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COUNTRY LIFE



Peterboro, Ont., Jan. 20, 1916



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**Western Ontario Dairymen in Convention
at St. Mary's.**

Grading of Dairy Products and Payment by Quality Again to the Fore

THAT the dairy authorities of Canada should get together and agree on national standards for dairy products; that such standards should be made official and their adoption pressed upon all dairymen throughout the Dominion, was the consensus of opinion at the Western Ontario Dairymen's Convention at St. Mary's. Great emphasis was laid on the absurdity of the policy of paying for such variable products as those of the dairy industry at so much per pound or per hundred-weight, irrespective of quality. But payment on a strictly quality basis demanded recognized standards, and the expressed opinion of many of the leading dairymen present, as well as a resolution passed by the convention, favored the policy that these standards should be nation-wide in their application.

Geo. H. Barr, of the Dairy Division, Ottawa, prefaced his remarks on paying for milk at cheese factories by saying that personally he would sooner have discussed the grading of cream, as in his opinion this was the most important question before the dairymen of western Ontario at the time. He recalled that there were still in Canada a large number of factories that paid their patrons the same price for their milk, irrespective of quality. Investigations conducted from Ottawa showed that paying on the fat plus calculated casein basis (the Babcock test with a sum added as recommended by Prof. Van Slyke, a table of which is given in his book, "Practical Cheese Making") came nearest to giving the patron the actual value of his milk for cheese-making purposes. It would appear from their two years' work that there is not much to be gained from testing for butter or casein, which was, therefore, labor lost.

One of the most regrettable things in connection with the cheese industry was that so few makers were capable of making the necessary tests in order that their patrons be paid for their milk on a quality basis.

Three Good Methods of Payment There were at least three methods of paying for milk which were better than the pooling method. What was most needed was a uniform system adopted all over Canada, one which makers and dealers everywhere would recognize, and in his opinion the time had arrived when competent dairy authorities from all over the Dominion should be brought together, that these should agree upon which system would be adopted, and that this system should be advocated all over Canada.

Geo. A. Putnam also gave it as his opinion that dairy authorities should get together and decide on a uniform method of paying for milk on a quality basis and then go out and advocate the universal adoption of that method. Ministers of Agriculture throughout the Dominion should instruct their dairy superintendents to get together and decide on the method to be adopted. It would then be time to decide on the outline of an educational campaign.

Prof. Dean on Casein Content Prof. H. H. Dean, though he agreed that the pooling system was unfair, dissented from the view that any system could be satisfactory which neglected the casein content of the milk. The fat basis was decidedly unfair because by too much was paid for milk high in fat, and it had been shown to be unsatisfactory soon after the invention of the Babcock test.

J. C. Parsons, of Jarvis, speaking from the proprietor's standpoint,

stated that not much milk came in over 5.5, and the average less than this, and it would be well to neglect the higher percentages. The fat plus 2 basis he believed from experience was as fair a basis as was practicable in the average factory.

The question of a quality basis for paying for milk at factories was resumed by Prof. Dean on Thursday afternoon. The element of chance, he said, entered into all experiments, and this accounted for the difference of opinion on such subjects as paying for milk on a quality basis. The casein content was, according to tests, something over two per cent., but this excess was, approximately, represented by the fat and casein lost in the whey. Regarding the objection that had been raised to testing for the percentage of casein as well as of fat, the use of the Walker test, by which the fat and casein could both be determined by one test, overcame this.

Later Mr. Barr had an opportunity of taking up the question of cream grading, reiterating what he had said at the E. O. D. A. convention regarding the way the western producer has taken up the system and declaring that the time had now arrived for Ontario to do the same.

Grading Trial Suggested Cream grading from a proprietor's standpoint was introduced by John H. Scott, of Exeter. He suggested that the Department take over a creamery in a cream-gathering district and work it to find whether or not the system was practicable. The trial was continued by Mack Robertson, of Belleville. He suggested that two grades only be adopted at the start. First grade should be such as would make first-class butter, and might be either up to the system. Second grade should be such as would not make first-class butter.

Discussing the running of hand separators, Prof. Dean stated that the speed at which the machine was run was the greatest factor in determining the percentage of fat in the cream. He claimed that it was impossible to control the speed at all closely by the handle, and no satisfactory device had yet been invented to control the speed of a separator. Increased speed gives an increase in the fat in cream, but the farmer may be reasonably sure that if he keeps the speed of the machine within six of normal, he will not lose an excess of fat in the skim milk.

Increase the Rennet Supply Prof. Dean again came out strongly in favor of some systematic way to collect the calves' stomachs throughout the Dominion and manufacturing from these as much of our rennet supply as possible. If some such action were not taken, our cheese industry might be jeopardized by the failure of the rennet supply from foreign sources.

C. F. Whitley, Ottawa, gave a paper on dairy herd records. The gist of this appeared in last week's Farm and Dairy. Prof. S. Harcourt and Lund, of the O. A. C., contributed papers on Lime Requirements of the Soil and The Care of the Milking Machine, respectively. These will be published in subsequent issues of Farm and Dairy. Harvey Mitchell, supervisor of cow testing for the Maritime provinces, told some of the things that were being accomplished down by the way. Minister Roadhouse announced that the Department had in mind for the coming season an extensive campaign, having for its object the extension of the practice of grading cream.

(Continued on page 7.)

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FARM AND DAIRY & RURAL HOME



We Welcome Practical Progressive Ideas. 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. XXXV.

PETERBORO, ONT., JANUARY 20, 1916

No. 3

Diversified Farming that is Profitable

Mr. H. C Hamill Does Not Believe in One-Line Farming, and Practises as He Preaches

By F. E. ELLIS, B.S.A., EDITOR, FARM AND DAIRY

A FEW weeks ago I told in Farm and Dairy of a very pleasant visit made one day last June to the farm of Mr. H. C. Hamill, Box Grove, Ont. Then I dealt chiefly with Mr. Hamill as a successful breeder of Ayrshire cattle. It would not be correct to assume, however, that Mr. Hamill is a dairyman, pure and simple, whose income reaches him only in the form of cream cheques and occasional lump sums for the sale of pure-bred Ayrshire stock. Not by any means. Mr. Hamill fully believes that too intense specialization in any line of farming is a mistake. He practises as he believes, and his practice accords in large measure for the financial success that he is making of his farm.

It is more than a score of years now since Mr. Hamill made his first attempt as a farm manager. His first bid for fortune was made early; as a boy of 18 he entered into partnership with his younger brother of 16 to rent their father's farm. Five years later we find the two of them still in partnership, moving on to a 200-acre farm of their own near Lorneville, in Victoria county. For seven years they worked together harmoniously on the big farm, when the elder brother purchased a farm of his own of 100 acres, and moved on to it along with the nucleus of a pure-bred Ayrshire herd that he had established. He soon found, however, that if he was to develop a good trade in pure-bred Ayrshires, he would have to get nearer his market. Just about that time a farm was offered for sale at Box Grove, in York county, for \$12,000. Mr. Hamill had only a small portion of the purchase price to offer, but his offer was accepted, and he started out with obligations totalling \$10,000. That was seven years ago. All of that heavy debt is not paid off yet, but Mr. Hamill is well on the way to the complete ownership of his farm. He has achieved the success that has been his by diversified farming, which he has practised from the first; diversified farming not in the sense of a little of everything and not much of anything, but in the sense of specialization in two or three lines that have proved profitable.

When Mr. Hamill purchased Craigielea Farm, as he now calls it, weeds almost had the upper hand, as a result of the indifferent farming methods of the previous owner. "The only fight I have had," said Mr. Hamill, "has been against weeds. In my business as a breeder, I have had no trouble in selling my surplus stock, even to the young ma's. Thus I have been relieved of one of the big problems of the pure-bred breeder,

see to buckwheat. If a man depends on buckwheat to smother the weeds, he is very apt to neglect the weeds before seeding. I found that the buckwheat crop as a smotherer did good work, but I calculated that by the time I had seeded, there would be few weeds left in the field to smother. The hoe crop grown also helped to exterminate the weeds."

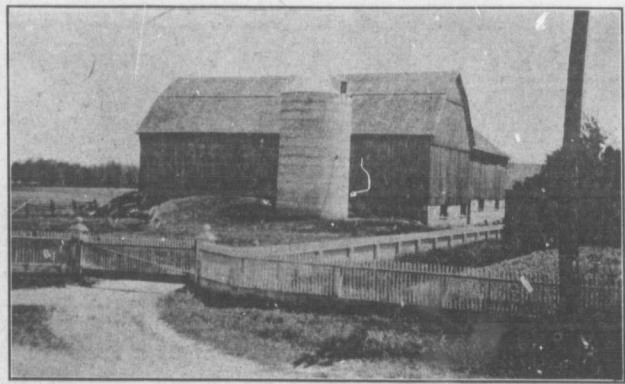
"And after harvest cultivation," I suggested. "Yes, after harvest cultivation was also followed," said Mr. Hamill. "That same after harvest cultivation has been one thing that has kept us away from Toronto Fair. We would plan to get the alkali sod all turned over the latter part of July and work well to Sept. 1st. The amount of work that you give makes a big difference when you come to sow your wheat, and Toronto Fair often got the go-by in order that our prospective wheat field might get proper cultivation.

Fight Weeds

"So far as hand work is concerned, we made a practice of digging out the burdocks, but on a farm as dirty as this one was, it would take a man with lots of time to spud out all the weeds. We can kill many times more weeds with the cultivator than with the spud, and we took the cheapest way. As a result of combination of these methods, we have to-day a comparatively clean farm."

I can testify that the farm to-day is clean. In Mr. Hamill's company, I went over the whole of the 135 acres of rich, clay loam land. Of course, there are weeds yet. There are weeds on every farm, but the Hamill farm is much cleaner than the average. The first fight has been fought and won. In present day management, the herd and the farm aid each other. Mr. Hamill does not believe that the profits of the dairy herd can be calculated apart from the profits of the entire farm. Here it is, he believes, that many get off the track when figuring the profits of dairying.

"You will remember," remarked he, "that in an argument that I had with Mr. McDonald through the columns of Farm and Dairy, I claimed that the manure will pay for the labor involved in dairying. Mr. McDonald could not see



The Big Barns That House the Ayrshire Herd of H. C. Hamill, York Co., Ont.

In the adjoining article an editor of Farm and Dairy tells something of H. C. Hamill himself and the farming methods that, along with his Ayrshire Herd, have contributed to his success as a farmer. Well balanced, diversified farming, in large measure, explains the satisfactory progress Mr. Hamill is making towards the ownership of a splendid dairy farm in one of the most fertile and prosperous sections of Ontario.

—Photo by an editor of Farm and Dairy.

but the fight that I had with weeds more than made up for the advantages that I had in other directions. I remember the first year that I was on the farm, taking five loads of weeds and thistles off one field of 13 acres. No one could tell, to look at the field, what the crop was supposed to be. On another field I got the compliment of having the dirtiest field in the county. On a four-acre field on which I now have alfalfa, I seeded barley. It was so thick with wild oats that the men forking it out of the mow did not know that it was supposed to be barley."

Mr. Hamill was not long on his new farm until experiences such as those just mentioned convinced him that he had to get the weeds off the farm or they would put him off. The methods that he followed are interesting. "In those years, I summer fallow for fall wheat and grew buckwheat," said he, in explaining his methods. "I would thoroughly cultivate till July 1st, then

it that way. I know, however, that if you go anywhere in this country and find two farms, one man feeding the most of the produce of his farm and then hiring extra help, if necessary, to care for his stock, and another man selling grain and taking little care of the manure, you do not need to ask twice who is making the most money. If the manure cannot be calculated into dollars and cents wages, the farmer gets those wages just the same in the increased productivity of his land."

Business Management

I stated that Mr. Hamill is not a specialized dairyman. The dairy herd, however, influences the profits from every other department. The fertility from the barn yard explains the productivity of the soil. "I manure 20 acres each year," said Mr. Hamill. "My object is to feed as much of what the farm produces as I can and have a considerable surplus over to sell. Outside of dairying, my specialty is alsike and red clover seed, which I find profitable. Take a 12-acre field, for instance. I may get 20 loads of clover

hay from it. If, then, I turn around and get \$200 worth of clover seed from the second crop, I have doubled the profitability of my land. I have done this time and again, and held out three or four bushels of seed for my own use. There is greater profit from clover run in this way than from any grain crop I can grow."

A hard and fast rule cannot be followed in farming, however, and Mr. Hamill believes in adapting himself to changing conditions. For instance: "This year," he said, "grain promises to be a good price, while there will probably be a shy market for clover seed. Accordingly I plowed up meadows for fall grain last summer. This to adapt myself to market conditions. I regard a three-year rotation, however, as the ideal where great production is aimed at. I myself try to follow a four-year rotation of corn, clover and fall wheat, but I do not stick close to this system. Most farmers, for instance, do not care to put one-quarter of their farm in hoe crop."

There is abundance of pasture land and good

pasture land on Craigielea Farm. This explains the absence of pasture in the rotation, fall wheat taking the place where pasture is usually found. "I like corn to follow wheat," said Mr. Hamill. "It gives us a chance to get on the land and cultivate at a good time to kill the weeds. Some like to plow down clover for corn, but I like to have the clover for fall wheat and I can have it for both."

Craigielea Farm is increasing in productivity every year. "I do not see any limit to the possible productivity of a farm," said the proprietor as we returned from a tour of inspection. "If I were to live on this farm 50 years, I could increase the production every year, weather conditions considered. If a man claims that he has reached the limit of production, there is something radically wrong with either the farm or the farmer. I have handled five different farms myself and have left all of them producing more than when I took them."

The buildings on the Hamill farm are of the
(Concluded on page 16.)

All Around the Dairy Farm : Suggestions from Our Folks

A Silo Cheap and Good

SILOS have been erected by the hundreds all over eastern Ontario during the last few years. Many farmers who were either totally opposed or mildly indifferent to the use of ensilage now look upon the silo as practically a guarantee against lean years such as we experienced in 1913 and 1914. Silo enthusiasts in the corn belt states, using as their slogan, "A silo at one dollar a ton," have been inducing tenant farmers to build silos. This sounds alluring, but we must remember that many of these silos are constructed in the cheapest way and of the cheapest material. We are giving below a bill of material for a silo erected by Mr. S. Brown, of Peterboro Co., which is constructed of first-class material, and did not cost much more than the type advocated by the corn belt propagandists:

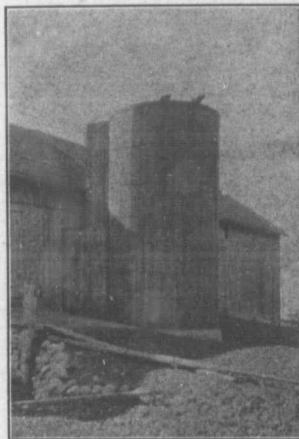
Lumber	\$61 00
8 hoops	16 50
Wages to workmen	12 50
Cement and gravel	25 00
Rent of forms	6 00
6 gals. of creosote	6 00
Hardware	2 00

\$128 00

This silo is 13x32 feet. The first eight feet is underground and of concrete construction. The remaining twenty-four feet is built of 2x6 spruce staves, dressed on both sides, tongued and grooved and bevelled. This material was purchased from a local lumber company. The staves were given a good coating of creosote before erection, thus rendering them less liable to decay from rain and the juices in the silage. Iron plates made from hoop iron were inserted in grooves cut in the ends of the staves to keep air from entering at the joints. A continuous door-way runs from top to bottom, the cross pieces being made of pieces of staves cut the proper length. This is a great convenience when taking out the ensilage. This silo cost considerably less to erect than many of the manufactured kinds, and affords ideal storage for one of the best of farm roughages.

