoin and are connected by large double doors, the two rooms should be decorated almost alike. The wall paper should be the same; or if one room is a little darker than the other, use for the darker room a paper of the same color but a lighter shade.

If you do not wish to use the same cretone in both rooms, you can use a solid color for the dining room hangings. It is a good plan to use the same color for the table covers in the living room. This serves to bring the two rooms together. Between meals it is always pretty to have a runner across the table. This should be of the same stuff as the hangings and about 18 inches wide.

When the dining room does not adjoin the living room, it can be decorated entirely independently. Blue and white dining rooms are always pleasing. There are many cheap papers on the market now in delf blue and white. One of the best designs is a conventionalized tulip. With a paper like this for hangings, if you plan blue denim for hangings. If you want to keep the room light and airy, put dotted muslin curtains at the windows.

WHAT RUGS TO USE

In a dining room, rugs should be durable. In case you use a solid paper the rugs may be figured and are less apt to show spots of any kind. But with a figured blue and white paper the rug should be a dark blue color with a woven in border of a lighter shade of blue. These rugs come in cheap grades that are reasonable durable.

In a dining room as in a living room, the kind of furniture you have makes less difference than you would think. If your table is ugly, put a cover on it that hangs down about a foot all around. Then you get the charm of the color of the cover and forget about the table.

Sideboards are generally either pretty or ugly, and there is very little that can be done to make an ugly sideboard attractive. But if it mars the beauty of your room, it can always be moved to the pantry, where it is just as useful. A built-in corner cupboard for china adds much to a dining room. You can find a picture of one in any book on old furniture, and the family carpenter can copy it.

A serving table is a great comfort to a housekeeper, and a good design is the one that has the appearance of the deep shelves, the lowest being about three inches from the floor. This can be made of cheap wood and stained the color of the rest of your dining room furniture.

SIMPLEST SERVING OF MEALS

There should be a five-foot screen before the door leading to the pantry. Three panels 15 inches wide is a good size. Get the carpenter to make you the frame and then tack over it stuff like your hangings. Your serving table is placed behind this screen, it will be found to greatly simplify the serving of meals in a quick orderly manner.

A dining room should, above all, have a clean, clear-out appearance.

It should be kept free from all unnecessary furniture. There should always be flowers on the table. Artificial flowers can be bought for very little and are so wonderfully made now that it is difficult to tell them from real ones. In winter a vase of blue flowers, however small, on the dining room table makes a difference in the appearance of your whole house.



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you like best for your white Sugar and buy St. Lawrence Pure Cane Granulated white, in original bags—Fine grain, medium or coarse. Each the choicest sugar.

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FARM HELP

We are now organizing parties of Men and Boys for Ontario Farms to arrive February, March and April. If you are remaining here, for full particulars apply **BOYS' FARMER LEAGUE**, Drawer 126 Winona, Ont.

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Without Lessons or Knowledge of Music You Can Play the Piano or Organ in One Hour.

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The complete system together with 10 pieces of music will be sent to you free, all charges prepaid and absolutely no money can be expected. You must play 20 days to thoroughly prove it is all that is claimed for it. If you do not like it, you can send us \$1.00 and one dollar a month until you are all paid. If you are not delighted with it, send it back in seven days and you will have risked nothing and will be under no obligations to us.

Be sure to state number of white keys on your piano or organ, also post office. **Adoptus Easy Method Music Co., 17 Wilson Bldg., Toronto, Canada.**

"Oh, d snows all of doors to and sleep is curl up a nap. And steam conductor, plays. Written to p. Hama n



Soon I brightly? We coax dose under this watch the "But the sight," as those cruel Mamma stale bare opened their ed them o fee and hungrily, a piece of "I won breakfast tasted real dees? "Some plied man sparrows, are just c spots; so have light that little he seems "I like "For he is party. So and quaffly brow the same have their are so da "Oh, I



Carl's Pets

"Oh, dear!" sighed Carl, "it snows all the time and I can't go out of doors to play. Buster cat is so old and sleepy that all he wants to do is curl up in a warm corner and have a nap. And I've played Santa Claus and steamboat and snow plow and conductor, till I'm tired of those plays. Wish we had a jolly, lively kitten to play with me." Mamma patted her lonely little boy. He was not used to staying in the

"They are wiping their little bills on the branches, every single one of them, just same's Buster washes his face after drinking his milk. Now, if they have finished their breakfast, they will fly away, and I can't see them any more."

"I think the bread will not be left to waste. Perhaps they will go and find some more hungry birds."

Sure enough away they flew, but were soon back with twenty or thirty more. The path was full of bright-eyed, fluttering little birds who ate eagerly. If Carl moved and made much noise, away they would fly in to the tree to wait until all was quiet again.

"Do you s'pose they'll come to-morrow, mamma?" asked Carl when the last crumb had disappeared and the pretty birds flew away. "Can I



What Boy would not be proud to own a Family like this?

house. "Les me think," she smiled brightly. "So you want some pets, dear? Well, just watch now while I coax dozens of little birds to come under this window where you can watch them. It is great fun."

"But there isn't a single bird in sight," said Carl. "They won't find those crumbs."

Mamma kept on breaking bits of stale bread in hot water. Then she opened the kitchen window and tossed them out on the snowy path under the apple tree.

"See, there comes one bird, mamma!" cried Carl, "but he is afraid to come near the house."

"We must keep as still as two woe mice," whispered mamma, watching over Carl's curly head. "Poor little birdies! They must be hungry, for the snow has covered up all their food."

Soon there were dozens of busy little fellows hopping about in the apple tree and darting down for a sly peck at the warm bread. After a while they saw there was nothing to fear and were less shy. They ate hungrily, sometimes flying away with a piece of the bread.

"I wonder if they ever had had breakfast before? They act as if it tasted real good. Are they chickadees? They don't look all alike."

"Some of them are chickadees," replied mamma, "but there are also sparrows. Aren't they cunning? Some are just dull grey; some have black spots; some are speckled; others have light, fluffy breasts; and see that little smooth bird, so dark that he seems almost black."

"If like him best," decided Carl, "for he is very polite to the others."

"It is a very well-behaved little party. Sometimes the birds are noisy and quarrelsome. See those five fluffy brown birds sitting together on the same branch as if they wanted to have their photographs taken? They are so dainty and pert."

"Oh, look, mamma!" cried Carl.

have them for my pets every day."

"I think so," answered mamma. "Even birds seem to remember their friends. If you are good to them, these little wild creatures can be tamed and make lovely pets."—Farm and Home.

Obedience Worth While

Bobby stood looking sorrowfully at his new Shetland pony that his father had bought him yesterday. He had decided to name him "Diamond." Father had taken him for a ride last night, but now Bobby and sister Bessie wanted to drive him. Father had told him not to drive Diamond. Bobby thought if he drove down the wood road with Bessie there could be no harm, so half an hour later they were trotting slowly through the silent woods. "I don't think pa will care as long's I don't go on the town road," said Bobby, but Bessie didn't think it was quite right.

Suddenly Bobby heard a humming sound followed by the appearance of an automobile. Diamond had never seen an automobile before, and now what was this big object coming toward him? It was too much for the pony's nerves, so he dashed to one side. The cart hit a tree and Bobby and Bessie found themselves on the ground.

They were not hurt, but the front wheel and dashboard were damaged. The chauffeur had the cart repaired, and Bobby and Bessie now take many rides alone, but never without their father's consent.—New England Homestead.

According to this advertisement in a Connecticut country paper, there is a cow in New England which is possessed of rare accomplishments:

"Wanted—A steady, respectable young man to look after a garden and care for a cow who has a good voice and is accustomed to sing in the choir."

They use Maxwell's Churns in Denmark—

Fancy! Denmark—the great butter-producing country of the world—send all the way to Canada for Maxwell's Churns! Also used in Australia, New Zealand and S. Africa. Convincing proof, this, of the excellence of these well-known churns. Best of all is the—

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You can buy the "Favorite" in eight sizes. Strongest and best made churn on the market. Easy to work. Gives splendid results. Ask your dealer.

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Dressing Well a Matter of Judgment

Farm and Dairy patterns shown in these columns are especially prepared for Farm and Dairy Women Folk. They can be relied upon to be the latest models and include the most modern features of the paper patterns. When sending Farm and Dairy paper patterns, please be careful to state bust or waist measure, figure, age, hair, children and the number of patterns desired. Price of all patterns to Our Folks, no cash address all orders to Pattern Dept., Farm and Dairy, Peterboro, Ont.

WE women are the subject of considerable ridicule for the way in which we dress and because we are such slaves to fashion.

