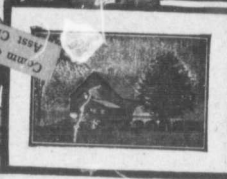


FARM AND DAIRY & RURAL HOME

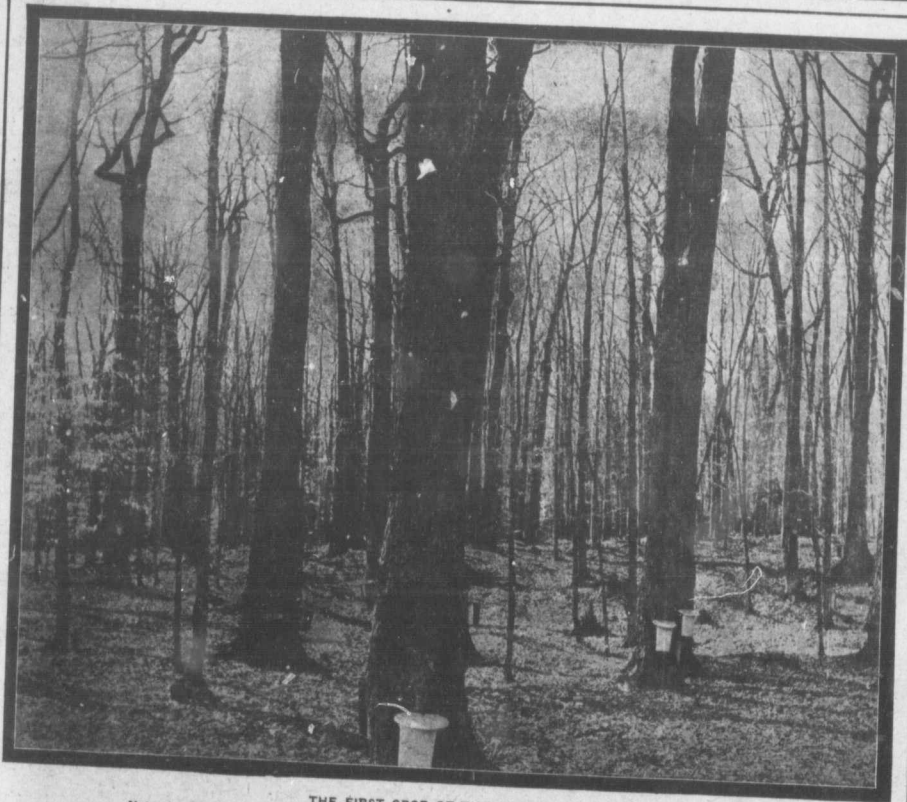


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Toronto, Ont., April 4, 1918



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Note the Covered Cans Used in Up-to-date Sugar Groves. —Courtesy Journal of Agriculture.

HOW ABOUT TRADING OPERATIONS?
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Methods of a Cheese Factory Patron. Page 4.
HOGS NOT EXCLUSIVE GRAIN EATERS.
Why Not Try Pasturage. Page 5.

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Preparations Made for Important Fruit Legislation

Standards Agreed Upon for Fruit Packages. New Grades for Fruit Defined. Power of Fruit Inspectors Likely to be Increased

WHAT promises to be a memorable gathering of fruit-growers took place in Ottawa, March 26th and 27th, when representatives of the fruit-growing interests in the leading fruit provinces of Canada, government officials, and basket manufacturers met at the invitation of the Dominion Fruit Commissioner, and with the approval of the Dominion Minister of Agriculture, to recommend long-deferred legislation in the interests of the fruit industry. A surprising amount of important work was accomplished during the two days' series of meetings. More real progress being made in a direction of obtaining definite legislation dealing with important matters than has been accomplished in the past 12 or 15 years, and at several conferences of the past.

In opening the conference, Mr. D. Johnston, Dominion Fruit Commissioner, explained that there was a need for the passing of important legislation at the time the war broke out, but owing to the war, the Government did not feel disposed to take action. As some of these matters require action he had taken the matter up recently with Hon. T. A. Crerar, Dominion Minister of Agriculture, who had given his approval of the holding of the conference, and his assurance that he would be willing to press for needed legislation at the present session of Parliament.

The fruit growers who attended the conference, were unanimous in their desire to allow minor differences of opinion to drop out of sight in order that definite results might be accomplished. This accorded for the most part, and the conference was closed this afternoon. The following is a brief statement of some of the important decisions arrived at.