"O.P.V." Ensilage

WE may explain that the "O.P.V." of the heading stands for oats, peas, and vetches. "O.P.V. ensilage" promises to make the silo popular in districts where the corn crop, owing to adverse climatic conditions, has not been a success. The term, we believe, originated at



A Good Silo at Small Cost.

This silo was erected on the farm of Mr. Stewart Brown, Peterboro Co., Ont., at a cost of \$128. Particulars are given in the article adjoining.

—Photo by an editor of Farm and Dairy.

the Nova Scotia Agricultural College Farm at Truro, and they are there conducting experiments to demonstrate the value of oats, peas, and vetches as an ensilage crop. In a few Nova Scotia counties in the south-western part of the province, corn grows well, but the rest of the province and in the other Maritime provinces, too, the corn crop has not been a success.

In the spring of 1914 on May 13th, 5.7 acres were seeded on the college farm with one and one-half bushels of oats, three-quarters of a bushel of peas, and one-half bushel of vetches to the acre. Sixty-five tons of green feed were put in the silo, or at the rate of 11.4 tons an acre. This material contained 28 per cent. of dry matter, which was eight per cent. more than was contained in corn silage which was put in the same silo the same year. It was run through an ensilage cutter into the silo, and during the winter fed both to young stock and cows, being fed equally to both.

The next year, six acres were seeded the same

way, except that the proportions were changed to two and one-half bushels of oats, one bushel peas, and one-third bushel vetches. Part of the land was not dry enough to yield a good crop, but the yield was still 10 tons to the acre. The crop was cut just as the oats were beginning to enter the dough stage, as, if cut later, the mixture will be too bulky and will not settle well in the silo. O.P.V. ensilage may prove a boon to the Maritime sections of Canada.

The Feeding of Heifers

By "Herdman"

I HAVE at various times dealt with the feeding of heifer calves during their first year, and have always placed the emphasis on growth. I believe in feeding calves liberal quantities of whole milk, then skim milk, and then finally good, liberal feeding with grain and the best hay that the farm produces. This same feeding system during the yearling stage of growth would develop a fat, pudgy animal of inferior dairy quality. During the yearling stage, I am to develop capacity. Good pasture is an excellent place for the yearling heifer. During the winter months the very best of roughage should be fed, such as alfalfa or well cured clover, corn ensilage, and roots, but I would strictly advise against feeding much grain during this period of the heifer's life. For the small quantities that are fed, I prefer ground oats. The soiling system of feeding yearling heifers is no good. If the dairyman has no pasture, I would advise him to rent pasture land.

During the two-year-old stage, I would feed more liberally. Our heifers are timed to freshen at 30 months, and the drain on the heifer's system from the 24th month to the 30th month is great. I would avoid getting the heifers over-fat; at the same time I like to have them fresher in right good condition. During the last month or so I like to feed a handful of ground flax seed in a very thin gruel of bran mash once a day. And right here I want to make a confession.

Every dairy cattle man with whom I have talked and who has had a long experience, has confessed that he has had more trouble with heifers during their first calving period than with mature cows. A large percentage of the calves come weak and not a few are born dead. I have not had more trouble than most good dairymen, but this is a condition that has always puzzled me. May it be that certain feeds are more desirable than others at this period? In a recent issue of Hoard's Dairyman, the results

of experiments at the Wisconsin Experiment Station are summarized, and I would like to have their summary reproduced:

Effect of Feed Pasturization

"Sixty young heifers, all of apparent equal vigor, were selected. Group No. 1 was fed the products of wheat; group No. 2, the products of oats; group No. 3, the products of mixed grains, wheat, oats, and corn; group No. 4 was fed on the products of corn. Mark well that each group was supplied with the same amount of protein and other feed constituents. It was not long before the effect of the feeding was clearly seen in the physical condition of the heifers. The wheat group showed the least thrift, the oat group next, the group fed on mixed grains next. The corn fed group was greatly superior to the others in this respect.

"When it comes to calf bearing, this disparity of results was shown in a very marked manner. The wheat group and oat group lost all of their calves, the mixed grain group did a little better, while the corn fed group produced four well-developed and vigorous calves. There seemed to be something in the corn that aided greatly in the pre-natal nourishment of the foetus, as well as an improved condition of the mothers themselves."

This looks to me like a careful, intelligent experiment. I have never been very favorable to corn feeding, sticking close to my oats and bran with a little flax seed and oil cake. This experiment would make it appear that it would be worth while to mix considerable corn or corn products along with the oats. Let's try it.

Rational Feeding for a Year's Work*

By V. E. Fuller

SOWS need food for three processes: Rebuilding tissue for their own bodies, building the bodies of their calves, and making their milk. There are three kinds of nutrients for these purposes: Protein, carbohydrates, and ash. The first makes blood, lean flesh, builds up the tissues broken down by the cow in her daily work in the dairy, gives the material for the body tissues of the calf, the udder of the heifer, and makes the casein in the milk.

Carbohydrates heat the body and provide energy for the work done by the cow.

The mineral matter or ash is used in the building of the cow's bones, to provide the small amount of ash in the milk, and to furnish the bony structure of the calf.

A ration in which the proportion of protein to carbohydrates is such that there is no waste of feed and the cow is giving her highest possible production, is a balanced ration.

*Summary of an address by V. E. Fuller, of Maplewood, N. J., before the Vermont Holstein Breeders' Club, at White River Junction, November 23.



The Entrance to the Cow Stable.

The illustration is from a photograph of the Prison Farm, Guelph, Ont. The cement walk runs from the stable to the farm creamery near by. The practical way in which the big dairy herd on this farm is handled, was described in Farm and Dairy a few months ago.—Photo by an editor of Farm and Dairy.

A maintenance ration is one on which the cow will be able to live and keep her body in good condition, when dry, with a stationary weight.

Wide and Narrow Rations

For every pound of protein, the cow should be fed from five to six pounds of carbohydrates including fats. If less than five pounds of carbohydrates is fed to one pound of protein, the ration is "narrow"; if more than 6.5 pounds of carbohydrates is fed to one pound of protein, the ration is "wide."

The four prime necessities in any well-selected ration are succulence, digestibility, palatability, and fats. Succulence renders the other feeds more palatable and more digestible; palatability will make a cow eat more feed, enjoy it more, and make better returns for it; digestibility is, of course, quite necessary to the distribution of the nutrients and their conversion into blood, tissue, milk, etc.; fats are necessary to aid in digestion and to put part of the fat into her milk and are valued at two and one-quarter times the other carbohydrates.

Cows need plenty of roughage to distend their pouches and help break up the grain feeds to make them easier of digestion. The latter is a valuable characteristic, as the energy which

would be expended in digesting heavy grains is given to the making of milk. Two-thirds of the dry matter in a ration should be given in the roughage; and, as the dairy farmer usually grows his own roughage, he is thus getting two-thirds of the nutrients he feeds his cows off of his own farm.

Corn Silage is King

Corn silage, winter and summer, is the salvation of the dairy farmer. It is about the best possible succulent; it is not injuriously affected by changing seasons or drought; it is planted, cultivated, and stored economically; it is a favorite food with the cow herself; and is one of the cheapest feeds grown for the dairy. The New Jersey Experiment Station found by careful experiments that it was more economical to grow and feed than any soiling crop. Droughts are almost certain in the summer, pastures dry up, and summer silage takes the place of pasture and keeps up the milk flow.

Dried beef pulp is a splendid succulent and also lightens heavy grain feeds, and may be advantageously fed with corn silage and roots or with either alone. It is especially good food for dry cows, as it is cooling and keeps the bowels in good condition.

Using too heavy feeds, concentrated and heating, is the rock many a dairy farmer splits on, and I am confident that the case of so many heavy-record cows becoming non-breeders is the use of too much concentrated heating grain in the rations. In any grain ration for a dairy cow, five-sevenths should be light and cooling and of the other two-sevenths one should be linseed oil meal, which is cooling—thus giving six-sevenths cooling and five-sevenths light.

When Care is Required

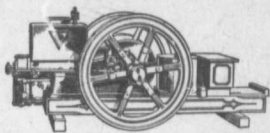
Two months before calving and 30 days after is the time to feed properly if we would have the dairy cow do the best work of which she is capable. She must grow her calf, make up her udder, and keep her own body in condition. If she is not given the requisite nutrients to do all these things, she will grow her calf first and best and will herself become poor and will not make up the good big udder she should.

The same principle applies to the dry cow, except for the udder building. Unless the dry cow is given the nutrients—especially protein—she will come in in poor flesh and it will be necessary to give her milk-making foods faster than is desirable. Her digestion is disturbed and her udder tender from the act of calving, and heavy protein feeds will upset her digestion and very likely cause udder trouble.

The rational way is to put protein on her body in the form of lean flesh before she calves so that after she calves she can draw on it for the protein in her milk, thus doing away with the necessity for heavy protein feeding, which is usually heating.



French-Canadian Cattle Are Not Wide-spread, But They Have Their Advocates as Have Other Breeds.—Photo at Central Experimental Farm, Ottawa.



The cost of an ALPHA Gas Engine is less than the cost of doing without one

YOU plan to some day have a gas engine. You realize that you need one—that there are many jobs on your farm that could be done quicker, easier and cheaper if you had an engine. Your idea is that it will save money and time, which is also money.

Very true; yet, if an engine will save you money, you ought to use it right now. That is the way to save the money that will pay for the engine. When you buy an Alpha Gas Engine you begin to save. As long as you put off buying one you are losing money that would soon pay for the engine.

It is not a question of how soon you can afford to buy an engine, but how long can you afford to do without one. You surely realize that during your life time you have in one way and another lost the price of several engines, by trying to get along without an engine. Good sense demands that you stop the loss at once.

Ask us for complete information and prices of Alpha Gas Engines. They are made in eleven sizes, 2 to 22 H.P. Each furnished in stationary, semiportable or portable style, and with hopper or tank-cylinder.

DE LAVAL DAIRY SUPPLY CO., Ltd.

LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA.
Sole distributors in Canada of the famous De Laval Cream Separators and Alpha Gas Engines. Manufacturers of Ideal Feed Sies. Catalogues of any of our lines mailed upon request.

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Live Poultry

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and Almanac for 1916 has 200 pages with many colored plates of fowls from the U.S. It tells about raising and caring for all kinds of poultry, and also contains all the latest information on the latest and best to buy them. If an order of 10 copies or more, send \$1.00 to the publisher, J. B. SHOEMAKER, Box 212, Proprietor, St. Louis, Mo.

O. A. C. No. 72 OATS FOR SALE

Grown from the best of my handpicked stock, carefully weeded while growing. The season of 1915, not only at Guelph where the yield was over 125 bushels per acre, the next highest being 100 bushels less, but all over Ontario, O. A. C. No. 72 was by far the leading variety, for both quality and quantity.

My experience last year was very encouraging for after practicing the greatest possible care to produce seed of high testing quality, I found both dealers and growers willing to pay 20c to 30c per bushel more than for ordinary clean seed, and did not have enough to fill the orders.

Sample, prices and Government test on application.

A. FORSTER, MARKHAM, ONT.

130-Egg Incubator and Brooder for \$13.90

If ordered together we send both machines for only \$13.90 and we can freight and duty charges to any R. R. station in Canada. AND DUTY PAID

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, durable glass doors, complete tank and boiler, and regulating. Many other egg trays. Specially adapted to Canadian climate. Incubator and Brooder shipped complete with instructions, lamps, etc. and ready when you get them. Five year guarantee—30 days trial. Incubators finished in natural colors showing the high grade "Chestnut" colored linings—not painted to cover inferior material.

It gives an incubating surface for 130 eggs. However, your order may be for a machine with others, we find you of your order. Don't miss your chance to get the best at the lowest price. Write for literature and prices. Send for FREE catalog today, or send in your order and save time. Write to us today.

WISCONSIN INCUBATOR CO., Box 234, Racine, Wis., U. S. A.

In Union There is Strength

A Department Devoted to Cooperative Agriculture

The Business Management of the United Farmers' Company

AT the annual meeting of the United Farmers' Company (of Ontario), to be held in Toronto, Feb. 1 and 3, a number of important amendments to the constitution are to be considered. In order that the shareholders of the company, and the farmers who are members of local associations which hold stock in the company, may be acquainted with the nature of the proposed changes, so that they may be considered and discussed in advance, the following outline of what is proposed is here given. In next week's issue we will give a similar review of important changes that are proposed in the constitution of the United Farmers' Association.

Election of Directors
Notice is given by Mr. J. J. Morrison that he intends to move at the annual meeting of The United Farmers' Cooperative Company, Ltd., that retiring directors shall not be eligible for re-election for one year and that the by-laws be amended so as to make this interpretation clear. At present section 5 of the constitution requires that the affairs shall be managed by a Board of thirteen (13) directors, of whom seven shall form a quorum. Section 15 requires that three directors shall retire each year in rotating order, and retiring directors shall be eligible for re-election. Section 4 requires that the directors shall choose from amongst themselves a President and Vice-President at the first Board meeting after the annual meeting.

It will be noticed by the foregoing that directors hold office for four years. The object of this clause is to ensure the affairs of the company being managed by a Board familiar with its details and to prevent too constant changes in the personnel of the directorate. This is an important provision in the management of a company of this kind, the business details of whose operations are so intricate as to require considerable time for a new man to familiarize himself with them. Whether or not a term of four years is too long is one which the shareholders should consider carefully.

Mr. Morrison, in moving that retiring directors shall not be eligible for re-election for one year, is doing so at the request of others, but is not prepared as yet to state that he favors this amendment, although he feels it should be considered by the shareholders. The object of those who bring the amendment is to assist in favoring new men to the front and preventing the management of the company possibly remaining in the hands of the same individuals too long.

This object is most commendable, and at times such provision might be advantageous. The proposed amendment, however, also contains some dangerous features. As those who are identified with business concerns are aware, there are in practically every organization a few men who are what might be called the man-singer. No harm will be done when changes are made of men on the directorate who, while doing good work in a general way, do not identify themselves in a vital way with the real management of the company. Changes in this class of directors can even be made sometimes to advantage. It happens, however, that men of outstanding ability, such as T. A. Crerar, of the

Grain Growers' Grain Co., Winnipeg, or C. A. Cumming, of the Saskatchewan Cooperative Elevator Co., two men to whose outstanding ability it is freely admitted the success of these great organizations have largely been due, are identified with an organization. A provision which arbitrarily requires the retirement of such men from the board of directors of a company might strike a dangerous blow at the success of the company.