While we are aware that in some cases this ridicule is well warranted, yet there is no excuse for a woman following such extreme fashions that she will be the subject of comment. No matter what the prevailing styles may be we are privileged to use our common sense and good judgment in selecting the models from which to design our own and our children's garments.

No doubt some of our readers are already wondering what materials will be in vogue this spring. The styles have begun to show an array of spring goods, and we note that more of the brighter tones than have been used this winter will be favored. Blue will be one of the most popular, light shades such as Royal, Chinese and Persian being some of the best. A new shade of brown called "rust" will be excellent for those who find it becoming, and a new shade of purple called "foxglove" will be in great demand.

In our designs this week we are again showing a couple of pleasing models for the Motherly who find it difficult to keep their children, who are growing quickly, nicely dressed, will appreciate the various styles that are shown in these columns from time to time. In the first design, No. 9781, the fronts are set square below a chemisette, outlined by revers that meet a deep round collar. The material is gored and arranged in deep plaits in panel effect back and front. It is cut in four sizes: 8, 10, 12 and 14 years.

In design No. 9788 the practical feature is the closing in front. Blue serge could be used to good advantage in fashioning this frock with trimming of black sateen braid on tan colored serge to form a contrast for chemisette, collar, cuffs and belt. Four sizes: 6 to 12 years.

A simple shirt waist in tailored style is shown in No. 9767. The design shows the popular long shoulder and may be finished with deep straight cuff or the added pointed

cuff. Stitching in contrasting color forms a unique finish on front and cuffs. Six sizes: 34, 36, 38, 40, 42 and 44 inches bust measure.

If we wish to be within fashion's zone we must of course patronize the tight skirts. But there is no reason why anyone should wear a skirt that is too tight to step in easily. All we have to do is to become resigned to taking a shorter step rather than long strides. In 9771 we show a skirt and stylish model of lady's skirt which could be suitably developed in almost any of the popular materials. Five sizes: 22, 24, 26, 28 and 30 inches waist measure.

In 9776 a seasonable top garment for the small boy is illustrated. This overcoat has a square yoke in the back and below it the back is plaited. The fronts are double breasted and closed high at the neck. Five sizes: 3, 5, 6, 8 and 10 years.

A simple and comfortable garment to slip on while in one's room or when one particularly wishes to have solid comfort is shown in design 9782. Blue and white striped flannel with trimming of blue would be chic for featuring this model. Six sizes: 34 to 44 inches bust measure.

If there is one thing above all others that is a source of satisfaction to the housewife is to have at her daily duties, it is to know that she is neatly dressed. The one-piece dress is a great asset as it can be so easily slipped on and presents a neat appearance at all times. Design 9778 is a pleasing model and cut in sizes from 34 to 44 inches. Six sizes: 34 to 44 inches.

A splendid suit coat is shown here. This comprises a lady's coat, pattern No. 9762, and skirt pattern 9783. It will not be long until it will be the time for wearing suits again, and it is always well to be prepared beforehand by selecting our styles early. This suit could be nicely designed from a serge in blue tones, with trimming of blue moire in a darker shade. This model coats for two patterns, 10c each. The skirt is cut in five sizes: 22 to 30 inches waist measure and the coat in sizes 34 to 42 inches bust measure.



EVERY farmer knows that his cows yield more milk and better milk when they are contented. Are YOUR cows contented? Are they profitable? If not, make them so by doing away with your old-time wooden stalls. They gather dirt, harbour disease germs, and prevent the free circulation of life-giving air and sunlight.

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The Makers' Corner

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

Pasteurizing Skim-milk and Whey

Why pasteurize skim-milk and whey? The main arguments in favor of this process, one of interest to both cheese and butter makers, are summarized by Prof. E. G. Hastings, of the Wisconsin Exp. Station, in a recent issue of Hoard's Dairyman. Prof. Hastings says:

"For a number of years the question of heating skim-milk and whey before returning them to the farm has been discussed. Where this practice has been required by law, as in Denmark, in Iowa and in Minnesota, the purpose has been to prevent the spread of tuberculosis. The experience of many Canadian cheese factories has shown, however, the value of the process as a means of improving the quality of the milk, hence of the cheese. This has resulted in an increased financial return for the product.

"The quality of the milk is often impaired by the carrying of sour whey in the milk cans which can not be washed and sterilized on the farms in a thorough enough manner to prevent the contamination of the milk from the whey. This product, unless it has been heated, always contains a large number of acid-forming bacteria and often gas-forming and other harmful kinds of bacteria. A vicious circle is established from whey tank to cheese vat by means of the can used for the transportation of whey and milk alike. If the whey is heated to 150-155 deg. after it is placed in the tank, it will be practically free from harmful kinds of bacteria. A few Ontario factories in 1908 were treating the whey; the advantages derived were so evident that other factories adopted the method, introducing it because it had been shown to be profitable. The cost of additional fuel and labor is small.

"One advantage to the farmer is in the increased feeding value of the sweet whey over the sour whey which is received from factories where the process is not in use.

"It now seems apparent that the heating of the by-products may serve to prevent the spread of contagious abortion, a disease as much dreaded by the breeder and dairymen as tuberculosis. It has been shown that the organism is given off from the body of the infected animal in the milk, as well as in other ways, and that the milk may continue to contain them for months, even when the animal is apparently healthy. If the milk from a diseased herd is carried to a cheese factory or creamery, there is opportunity for the transference of the organisms on to farms yet free from the disease.

"It may be argued that the whey will be fed only to hogs and calves and that there is no opportunity for the milk cows to become infected. This may be true, but it is certainly not good practice to bring any infectious material, whether it contains the organisms of hog cholera, of tuberculosis, or of contagious abortion, to the farm. It has been shown that cows may become infected by means of the food, indeed some investigators are of the opinion that this is the chief way in which infection occurs.

"It seems that there are three reasons for the heating of the skim-

milk and whey before returning them to the farms: first, to improve quality of the milk; second, to prevent the spread of tuberculosis; third, to prevent the spread of contagious abortion. Any one of these is sufficient to justify the introduction of the process. Cheese factory operators do not seem to be acting of their own accord in this state, and it seems necessary that the dairymen and breeder demand the introduction of the process as a means of protecting their herds."

Storing Ice for Summer Use
T. J. Neuman, Victoria Co., Ont.

We take our ice off a creek supplied from a running spring. Below the spring a dam is built and sufficient earth is scraped away to make a pond deep enough to cut the ice. Thus we have ice near home, while it is nine miles to Lake Simcoe, the nearest large body of water.

We use an ice plow for cutting the ice, one way and over it the other. We have plowed both ways, but the blocks are rougher and more difficult to pack in the ice-house. For any community that stores 3,000 or 4,000 blocks of ice, it would be better that they buy an ice plow. We can plow enough ice in one-half to one hour to make 1,000 blocks of ice. We have used our plow for nine years, and in one season we used it at Lernerville, Gamebridge, Rathburn, Brechin and Hawkestone; hence a number of communities might cooperate together and use the one plow.

When plowing we clear away the snow for about 100 feet square, or if on a small pond the whole width of it and as far back as we think we can take the ice out on that day. We then plow, making the plow cuts about 16 inches apart. Again we shove off the snow the plow has made and saw across the plow cuts, being careful to cut at right angles otherwise the blocks will be more or less diamond-shaped and difficult to pack. We use an ice chisel to break the blocks apart. We always leave two rows of ice (two plow cuts) to give the horses room to start plowing again. We make the blocks about 16 inches each way, but if the ice is shallow we make the saw-cuts 20 or 22 inches apart, but the plow cuts are always 16 inches. If the blocks are too large the work is much harder. We pull the ice out at either end but not over the plow cuts. Care must be taken not to splash water into the plow cuts or they will freeze and be no good.

When pulling the block out of the water it is easier if one gets the bottom of the block towards him at the edge of the ice, then catch the block with the tongs about the centre or a little nearer the top, then give an upward, inward pull as the block comes over the edge with a rolling slide. This operation is difficult to describe clearly, but the man who never did it always makes hard work for himself until he is shown the easy way.

When hauling we use a platform rack made of plank, 12 by five feet, at each end, and on the sides two by four-inch scantling are bolted and the blocks are placed inside of these; this prevents the ice from slipping. If this is not a large enough load the first layer is placed with the slush side up, while the second layer is placed with the slush side down and it does not slip off, especially if the ice is just a few feet out of the water.

When packing the ice in the ice-house the blocks are placed as closely together as possible, keeping the slush side up. We pack from six to 12 inches of ice all around the edge, while we put from one to two feet on the top.