At present the constitution provides that the president of the company, who must be a director, may also be the manager of the company. Such an amendment as is proposed, might require the enforced removal of both the president and manager of the company. The possibility of such a regulation will be apparent. Our large banks, insurance companies and similar organizations do not have such a provision in their by-laws.

An Executive Committee
Mr. E. C. Drury gives notice that he intends to move that section 5 of the by-law be amended. Section 2 reads as follows:

"That the affairs of the company be managed by a board of thirteen directors, of whom seven shall form a quorum."

There is no provision in the by-law for the appointment of either an executive committee or of a manager by the directors. Mr. Drury proposes that this clause shall be amended, making the clause read as follows:

"That the affairs of the company be managed by a board of thirteen directors, of whom seven shall form a quorum, and an executive committee consisting of the president, vice-president, secretary and three directors, chosen at the first board meeting of directors; that a manager shall be appointed by the directors and that he shall be subject to them."

During the discussion of this clause it will be necessary for the shareholders to decide whether the executive shall consist of 5, 6 or 7 directors. At present, under the constitution of the company, the president has two votes in the case of a tie. Thus if Mr. Drury's amendment is carried and six members of the executive present and there is a tie vote, the president would have the casting vote. Whether or not it is desirable that the president should have the power which the directorate is so divided is a point which should be considered. Most executives consist of an odd number of directors so as to prevent any deadlock such as even a majority of directors on the executive makes possible.

Object of an Executive Committee
The constitution does not provide for the election of an executive committee. The duty of such a committee would be to consult with the manager on occasions when it was not deemed advisable or necessary to call together the full board of directors. This would tend to save expense. It would also keep the board in closer touch with the manager and it would enable the manager to share more of his responsibility with the directors. At present, the directors of companies provide for the election of an executive committee. Mr. Drury's amendment proposes to enable the directors to appoint such an executive committee from among

Another point in connection with Mr. Drury's amendments which will (Continued on page 9.)

The Feeders' Corner

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

Loss in Cattle Feeding

Wm. Squire, Essex Co., Ont.

Will someone please tell me how to feed cattle in winter at a profit? I have been feeding cattle for over 30 years myself, and I did not think it was possible that there could be so much loss until this year when I kept an account of feed consumed and weight gained.

During the past summer I pastured 25 head of cattle for a town butcher at two and one-half cents a day. On the 3rd of November all of these cattle were taken away but four head. This I was to continue feeding at six cents a pound live weight, according to what they gained. On December 30 these were taken off my hands, they having gained only 68 pounds, which on the four head amounted to \$4.68.

Last spring I fenced off a 26-acre field of new land. I did not have time to put more than half of it in corn and the rest was not pastured. In the grass grew very long. I took the corn off and turned these four cattle in until December 1st, then put them in stable until December 30. They were fed corn both in the field and stable, and here is the way I have estimated the feed bill:

94 bushels corn at 25c a bus.	\$23.50
80 hundred fodder at 3c	2.40
Pasture at 3 1/2c a day	3.00
2 bushels buckwheat at 70c.	1.40
25c per day to water and feed, 47 days	7.75
Total	\$38.05

This feed bill, after deducting \$4.68 amount received for feeding in stable, leaves a total loss of \$33.37. I would like to know how other farmers feed in winter at a profit. I know of a farmer who keeps only a few pigs and cows, sells his corn and grain, and is making money and buying more land. He puts in clover to keep up the land. I have some new land to break up which is now in pasture, and would like to know if it will pay to crop it or stock it.

I have 240 acres of land, 30 cattle, 30 sheep, 14 pigs, eight horses, a boy 16 years old, and a house for a man.

Neighbourliness The Cornerstone

THE sense of security which is so commonplace that it is hardly recognized as a blessing, is in fact one of the greatest compensations of farm living. To be on the ragged edge of anxiety and foreboding because of conditions that a man can neither control nor modify—the policy of his employer, the attitude of his union, the meagre margin between income and expenditure which accident may easily destroy and plunge the family into ruin under conditions that are disastrous—brings a man's courage. While there are troubles enough on the farm, yet there is a security of shelter and something to eat. Even the privilege of wearing old and patched garments when in extremity, is not to be underestimated. It is a substantial asset to have neighbors who can and will help in emergencies. Neighbourliness is the cornerstone of security in the country.—Selected.

I give my hired man half of the corn, oats, barley, buckwheat, potatoes, all the apples he can use, one acre of garden, free horse rent and free wood, a cow, help him to put in and take off grain, pay half of the threshing and furnish half c. seed, but he thinks of going to the war. On what share basis should a man work whose farmer has all kinds of good machinery, good land which will yield about 80 bushels of oats and 125 bushels of ear corn per acre? I am about five miles from town, which is too far to drive milk.

(Note.—Mr. Squire has stated his problem fully and frankly. Will some of our Folks give Mr. Squire the benefit of their experience and suggestions. Farm and Dairy will suitably remunerate all who send acceptable replies.—The Editors.)

The Dairy Herd Competition

THE Dairy Herd Competition was conducted by the W.O.D.A. in 1914 and 1915. Entries were smaller. For economic reasons the officers of the association were not in a position to donate special cash prizes. The Canadian Salt Company replaced the trophy won permanently by Mr. John Van Slyke last year, and the silver and bronze medals donated by Ryrie Bros., Toronto, were offered as second prize in class one and first prize in class two. Entries were received for only the first class, however—patrons of cheese factories with herds of eight cows or over. The results are as follows:

- 1.—Jas. Burtoft & Son, Sparta Cheese Factory; 190 acres in farm; 18 Durham and Holstein cows; 129,247 total pounds of milk; 7,175 lbs. of milk per cow.
- 2.—J. C. Harkes, Listowel, Moleworth Cheese Factory; 100 acres in farm; 10 Holstein cows (4 P.B. and 6 G.); 70,712 total pounds of milk; 7,071 pounds of milk per cow.
- 3.—S. H. Coneybeare, Listowel, Elma Cheese Factory; 100 acres in farm; 16 Holstein cows (1 P.B. and 15 G.); 108,901 total pounds of milk; 6,806 pounds of milk per cow.

Western Ontario Dairywomen in Convention at St. Mary's

(Continued from page 2.)

James Buston, St. Thomas, was elected president for 1916. The vice-presidents each moved up a place, and Robt. Snell, Norwich, was elected to fill the vacancy.

Chief Dairy Instructor Hearn reported a most favorable season for Western Ontario dairywomen. Altogether 11,112 patrons supplied milk to 151 cheese factories. The average price per pound was 13.5 cents, the highest ever realized in Canada. The make was 30 per cent. greater than in 1914. Western Ontario creameries produced 19,500,000 pounds of butter in 1914, and with the amount manufactured in cheese factories, the total was over 30,000,000 pounds. Figures for 1915 are not yet complete. Patrons numbering 23,232 supplied milk and cream to the creameries.

The directors' report made special reference to the Dairywomen's Patriotic Fund, which totalled \$4,883.78 up to December 31, 1915. Of this, \$2,706.98 was turned over to the Canadian Patriotic Fund, \$1,000 to the Belgian Relief Fund, and \$1,176.80 to the Canadian Red Cross Fund.

The financial statement shows total receipts of \$4,997.81 and total expenditures of \$4,726.35, leaving a balance on hand of \$271.46, as compared with a balance of \$439.86 on December 31st, 1914.

Grade cows frequently excel pure bred stable mates in actual commercial production. In almost all cases, however, their producing ability is due to a percentage of pure blood in their veins.

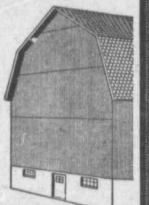
"Metallic" Corrugated Iron Barns are Lightning, Fire, and Weather-Proof

Lumber and labor are too expensive to be used in farm buildings; besides, wood buildings are easily destroyed by fire and lightning. "Metallic" Corrugated Iron makes buildings that last a life-time; that are warm and dry; and proof against fire, lightning and weather.

Costs Less Than Lumber

You save money on labor and lumber when you use "Metallic" Corrugated Iron. Write for complete information before you buy any building material. We can save you money. Our corrugated iron is made in galvanized or painted sheets, straight or curved.

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Gives You A Giant's Power

When you see a KIRSTIN get a grip on a great big stump and bring it out roots and all, at a rapid rate, you will realize how little machine gives a man the power of a giant. The Kirstin's wonderful system of double leverage enables one man to do more work, quicker work, easier work, better work at a stump pulling and at less cost. The Powerful

Kirstin One-Man Stump Puller

will clear an acre from one ender. The only stump puller that changes speed while in operation—the only puller that gives you first motion in one. We back the Kirstin with an iron-rod guarantee and back it up with the most complete order or load clearing method. Write for the complete details of this new, economical KIRSTIN way of clearing land. Write today for your copy.



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Sydney Basic Slag

Will ensure you larger crops. What Sydney Basic Slag has done for other Ontario farmers it will do equally well for you. Get in line with it this season. Your country needs bumper crops. If interested, and of course we know you are interested, write and we will mail testimonials from users who are pleased with the results. Or perhaps you could assist us by disposing of 20 tons in your district this winter in your spare time. If so you will be reasonably paid for your trouble.

Write us and our General Sales Agent will give you

The Cross Fertilizer Co. Ltd.
SYDNEY, NOVA SCOTIA



Getting Chicks from Desired Hens

A. P. Marshall, Lincoln Co., Ont.

At a recent show, talking of one of his sales, a prominent fancier made the remark, "She was one of those big fat hens, don't you know, and as sometimes will happen, my customer failed to get a chick. But she was a beauty, and I expected he would do well with her." I wonder how often this happens during the breeding season? Don't we all occasionally have a hen just like this which, if she is not handled right, will give us nothing whatever, but with just a little good handling would give us excellent chicks and be very profitable?

When mating up the birds, a good deal can be done to determine different types of birds requiring different handling, and no doubt the birds may be sorted into small pens having a similarity of characteristics that will guarantee like results under the same treatment. That is one way of controlling heavy or light hens, as the case may be, or very heavy layers requiring abundant food so

that they will not become run down, and have the extra vitality in the egg to guarantee reproductive strength.

Hens Worth Propagating

Last season we remember a particularly heavy laying pullet from which we wanted to get a lot of chicks, but she persisted in laying so heavily that it was hard to keep up the vitality to get chicks from all her eggs. This pullet was hatched January 14th and started laying July 2nd, has kept steadily at it through the moult and all, and in December up to the 15th, has laid 11 eggs. By watching her carefully and keeping her in good food and keeping her eggs that we set. In another case a wonderfully good hen in December is 2nd, has kept steady at it through the moult and all, and in December up to the 15th, has laid 11 eggs. By watching her carefully and keeping her in good food and keeping her eggs that we set. In another case a wonderfully good hen in December is 2nd, has kept steady at it through the moult and all, and in December up to the 15th, has laid 11 eggs. By watching her carefully and keeping her in good food and keeping her eggs that we set.

Of course, forcing the birds to work and scratch for what they get does balance to some extent the quantity fed for the heaviest workers will find more than those inclined to be fat or even if they do want more, they must work for it. This, however, does not always work out to perfection. The instinct of some birds seems to make them almost

clever in their ability to get what they want without working for it. They will often let the other bird do the scratching, and they gobble the feed.

The only way in such a case is to know the condition of them all, which is easily determined, if one is continually on the alert and observant of the condition the birds show. If necessary, odd birds can be taken away during a feeding period or extra can be fed them singly if the possible return is worth it. After all, to get the best specimens requires practically individual mating, and in each case, although a number of females are in the pen, each is mated up with particular respect to her relation and quality to the male. It certainly is a misfortune to give study and care to having the best matings made and then find it impossible to obtain sturdy chicks just because individual condition was overlooked.

Every hen in a breeding pen should be furnishing eggs that hatch well or from a breeding standpoint she is a dead loss no matter how valuable a specimen she may be otherwise. Breeders will do well to observe which of the hens are not producing fertility, and more than this, where vigorous chicks? If not, there's a reason. In most cases probably it can be corrected with a little commensurate treatment. Fertility means nothing without strength.

Closer observation in this direction should bring results!

Hints for January

This is the month to make plans for the year, and then stick to them. Mistakes of the past year will aid in this year's work. Improve housing figures against profitable poultry. It also makes a great difference in the health of the flock.

Be careful in feeding. The market birds will weigh more and be ready for market earlier than those belonging to the other fellow who is a careless feeder. Small flocks usually bring the biggest profits.

Be thinking about getting things into shape for the year's work. The new incubator should be bought, or the old one put in readiness.

A little ash sprinkled on the roosting board in freezing weather helps wonderfully when cleaning.

If the breeders are strong, healthy birds and are getting plenty of fresh air and sunshine, the chicks will be strong and vigorous.

Keep the turkeys dry. Give them plenty of clean litter. See that there are no cracks in the house to cause drafts.

Be sure the box of road dust and coal ashes is replenished often and always kept where the sun reaches it.

Orchard and Garden Notes

Look out for rabbit work in the young fruit trees. Either get the rabbit or protect the trees.

Hardwood cuttings of willow, dogwood, etc., may be made now and carried over winter in sand or sawdust.

Notice the branch tips of golden willow, dogwood and soft maple are bright, warm days. They are worth planting for the air of cheerfulness they give.

Now is a good time for the farmers' club to discuss the matter of fixing-up around the home, the school house, or the cattery. Make plans that can be carried out next spring.

Don't expect the house plants to flower as well during the cold, dark months of early winter as when we have more sunshine. Most plants require sunshine for their best growth.

Root grafts of apples may be made now if they can be stored in sand or sawdust till time to plant next spring.

It is worth while to grow some evergreens about the place to get the beautiful effect of the snow on their branches after a snow storm.

Go over cabbage and root crops stored in the cellar and throw out decayed material. This will prevent further decay and help keep the cellar clean.

Get busy on that plan for fixing up the school yard. Does it need a few trees and shrubs for comfort and appearance? Talk matters over with the teacher and the older children. Pleasant surroundings at home or school pay.

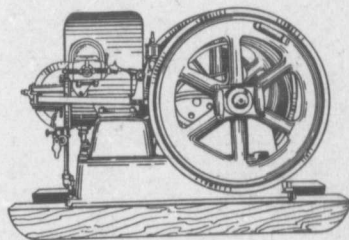
When the deep snow comes, the birds appreciate feed placed where they can get it easily. Suet tied to trees or grain placed on boards or on pans off the ground will be visited by many friends that you perhaps did not know were here.

Send for seed and plant catalogs. Get a few evenings' enjoyment from a study of their pages. Make up a list of the things you will use next spring and get the order off. Purchase only the true and tried sorts unless you can afford to experiment. Many of the seeds can be purchased from a seed dealer near home. Don't trust the grocery store ready-made packages. They may be good, but there are better seeds.

Large output, economical factory methods, and doing business on a cash basis from factory direct to you—these features enable us to sell engines at about half the price you pay (per horse-power) elsewhere.

Here are the Page figures:

1 1/2 H.P.	\$46.50
3 H.P.	65.00
5 H.P.	113.50
6 H.P.	168.00



Draw on Page for Power Facts

The rapidly-growing tendency to substitute gasoline power for horse power and man power on the farm, must have sound reasoning back of it.