Hear What Others Say About the



Following are some extracts taken from letters received from owners of Standard Cream Separators. They show what others think of the Standard:



"In skimming by our repeated tests is perfect."
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The letters from which the above extracts are taken are printed in full in our booklet. Send for a copy. It is interesting, instructive, and fully describes "The World's Greatest Separator," the Standard.

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30 per lb. fat for sweet or sour cream is more than present market's best conditions warrant, still this is our price, commencing Feb. 1st. Cash furnished and express paid within 100 miles of our city.

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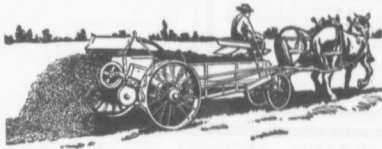
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STEEL frame on steel wheels—that is the lasting basis on which International manure spreaders are built. All parts, including box, beater, spreading mechanism, apron, are built by experts, using best materials, from careful designs based on field tests.

Every detail is strong and durable, built for long life and ease of draft. Among the features that will interest you are these: Simple protected beater driving mechanism, all of steel; load carried on rear axle, insuring traction; reversible gear and worm; low, easily loaded box, with ample clearance underneath; end gate, preventing clogging of beater while driving to the field; etc.

All styles are in the 1 H C spreader line, high and low, endless and reverse apron, and various sizes for small and large farms. Our catalogues will tell you more. Write for them and let us tell you also where you may see a 1 H C manure spreader.

International Harvester Company of Canada, Ltd

At Hamilton, Ont.; London, Ont.; Montreal, P. Q.; Ottawa, Ont.; St. John, N. B.; Quebec, P. Q.

It is desirable to mention name of this publication when writing to advertiser

B.C. Dairymen Endorse Tuberculin Test

THE work of the Provincial Government in the eradication of bovine tuberculosis in the Province was heartily endorsed by the dairymen of the country at the recent annual convention of the British Columbia Dairymen's Association, held at Chilliwack. The convention was unanimous in its opinion that the work should be continued. The department of the Provincial Government having charge of this branch of work was highly complimented upon the results already attained, and on all sides expressions of sympathy in the undertaking were forthcoming.

Naturally the question of compensation came under discussion. The dairymen expressed the view that a larger measure of compensation should be given them. Opinion upon this point was not unanimous, however, some of the dairymen asking for more, while others argued that the Government was already paying an adequate sum.

THE QUESTION SETTLED

Ultimately the collective view of the convention expressed itself in the form of a resolution to the effect that the Government be asked to continue its work in connection with the eradication of bovine tuberculosis, but that the amount of compensation be raised from a half to two-thirds, and that the maximum valuation be increased to \$150 in the case of

grades, and to \$250 in the case of pure-breds.

Commissioner MacDonald referred to the recent action of the Provincial stockbreeders who met in annual convention in Victoria some time ago. He pointed out that the stockbreeders were apparently of the opinion that the present rate of compensation was adequate, for they did not urge any increase upon the Government. They, however, made the same request as the dairymen in regard to the increased valuation of the cattle. Interesting addresses were delivered during the convention. Professor Eckles, of Missouri University, spoke upon the dairy type of cow, on the opening day, and upon the most desirable selection of a sire, the day following. Mr. Donald McInnes, president of the State Dairymen's Association of Washington, spoke upon the feeding of the dairy herd; and Mr. W. A. Langford, of Sumner, Washington, addressed the delegates upon the profitable production of good milk.

One of the most interesting features of the convention was the competition for dairy cattle, in which the best producers of first cow testing associations were entered. When these animals were placed in the judging ring it was found that the dairy conformation complied with their records of production.

Why Organize a Farmers Club ?

By A. D. Wilson

WE BELIEVE in the farmers' club because it develops people. It tends to bring out the best there is in a community, and to get people ready to act concertedly for their own betterment. It is an ever-ready means of taking up and studying independently any matter of importance to the community. It makes the work of the community promoter unprofitable and aids any movement that is for the real interests of the community. It makes any new movement undertaken the work of all of the people, rather than something to be forced on them by someone from the outside. A farmers' club is needed in every community.

A farmers' club is an organization of the people in any community for the improving of themselves, their homes and their community. It should include in its membership the whole family, men, women and children. Two or more families may constitute a successful farmers' club, but it is best, where possible, to include all of the people in the community. A rural school district is a suitable territory to be covered by a farmers' club. Meetings are held in the homes of the members, in town halls, or schoolhouses. There are many advantages in having the meetings at the homes of the members wherever it is practicable to do so. The territory should be small enough so that all of its members can conveniently get together.

A good, active farmers' club will do for a rural community just what a good, active commercial club will do for a village or city, namely, it will tend to secure the united influence of the community to bring about any desired improvement, and, further, it will unite the community to oppose anything that is not for its best interests. We can conceive of no way in which a farmers' club can be detrimental to a community, while we believe that there are at least three ways in which it may be helpful, (1)

socially, (2) educationally, and (3) financially.

People are essentially social beings. They are not most happy when isolated, and do not develop properly except in groups. Life on the farm tends to keep people too much to themselves. A farmers' club that will bring the people together monthly or semi-monthly furnishes very desirable change from the ordinary routine of farm life. Everyone is interested in making the most of himself and his life. An important part of one's pleasure and development comes from meeting people and gaining the ability to mingle with them freely, without which one cannot appear at his best or get the most out of life, either socially or in a business way.

One needs to get away from his own work and home and get an opportunity to see it from a different angle. As a rule, one is better satisfied with his own conditions when he sees how others live and do. A better acquaintance with people usually results in more tolerance for their shortcomings. Many times when left to ourselves we begin to think unkindly of our neighbors, and really believe they are not what they should be. Usually a closer acquaintance and a clearer knowledge of their trials and struggles shows us that they are really better than we had thought them to be. A community in which people are interested in each other, know each other, and are boosting for each other and for the community, is a much better place in which to live than is a community in which there is no mutual distrust. As a rule, knowledge of one another increases confidence. Play is an important part of one's life. One cannot do his best if every minute is devoted to work. Relaxation and pleasure are absolutely essential to good living. Clubs that will bring some entertainment, social gatherings, or other means of amusement into the community, are very important.

Mr. Ha

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Mr. Harding on "How the Profit is Made"

R. H. Harding, Middlesex Co., Ont.

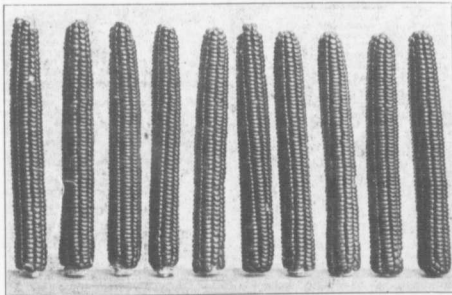
AN ARTICLE appearing in Farm and Dairy of January 29th, entitled, "How the Profit is Made," rather puts me guessing. I must confess I don't know just what the writer means, but assuming that he is championing the 2,700 pound cow as the one that the farmer should still hold fast to, it looks to me likewise, what will I call it—a huge joke. It looks "huge" all right, but as to being a joke, in reality it is far from it, because it is in keeping just such cows that many farmers are plodding with practically no hope in sight of ever getting their heads above water. Possibly some of those same cows, properly handled and cared for, could have been made profitable, which they certainly cannot be by being dragged through the winter and then let dry at the end of six months, as the writer suggests.

Every cow owner should set his standard at not less than 5,000 pounds of milk a cow per year for Jerseys and Guernseys, and not less than

bank account or clear off a mortgage or make some necessary improvements, such a farmer is not nearly living up to his privilege or what he is capable of.

Mr. Macdonald finishes up by saying that the dairymen finds that there is no money in dairying the year round at \$1.50 a cwt. of milk. I wonder how many of our most progressive dairymen agree with that statement. Take a herd of 10 cows at 6,000 lbs. of milk each, and we have \$90, or \$900 total; 10 cows producing 7,000 lbs. each, \$105 each, or \$1,050 total; 10 cows producing 8,000 lbs. each, \$120 each, or \$1,200 total; 10 cows with 9,000 lbs. each, \$135, or \$1,350 total. Contrast these figures with the herd that produces 2,700 lbs. each at the same price, and we have \$10.20 each, or a total of \$405.

The same number of cows! The same amount of work! And returns less than one-half of the 6,000 pound herd! The highest returns mentioned herein are only ordinary when



The Corn that Won the Farm and Dairy Trophy at the Corn Show

One of the coveted trophies at the Ontario Corn show was a \$50 cup offered by Farm and Dairy for the best 10 ears of Flint corn, this cup to be won three years before it becomes the permanent possession of the exhibitor. The cup was won this year by L. D. Hankinson, of Avon, with the 10 ears of Longfellow corn shown in the illustration.