Surely this is a subject on which you should become posted. Surely you ought to be fully informed as to the extent to which a Gasoline Engine would help YOU toward more profitable farming.

If you have not yet installed a Gas Engine, take advantage of our Free Information Bureau—we maintain it for the spread of knowledge about gasoline power on the farm.

You can write freely, unreservedly, telling us about present conditions on your farm.

We promise you that your confidences will be respected, and we'll likely be able to give you valuable information.

We can tell you, for instance, all the many practical uses to which you can put an engine—some of these uses being quite unknown to the average man. We can tell you what to look for when buying an engine—and how to get the most out of it after it's bought.

We have made a deep study of the farmer's requirements, and whether it's an engine you need or just some advice, this is the place to come.

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Wire Fence, Concrete Reinforcement, Wood Saws, Farm Trucks, Feed Grinders, Pumping Outfit, Roofing, Marine Engines, etc., etc., etc.

"Yellow Journalism"

Farm and Dairy almost embarked in "yellow journalism" last week. Did you notice the indefinable creamy shade of the paper on which most of the issue was printed? It was the natural color of wood pulp. The blue-white tinge of the paper we have used heretofore is dyed with dyes made in Germany and which, thanks to Sir John Jellicoe and the English Navy, are not now available and substitutes have not yet been found. We had another copy ship us a rush order of blue-white paper they still had on hand and the difficulty has been averted for the time being. We wish to give Our Folks the best possible, but war conditions sometimes overthrow the best laid plans.

The Business Management of the United Farmers' Company

(Continued from page 6)

require careful consideration is the provision that the directors shall appoint the manager.

A Possible Danger

At present Mr. Anson Groh is acting in the capacity of president as well as manager of the company. Mr. Groh is a man of great tact and of good judgment, and commands the respect of the directors. Such a condition may not always continue should a new manager later be appointed. It seems to be desirable to look to the future and prepare as far as practical for conditions which may arise. In some of the western farmers' organizations where the president is also the general manager, it has seemed at times as though this arrangement may be dangerous, inasmuch as the president presides at meetings where points are to be discussed relating to his own management of the company. Thus, as president, he is able to some extent at least, to shield himself from criticism as manager, should he so desire. The president is also largely instrumental in arranging the programmes for the meetings, and thus an occasion might arise where the president could so arrange the programme as to stifle the discussion of matters relating to his own management.

For this reason the point has been raised as to whether or not it might be advisable for the manager, instead of being president, to act as managing director. This would give the manager a position on the board of directors. It would also give shareholders and members of the directorate greater freedom in bringing before the president matters relating to the management of the company which they would like to see discussed, than they would feel if they had to take these matters to the president when the president was also himself manager of the company. This condition has not arisen in the case of Mr. Groh, but the statement of the case, as here given, is considered to be worthy of consideration. Points of this kind should be attended to before the difficulty arises which they are intended to prevent, and should not be allowed to drift until possibly a situation arises which might later be fraught with great danger to the success and management of the company.

As far as possible the amendments here outlined should be considered by the locals before the annual meeting of the company, so that their delegates may be guided as to the stand they should take when in attendance at the annual meeting in Toronto.

Cutting Out the Central

AS has frequently been explained, many of the business farmers do not like to see the farmers cooperating to purchase their goods, and are anxious to prevent their doing so if possible. Sometimes they refuse to the United Farmers' Cooperative Company, and in other cases they quote lower prices or the same price to the local clubs that they do to the central organization, with the object of discouraging the locals from buying through the central and thus disorganizing the whole movement. A case of this kind has happened recently. The Central Company has been buying from a certain firm of wholesale grocers in Toronto. This company, through the sending out of shipments, has obtained the names of the secretaries of a considerable number of the local clubs. Recently this firm has been sending out circulars to the clubs offering to deal with them direct at this ignoring the Central Association.

Our farmers' clubs should be awake to what this means. They should refuse to deal direct in this way with such firms. If these firms could knock out the central they would soon put up the price of the articles to what it was before the central was organized. Firms which continue to attempt to deal direct with locals will soon have to be looked upon as enemies of the movement and dealt with accordingly. Once our clubs know what the object behind such a move is, it will be easy to decide what shall be done with firms that act in that manner.

Organization Work

ORGANIZATION work, under the direction of Mr. J. I. Morrison, is proceeding rapidly. Starting with January 4th meeting with local at Woodville, and the Forest Hill U.F.O. was organized, with officers as follows: Pres., S. J. Kennedy; Secty., Fred Johnson; Directors, Simon McNeil, John Pavan, Herbert Harrison, Barron Bowsins and James Ward. The next meeting will be held Jan. 21st.

In Peterboro county the Sixth Line U.F.O. was organized on Jan. 14, with J. I. Morrison and H. B. Cowan the speakers. Samuel Armstrong, of Indian River, was elected president; Vice-President, John Stark and Secretary, A. P. Donaldson. Directors: Kenneth Easson, Adam Timmitt and Wm. Chapman. At their first meeting this club ordered four and one-half tons of brewers' grains and molasses. The evening before the Lakeshore Farmers' Club, which had not held a meeting for two years, was organized, with W. R. Thompson as president and R. Smith secretary. A strong club was formed at Dunsford on Jan. 11. There were 46 present, and, as Mr. Morrison remarked, "Almost all Thurstons." W. M. Thurston was elected president and Geo. B. Kennedy secretary.

A club of which Mr. Morrison expects much was organized at Cambridge, and will be known as the Cambridge U.F.O. J. E. Terrill acted as chairman of the meeting, and later officers were elected as follows: President, F. J. Wilkinson; secretary, Geo. Bagshaw.

The Cedar Grove Grange at Beaverfont has been re-organized, with R. F. Rilance as president and J. G. Morrison as secretary.

Thus does the good work go on.

I have been taking your paper for nearly one year and must say that had I known it was such a good paper I would have taken it long ago. Farm and Dairy is getting better every day.—Albert Luck, Kent Co., Ont.

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The paid subscriptions to Farm and Dairy number 21,000. The actual circulation of each issue, including copies of the paper sent subscribers who are but slightly in arrears, and sample copies, varies from 21,000 to 24,000 copies. No subscriptions are accepted at less than the full subscription rates.

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

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We guarantee that every advertisement in this issue is reliable. We are able to do this because the advertising columns of Farm and Dairy are so carefully edited as the reading columns, and because to protect our readers, we turn away all unscrupulous advertisers. Should any advertiser hereafter 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 state: "I saw your advertisement in Farm and Dairy."

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"Read not to contradict and to confute, nor to believe and take for granted, but to weigh and consider."—Bacon.

Apples in July and August

WHO would not enjoy a juicy Spy on a hot day in July or August? This may be more than a beautiful dream. It now seems capable of realization, the Vermont Experimental Station showing the way. At that Station, sound, clean apples were dipped in Bordeaux mixture made by the common 4-4-50 formula, well coated, and then dried. Then they were packed in layers of dry hardwood sawdust and put away in boxes. Baldwin apples stored in this way early in November kept until the following August, 367 days, and were still firm, plump, and of good quality, and made the very best of eating when their coating of Bordeaux was cleaned off. Packed in fine dry sawdust alone, they kept 248 days.

Doesn't it sound fine—apples 368 days in the year? Who of our Folks will be the first to give this plan a trial and report results?

Four Faithful Dairymen

THE Eastern Ontario Dairymen's Association has a record equalled probably by few organizations of the kind in Canada. In its membership there are a number of men who have not missed a convention in over twenty years, and in one case for forty years. Senator D. Derbyshire, one of the prime movers in the organization of the Association forty years ago, and its President for many years and now Hon. President, is the member who has not been absent from a convention since its organization in 1876. All who have attended the conventions know what a power of strength Senator Derbyshire has been and how he invariably adds life to every gathering. This year's convention was no exception, as his friends were glad to notice.

Chief Dairy Instructor G. G. Publow was not

present at the first convention forty years ago, although he was then engaged in cheese making. During the forty years he has missed not over three conventions. This also is an exceptional record. Mr. James R. Dargavel, M.L.A., Elgin, Ont., has not missed a convention in twenty-five years. Mr. Dargavel was treasurer of the Association for a number of years, and later its President, and is now one of the honorary presidents. Mr. E. G. Henderson, of the Windsor Salt Co., has attended every convention since 1893, or for twenty-three years. In addition he has been a faithful attendant at the conventions of the Western Ontario Dairymen's Association.

Much of the successful work accomplished by the Eastern Ontario Association has been due to the interest taken in its work by men of the standing of the four gentlemen mentioned. Dairy Commissioner J. A. Riddick and many others have also been regular attendants of the conventions for many years, although their records probably are not quite as unbroken as those of the dairymen mentioned. May they long continue to add strength and interest to the conventions is the wish of all the dairymen who know them.

Functions of the Farm Press

MANY people believe that the farm paper is getting out of its field when it discusses anything but crop production, cattle feeding, and home making. We know that a few of our Folks would prefer to see Farm and Dairy keep close to the old lines of agricultural journalism. We know that a still greater number of those who farm, the farmer and all representatives of Special Privilege, would prefer to see us do as farm journals were accustomed to do in "the good old days." To the objections of the latter class Farm and Dairy pays no heed. We would like, however, to have a chat with those of our Folks who honestly believe that Farm and Dairy is on the wrong track.

Farm and Dairy is not alone in its editorial policy. Farm papers everywhere are coming to realize that the field of agriculture is all embracing. The editor of one of our progressive contemporaries, "The Nebraska Farmer," makes it a custom to have a heart to heart talk with his readers each year. In one of these chats he explains his position, and incidentally our own position, so clearly that we reproduce an extract from his remarks herewith. He writes:

"Within the past few years there has been a great change of public opinion as to the province of an agricultural paper. Once it was generally thought that a farm paper should discuss only the problems of production and rural home-making. The farmer's relations to the Government and the great industrial world, his place as a citizen, was considered to be 'politics,' and politics was tabooed. It required a good deal of nerve to break away from the traditional view. Not many years have elapsed since it was very unpopular with many influential farmers to suggest that the packers were getting rich at the expense of the farmers or that middlemen were taking too much toll. To say those things opened an agricultural paper to the charge of being calamity howler. But matters have greatly changed. Now it is quite popular for farm papers to discuss more efficient marketing, cooperation, rural credits, railway rates, and many other questions that directly or indirectly affect the welfare of farmers. I believe that this is just as it should be, and my readers will agree with me, I am sure."

There is a deal of truth in that paragraph. The farmer who pays all attention to the inside of his line fences may not realize that he is being "farmed" when he markets his crops and when he buys his supplies. And the farm paper that sees this kid glove, white collar type of "farmer" at work, and does not protest to the very best of its ability, is not doing its duty, and is not worthy of support from farmers gener-

ally. Some are not prepared to go as far as we do in fighting parasitic business. We regret that because of this we can not see eye to eye with all of our Folks. There are bound to be honest differences of opinion on all public questions. But of this every one may be sure—that everything for which Farm and Dairy contends we honestly believe to be in the best interests of the people whose interests we stand—the farmers of Canada. The farmer will be first with us in 1916 as he has been in all preceding years.

A Phosphate Discovery

THE importance of the discovery of phosphate of lime in the Rocky Mountains, recently announced by the Commission of Conservation, will not be as fully appreciated by Canadian farmers as it would be in older countries. Our country is new, the soil is fertile, and we have not yet been forced to use commercial fertilizers. The time is within measurable distance, however, when these fertilizers will be used by Canadian farmers and used extensively. When that time comes, natural phosphate rock deposits will be developed and new deposits searched for.

The Western states, once as fertile as our prairie provinces, are now using ground phosphate rock with practically all farm crops, but particularly wheat and alfalfa. Great deposits of this rock have been found in the Rocky Mountain district of the United States, and it was these discoveries which led to the search for similar deposits in the Canadian Rockies. The discovery resulting will play a big part in the future development of Western agriculture.

Economic Truth at Last

THE Manitoba Free Press reports an address by Prof. J. B. Reynolds of the Manitoba Agricultural College to the Grain Growers of that province, in part as follows:

"President Reynolds went on to censure speculation in land values and the exactions of middlemen. Men who were willing to work the land should enjoy the profits of their labor. Land speculation robbed the tiller of the soil of that reward by just the amount which the speculator realized on the deal. The students at the Manitoba Agricultural College would receive sound instruction on this subject.

"Speaking of the high cost of living, President Reynolds said that in certain commodities, such as coal, fruit, and clothing, there would always be the cost factor of transportation. Middlemen in the cities also had to have profits, which they based on inflated values of the land on which the stores are situated. Flour, oatmeal, bran, milk, butter, cheese, vegetables, and meat should be no dearer in Manitoba than in Minnesota."

We congratulate Prof. Reynolds on the courage he has shown in throwing aside the advocacy of mere palliatives and speaking the truth about the agencies that oppress farmers and townspeople alike. His condemnation of land speculation and tariff robbery will bring on his head the anathemas of Special Privilege, but it should also win for him the complete confidence of the common people of Manitoba. We need more men in high places of Prof. Reynolds' calibre, men of courage and clarity of economic vision.

Among the freshmen at Queen's University this winter, there are one hundred and twenty farmers' sons, forty-eight who are sons of merchants, fourteen sons of clergymen, and ten sons of teachers. Other walks of life are represented by smaller numbers. The striking feature is the small proportion who come from the old professions—law, medicine, and the Church—or from the newer professions—engineering, teaching, and school inspectors. The professions evidently do not appeal so strongly to the sons of professional men as to the sons of farmers and merchants.

Experimental Union in Session at Guelph

The Problems of the Season are Fully Discussed

ONTARIO'S supply of wood seed for 1916, the place of sweet clover as a fodder crop and the cause of the heavy loss of potatoes from blight and rot during the past season were some of the subjects of practical and timely interest to farmers discussed at the 37th annual meeting of the Ontario Agricultural and Experimental Union held on January 10th, 11th and 12th at the Agricultural College. The sessions were largely attended, especially by regular and short course students. The latter included over 80 young men who won acre profit competitions in various districts throughout Ontario last year, and to them attendance at the meetings of the Experimental Union was an experience of exceptional interest, as the topics discussed were right along the lines in which their interest has been aroused by their participation in the competitions.

The report of the secretary, Prof. C. A. Zavitz, showed that the Union was continuing to make gratifying progress. The results of the co-operative work for 1915 had peculiar interest owing to the abnormal weather conditions and the war.

The Presidential Address by Herbert Goss, in presenting his presidential address, while eulogizing the farmers for the way in which they had, by their great efforts, and aided by favorable weather conditions, raised the greatest crop in the country's history, drew attention to the possibility that, owing to the labor and other problems, it was doubtful if we could repeat the achievement. Mr. Goss also laid great emphasis on the economic problem which was expressing itself in the growth of Farmers' Clubs, in which the tillers of the soil were facing the disabilities under which the labored, and threshing out their views and experience one with the other.

Reports on Experiments carried on throughout the province in 1915 showed that in addition to the other outstanding qualities of O.A.C. No. 72 oats, it is very smut resistant," said Prof. Zavitz in presenting his report on the field work of the Union for the year. "While the reports showed that with other varieties the percentage of smut varied from a trace to as high as 85 per cent, with the O.A.C. No. 72 variety there was no report showing more than a trace of smut."