6,000 pounds for any other class. The cows that fail to reach this mark under proper conditions should be fattened,—that is the only source for which they are intended; and the sooner that this fact is understood the better for many so-called farmers or dairymen.

NO PLACE FOR THE COWS

The writer, Mr. Macdonald, says it is just as well not to try to make money out of the cow during winter. With this argument I don't agree. The farmer can't afford to keep his cows in idleness all through the winter any more than he could afford to board a number of men through the winter without getting anything for it. In my opinion those cows should work diligently 10 months of each year; not struggling for an existence but manufacturing the products of our farms into finished articles of food, viz. milk, cream, butter, cheese, and, last but not least, reproduce herself in the form of a first-class calf. Instead of being dragged through the winter, as suggested, she should receive even better care while dry than while milking, preparing for still better work the following year.

Until our backward farmer realizes the importance of growing all the food stuffs possible on this farm and then feeding it all (or its equivalent) to profitable live stock, with the double purpose in view of building up his farm and building up a profitable herd, two things that are bound to go hand in hand to finally avoid his

comparisons with some herds in Ontario. When we add to the returns above the value of a good calf from each cow, what will build up a farm faster than this and give to the farmer and his family the just pride that belongs to the calling?

FOON FEEDING KILLS PROFIT

I believe it is possible to feed those 6,000 to 9,000 pound cows so as to have very little profit. For instance, feed them timothy hay (the choicest of which is very poor cow feed), with which it would be necessary to feed a very heavy grain ration in order to get the milk flow, and it would certainly be costly. On the other hand, if every man who keeps cows would first build himself two silos. The size he would govern by the size of his herd. For an average herd I would say the silos should be 12 feet by 30 feet for winter use and 10 feet by 30 feet for summer use, each of which, roofed complete, can be met at about \$160 for both. He would fill these silos with well matured corn of the best quality. He would eat away the old custom of growing timothy hay and grow instead plenty of clover or alfalfa, a few acres of roots and some mixed grain, preferably oats, barley and flax which should be ground fine for everything but the young calves. Last, but not least, he would have the cows freshen in the fall, keep them in a well-lighted and airy stable and I believe, with the exercise of reasonable intelligence, success is sure to follow.

EDGEMONT STOCK FARM

COMPLETE DISPERSION SALE OF

43 HOLSTEINS 43

AT

Thornhill, Wednesday March 11, 1914

ONE P.M. SHARP

As my farm is leased every animal will be Sold Without Reserve.

ALL MATURE COWS ARE IN R.O.P.

THREE AND FOUR YEAR OLD HEIFERS with Records up to 13,500 lbs. Milk.

TWO YEAR OLDS up to 11,200 lbs. milk. All records made on two milkings per day, and under farm conditions of care and feed.

YOUNG STOCK are nearly all sired by SIR LYONS HENCERVELD SEGIS (see catalogue.)

COME EARLY AND INSPECT THE HERD

If you are in the market for Good Breeding attend this Sale

Catalogues give full particulars—Records and Breeding. Send for one.

J. H. PRENTICE

Auctioneer
TORONTO, ONT.

G. H. MCKENZIE

THORNHILL, ONT.

Stop 59—Metropolitan R. R.

TERMS OF SALE—Cash, or 8 months on Approved Notes.

Full Set (with the exception of Nos. 6 and 8) of H.F. Herd Books for Sale

MY ENTIRE HERD

CONSISTING OF

REGISTERED

50 HOLSTEINS 50

Will be Sold by Auction at Dr. Rudd's Sale Stable

WOODSTOCK, ONT.

On Thursday, March 5th, 1914

All but 4 are my own breeding.

46
Females

Daughters
and gd-daughters
of Maud of Kent

(1 p.m. Sharp)

My herd sire, SIR SADIE CORNUCOPIA CLOTHILDE—born Jan. 16, 1899, perfectly quiet and sure, and 16 of his daughters and 3 sons in sale. All good type and from a sire proven in producing females.

Nearly all young stuff, whose ancestors have records behind them.

6 Males

5 Young Bulls

fit for service.

Also a choice lot from Sir Shadeland Segis and Brookbank Butter Barre—a proven sire with champion daughters. For 15 years in the breeding business, we have used the best of sires. The dams are long distance milkers—the kind every dairymen demands.

As my farm is rented, every animal will go under the hammer. Look up your needs in my catalogue. It gives you full particulars.

P. D. EDE, OXFORD CENTRE, ONT.

Auctioneers (A. SIPLE
W. PULLEN } Woodstock

IDYLVILDE HOLSTEINS

FOR SALE—Three Bull Calves, sired by **MAY ECHO'S PRINCE**, whose dam, **MAY ECHO**, is Canadian Yearly Champion with 2,707 lbs. milk and 1,042 lbs. butter; Canadian 7 day Champion at 12 years old, 725 lbs. with 31.8 lbs. butter; also Canadian Champion 2 months after calving with sire **INKA SYLVIA BEETS BOSCH**, whose daughter **MARY** sired **Sylvia** (Canadian 2348 lbs. output and 72044 lbs. milk in 7 days) and half-brother **Pat Posch** De Kol, Canadian Champion at four years with 31.8 lbs. butter in 7 days. These calves are fine straight fellows from splendid young dams, ranging from 3.5 to 4.5 in private and with such choice blood as **PIETERE HENRI DE KOL'S PAUL DE KOL**—in A. H. O. daughters; **Honested** the Kol Belbovy with 1 R.O.M. daughters and **PIETERE HENRI DE KOL'S PAUL DE KOL**—in A. H. O. daughters; **Honested** the Mercedes Yeake with 1 R.O.M. daughters and 4 proven sons.

Another dam is by **Count Hengerveld Faysa Johanna** whose grand-sire, **PIETERE J. HENGERVELD'S COURT DE KOL** has 7 proven sons and 5 A.H.O. daughters, including Sarah Jewel Hengerveld with her dam daughter sold for \$1,200.

If you need something good, write me our name and see our stock. Absolutely no better calves for sale.

JAS. SEYMOUR & SONS
R. R. No. 1, IDA, ONT.

WOODLAND HOLSTEINS
Headed by Maplecrest De Kol, champion bull brother to Banostine Belle De Kol, with champion yearly milk record of the world, offers

NETHERLAND AAGGIE DE KOL'S SON, Sire—Mercedes Mercedes Lad—son of Aagie Mercedes—219 lbs. Dam—Netherlands Aagie De Kol—Canadian R.O.P. 1909 with 26.6 lbs. of milk and 82 lbs. butter.

Also other choice blood, fit for service.

J. M. VANPATTER & SONS, AYLMER, ONT.

Bull for Sale

Rising 2 yrs. His Sisters average over 15 lbs. butter at two years. His 3 nearest Dams average over 19 lbs. butter at 3 years. We will deliver him to you for a very reasonable price.

We also have Bull Calves for Sale that cannot be beaten for type and backing. Send for pedigrees.

D. B. TRACY
Hamilton House Dairy Farm
Cobourg - Ontario

CANADIAN PACIFIC HOMESEEKERS' EXCURSIONS

MANITOBA - ALBERTA SASKATCHEWAN

Each Tuesday March 3 to October 27, inclusive. Winnipeg and Return - \$35.00 Edmonton and Return - 43.00

From Toronto, and Stations West and North of Toronto. Proportions as fares from Stations East of Toronto. Return limited to 60 days.

REDUCED SETTLERS' FARES (ONE-WAY SECOND CLASS) EACH TUESDAY, MARCH AND APRIL

Settlers travelling with live stock and effects should take SETTLERS' SPECIAL TRAIN which leaves West Toronto each Tuesday during MARCH and APRIL after arrival regular 10.20 a.m. train from Toronto Union Station.

Settlers and families without live stock should use REGULAR TRAINS, leaving Toronto 10.20 a.m. DAILY through Colonist and Tourist Sleepers.

Through trains Toronto to Winnipeg and West. COLONIST CARS ON ALL TRAINS. No charge for Bertha. Particulars from Canadian Pacific Agents or write M. G. Markey, D.P.A., Toronto.