The experiments also were bringing out valuable information regarding other farm crops. Experiments showed that O.A.C. No. 21 barley was the best variety under Ontario conditions. This was also strongly emphasized by the fact that this year it was the only barley shown at the winter fair. Marquis spring wheat had shown that it was admirably adapted to Eastern as well as Western conditions. The fellow Leviathan mangel had proved to be the best in 10 out of 13 years. Increased yields had been obtained by mixing grains but not by mixing varieties of the one grain. A mixture of one bushel each of barley and oats per acre had yielded the best results. It was essential that the mixed grains ripen together, and on this account O.A.C. No. 21 barley and Dunberry or O.A.C. No. 3 oats were highly recommended.

Potato Blight and Rot

Potato blight and rot had pulled the yield for the province of this crop down five million bushels in spite of an increased acreage, said Prof. Howitt. The prevalence of the disease was largely due to the extensive rainfall. Whether or not the disease did as much damage during

the coming season as last depended on the weather, the use of uninfested seed and thorough spraying. The selection of seed from uninfested districts was strongly recommended. Formalin treatment of the seed was useless as the pore of the disease was inside the tuber. Some varieties are much more susceptible to the disease than others. Empire State and Early Rose being amongst the worst infested. Davy's Warrior seemed to be comparatively free from the effects of the disease.

Sweet Clover in Ontario

The discussion on sweet clover was opened by Prof. Zavitz, who stated that this clover grows readily on roadsides and in waste places, and flourishes best in a soil rich in lime. At the College experiments had been conducted with it for nearly twenty-five years. Formerly they had found it a bitter flavor as a hay was distasteful to animals, but now it appeared that they had not starved them long enough to force them to develop the acquired taste for it. For hay it was better to cut the crop before blossoming, as the stems are then less woody. There seemed to be rather more difficulty in curing this clover than was the case with red clover or alsike. There is a marked variation in the plants growing from seed obtained from different sources and selections and plants grown from seed imported from Spain and Tompkins county, New York State, had proved superior. About 30 pounds of seed should be sown per acre.

Mr. Morley Pettit discussed sweet clover from the beekeepers' standpoint. He quoted American authorities to the effect that it was one of the most important honey plants. It seems to be better for honey producing than the Western irrigated districts in the Eastern provinces where the clover is in good demand as a blender, as it has a vanilla flavor. Ontario beekeepers had the matter under discussion in their 1914 convention, where some decidedly objections to it on account of its taste. It was also condemned because of the extra work it caused for the bees. Some favored it, but on the whole it was not favored by Ontario beekeepers.

Mr. Fulmer, of the chemical department of the O.A.C., stated that an analysis of the sweet clover plant showed that it compared very favorably with other clovers in the nutrient content, and that there was reason to believe that it was as digestible as common clovers. Prof. Harcourt gave it as his opinion that it should not be grown in competition with other clovers where these do well. A great many men cannot distinguish sweet clover from alfalfa at certain stages of its growth, and it gets a great deal of credit that should be given to alfalfa, with which it has been confused. It has a place where other clovers do not do well.

Wade Toole stated that on Wildwood Farm they had had some experience with sweet clover, and were very favorably impressed with it. There was no difficulty in getting cattle to eat it. It was necessary to cut it about the lower leaves or the plant might be killed.

The consensus of opinion of those who discussed the subject was that under field conditions sweet clover is not a weed, as it is there easily controlled.

Rural School Work

The growth of agricultural work in rural schools in Ontario was traced in a paper prepared by Prof. S. B. McCready, now of Chertowen, P.E.I. Beginning with the teaching of nature study in the school it had developed into the school gardening (Concluded on page 16.)

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GOSSIP has been well defined as putting two and two together and making it five.

When Hiram Missed the Mark

By JENNIE FORD THOMPSON

"NEXT Tuesday is Election Day," remarked Mrs. Barton, as she bestowed a last vigorous rub upon the stove she was polishing and stood back to admire her work. Her husband stirred uneasily in his chair. "I really ought to have some new slippers," he replied, irrelevantly. Then, as his wife made no reply, he snorted again and let his paper fall to the floor. "This woman suffrage business," he commented, not looking at her, "the papers are full of it. It makes me sick! I'd hate to have a woman who'd go running around to lecture and such places, neglecting her house and letting her family go to smash!"

Mrs. Barton smiled upon her husband with puzzling brightness. "My house isn't neglected, is it, Hiram?" she queried, with a complacent glance about her tidy kitchen. "I should say not! And I'm mighty glad you haven't got any such moonstruck ideas in your head!"

Mrs. Barton made no reply, but her smile was as sweetly complacent as before, and after watching her uncertainly a moment, Hiram arose and strolled out to the barn.

During the following week the coming election was not alluded to by either Hiram or his wife until Saturday.

"I think I'll go to town with you Tuesday, Hiram."

Hiram feigned surprise. "Oh! was you thinking of going? Now, that's too bad! You ought to have told me before, for I've went and engaged the corn shellers, and they'll sure be here on Tuesday."

She cast a quick glance at him, then glanced down.

"Oh, that need make no difference," she replied. "We can go directly after dinner."

"But the dishes," he objected weakly. "You surely won't go and let them stand?"

"Why not?" she queried. "I have left them before."

"Well, suit yourself, of course," he said doubtfully, "but I wouldn't form such habits."

Mrs. Barton's only reply was her own curious little smile, and the subject was dropped.

All the next day Hiram racked his brain to find some plausible excuse for keeping his wife at home, but none could he find until on Monday, when Joe Myers's hired man expressed a desire to go to election. Hiram eagerly offered the use of his buggy and Bessy, his driving mare, which surprising offer was eagerly accepted.

Tuesday came, and with it the corn shellers. Early Tuesday morning Bessy was harnessed to the light buggy and shy driven out and delivered into the hands of Joe Myers's hired man.

Serenely unconscious of her husband's manoeuvre, Mrs. Barton bustled about the house, preparing din-

ner for the hands. Pies, flaky crusted and daintily marked and pinched, were set out on the long shelf on the screened porch to cool; various hissing sounds of stewing, roasting, and baking issued from the kitchen door, and mysteriously delightful odors floated through the open windows. The shelling was in full swing when Hiram, going suddenly around



Substantial Evidence of Progress—The Old Home and the New.

Notice, too, the splendid planning around screening the view on either side. Photo by an editor.

the barn, almost collided with a figure that had been creeping and peering around the corner, and which now scrambled hastily to its feet.

It was a man, very ragged and very dirty, with rough, tousled hair and beard, and a cringing, half-hearted manner that marked him a common tramp.

Hiram viewed the fellow's sodden bulk with a brooding frown.

"What are you doing here?" he demanded, sharply.

The fellow shifted uneasily, keeping a furtive eye upon the pitchfork Hiram carried.

"Why?" he returned in raspy, wheedling tones, "I jest thought as how you might let a feller stay to dinner."

"Well," Hiram glanced back at the tramp, "I'm not in particular need of an extra hand, but I guess we could give you a chance to shovel till noon."

The tramp drew back. "Oh, say now," he whined, "I ain't lookin' fer a job. I've walked quite a ways, an' I thought I'd like to rest up a little till dinner time."

Hiram's eyes hardened. He raised a sturdy brown fist.

"Now you git," he ordered, and the tramp did.

A well-prepared feast was gracing the long table when the hungry horde trooped in to dinner. The shelling was finished just at noon, and an hour later men crowded into the wagons and started for the town, five miles distant.

Hiram lingered about the house in an uncounted manner, while his wife hurried around clearing the table and piling the dishes into the pans. Presently she spoke.

"Hadin' you better be hitching up, Hiram? I am almost ready."

Hiram's start of surprise was rather over-acted.

"Why, did you mean to go?" he asked, innocently. "I wish I'd known that. I've went and let Joe Myers's man have Bess and the buggy! Thought you'd given it up. I couldn't have gone anyway. I've got some fence to fix."

A very small spark glimmered in Mrs. Barton's black eyes, but she regarded her husband with her old inscrutable smile.

"Oh, well," she returned affably, "that need make no difference. I thought perhaps that you wouldn't want to wait for me, so I arranged to go with Mrs. Myers."

Hiram gazed helplessly at her a moment, then turned round abruptly and strode out to the barn. He entered Bessy's empty stall and stood there moodily kicking his heels against the manger. The roll of wheels passed the barn, but Hiram did not glance up.

"If that woman don't beat all," he muttered, "I just knew that smile meant's something." His mouth twisted half humorously. "I'll bet

reached the broken fence, and set to work, he thought grimly that, for this time at least, she would not.

Down the hill a buggy came driving.

"Hello, Hi," called the occupant, genially. "Ain't you goin' to 'lection to-day?"

"Guess not, Steve. Horses all been to town and I lent Bess to the boys."

"Well, get in and go with me, can't you? I come back right past your house."

Hiram hesitated. Dared he leave Emily a prisoner so long? There was only one window to the room, and it was small and high. She couldn't possibly get out. Then he reflected that he would have to keep her there anyway until it was too late to vote, for she would find or make a way to go to town, if she really wanted to go.

"Well," he replied doubtfully, "I ain't fixed up my mind."

"Oh, that's all right," the other assured him. "A fellow doesn't have to fix up to vote." And with a guilty feeling that he wasn't playing the game fair, Hiram climbed into the buggy and was driven rapidly off to town.

Arrived there, he stopped short. What was the matter with his eyes, he wondered.

A woman was just coming out of the store ahead of him, and if he wasn't drunk or crazy or something like that, that woman was his wife. He brushed his sleeve across his eyes and looked again. Yes, was Emily. She came up to him, with no sign of embarrassment.

"Well, Hiram, I thought you weren't coming. I've been here some time and will soon be starting back," she announced brightly. The other man passed on to take his place among the voters, but Hiram stood still in his tracks.

"Emily," he inquired solemnly, "how ever did you get out of that pantry?"

Emily looked startled. "The pantry?" she echoed. "Why, Hiram, what do you mean?"

He stared at her for a moment in silence.

"Somebody—" he began, then stopped. "Well, I locked the pantry," he finished rather lamely.

His wife looked at him curiously. "I guess you've been dreaming, Hiram," she replied at last. "I locked the key on myself and laid the key on the kitchen table. But you don't look just right. Perhaps we ought to get home rather early." And with that she passed on.

Hiram pulled the key from his trousers pocket and stared at it. "Dreaming, was I?" he muttered. "Well, I guess not! But she's right about getting home early!" "I'll do that."

As luck would have it the two teams in which the couple had gone to town pulled up at the Barton home at precisely the same time, and without stopping for further chat with their neighbors, Hiram and his wife alighted and entered the house together.

Hiram hung up his coat and then sat down mechanically in the chair his wife pushed toward him.

Emily stepped into his chair, then something slipped down over his shoulder, and looking down he found a pair of very handsome slippers upon his lap.

"What in the world—" he began, as when his wife's merry laugh interrupted him. "Happy birthday, Hiram!" she exclaimed, gaily.

A sudden light broke over Hiram's mind. "Happy birthday!" he ejaculated. "Why, of course it is! Anybody'd forgotten all about it, Emily," he queried suddenly, "is that why you went to town?"

"Of course it was," he said, as he looked at the slippers.

"Just 'out w'it and see—"

(Concluded on page 14.)

The Upward Look

Travel Series, No 16 The Beauty of Holiness

"N all these things we are more than conquerors through Him that loved us."—Romans 8:37.

The San Diego Panama Exposition will always be a beautiful memory. It was my introduction to the Southland. I revelled in the wondrous beauty of the grounds, the rare bloom of the exquisite flowers, the intoxicating fragrance. Vines and roses were clambering over walls and buildings and hanging in graceful wreaths and festoons.

The marvel of all was to think, that this wonderful beauty had been made out of the desert, in the short space of three years, though to be sure those were years with no blighting winter. What care, patience, work and time this fairland represented! If one just looked over the rose-hedges in many places, one could see the bare arid desert. What planning and determination it meant, that that desert be transformed into that wonderland by the date fired for the Exposition.

At this beginning of the New Year many have a deep, sincere longing that the failings, the faults, the weaknesses, the trials, the disappointments may be overcome or patiently borne or marvelously result in the transformation of character. To attain the Christ-like, there must be an hourly, honest endeavor to master the besetting faults of character, of which each one is aware, and which may be working so much harm in regard to others. With deep pity one thinks of the many beset with some failing, of which none but the sufferer knows the horrible craving. But with determination and in a higher strength than his own, this may be overcome and the victor be a better man, for his very conquest.

Are these terrible moments of temptation, when it seems as if no power can prevent our falling? By tremendous will force one does not yield, and comes out from the struggle a stronger soul.

Is there now a terrible trial, when the whole being feels helpless and despairing? It seems a mockery, even to think of hope or comfort. But that trial is borne aright, that the hour of blessing will come, and the bruised heart will be purified and strengthened. So by striving, determination and faith, the arid desert of failure, temptation and agony may be transformed into the fruitful land of beauty, of success, conquest and hope.—I. H. N.

The House Finch

Of all the sparrow group, there is probably no member, unless it be the exotic form known as the English sparrow, that has by reason of its food habits called down so many maledictions upon its head as the house finch, red head, or linnet, as it is variously called. This bird, like the other members of its family, is by nature a seed eater, and before the California probably subsisted upon the seeds of weeds, with an occasional taste of some wild berry. Now, however, when orchards have extended throughout the length and breadth of the state and every month from May to December sees some ripening fruit, the linnets take their share. As their name is legion, the sum total of the fruit they destroy is more than the fruit raiser can well spare. As the bird has a stout beak, it has no difficulty in breaking the skin of the hardest fruit and feasting upon the pulp, thereby spoiling the

fruit and giving weaker-billed birds a chance to sample and acquire a taste for what they might not otherwise have tasted.

In order to test the matter thoroughly and ascertain whether these birds are any other kind of food that might to some extent offset the damage inflicted upon the fruit, the horticulturists and ornithologists of California were requested to secure a number of the stomachs of these birds and send them to the Biological Survey. An agent was also sent to the fruit-raising sections, who watched the birds in the orchards and collected a number of them. In this way 1,000 stomachs were obtained and carefully examined, and the result shows that animal food (insects) con-

stituted 2.44 per cent and vegetable food 97.56 per cent of the stomach contents, not counting gravel. The vegetable food of the species consists of three principal items—grain, fruit and weed seeds. Grain amounts to less than 1/2 per cent in August, which is the month of greatest consumption, and the average for the year is a trifle more than one-

What Did Little Mary Buy?

1916 Ford Touring Car

FIRST PRIZE
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JOHN BROWN owns a prosperous grocery store in a thriving Canadian town. He is a live merchant and a successful advertiser. He has won so much of his success to his new methods of creating interest in his store.