AYRSHIRE AND HOLSTEIN MEN BANQUET TOGETHER

The members of the Belleville District Holstein Brokers' Club united with the members of the Ayrshire Brokers' Club in holding what is believed to be the first united banquet of the kind ever partaken of in Canada. The banquet was held at the Anzio-American Hotel in Belleville, Tuesday, Feb. 27th. It was a very successful affair, and the old-time rivalry between champions of these two respective breeds was forgotten for a night of good fellowship. G. A. Hirsten, of Norwood, and Alex. Hume, of Onondago, acted as Toastmaster and Yeast Toast Master respectively. A feature of the evening was the singing of the songs, in which all joined, led by A. M. Chapman and W. E. Tammon. Holstein men are expected an opportunity to see something nice about the Ayrshire cow, and the Ayrshire men are nicely repaid, as one expected an opportunity to see the course of the evening. There is only one subject in connection with dairying that has not been discussed,—which is the best breed?

Mr. C. F. Bailer, Deputy Minister of Agriculture, predicted an enormous demand for pure-bred stock for the next 25 years, both in Ontario and the West. He advised the Ayrshire and Holstein Associations to devote their energies to the organizing of a Holstein and Ayrshire club, expressing the opinion that associations of this kind would do better work than a government official. He announced a live stock census of Ontario to be taken this coming year, which will facilitate such organization. This census will show a number of breeders in the district, a great number of sheep breeders in another, and so on (1910). Mr. Bailer's office is in Ottawa, Ontario. He can be reached by telephone at the Department to direct efforts to make the census a success.

"The Live Stock Interest," Mr. Hirsten summed up the spirit of the meeting nicely when he said, "The lake of all union is a common interest. We are all lovers of a good dairy cow."

Prof. Barton responded. He characterized the banquet as "a fitting climax to my experience as a visitor to breeders' clubs." In his address, which will be reported fully in a later issue of Farm and Dairy, Prof. Barton expounded some of the basic principles to which the young breeder must pay attention if he would succeed.

His first requisite is knowledge of the breed and of the care of the stock. Next he must select good stock. Then if he would be truly successful he must breed along the line of his own stock and work for uniformity of production and type, rather than a few phenomenal records with many animals of mediocre quality in the herd. It was on this latter point that the speaker delivered himself most forcibly. He characterized the breeding in many herds as more or less of a haphazard business without intelligent direction.

Mr. F. H. Mallory, Wm. Stewart, J. A. Oakes, H. E. Bevilacqua, E. E. Mallory, A. E. Tammon and A. Parks spoke to the same point covering all subjects from dairying to politics. A. D. McIntosh was called on as "the man who started these breeders' clubs," and received an ovation worthy of the work which he is credited.

The toast, "Our Dairy Interests," was responded to by Jas. B. Anderson, Mr. Elliott, of the Standard Bank, and Mac Robertson, of the Belleville Creamery. Mayor Willis was present at the banquet and spoke briefly. Mr. King, president of the Canadian Holstein Association, of the Ottawa Valley Journal, and P. E. Ellis, of Farm and Dairy, responded to the toast. "The Evening" Taken all in all it was a most enjoyable function, and from now on the joint banquet, in all probability, will be an annual affair hereafter.

SUCCESSFUL OFFICIAL TESTING

H. F. Patterson, Brant Co. Ont.

I have been doing some official testing in my herd of Holsteins which I think is quite above the average for two junior two-year-olds. Peninsula Alice Aggie, No. 10229, produced in R.O.M. test seven days 28.7 lbs. milk, 14.6 lbs. butter and 117 lbs. butter fat, her average test being 3.6. Peninsula Buttermaid, No. 21720, in the same length of time produced 354.2 lbs. milk, 15.3 lbs. butter and 12.3 lbs. fat. Average test 3.4. Senior two-year-old, Hulda De Kol Princess No. 20, produced 420.5 lbs. milk, 17.8 lbs. butter and 14.3 lbs. butter fat, her average test being 3.3. These are a few of the good young heifers that will be sold at my sale on March 15th.

Many farmers think that good feeding is ditching out as little as possible. What is the effect of this parsimony? Our cattle will be getting smaller. We go abroad for Ayrshire cows. So do we go to Scotland for big Shorthorns. Why not feed better and develop our own stock?—E. H. Shields.

BREEDER'S DISPERSION SALE



I am Going to Sell my 26 Head of

Pure-Bred Holsteins

All Well Bred and mostly Females

AT LAURELDALE FARM

Oxford Mills, Ont., Wednesday, March 11

JUST WHAT YOU WANT

Their Type is O.K.
Bloodlines the Very Best
Color and Size just Right
A Heavy Milk Producing Strain
They All Go at Your Own Price

This will be the SALE OF THE SEASON, on account of the Superior Breeding of the Animals. PLAN TO ATTEND IT

Write to-day for Catalogue

THOS. IRVING, Auctioneer, W. H. MURPHY, Proprietor
Winchester, Ont. Oxford Mills, Ont.

FOR SALE

Holstein-Friesian Bull

McGregor De Kol No. 1417; 22 months old. Sire, Bonito J.P.O.C. (1908). Dam, Rosa De Kol No. 0880. 1910.

HERBERT J. ABBOTT, R. R. No. 2, LAKELAND, ONT.

ANYONE WISHING HOLSTEINS OF THE BEST QUALITY

THE BRANT DISTRICT is the place to buy. It comprises some of the best herds in Canada. Stock for sale at all times. Full list of breeders with post office and station address on application. N. F. SAGER, Secy-Treas., ST. GEORGE, ONT.

Scientific Treatment of the Soil Pays Big Returns

Haphazard Methods are Costly.

You may save a little on the cost of producing your crops by slighting the various farming operations—but when you figure up at the end of the year you'll be out of pocket.

Thorough preparation of the soil; good seed, and careful seeding pay big dividends on whatever the additional expense may be.

The Massey-Harris Line of Implements includes everything necessary

to enable the progressive farmer to handle the soil in the way which will yield the best returns.

Plows of all kinds, Disc Harrows, Drag Harrows, Spring-Tooth Cultivators, Stiff-Tooth Cultivators, Land Rollers, Packers, Fertilizer Sowers, Manure Spreaders, etc.

Time has Proved the Worth of Massey-Harris Implements.

Massey-Harris Co., Limited.

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- Edmonton.

—Agencies

Everywhere—



NORFOLK SALE

THE FIRST ANNUAL SALE

60 Head OF THE **60 Head**

Norfolk Holstein-Friesian Breeders' Club

Will be held in
DR. BURT'S SALE STABLES

Simcoe, Ont., Tuesday, March 10, 1914

The cattle offered at this sale have been carefully selected with a view to winning your confidence. We believe it is the best all round lot for individuality, breeding and high official records that will be offered this season.

2-Year-Olds with 7-day records up to 23.67 lbs butter
2-Year-Olds with 30-day records up to 59.66 lbs butter
(Canadian record)

3-Year-Olds with yearly records up to 19.61 lbs milk
(Canadian record)

5-Year-Olds with yearly records up to 74.18 lbs butter
Mature Cows with 7-day records up to 23.42 lbs butter
Mature Cows with 14-day records up to 46.50 lbs butter

Cattle will be sold subject to tuberculin test. No three teasers.
No shy breeders.

SALE WILL COMMENCE AT ONE O'CLOCK SHARP
MOORE & DEAN, Auctioneers

Write for Catalogue to

J. Alex. Wallace, Secretary, Simcoe, Ont.

UNRESERVED PUBLIC SALE OF CHOICE HIGH GRADE HOLSTEIN AND FRIESIAN DAIRY COWS

Heavy Draft Horses and Farm Implements

On the Farm of the undersigned and adjoining the City of Berlin, on the road leading to Preston. Preston and Berlin Cars stop at Farm, Willow Lane.

TUESDAY, MARCH 3rd, 1914

At 10 o'clock a.m. sharp. Lunch served at noon.

11 HORSES

18 CHOICE DAIRY COWS

1 fine Black Percheron Team 5 years old, well matched, weight about 3,000 lbs.
1 Clyde Team, 5 and 6 years old, weight 3,000 lbs., well matched.
1 Heavy Draft Team, weight 3,200 lbs.
1 Heavy Draft Gelding, 5 years old, bay filly, rising 4 years old.
1 Pair of Mares, rising 3 years old (good drivers).
Black Horse (good driver).

3 Cows, fresh; 3 Cows in full flow of milk; 4 Cows, due by time of sale; balance due to calf in March, May, June and Aug. 6 head of Young Cattle, Hay and Grain and a full line of Implements.

There will also be sold a large Bank Barn, 82 by 47, with Straw Shed, 35 by 35.

TERMS—Barns, 1% down, balance 30 days. Cattle and Stock, \$10.00 and under Cash. Over this, 12 months on approved security. 5% discount on credit accounts.

The stock offered at this sale is number one of a high order. Any one wishing to secure good cows or horses should be here.

COME AND SET THE PRICES ON WHAT YOU NEED.