Recently, he took several lines of his regular goods, put them under cover in boxes and barrels, and wrote the name of each article on the outside. Only he mixed up the letters in each name so that instead of spelling the right name of the article, it spelled something different altogether. For instance box 9 contains Raisins, but Mr. Brown jumbled the letters in the words Raisins until they read "SI Raina." Then he



1916 Five Passenger Ford Touring Car. Value \$530.00

"CLEVER READERS OF FARM AND DAIRY" who send the correct or nearest correct sets of answers can share in the distribution of

Thousands of Dollars Worth of MAGNIFICENT PRIZES

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THIS CONTEST IS ABSOLUTELY FREE OF EXPENSE

If your answers gain 120 points you will win First Prize

A FEW HINTS—The goods mentioned under each of the fourteen numbers, are staple lines such as are to be found in every grocery store and in regular use in every home. No trade-mark names or products of any particular firm or manufacturer are given,—just the regular name of each product or article. A good plan is to write down the names of all the things usually found in a grocery store and use the list as your guide. Be careful, because Mr. Brown was clever, and sometimes he made two or three words, and even more out of a name.

The judges will award the prizes in this contest, according to the points gained by each entry, and we will fully advise you of the method, when your answer is received. For instance, 60 points can be gained by sending a correct answer to each of the twelve names you can guess, there are ten points given for general neatness, ten for style, spelling, punctuation, etc., and when you qualify, 40 points additional can be gained. Take lots of time to puzzle out your answer, be great and careful, and you can win a good prize.

THE OBJECT OF THE CONTEST—Every loyal Canadian will approve of the object of this great contest. Frankly, it is to advertise and introduce EVERYWOMAN'S WORLD, Canada's greatest magazine, to hundreds of new homes, which should know that a magazine of such quality and such real worth is being published right here in Canada by Canadians for Canadians. You can help us do this, when you enter the contest, but you do not have to be a subscriber nor are you asked or expected to take the magazine or send a penny plan in order to compete with the touring car or one of the other magnificent prizes.

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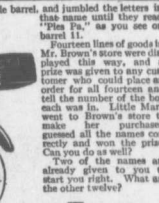
If, therefore, when your answers are received, we find them to have gained sufficient points to merit introduction to the magazine, we will not only tell you so, and send without cost, a sample copy of the latest issue of this greatest of Canada's magazines. Then, in order to qualify your entry, we will give you to do us the small favor of introducing it to three or four friends and neighbors. We will even send you sample copies to leave with each of your friends, so you will tell us they want it, and we will have them. State your willingness to accord this favor when you submit your answers. The company agrees to pay you in cash, or reward you with a gift, if you are unable to do so, if possible, entirely in addition to any prize your answers may win in the contest.

Follow These Simple Rules Governing Entry to the Contest

1. Write your answers on one side of a sheet of paper, and put your name, including city, home address, and full postal address, on the other side. Do not forget to include your telephone number, if you have one. Anything other than the subscriber's name should be included, as you may be asked to take the magazine or send a penny plan in order to compete with the touring car or one of the other magnificent prizes.
2. Do not forget to include your telephone number, if you have one. Anything other than the subscriber's name should be included, as you may be asked to take the magazine or send a penny plan in order to compete with the touring car or one of the other magnificent prizes.
3. Do not forget to include your telephone number, if you have one. Anything other than the subscriber's name should be included, as you may be asked to take the magazine or send a penny plan in order to compete with the touring car or one of the other magnificent prizes.

Continental Publishing Co., Limited, and EVERYWOMAN'S WORLD, also their publications and their prizes are not to be sent to anyone under the age of 18 years unless accompanied by a parent or guardian. If you are a minor, you must be accompanied by a parent or guardian. If you are a minor, you must be accompanied by a parent or guardian. If you are a minor, you must be accompanied by a parent or guardian.

Send your replies to the **CONTEST EDITOR, EVERYWOMAN'S WORLD**
Continental Publishing Co., Limited, 121 Continental Bldg., Toronto, Ont.



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Clara Bros. Famous High Oven Range



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fourth of 1 per cent. Fruit attains its maximum in September, when it amounts to 27 per cent of the whole food, but the average for the year is only 10 per cent. The seeds of weeds constitute the bulk of the diet of the linnet, and in August, with the month of least consumption, amount to about 64 per cent of the diet. The average for the year is 36 per cent.

From the foregoing it is evident that whatever the linnet's sins may be, grain eating is not one of them. In view of the great complaint made against its fruit-eating habit, the small quantity found in the stomachs taken is somewhat of a surprise. But it must be remembered that the stomach contents do not tell the whole story. When a bird takes a single peck from a cherry or an apricot, it eats the whole fruit, and in this way may run half a dozen, or in taking a single meal. It is safe to say that the fruit pulp found in the stomach does not represent more than one-fifth of what he actually destroyed.

That the linnets are persistent and voracious eaters of early fruits, especially cherries and apricots, every fruit raiser in California will bear testimony to. The same may be said serious no one will deny it. It is noticeable, however, that the earliest varieties are the ones most affected; also, that in large orchards the damage is not perceptible while in small plantations the whole crop is frequently destroyed.

When Hiram Missed the Mark

(Continued from page 12)

Her voice stopped suddenly as she entered the kitchen, and with a sudden recollection Hiram arose and followed her. The key to the pantry was still in his pocket. He drew it out and then halted, facing his wife, and the two stood staring at each other.

Strange sounds were issuing from behind the closed pantry door—long drawn wheezes, like the breath of an asthmatic hog, and ending in a repeated rattling rattle.

Hiram strode across the room, unlocked the pantry door, and jerked it open, then stood gazing blankly at the scene within.

The room presented a littered and messy appearance, in direct contrast to its usual tidy order, while seated with his back against the wall, with his head thrown back and mouth wide open, was the much-tattered and badly soiled figure of a man.

There were crumbs in his grizzled beard; his pockets bulged, and even in sleep his features wore a blissful and well-fed grin.

Hiram's disgust was all contained in one sentence: "The same old tramp."

He stepped forward wrathfully, seized the intruder by his jacket collar and dragged him to his knees, exclaiming: "Open the door, Emily," he ordered. His startled wife obeyed, and the tramp was assisted from the house.

After some brief but busy moments Hiram returned to find his wife standing in the pantry door, holding in her hands a plate on which were the remains of a large and beautifully frosted cake, whose crumbling fragments still emitted a most appetizing odor.

"I'm very sorry, Hiram," she remarked demurely. "It was your birthday cake."

Hiram's face was already flushed from his exertions, yet it reddened perceptibly as his sheepish eyes met the quiet one of his wife.

"Emily," he returned contritely, "I guess I've been pretty much of a fool."

And Emily's reply was a wise little smile.—Farm and Home.

Appreciated Labor Saver

Mrs. J. T. Clark, Victoria Co., Ont.

WHEN reading Farm and Dairy a few weeks ago I noticed you asked for labor savers they had in their homes. At the time I thought "Why, I have nothing worth while writing about," but like my blessings I needed to count them before I appreciated what I had.

My first purchase a few years ago was a good sewing machine, which has been a help to me; more I expect, than I am aware of. Next I came a double boiler that solved a knotty problem of how to help milk in the morning and cook the porridge for breakfast. The same year I invested in a Chatham incubator. I have used it for several years, sometimes with good success and other saved me a lot of work looking after the hens, besides providing me with more spending money than I otherwise would have had.

Two weeks ago I planned on a visit. My plans were frustrated so with the money I expected to use for my trip, I purchased a portable bathtub, a vacuum cleaner and carpet sweeper combined, also a set of good ironing clothes. I was disappointed, as anyone who does not go on a visit very often will understand, but my purchases helped me forget my disappointment.

I also have a washing machine, although not the latest improved, but I would not want to be without it. Another thing I consider a big help in the home is the rural telephone.

A person does not realize its worth till the line is out of business for a day or two, then its aid is certainly appreciated.

Last, but not least, is a good organ. Some will say, "it does not see how it helps." I will tell you. When a person feels like having a fit of the blues and sits down and plays some long or short one of the good hymns it drives the blues away.

Miles of Steps Saved

"Tirza Ann," York Co., Ont.

HERE I am, at the tail-end of the "Utility Contest," but oh, what a busy month is December! "dumb waiter," or "lift," and that piece of furniture is my joy and pride. People admire it. "What is this, a china cabinet?" Then I open the door and reveal the shelves full of eatables. "Oh, a dumb waiter! Well done for you!" It is a handsome piece of furniture, the cabinet being made of southern pine, and shining with the natural grain of the wood.

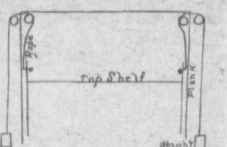
It stands against the wall, behind the cellar door, so that the shelves when down are close to the cellar steps, and just a step from the swing shelf, the door box, and in fact far from the reservoir for all the things to be eaten; that fill a farm cellar.

In the dining-room it is only two or three steps from the door, so it is a food cupboard, generally stationary. There is always a current of fresh air around the shelves, so that there is no stale odor. But in the summer, its shelves laden with food, or batches of pies or jars of fruit, carry all safely down to the cooler regions, saving several of each meal.

The cabinet is six feet high, three feet two inches wide and two feet deep, neatly finished at the top with a moulding. The door has a neat frame and fastening. The carpenter made the cabinet at his shop, and brought it ready to set up. He cut a

hole in the floor at the desired place. Two uprights of iron and a half inch plank extending from the top of the cabinet to the cellar floor fit into the ends of the hole, and the board joining them at the top has a small pulley on the lower side near each end, also a pulley on the outside of the plank. A frame containing four shelves fits into this larger stationary frame. Strong rope is fastened into the boards at the top shelf, passes over each pulley, and down the outside of each plank, and end in a weight attached to each of the two ropes. The weight is clear in the accompanying diagram.

It cost less than \$10.00. How did I get it? I had planned the position years before I got it. When the carpenter was working at the barn building the top shelf, I was there. I wanted the water, measurements were taken, and during the winter the



Dumb Waiter Arrangement.

plumber was bought and the work was done, and well done. It is a step saver for which we are thankful.

A Valuable Scrap Book

THE people in a rural district who throw their homes open to the young folks of the neighborhood are doing much for the social life of their community. In the home where such social gatherings are held rather frequently, it is sometimes quite a problem to find something new in the line of entertainment. In glancing through various periodicals, we often come across ideas that appeal to us as being very good, and we think we will store such an idea away in our memory book. Somehow, however, it gets away from us and the very time we wish to make use of that idea, in all probability we have forgotten it altogether or have such a hazy idea of it that we cannot put it into force with any degree of satisfaction. Here is an idea that may help us out.

Hunt up an old book that is of no further use, probably one of those agricultural bulletins that come into the home and which are now out of date. Some such books are made of paste or glue, and a pot of glue is all the equipment necessary for the working out of this suggestion.

It is surprising how many good things one comes across in the line of entertainment when they are on the alert for them and have a place for them when they are found. One good place in which to find these ideas is in the Amusement Columns of Farm and Dairy. As fast as a bright suggestion appears in any paper that comes to the home, the best plan is to clip it right on the book and either paste it into our scrap book or slip it in an envelope and make a pasting hole occasionally, when a considerable number have been accumulated.

There are different ways in which this scrap book idea may be worked out. If desired we might have a section for children's games only, another for indoor and outdoor amusements for grownups, and we could also devote part to slip it in an envelope and possibly home-made prizes and souvenirs. Such a scrap book in the home should do much to keep the social life of a community alive and save a great deal of worry and planning as well.

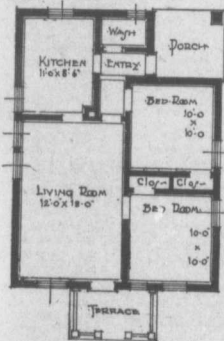


Comfort in a Small Home

A House of Generous Accommodation for its Dimensions

THE Farm and Dairy House Plan Number one, illustrated on this page, is the quaintest little bungalow imaginable, with more real solid comfort and convenience tucked in between its four walls than is sometimes found in a house twice the size and costing half as much again. It will make an ideal house for the man on the small farm or the man on the big farm with a small family. To many it will appeal as a tenant house that will attract the very best class of married hired help.

Over the front entrance there is a little hood for protection in stormy weather. From this front porch one enters the living room, which is large and capable of being made exceedingly attractive.



FLOOR PLAN

It has been cleverly managed so that all the rooms except the front bedroom open off the back hall, which in a farm house is the main hall.

The city house builder always objects to these plans on the score of the hall being at the back of the house, and when it is explained to him that the reason for its being placed there is that the back door is the one most generally used in the country, he wants to know why farmers don't train people to come in at the front door. That sounds like a city person. The answer is that country people use the back door in winter for the same reason that city people

cut across a corner lot, because it is human nature to follow the line of least resistance. The farmer himself keeps the road between the barn and the back door well beaten, whereas the front door is probably feet deep in snow and it would take continual shovelling to keep it clear. The custom thus established for a very excellent reason in the winter is continued in most places through the summer. So it is felt that this back hall arrangement should fill a very real need in the farm home. It makes it possible for the housewife to receive her guests without ushering them through the kitchen, which even the best of housewives cannot always have in spic and span order.

Even in this small house there is a little wash room where the men of the house can leave their smocks and wash up without trailing the chaff and dust from the barn through the house or getting in the housewife's way while she is taking up the dinner. It is in just these little things, which makes all the difference between comfort and discomfort that the Farm and Dairy houses excel.

The Farm and Dairy also has done one thing more that is unusual. It has assumed that houses with pleasing, interesting exteriors will be as much appreciated in the country as in the city, hence the very charming outlines of this little bungalow.

Architect's Description.

This is one of a small type of house fashioned after the Indian or California bungalow type in that it is all on one floor. It is as small and compact as is desirable for any farm house and can be built cheaply and simply enough to satisfy the most modest purse and the man who is anything of a mechanic can do most of the work himself.

The principal room of the house is the living or family room, 12 feet by 18 feet, from which gives off the principal bedroom. The kitchen is reached from the living room as well as from the entry, thus saving many steps for the housekeeper. From the rear entry, which forms a connecting passage from the living room to the back of the house and the porch, a wash room is arranged sufficiently large to permit the hanging of outdoor garments and boots without transgressing on the kitchen. Also a second bedroom, which is arranged that it can be used if desired for the hired help. The porch should be screened as then it is to be intended as a second and often living room in

summer protected from that curse of the summer season, the housefly and the mosquito. Build the house of wide six inch siding and wire if it can be obtained, in fact ten inch would not be too much; plain galvanized and open eaves and a shingle or metal roof. Stain the roof a soft moss green and the walls a rich tobacco brown and trim with a soft dull yellow. Use edge grain fir floor and plan for the ceilings to be about eight and one half to nine feet high. Plain lath and plaster finish and simple trim and all woodwork stained a soft dull gold. Heating, hot air, hot water or steam; and outside dimensions 24 feet by 31 1/2 feet. The cost according to the locality from \$1,100 to \$1,400, and if the owner is ambitious the cost can be cut to \$1,000.

A decoration scheme for this house will be published in next week's Farm and Dairy.

Good Work in Quebec

EDITOR, Farm and Dairy.—As I believe you are somewhat interested in the records made by French dairy farmers in the Province of Quebec, I am sending you a statement which I have just received from J. Oscar Couture, Val Brilliant, Que. From 13 cows, of which five were three years of age and under, he received during the past twelve months a total of 71,024 pounds of milk.