E. J. SHANTZ **EUGENE LANGS**
Auctioneer **Berlin, Ont.** Proprietor

HOLSTEIN-FRIESIAN NEWS

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

HOLSTEINERS ARE PROSPERING

The Secretary-Treasurer's Report at the Annual Meeting in Toronto

In presenting the annual report of the work of the association for 1913 I am pleased to be able to say that the year has been one of unbroken progress. The Executive Committee decided to close the financial year on December 31st, instead of January 31st, as formerly, in order to give more time for making up the books and for the annual audit, our report shows that the business done in it slightly below last year in the number of registrations, but we are considerably ahead of last year in transfers and in the number of new members admitted. The fact that the number of transfers in 1913 exceeded the number of transfers in 1912 is a good evidence of the extraordinary demand for Holsteiners.

During the year the sum of \$4,075.25 was invested in bonds of the substantial Association of Ontario, which will pay interest at 5% per cent. In addition we have on hand a cash balance of over \$3,000, a net gain over last year of over \$1,000.

Two hundred and sixty-seven new members were added during the year. The book of registrations was reported by the following: Geo. W. Neely, M.P.P. Dorchester, Ont.; H. G. Bendall, Woodstock, Ont.; Alvin E. D. George, Putnam, Ont.; L. W. Hutchinson, Aurora, Ont.; J. M. Mulan, Inkerman, Ont.; T. G. Proctor, Victoria, B.C.; David H. Hooper, Ont.; Thos. Prouse, Dereham Centre, Ont.

Among those who have withdrawn from membership are: H. W. Foster, Stouffville, Ont.; B. Gotwell, Ottawa, Ont.; A. A. Dixon, Eglar, B.C.; W. Garrett, Vancouver, B.C.; E. Lambkin, Gorness, Ont.; Wm. Hunter, Leamington, Ont.; J. Steiner, New Hamburg, Ont.; G. H. Coughell, St. Thomas, Ont.; Isaac O'Brien, Winnipeg, Man. The names of a number of others who have not been heard from for several years have also been taken off the membership roll.

The Literary Committee has become practically non-existent, it was deemed advisable to make a fresh start, and at the call of the President a meeting was held at Hamilton in June, at which the Secretary was instructed to proceed with the publication of half-dozen pamphlets that would be useful in disseminating information regarding the breed. Five of these, viz.: "Grade Holsteins, What They Are," "The Value of a Purebred Sire," "The True Type of the Holstein," "Medical Authorities on Holstein Milk" and "The Cow for Dairy Purposes" have been printed and are being distributed where they will do most good. The sixth pamphlet will deal with Record of Merit and Record of Performance Testing.

The number of official and semi-official tests has now become so great that reports of these are pretty nearly sufficient to occupy the entire space that the press can give to Holsteins. Other items of interest and special articles have been contributed to the Record of Merit this year, and also sent to interested parties in New Zealand, South Africa, Japan, etc., where Canadian Holsteins are in demand.

The Outlook for the Breed
These sweeping victories in the tests, as well as the great records being made right along in the Record of Merit and Record of Performance, have apparently established in the mind of the general public, a belief that the Holstein stands pre-eminent as a purebred sire. This is the early days of the breed in Canada exhibitors at the fairs scarcely ever heard a word spoken by visitors in favour of the Black and White. Today conditions have been exactly reversed. A word of unfavorable criticism is rarely heard.

The demand for purebred and grade Holsteins in the West continues to be continued with unabated vigor, and many hundreds of cows, heifers and bulls have been taken out from Eastern Provinces. British Columbia is becoming a Holstein centre and it is felt that Ontario will soon need to look to her laurels. Among the new breeders in that province are the Premier Sirs Richard McBride, and the Minister of Agriculture, Hon. Price Ellison.

The passage of the Underwood Tariff Bill by the United States Congress has led to a large trade in cattle with that country. A large number of cow buyers of the cheaper class, thus stimulating the price of good stock. If our farmers are not so good enough to refuse all offers for their choice cows and heifers, they will retain in their own hands the breeding abundant returns for many years to come. To sell their good females is but to fill the goose that lays the golden eggs.

Good Demand for Bulls
Good cows were never so high in price in Canada as before. When farmers grade Holsteins selling at auction for as little as \$100 they get an objective of that sort of cow, or a few pure-bred females for \$200. Holstein bulls are in greater demand and the prices thereof that we have ever known, which are most encouraging features of the trade in registered stock.

During the year Mr. Neil Sanger has made two shipments of Holsteins, numbering 57 head, to New Zealand. The satisfaction of this market and those of the British Isles and Australia has provided an outlet for the stock of the South Island, which, while not directly improving the breed, has tended to indirectly by giving the breeder two or three times as much for his cow as he could have produced more and better animals.

The Herd Book
Volume 16 of the Herd Book has been printed and is being distributed to members of the Association. It is printed in condensed form, similar to that used by the American Association, which gives the essential data in a concise and readable form, and greatly reduces the size and cost of the book. The inevitable printer's delays have again prevented us from getting out this volume earlier in the year, but we continue to hope for better things next time.

Once more let me request breeders to check over their applications for registry before they are ready to be sent out, in order to make sure that all information furnished is correct. If this were done, the correspondence that would be reduced one-half—G. W. Clemons, Secretary.

THE MACKLIN SALE
The attendance at the Macklin sale was fair, considering the weather. The registered number was away below zero all day. The grades sold for \$85 to \$125, all being bought by local buyers. The registered \$150 and over were sold as follows:

Rose of Hope, \$150, I. Lano, Selkirk; Sylvia Primrose Laura, \$110, Thos. Merens, St. Catharines; Mary Jane G. A. Gillespie, Peterboro; Mary G. A. Gillespie, Peterboro; Nelson, \$150, G. W. Orr; Mary Queen, \$155, G. A. Gillespie.

ONTARIO CHAMPION GRADE HOLSTEINS BY AUCTION

Editor, Farm and Dairy.—We are sending you a few facts pertaining to our herd of high grade Holsteins to be offered at Villa View Farm, Suberlingville, Tuesday, March 10, 1914, by Broggs, Bros. and P. S. Arbogast. We have purchased a herd of pure bred Holsteins, and we are every grade will be sold without reserve.

This herd is the result of 20 years of careful feeding. All the registered animals offered in this sale are pure bred, raised and developed by Peter Arbogast, and are of the best type. The animals offered were kept for a number of years, and are a result every animal offered was raised from only the best cows and bulls. The purebred sires were used. Sixteen of the younger sires offered were sired by Celestia Scotta Merens, and the other ten younger sires were sired on a grade herd in Ontario. His dam made 1422 lbs butter in 12 days and 105 lbs milk in 30 days. She is a three-fourths sister to Valdeema Merens, the first cow in the world to give 100 lbs milk in 30 days. Her dam made over 1,000 lbs milk in 30 days.

The dams and grand-dams of these young animals are of the best type. The dams and grand-dams of these young animals were sired by Celestia Scotta Merens, and the other ten younger sires were sired on a grade herd in Ontario. His dam made 1422 lbs butter in 12 days and 105 lbs milk in 30 days. She is a three-fourths sister to Valdeema Merens, the first cow in the world to give 100 lbs milk in 30 days. Her dam made over 1,000 lbs milk in 30 days.

The whole herd, almost without exception, are of the best type and markings, and have well-shaped udders. Two registered bulls are also included in the sale. One is a grade and the other is a purebred. One is a grand-sire of Agrie Cornuopia Johanne Lead. Our cattle offered are all in good condition and will do for their owners what they have done for us—Arbogast Bros., Suberlingville, Ont.

February
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Alfalfa
To the

We thank bidding at Consignment place for other follow up. We can April breeders Ormsby Park grand-bred bull in 7 WILBE THE

LYNDE
Bulls for sale backing. One March, 29 1/2 of milk in 12 days. One 30 days at 2 dam, 37.7. Olay Cleave of Write or of S. LEMON

Cedar
One Bull, 11 gave 104 1/2 lbs and gave 100 lbs in 1 month on poor dam average. One son of Brighton. Also three 3 hams and 3 Write A. J. TAMBLER

Regist
Young Cows prices. De Buy Cleave of calf. Parli get them cheap. JACOB LAUR

SPRINGB
Herd heading. One dam is also by old cow of 30 ing 4.967 fat. One son of dividend on sex-bull for sale. Type and quality. Bull and gettings.