Total cash receipts \$961.89
Cost of feed of which he has complete details) \$29.95
Profit above cost of feed \$421.94

Mr. Couture is, I believe, the president of the Farmers' Club of his community.—Chas. F. Whitley, in Charge of Dairy Records, Ottawa.

One Horse Is Enough No need to lose dollars to horse who does not do his share of the work.

—that is enough! You can do as good work with the big outfit on the largest farms, when you use only the economical type of light draft, 1-horse size of the

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MAPLE FRONT FARM offers for sale a grand Young Sire fit to head any herd, the dam is a 6-year-old; the sire, Ourlville Sir Teakoe Colantha, of whom you have all heard.
Freehold right by applying to
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Heifers about one year old or would exchange Bulls at same age.
CHAS. E. MOORE
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WORKING DRAWINGS \$1.50
Complete working drawings for the construction of Farm and Dairy House No. 1, together with complete bill of materials and instructions for building, will be mailed to any address for \$1.50.
FARM BUILDING DEPT., FARM AND DAIRY, PETERBORO, ONT.

Experimental Union in Session at Guelph

(Continued from page 11.)

and school fair work as we have it to-day. This paper was in reality Prof. McCready's farewell to the work in Ontario, to which, as he said, he had devoted the best ten years of his life.

Dr. Dandeno, Prof. McCready's successor, in leading the discussion on the subject, stated that now the district representatives were taking over the work of organizing the teachers and pupils of rural schools, thus taking over some of the work that was formerly carried on by the schools division of the Experimental Union. His work was not that of director of this work, as was Mr. McCready, but was more of an inspectorial nature principally in high and normal schools.

Money in Apiculture

A report of the cooperative experiments in apiculture was presented by Morley Pettit. One of these was a test of various rates of bees from the standpoint of resistance to European foul brood. As an instance of the profitability of bee keeping in Ontario, the case was cited of an undergraduate of the College who last season produced \$1,000 worth of honey by devoting only a small portion of his time to his bees.

T. Proh, of the council emphasized the value of the honey bees from the fruit growers' standpoint. They ensure a proper setting of the fruit. As a consumer, he said he would like to see the beekeepers devise a means of putting more comb honey on the market at a more moderate price.

Farm Management

"Efficiency in farming is inseparably tied up with good business methods," said P. E. Angle, in discussing the subject of "Farm Management." The object of the man who desires to make the greatest success of farming should be to become more efficient, step by step. The prosperity of the farmer depends upon the difference between what comes in and what he pays out. To increase this difference, the cost of production must be lowered, for farming is one of the few industries which still thrives under untrammelled competition. System in farm practice must be attained. It was becoming more necessary every day. In his own experience he had recently found it necessary to remove fences in order to make the use of four horses possible. The concentration of the attention of the farmer on compact areas was becoming more necessary. In the factory the manager has every operation under his eye, and for the same reason the more compact the farm the better it could be managed.

Any competent manager should be able to sit down at the first of the year and figure out how he would conduct the operations of his farm at any season. He should also know how he would alter his plans to suit weather conditions. Mr. Angle then outlined some of the methods he had adopted on his 1,000-acre farm of which he is manager.

Adapting Costs Work
A. S. Maynard of Chatham, who farms 88 acres, claimed that the gross returns should be \$30 an acre, and the profits should be one-third of the gross returns. He keeps a complete account of all the expenses and also a separate account for each member of the family. Two per cent of the gross income is given to church and charitable enterprises. On February 4th each year an inventory was taken for about that time the hay and the pork is about half gone. The speaker believed that a farmer should take his sons into the business, and stated that he practiced what he preached and that his farm was run by A. S. Maynard and sons.

The Committee on the Weed Act of Ontario gave in practically the same report as last year, which goes to show the Weed Act is a dead letter. An endeavor was made to get farmers to discuss the subject and the recommendation was made to have the Weed Act amended to provide for the appointment of township inspectors, supervised by district inspectors, to do away with local infestations in the administration of the act. Seed Supply For 1916
W. J. Lennox, Toronto, stated that although the quality was lower than usual, the supply of seed of spring wheat, oats and barley was ample. There will be a shortage in seed of beans, peas, also in rape and vetch seeds, and the supply of home-

grown seed of clover and alfalfa and the quality is decidedly inferior. Growers of ensilage corn were advised to order their seed corn not later than the end of this month. There was a good supply of mangrel seed, but samples of some of the favorite varieties of turnips and of field carrots were below normal.

The officers of the Experimental Union for the ensuing year are: President, J. B. Fairburn, R.R. No. 1, Beamsville; Vice-President, H. Sirett, Brighton; Directors: Dr. Creelman, Hon. Wilson Montiehl, H. A. Doran, Orangeville; Secretary, R. Neale, O.A.C.; Harvey Webster, Auditors: S. H. Gandier, O.A.C.; W. R. Graham, O.A.C. The offices of secretary, assistant secretary and treasurer are considered permanent, being held respectively by Prof. Zavitz, W. I. Souirel and A. W. Mason, all of the Field Husbandry Department of the College.

Diversified Farming that is Profitable

(Continued from page 4.)

big, substantial kind that are common to York county. The outside feature of the big barn is a large concrete silo, 15 x 32 feet. The most notable feature inside is the amount of work that a small 2 1/2 horse power gasoline engine is made to do. The engine stands in the milk room, where it may be harnessed to a shaft extending the length of the barn. Standing right beside it and elevated several feet, is the grain grinder. The hopper of the grain grinder is right against the granary floor above. A hoghead stands directly over the hopper and into this the grain may be shovelled directly from the bins, enough to meet the feeding requirements for several days. The feed grinder itself is elevated over a feed bin, and it is the simplest thing in the world when doing chores of a winter's evening to start the gasoline engine churning grain and then go about the regular work. With this system there is no bagging, no time lost in going to the mill any; no unbagging. Mr. Hamill estimates that it costs him about four cents a cwt. to grind grain in this way.

Other duties of this 2 1/2 horse power chore boy are the pumping of water, pulpung of roots and occasionally cutting corn. Perhaps the use at which it is most appreciated, however, is in turning the cream separator.

engine is hard on a cream separator," said Mr. Hamill. "I bought a separator three years ago at Toronto Exhibition and I haven't spent five cents on it yet. The repairs it is not even ready for the second set of bearings. I do not believe that any man living can turn the separator as well as that gasoline engine does it. It has another use, too, in connection with the separator. We use the hot water from the engine for washing up at night."

I stated in the first place that Mr. Hamill's success as a farmer—and he who can take a farm with such a burden as Mr. Hamill assumed and come very near to clearing it away in a few years, certainly deserves to be called successful—was due in a large measure to diversified farming. Mr. Hamill's specialties have been dairying and the production of clover seed. He also has several minor lines that add to the income; for instance—fall wheat, pure-bred Clyde-destale horses and poultry. The latter are not regarded as of no account cents on it yet. The main stock is of pure-bred Rhode Island Reds and White Leghorns, and Mr. Hamill estimates that they go a long way towards paying the grocery bills.

Mr. Hamill, however, is not satisfied with his accomplishments. No real, good progressive farmer ever is. He is satisfied, however, with his system of farming, and well he may be.

Thriving without his Mother on GARDINER'S Calf Meal



Wanting to not-back to the calf that gets Gardiner's Calf Meal with skim or separated milk. This Meal provides the equivalent of the cream taken from the milk, making it equal to new milk in every way.

Its high proportion of Protein (guaranteed 19% to 20%) and Fat (guaranteed 8 1/2% to 9%) make Gardiner's the most valuable Calf Meal on the market. Calves, young cows, lambs and little pigs thrive on it splendidly for the first few months after weaning.

Put up in 25, 50 and 100 lb. bags. If your dealer doesn't handle it, write us for prices and information also Gardiner's other products—Oxum-Tin Feed Meal, Sac-and-fat and Ontario Feeders' Cotton Seed Meal.

GARDINER BROS.,
Feed Specialists, SARINA, Ont.

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We pay express and furnish cans Profitable Prices Promptly Paid
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BELLEVILLE CREAMERY LTD.
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GASOLINE ENGINES
1 1/2 to 60 H.P.
Stationary Mounted and Traction



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Grain Grinders, Water Presses, Steel Saw, Iron Frames, Pumps, Tanks, Etc.
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American CREAM SEPARATOR
ANGLES PROPORTION means a cup, well made, and machine. It is the best. It takes more or less milk, making heavy or light cream.

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Don't a sanitary marvel, easily cleaned, different styles illustrated our large capacity machine. Selling in all parts of the world. Write for literature, New York, Toronto, Ont., and London, E. C. 4.

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Every milk can will be sweet and sanitary if you always use



Old Dutch Cleanser

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experimental are: Pres. R. R. No. 1, H. Sirett, Creelman, H. A. Dorland, Auditors: W. R. ices of sections and treatment, be Prof. Zavita, Mason, all Department

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Business Men and Business Farmers Agree

In the great McGill Building in Montreal, where men of big business meet daily, immense quantities of Natco hollow tile were used. On many prosperous Canadian farmsteads the same hard-burned clay tile is the favorite for silos and farm buildings. Business men and business farmers alike agree on the material that is weatherproof, decayproof, frostproof, verminproof and fireproof. Such is the



Natco Imperishable Silo

"The Silo that Lasts for Generations"

A perfect silage preserver, when the mercury is low or summer temperatures wither. Its salt glazed hollow vitrified clay tile are impervious to air and moisture. It is safe under severest wind or hailage pressure. Convenient attractive and economic. First cost is the only cost. Needs no repairs or painting, no adjustment. You need not be present.

Plan now for such a silo. Send for our free book, "Natco on the Farm." Describes construction details of all types of farm buildings. Fully illustrated.

A book you should have before planning a new building. Also be sure to send for our catalogue describing fully the Natco Imperishable Silo.



Natco Silo Walls Note: Conditions prevailing from such a silo, for various points.

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Ormsby Jane Segis Aaggie, 7 and 30 Day Champion of the World.

ORMSBY JANE SEGIS AAGIE.
The present champion cow of the world, Ormsby Jane Segis Aaggie, is a senior four-year-old, and not only has she exceeded the world's record for senior four-year-olds by 735 pounds of butter and 145.6 pounds of milk in seven days, but she also duplicates the greatest records for the full aged class of K.P. Pontiac Lane, 41 lb. by 24.09 of a pound of butter, and the substantial quantity of 135 1/2 pounds of milk in seven days, and she now takes rank as champion cow of the world over all classes and all breeds in the seven-day division.

official tests are made in New York State. Ormsby Jane Segis Aaggie is running very strong and we believe will make a very highly creditable thirty-day record, and will exceed the present world record. Although we are very anxious to again breed her to Rag Apris Korndyke 8b, we may defer doing this in order to run her officially for some time, possibly for the entire year—Pine Grove Farms, Elma, N. Y., F. C. Niemann, Business Manager.

OUR FARMERS' CLUB

Correspondence Invited.

PRINCE EDWARD ISLAND
KING'S CO., P.E.I.

MONTAGU, Jan. 2.—It is commencing to look as though we were not going to get any snow this winter; very little frost yet. This is a splendid winter for the stock; there will be plenty of fodder. Butter is doing this winter. The last year, 55c a lb; eggs are very scarce yet, 35c a dot. A good fall of snow would be a welcome change. The government is holding short courses in agriculture.—G. T.

QUEBEC RICHMOND CO., QUE.

DANVILLE, Jan. 11.—The weather is variable. We had some very cold weather, the thermometer registering 19 below zero for three days, and it has been raining since. The sleighing is very good, and those who have teaming are very busy. In this district most of the farmers are having their wheat ground for flour. Pressed hay, 61c to 617; a good demand for all farm produce; eggs, 40c; butter, farm; milk, 7c a qt; beef and pork still high.—M.D.B.

MISSISSOUI CO., QUE.

FRELHOUBURG, Jan. 14.—A great deal of snow falling during last month, and made our roads there were two days ago accompanied by rain, which were welcomed by many people there. All the houses. The dry summer and fall caused many wells to fall and a great deal of extra work has been caused. There has been a strong gale in September blew down a large number of trees in the woods and provided a good site of firewood for next year.—C. A. W.

ONTARIO GRENVILLE CO., ONT.

DOMVILLE, Jan. 14.—We have been having a little snowfall with light snowfall, driving the farmers time to get their winter's wood out and ready to get the sawing machines to work. All the houses factories have closed. The people here are doing their duty to the Empire. The farmers' scene are enlivening for overseas service. Most of the boys who have enlisted are of Old United Empire Loyalist stock, whose love for freedom, liberty and justice is strong.—G. W. O.

HASTINGS CO., ONT.

TWERD, Jan. 12.—The weather so far has been quite mild with very little snow. Some farmers are shipping their milk to Toronto with satisfactory returns. Hops sold last week for \$2.00, but are fairly scarce. There will likely be hay enough for local demands but very little surplus.—G. S. P.

Till as what you are thinking of building. We have plans for barns, cow cribs, garages, etc., free.

Orchard Leigh Holsteins

Bull calf, born November 7th, 1915. Black and white. Dam, "Highland Ladom Marvona." R.O.M. 7 days, 614.4 lbs. milk, 27.9c lbs. butter. First prize mature cow at Gravelly dairy test 1915. Sire, "King of the Queen."
Bull calf born Oct. 18th, 1915. Nicely marked. Dam, "Highland Ladom Ormsby." R.O.M. at three years, 559.5 lbs. milk, 25.81 lbs. butter, 39.15 lbs. milk in 30 lbs. butter. Price \$250.

Write for photo of dams and extended pedigree or better still, come to see them, and you will be sure to want them. Also a few young females priced right.
JAS. G. CURRIE & SON Electric Car stops at gate **INGERSOLL, ONT.**

Elmcrest Holsteins-Friesians

Sir Midnight Comet Ormsby 2479, heads up herd. Dam, Midnight Comet de Kol, record at 4 years 879.3 lbs. milk, 34.9c lbs. butter, 7 days. Several bull females, all ages. Write or visit us. Bell phone.
W. H. CHERY HAGERSVILLE, ONT.

AUCTION SALE

35 Head of Registered Holsteins 35

At the KING EDWARD STABLES
25 FEMALES COBOURG, JAN. 27, 1916 10 MALES
Everything I am offering are Young Animals.

Sired by such bulls as MAY ECHO PONTIAC, grandson of May Echo and Henryville de Kol, King Inez's Walk and other sires. Note the breeding of the cattle, also of the reference sires in catalogue. It is of the choicest.
TERMS: Cash, or 3 months on approved joint notes, with interest at 6%. Sale at ONE O'CLOCK. Send for Catalogue and Attend.
NORMAN MONTGOMERY, Auctioneer, BRIGHTON
BERTRAM HOSKIN - GRAFTON, Ont.

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Sires Ready for Service

No. 1—FRANCY HARTOG CHAMPION—Calved May 18, 1915, a son of Francy Jette Hartog, whose dam Francy Jette, made 21.6 lbs. the butter, and whose sire is Canary Mercedes Pieterje Hartog 7th, the herd sire of D. Platt & Son of Hamilton, and whose dam made 34.6 lbs. butter in 7 days, and 116 lbs. in 1 day.

No. 2—HUGO HARTOG DE KOL—Calved April 17, 1915. He has the same breeding on the sire's side as No. 1. The dam, Annie Belle De Kol is out of Mable De Kol, whose daughter, Mercedes Lady Muchilido, was Grand Champion in dairy test of Ottawa Winter Fair, 1915, and who has a 3-yr.-old record of 362.4 lbs. milk and 23.6 lbs. butter in 7 days.

These sires are good ones and are priced right for quick sale. If you need a herd breeder, write us early.

MRS. HUGH ADAMS - R. R. 2 - BURFORD, Ont.

GLENDALE STOCK FARM

offers for sale Six Bulls ready for service, bred by Woodstock Anglo Land months, sold in December, 1914, at Syracuse, for \$300. Names of bulls carry from 50 to 87½ blood of the great 30 lb. cows "May Echo Sylvia" and "Lulu Keyes".

Full entrance open of Winter and Spring Calves. Full particulars on application to WM. A. SHAW - R. R. No. 1 - FORTBORO, Ont.

Watch Our Ad. for the Next 6 Weeks OFFERING No. 2

Sir Pontiac Keyes, age 15 months. His DAM is a daughter of Pontiac Hermes. His dam, a sister of Lulu Keyes. His SIRE, a brother of May Echo Sylvia. A good combination of blood in a good individual. Price, \$250.00. Shipped anywhere in Ontario.

E. B. MALLORY, Bayside Stock Farm, BELLEVILLE, Ont.

BULLS FIT FOR SERVICE

Two bulls, full brothers from the producing strain. Dam Helena Pauline Korndyke, 111 1/2 lbs. milk in one day, 733 lbs. milk in seven days, 29.7 lbs. butter in seven days.

Sires, Sara Jewel Hengerveld's Son. His dam was first cow to produce 100 lbs. milk in one day. For full particulars, address: B. E. HAERMAN, R. R. No. 1, HAROLD, Ont.

Lakeview Stock Farm, Bronte, Ont.

Broeders of high-testing Holstein-Friesian cattle, offered for sale a foundation herd, consisting of 1 male and 3 females, all bred in the purple and backed by officially tested dams. Terms to suit purchaser. T. A. DAWSON, Manager F. F. OSLER, Proprietor.

HOLSTEINS FOR SALE Four or five bulls ready for service and two (May) grandsons of Rag Apple Korndyke 8th and several by King Segs Pontiac Duplicate—one of the best. B. M. HOLTRY - R. R. No. 4 - PORT PERRY, Ont.

KORNGOLD IMPROVED ENGLISH YORKSHIRES Boars and Sows of breeding age. A choice lot of Young Pigs, just ready to wean. F. J. McCALPIN, Korngold Stock Farm, GANANOQUE, Ont.

LAKESIDE AYRSHIRES

A select lot of young bulls, all Quebec, sired by Auchenberg Sea Foam (Imp.) 35768 (8865), Grand Champion at both Gages and Sherbrooke, from Record of Performance Dams. Write for catalogue.

Proprietor: GEO. H. MONTGOMERY, Dominion Express Bldg., MONTREAL. Manager: D. McARTHUR, PHILLIPSBURG, QUE.

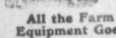
BARGAINS IN HOLSTEINS The month's grandsons of Pontiac Korndyke, sired by a brother to the \$26,000 Bull. Sires' dam 327 lbs. sold for \$4,100; also Pontiac females to freshen soon. Alex. Stewart, B. R. 5, Guelph, Ont.

FOR SALE Five Ayrshire Bulls including Spring Hill Taxmaster 35,397, approx. One of other three is a grandson of Howland Masterville, apply T. J. McCormick, West Flanders, Ont. Mention Farm and Dairy when writing.

FEBRUARY 10, 1916

COMPLETE DISPERSION SALE

50 Registered Holstein Farm Stock



All the Farm Equipment Goes At my farm, two miles from LONDON. As the farm has been leased for a number of years, every animal and all my farm machinery will be sold without reserve. My fifty head of Holsteins are nearly all my own breeding, with the exception of a few foundation animals. The young breeders who need good material for their herd, should not fail to be on hand at 1 p.m., Feb. 10. Three registered Jerseys are also in the sale—two to freshen shortly.

Among the other stock are 6 young horses, a 3-yr.-old Percheron gelding, a team of 5 and 6 Clydes, and a 4-yr.-old filly. There are also a mature Yorkshire and some younger brood sows, and a large stock of poultry.

The Farm Machinery is such as would be required on a large farm, mature equipment, binders, mowers, wagons. Machinery and Farm Equipment will be sold at 10 a.m. The sale of Holsteins begins at 1 p.m. Write for catalogue, and note the breeding of my herd.

TERMS—Cash or 3 months at 5 per cent. on bankable paper. To reach my farm take Dundas Street Cars to Asylum siding, where rigs will meet you. Send for catalogue.

C. E. TREBILCOCK T. MERRITT MOORE Auctioneer

HASTINGS CO., ONT.

TRENTON, Jan. 6.—The New Year finds the farmers busy as usual preparing for next season—manure to draw, wood to get, grain to be sown, and the fields to be prepared for spring, and a thousand and one things to be looked after. Feed is very plentiful and stock is in fine condition. Help is scarce. The weather is mild—J. K.

DURHAM CO., ONT.

CAMPBELLBROOK, Jan. 13.—The weather for the week past has been very variable, which has made an condition of the roads very bad; one side of the road is the worst, particularly in the case of cattle, horse and seed judging held at Millbrook on the 5th, 6th and 7th, was well attended, as was also the horse show, which brought out some very fine animals. Great praise is due to the conscientious Mr. Dawson, for the able manner in which the course was carried out. The following are the recent market prices: Buttery 28c to 30c; eggs, 45c to 50c; potatoes, \$1.50 per bush; chickens, 17c to 20c a lb.; live fowl, 10c to 12c; turkeys, 20c to 25c; hogs, 89c and over; live beef, 17c a cwt.—J.A.B.T.

WATERLOO CO., ONT.

WATERLOO, Jan. 11.—We have already had several January thaws which almost look like the winter is over, but the roads are now very dry. The Waterloo County Board of Agriculture held its annual meeting in Berlin, last afternoon. Many important questions came up for discussion. A four weeks' course in agriculture will also be held in Berlin commencing Jan. 17. By all appearances there will be a good sized class coming, but taking due warning of the course. At the sugar factory, the pulp also, which is over an acre in area, has been cleared in the short period of fifteen days. There has been a big rush for pulp for feed, sometimes as many as 100 tons waiting their turn to load.—O. H. S.

OXFORD CO., ONT.

WOODSTOCK, Jan. 11.—Our shearing is all over. The winter so far good shearing and considerably colder than it has been for some days. We have had a fine winter so far. Siles have been getting very high this winter and fall; all kinds of stock are doing well, and in doing fine; they get more attention than they did a few years ago. \$1.60 a cwt. for our best wool. The price for fat stock and cattle are high, 11c to 15c a pound dressed. Live pork, \$3.75. All kinds of feed are high.—M. A. D.

NORFOLK CO., ONT.

SIMCOE, Jan. 10.—Winter is quickly passing and the cold weather is not so much as hard freezing weather to injure wheat and clover. Rough feeds are still plentiful. Bran, \$21.00; oats, \$20.00; middlings, 42c; hay, \$15.00. Stock and feed are selling well. At the station said. The mild weather is lengthening out the feed and stock are able to be out of doors enough to ensure health and thrift.—T.C.H.

BRUCE CO., ONT.

PAIBLEY, Jan. 10.—The usual January shif is right on time, being here on the first day. The winter to the present has been all that could be desired; plenty of snow for good shearing, but not enough to keep the roads from being very dry. Wheat is \$1; barley, 45c; oats, 35c; peas, \$2.00 a bus.; butter, 27c; eggs, 50c.—J. N.

ALGOMA DIST., ONT.

SAULT STE MARIE, Jan. 1.—Winter is still on. Lots of snow for shearing and weather is very fine. Stock has gone into winter quarters in good condition, and the farmers have not a word to say for a standstill. Beef is in fair demand at 10c for front ends and 8c for backs. Poultry and dairy products are high and potatoes are \$1.25 a bag.—H. K.

MARKET REVIEW AND FORECAST

TORONTO, January 17.—Even yet the trade of the New Year cannot be said to be well started. Business firms, however, express optimism as to the outlook, and predict a much greater volume of business than the first month of 1915. When any of them, however, are asked for their opinion as to conditions immediately after the war, all express a feeling of dread. There will be a period of great business depression, they say. The chairman of the American Stock Organization makes this prediction: "The outlook for the future is very dark and desolate. It will be thus in Europe, and in America" will feel the effects to a greater or lesser degree. The destruction of billions upon billions of property in any country must necessarily affect in some degree all countries.

Canada is sharing fully in the war. She will also be called upon to share fully in its effects, and we should prepare for that time by conserving our resources to the utmost. The markets of the week have been strong with a general advance all along the line, with the possible exception of eggs, where receipts have been on the increase. WHEAT. Supplies of wheat have been reduced almost to a minimum in Britain, France and Italy. Argentina and Australia have large supplies available for export, but ocean freight is so limited and the market, that they cannot enter immediately to the demand. The greater portion of our domestic supply comes from America and this condition is conducive to a strong market here. The market for wheat is \$1.25; No. 2, \$1.18 1/2; No. 3, \$1.15; Ontario market, No. 2, winter, \$1.06 1/2; No. 1, \$1.09; slightly sprouted and tough, \$1.00 to \$1.05; sprouted or smutty and tough, \$0.90 to \$1.02; feed wheat, \$0.75 to \$0.80.

There has been a general advance all along the line. Barley, particularly, is in strong demand. Oats, C.W. No. 2, \$0.95; No. 3, \$0.85; No. 1 extra feed, \$0.95; Ontario No. 4, 6c to 1c; commercial sale, 28c to 40c; corn, 45c; peas, \$1.25 to \$1.60; barley, malting, 65c to 60c; feed, 50c to 55c; rye, 50c to 55c; rejected, 45c to 50c; wheat, 75c to 78c. Montreal quotations follow: Oats, C. W. No. 2, \$0.95; No. 3, \$1.05; extra feed, \$1.10; No. 1, \$1.15; No. 2, \$1.05; No. 3, \$0.95; No. 4, \$0.85; corn, \$0.95 to \$1.00; barley, malting, 60c to 65c; feed, 50c to 55c.

MILK FEEDS. There is a tendency for higher levels, but demand for grain being particularly good. On this market bar is quoted \$54; shorts, \$55; middlings, \$55; feed \$50; bar, \$52.50; shorts, \$53; quiet feed, \$52. At Montreal bar is \$24; shorts, \$25; middlings, \$23 to \$20; and molasses, \$15 to \$13. AND STRAW. The government is now getting all the hay it needs; but prices remain firm. Dealers are making a determined effort to reduce quotations, but outside of the hay arriving at Montreal for the government, receipts are small and quotations continue steady. No. 1 hay is there quoted \$22.50 to \$23; No. 2, \$19.50 to \$20; No. 3, \$18 to \$19.50; rejected hay, \$17 to \$17.50. Whole-sale quotations are: No. 1, \$17 to \$18; No. 2, \$15.50 to \$17; No. 3, \$14 to \$15. EGGS AND POULTRY. A heavy export trade continues and United States supplies are being particularly drawn out. With a view to making this trade permanent, Mr. H. B. Arkell, of the Live Poultry Branch, Ottawa, has sailed for Europe to study conditions affect-

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Make the Change Now

Mogul 8-16
Kerosene
Tractor



THESE are the days of heavy horse expense. The horses are idle. Hay and oats are worth so much it's a shame to use them for feed. It takes five acres of land to raise enough to feed one horse one year. Horses are at the top of the market, with prices higher than for years past. The market for horses is so good that, even at these higher prices, they are easy to sell. What better time could there be to consider replacing some of your horses with a Mogul 8-16 kerosene tractor?

You can use a Mogul 8-16 with profit for about all the work you are now doing with horses—the tractor does it better and cheaper. It takes less of your time to care for it. It increases the amount of land you make a profit from—five acres for every horse it replaces. It is the right size for most of your belt work. It burns any fuel oil—kerosene, naphtha, benzine, motor spirit, enabling you to use the cheapest fuel you can buy.

Why not plan to sell some of your horses now and save the winter feeding? Mogul 8-16 will take their place and do your spring work in time. Write today for our 100-page book "Tractor Power vs. Horse Power," which we will send promptly if you'll only ask for it. Write us at the nearest branch house.

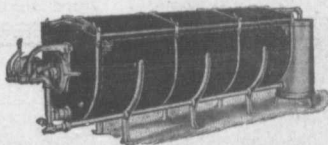
International Harvester Company of Canada, Ltd.

BRANCH HOUSES

At Brandon, Calgary, Edmonton, Estevan, Regina, Saskatoon, London, Montreal, St. Catharines, Ottawa, Quebec, Saginaw, St. John, Winnipeg, Yorkton



The Lure of the Lower Price



The Beaver-Jensen Ripener-Pasteurizer may cost more in the first cost—but in the end the cheaper machine will cost you more.

For example:—

The BEAVER-JENSEN you need costs—we'll say, for argument's sake, \$350.00. But you don't have to pay out anything for repairs.

The cheaper machine sells for \$300.00. The cost for repairs averages \$10.00 a month, or \$120.00 the first year, making it cost you \$300.00 plus \$120.00, or \$420.00 invested.

Actually \$70.00 more than the BEAVER-JENSEN in the first year's investment. What will it be the second year?

Ask us about the BEAVER-JENSEN. Use proves what the surface cannot show.

W. A. DRUMMOND & CO.
TORONTO, ONT.

Canadian Representatives for the

J. G. CHERRY COMPANY, Cedar Rapids, IOWA, U.S.A.

IMPORTANT ANNOUNCEMENT

REGARDING

Our 40 Piece Tea Set



To Our Women Folks

As stated in our last issue, we have been negotiating with the wholesalers who have been supplying us with our 40-piece tea sets with a view to getting control of the stock of these premiums which they still had on hand. The war has interfered with the trade in semi porcelain and we had expected to hear that the supply was nearing exhaustion. To our surprise we learned that there were

ONLY 60 SETS LEFT

for us. We at once sent in a covering order reserving them for our women folks, and we are sure that they will not be slow in availing themselves of this last great opportunity of securing this premium. Our 40-piece tea set has proved to be so popular with our women readers that we are sure that when they hear that the supply is so nearly exhausted that the balance will

Go Like Hot Cakes

and it will only be a short time until we have to drop this popular premium. We are sorry to have to do this, for in the past two years several hundreds of them have been won by our Women Folks and we have received hundreds of letters expressing the surprise and delight of those who have secured them. However, we shall have to bow to the inevitable, and while the supply lasts our motto will be

First Come—First Served

The set consists of 40 pieces; is in semi porcelain and is decorated with a gold band. It consists of 12 cups and saucers, twelve tea plates, two cake plates, one cream jug and a slop bowl.

Call up your neighbors over the telephone, get out of them to subscribe to Farm and Dairy at \$1.00 each, and we shall order one of the tea sets for you as soon as we receive the subscriptions.

Circulation Department

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