A. C. HALLM

LYNDAL
Grandson
Three Calves of Aris. Canada. One with a s.p.h. from a s.p. Jr. Jr. 97-old, with BROWN BIV

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HOLSTEINS

Alfalfadale Holsteins

To the Bidders and Buyers of Holsteins

We thank you for your prompt bidding at the Southern Ontario Consignment Sale. If our cattle do not please you, we will sell you at another fellow. If they did not tell you we can book a few cows for April breeding at the following prices: Ormsby Payne, whose 3-yr-old dam and grand-dam average 33.60 lbs. butter in 7 days.

WILBER C. PROUSE
Tillsburg, Ont.

LYNDEN HERD High-Testing Holsteins

Bulls for sale, fit for service, with good breeding, are bred by son of Evergreen March, 29.48 lbs. butter 7 days, 26.00 lbs. of milk in 1 year. Dam, Beatrice Posch De Boer, 22.62 lbs. butter 7 days, 25.00 lbs. in 30 days at 2 years 21 months. Dam's dam, 23.77. Others nearly as good. Also Bull Calves of same breeding.

Write or come and see them.

CEDAR DALE HOLSTEINS
LYNDEN, ONT.

One Bull, 12 mos., whose dam, at 2 yrs. gave 10.00 lbs. milk, testing 3.48 per cent., and gave 21.85 lbs. fat in her eleven months on poor feed. His 7 sires & 5 nearest dams average 35 lbs. in 7 days and a son of Brightest Canary.

Also three younger ones for sale at a bargain price. Write or come and see.

A. J. TAMBLYN - **ORONO, ONT.**

Registered Holsteins

Young Cows and Heifers at bargain prices. De Kol, Pontiac and Butter 300 strains. Calves at foot or safe in calf. Parties wanting a bunch will get them cheap.

JACOB LAUGHEW, WODEHOUSE, ONT.

SPRINGBROOK STOCK FARM

Herd headed by one of the best sons of Pontiac Korndyke, the Korndyke Boon, whose dam is also by the same sire with a f. 27.37 and 17.74 butter in a week, testing 4.80 fat. A few calves a month old to be sold at one price. Excellent in all individuals. Several good cows in calf to above bull for sale. Tanworths of all ages, of good quality. You may as well get a Korn dyke and get started right. Come and see them.

A. C. HALLMAN - BRESLAU, ONT.

LYNDALE STOCK FARM

Graduate of King of the Pontiacs
Three 2 yrs. 9 mos. old, sired by King Pontiac Aris Canada. One from 18th year-old with a 25-lb. dam, and 26-lb. grand dam. Another from a 25 lb. Jr. 4-yr. old. The other from 26-lb. Jr. 4-yr. old, with 25-lb. dam and 26-lb. grand dam.

BROWN BROS. - LYNN, ONT.

Anything in Holstein Females

From 1 week to 8 yrs. old, 15 head to choose from.
SPECIAL OFFER: 10 Heifers rising 2 yrs., bred Bulls from 7 to 10 mos.
My herd bull Cost Hengerveld De Kol, No. 6020. His Sara Jean Hengerveld 3rd first cow in Canada to make over 30 lbs. butter in 7 days—record 30.4. Sold for \$250.
If you are not sure what you have that you think of would pay you to buy.

WM. HIGGINSON - INKERMAR, ONT.

100 LBS. MILK ON EACH SIDE

A BROTHER TO MAY ECHO SYLVIA, 118 lbs. dam in 1 day, 34 lbs. butter in 7 days and 141 lbs. in 30 days.
His dam's dam (DE KOL PLUS) gave 106 lbs. of milk in 1 day—23.00 lbs. in 30 days.

DAM—A big strong vigorous 4-yr.-old, whose milk never tested under 4%.
To be officially tested in spring.

This young bull (fit for service in spring) is a low-down, strong chap—about half and half in color.
He is half brother to above bull and out of a daughter of Count Segis Walker Pieterse.

Another calf whose first 50 sires by the same sire made 15 lbs. each as Jr. 2-yr.-olds—one 17 lbs and two milking up to 41 lbs. milk per day.

He is out of officially tested cow whose dam and her two brothers won First at Toronto on separate occasions.
Write me about these.
B. E. LEAVENS - BLOOMFIELD, ONT.

THE SALE AT THORNHILL ON MARCH 11TH

Edgemont Stock Farm has long been known as the home of a hard working herd of pure bred Holsteins. Mr. Geo. H. McKenzie, the owner, has a reputation as a breeder and a feeder of good ones. And he has the right kind of stable to keep them in. When the writer called the other day to look over his bunch that it was so impressively dispersed, some everything was found spick and span. In fact the place was almost clean enough to live in. There are plenty of light and room, such as would keep any herd in the best of health. There are such a herd are always valued higher than those kept in an unsanitary way. Practically every cow in the herd is in the R. O. P. with very worthy records, all made under ordinary farm conditions, three millions per day and the regular feeds produced on the farm. There are few herds in the Dominion that have made such a good showing without special care and feeding.

Daisy Calumny, whose photo appeared in Farm and Dairy of February 13th, is one of the good ones in the herd. Her milk during the winter was the highest her owner 840, an average of 32.2 a year. Her four-year-old daughter in the sale is also making a fine record, and in the last eight months she gave 10,254 lbs. milk. There is a young son of Daisy Calumny in the sale that will make a choice herd sire. He is strong, trim and deep in the chest. His milk in the last 12 months he gave 10,254 lbs. milk.

Glenside Laura, one of the older cows in the herd, very straight and showy with a splendid side and shape of the hump. As a four-year-old she gave 11,652 lbs. and is the best cow in the herd. It is a good addition to some herd, as she is a worker that always looks well. Two of her daughters are in the sale, and they are the same. The five-year-old, Ormsby Lady De Kol, has milk records that extend on either side, almost to the forenoon. As a two-year-old she made 937 lbs. milk in 52 days and in the year she averaged 21.00 lbs. in 30 1/2 months. In the sale there will be two of her daughters and a young son—two of them by the herd sire. A young two-year-old that just qualified last year at Edgemont, Nott, with nearly 20.00 lbs. milk to her credit.

A seven-year-old Ida Mechtelide De Kol in the R. O. P., as a two-year-old with 11 months when calving. Her milk brought Mr. McKenzie's herd showy, has an excellent udder; is a heavy feeder and was giving over 60 lbs. when the writer called. She has three daughters in the sale, two by the herd sire, and one of which made 10,469 lbs. in the two-year period. A straight top one is Lady Fafort Posch. As a two-year-old she made 12,556 lbs., and last year made 14,540 lbs. she is a nice, straight, square cow, built for heavy work. Of her four calves she has three daughters. Her eldest one made 13,500 lbs. as a four-year-old, but did not freshen in time to give a record. Another good cow is Pieterse, who has only three quarters, but is a heavy feeder. She is large, long and deep—a big animal that will throw good ones. So far all her offspring have been good. Although 10 years old she is the best handler in the herd, in excellent condition, and good for several years more. One of the choice young cows is Tokilka of Riverside. Last year, as a four-year-old she gave 13,000 lbs. milk.

All of the young stuff in the stable are in excellent, thrifty condition. Mr. McKenzie keeps these in two and three in-bred stables, so that they have every opportunity to develop well. Practically all of this young stuff is by the herd sire and out of some of the good ones or offspring of the good ones already mentioned. It is all very growthy, with plenty of substance and quality. Four bull calves to be sold are all by this herd sire, and out of good dams. The eldest of these calves will be fit for service in the R. O. P. cow with 13.63 lbs.

The senior herd sire, Sir Lyons Hengerveld Segis, was bred by the North Toronto Hensler Club, and is known to every Holstein breeder as a good sire. His sire is a young Segis, who has a 23-lb. three-year-old, a 31-lb. four-year-old and a 23-lb. five-year-old, all two-year-olds up to 25 lbs. Several 30-lb. daughters have recently been added to his records. His dam is also a young Segis De Kol, with 33 lbs. for the seven days and 134 lbs. for 30 days. The Hengerveld Segis is such that will recommend his offspring to every admirer of good Holsteins. McKenzie has a unique form, thrifty, well-fed and well-bred herd that will pay most of us to visit on March 11th, the day that he opens his sale—a cash-making proposition for the owner, and the animals will be in the hands of the Metropolitan Farm is reached by taking the Metropolitan cars from Toronto to stop at this place you down at the Royal York.

THE ELMCREST OFFERINGS
TO THE
Norfolk Holstein Breeders' Consignment Sale
SIMCOE, MARCH 10th

1. NETHERLAND FAVORIT, born June 17th, 1910. This heifer is the Canadian senior two-year-old 30-day champion. Records at 2 years 9 months 4.66 lbs. milk, 21.65 lbs. butter in 7 days, per cent fat, 3.97; milk 1254.1 lb., butter 29.6 lbs., per cent fat 3.67 for 30 days. Here is an opportunity to purchase absolutely at your own price one of the best young foundation cows ever offered at auction in Canada. Due to freshen March 24th—Straight and right. Should make a 20-lb. senior 3-yr.-old record.

2. NETHERLAND BEAUTY DE KOL, born Oct. 19th, 1904. Record at 1 yr. 9 mos., 47.84 lbs. milk, butter 23.42. Maternal grand-dam of No. 1. Fresh Dec. 1st, 1913.

3. EILEEN EUNICE FAVORIT, born Oct. 10th, 1910. Record at 2 yrs., 15.54. From same sire as No. 1. Fresh sale time.

4. BESSIE FAVORIT, born Jan. 12th, 1913. Sister to No. 1 and No. 3. Due March 22nd.

5. ELMDALE LOLA, born April 28th, 1913. A grand-daughter of Changingly Butter Boy and Tidy Abbecker. Princess Petosha, 25.13 in 7 days. A Show heifer.

No. 1 and No. 4 are bred to Schilling Meretina Posch, a son of the 27.50 lb. Guelph Sweetpatch winner 1911.

Write J. ALEX. WALLACE, SIMCOE, For Catalogue.

W. H. CHERRY - GARNET, ONT.

MANOR FARM

Senior Herd Sire, Prince Hengerveld of the Pontiacs, a son of King of the Pontiacs and from a daughter of Pieterse Hengerveld Count De Kol. Junior Herd Sire, King Segis Pontiac Posch, a son of King Segis Pontiac Alcira (the \$10,000 bull), and from a 29.50 lb. 3 year old.

We will be glad to mail to anyone extended pedigrees of these Sires.

We are offering a limited number of cows in calf to them for sale.

No Heifer Calves for sale at any price.

GORDON S. GOODERHAM - BEDFORD PARK, ONT.

HOLSTEINS
FOR SALE

Hamilton Farms, St. Catharines, Ont.

Herd Headed by PRINCE HENGERVELD OF THE PONTIACS
son of King of the Pontiacs

See issue of Farm and Dairy, January 22, 1914. BULL CALVES FOR SALE

Also TWO NICE HEIFERS bred to Herd Sire, \$150.00 each.

FAIRVIEW FARMS HERD

is the only place on earth that you can secure a young bull that is a brother to the sire of the cow holding the championship of Canada as well as the United States. Both of these records are held by cows that were sired by some of PONTIAC KORNDYKE. We can offer you a few of his sons at reasonable prices; also some of the greatest hardy bulls living today, RAG APPLE KORNDYKE #711, 7541, out of daughters of Pontiac Korndykas with large official records. Write, or come and see this herd.

E. H. DOLLAR, NEVELTON, NEW YORK, NEAR PRESCOTT, ONT.

A COMPLETE DISPERSAL SALE

OF MY
5 REGISTERED HOLSTEINS 50

Will be held at
ALFORD JUNCTION, MARCH 12, 1914

45 FEMALES 5 MALES

Practically all mature animals in R. O. P. or R. O. M. Choice young stuff from these dams. Note these—Ida De Kol Princess—62 lbs. fat and 31 lbs. butter in 7 days. Spinks August 2-day, at 2 yrs., made 10,776 lbs. milk over 4% fat, butter, 4107 lbs. Another 2-year-old, Blanche Kay Beauty, made 10,682 lbs. in a year. Eunice Jane Fuch 6 yrs. is a yearly record holder of 587 lbs. butter fat from 16,737 lbs. milk. Get a catalogue and look up the breeding of this herd.

As I am leaving the farm everything will be sold—complete farm equipment, houses, etc., on Mar. 11, and the splendid herd of Holsteins on Mar. 12, when rigs will meet all trains at Alford Jc'tn.

Terms—Cash or 7 months at 7%.

For Catalogues write

H. F. Patterson, R. R. No. 4, Paris, Ont.
WELBY ALMAS, Auctioneer

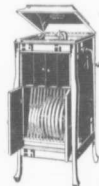
Select any one of these Instruments of All Music



Columbia Graphophone "Eclipse," Oak or Mahogany. \$32.50



Columbia Grafonola "Favorite" \$65 Mahogany or Quartered Oak. Golden, Fumed or Early English. Columbia Jewel, similar to above \$45



Columbia Grafonola "Leader" \$100 Mahogany, Satin Walnut or Quartered Oak. Golden, Fumed or Early English



Columbia Grafonola "Mignonette" \$125 Mahogany, Satin Walnut or Quartered Oak. Golden, Fumed or Early English



Columbia "Grand" Grafonola \$650 Colonial Grand Model same price.

Remember that this offer would not be possible were the Instruments not all we claim for them.

YOURS will be the final judgement!

We are basing this offer on Your Integrity Your wisdom Your love of music and our confidence in what we have to offer.



WE will send you on 10 days free trial any one of the Matchless Home Entertainers illustrated in this advertisement, together with your own selection of the Double-Disc Records shewn and 200 Needles.

You will then have sufficient music for many an evening's entertainment and can judge for yourself whether or not you can afford to be without the World's Best Music.

Columbia Grafonolas and Records

are the attraction in the best City Homes and the Leading Clubs of Canada.

There is not the slightest doubt as to the superiority of Columbia Instruments of all Music. The most enthusiastic Columbia converts are those who have been disappointed in the purchase of mere "Talking Machines."

It is to prove the difference that we are making you this unprecedented offer. You can lose nothing by taking us up while the opportunity lasts—we can gain nothing if our claims are not true.

CUT THIS OUT AND MAIL TO-DAY

To THE MUSIC SUPPLY CO.		Records/Wanted
36 Wellington St. East, TORONTO		No.....
I accept your offer of Free Trial of a Columbia Grafonola.	No.....	No.....
The model I select is..... (fill in name) at price of \$.....	No.....	No.....
I also want..... double-sided Records.	No.....	No.....
I want the World's best Music in my Home, and, providing I am satisfied with the outfit you are sending me, I am prepared to pay for it at the price stated and 50c for each record I have asked for. I will make my payment by cheque on the.....	No.....	No.....
Bank at the end of 30 days' trial if I am thoroughly satisfied with the outfit you send me. Should I not be satisfied I agree to return the outfit without delay.	No.....	No.....
My Name is.....	No.....	No.....
Address.....	No.....	No.....

The same information on a postal will do if you don't want to cut this paper

HAVE YOU SEEN THE NEW COLUMBIA RECORD CATALOGUE—SEND US A P.C. FOR ONE.

Select any of these Double-Disc Records



ORDER BY NUMBER ONLY

A.1238 Auld Lang Syne. Columbia Mixed Chorus. Jolly Scotch Riddle Party — A descriptive number. Prince's Orchestra.

A.1108 Driving Home the Cows from Pasture. Frank Coombs, Counter-Tenor, and W. H. Thompson, Baritone. Bonnie My Highland Lassie. John E. Meyer, Baritone.

A.772 Sweet Genevieve. Merle Tiltonson, Contralto. Bonnie Sweet Bonnie. Merle Tiltonson, Contralto.

A.196 Comin' Thro' the Rye. George Schweinfest, Piccolo. Happy Melins. March and Two-Step. Harry A. Yackles, Xylophone.

A.651 Inverary — Patter. Donald Mackay. Humorous Scotch Song. She is Ma Daisy—Patter. Donald Mackay. Humorous Scotch Song.

A.1404 Dog o' My Heart (Fischer). Henry Burr, Tenor. Somebody Else is Crazy 'bout me (Carroll). Henry Burr, Tenor, and Edgar Stoddard, Baritone.

A.650 In Happy Cumberland—Waltz. Medley. Prince's Orchestra. Orchids — Three-Step. Thomas Mills, Orchestra. Bella.

A.599 Man with Three Wives. The Waltz Melodist—Prince's Orchestra. Medley March. Prince's Military Band.

A.711 Black and White Ragtime Two-step. Prince's Orchestra. Glow Worm.

A.129 Dancing in the Kitchen. Columbia Orchestra. Espanita Waltz. Columbia Orchestra.

A.973 Canadian Airs. Medley No. 1. Prince's Military Band. Canadian Airs. Medley No. 2. Prince's Military Band.

A.355 "Out in an Automobile." "My Own Girl." "Football." "It's the Best Old Plug on Earth"—descriptive medley. Columbia Male Quartette. Uncle Josh and The Labor Union. Cal. Stewart. Laughing Story.

A.288 Lead Kindly Light. Baritone Solo. One Sweetly Sol'ann Thought. Henry Burr, Tenor.

Columbia Records play on any standard make of machine. Columbia Records last five times longer than any other records.

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