A New Barrel Standard.

It was decided to recommend the Government to make the American apple barrel the standard barrel for Canada also. At present there is no standard barrel for Canada other than a requirement that the barrel shall contain as nearly as possible, 95 quarts, and be not less than 36 1/2 inches between the heads. The result has been that Nova Scotia has used a small barrel, while Ontario has used a considerably larger barrel, having the 39 inch staves. The American barrel is slightly smaller than the Ontario barrel and a little larger than the Nova Scotia barrel. Its stave will be 2 1/2 inches in length, the distance between the heads will be 26 inches, and the circumference at the middle, 64 inches. The head diameter will be 17 1/2 inches. This will give a uniform apple barrel for the whole country.

The New Apple Box and Crate.

For some 15 years the standard Canadian apple box has been 10" x 11" x 20". Its use has been obligatory for the export trade, but not for the domestic trade. In British Columbia many growers have used what is known as the Washington or Oregon box, and what is sometimes called the American box. They have preferred it to the Canadian box. It was decided to make this the standard box for the domestic and export trade in Canada. Its dimensions are 18 1/2" x 11 1/4" x 10 1/4". It is an easier box to pack and to ship.

During the past four or five years a new package has come into use in Ontario in what is known as an apple crate. This is not a closed package, the sides being composed of staves, and thus it has not come under the regulations of the fruit Marks Act, relating to closed packages. Hitherto there

has been no standard apple crate, and many different kinds of crates have been used. It was decided to recommend that a standard apple crate be established which shall conform in dimensions and size to the standard apple box, but shall be at least three quarters of an inch apart.

Standard Baskets.

Hitherto, a great variety of baskets had been used more particularly in the sale of tender fruits, such as peaches and grapes. These baskets have been made in many different ways, of different sizes and material. A committee was appointed some years ago by the Ontario Fruit Growers to take steps to standardize the baskets that should be used. The manufacturers were consulted. It was understood that the manufacturers were in favor of action being taken, but these representatives at the meeting at Ottawa objected to the making of the proposed changes but the fruit growers decided unanimously to disregard their objections as they felt they were not justified. It was decided to recommend that hereafter there shall be only two sizes of baskets legal, one an eleven quart basket and the other a six quart basket. The dimensions of the bottom, handle and veneer all C-patented. This will do away with the nine quart basket which has been extensively used hitherto.

Peach and Pear Boxes.

The following three sizes of peach boxes were agreed upon, these to be the only legal boxes for use in Canada; one 18" x 11 1/4" x 4 1/2", one 18" x 11 1/4" x 4", and one 18" x 11 1/4" x 3 1/2". This accorded to recommend that the legal Ontario pear box should be 18" x 11 1/4" x 7 3/4" (inside measure). The legal prune box was set at 18" x 11 1/4" x 3 1/2".

Grades of Apples.

Under the Fruit Marks Act at present three grades of fruit are defined; a fancy, a number one and a number two. It was decided to eliminate the fancy grade as it has been found to have no commercial importance. Number one grade will remain as it has been hitherto. The following definition was prepared for number two grade: "No. 2 quality shall not include culls and shall be sound, of nearly medium size and be properly packed for the variety, and be not less than 85% free from scab, worm holes, bruises and other defects, and shall be properly packed." Hitherto the percentage has been 80% and there was no size requirement.

It was decided to establish a new grade to be known as a Domestic Grade. It will be defined as follows: "Such fruit shall not include any culls, be sound, of not less than nearly medium size for the variety, 85% free from worm holes, but may be slightly affected with scabs and other minor defects and be properly packed." It was decided to prepare to establish a number three grade which will be defined to include no culls and be properly packed. The definition of the word cull was left with the Dominion Fruit Division to be prepared.

Property Filled Packages.

Considerable trouble has been caused in the past through some growers marketing packages of fruit that have not been sufficiently well filled. In some cases also, retailers and dealers have received unfilled packages and made a larger number of packages by not filling the packages so well. It was decided to recommend that all packages of fruit

(Continued on page 13.)

Trade inc...

VOL. XXX

What the l...

THE whole of undertaking selves, incl they should go to of such action joint conference gained farmers business interest Parliament Bill. The conference The discussions The farmers a presentation of strong that repre frankly complain which they had a

From the outa ness interests had the efforts of the erations among early days of the is equally true of today. In fact, as well as in the to extend their h This opportunit ways. Application to sell to the farm sell they some of farmers' clubs th of making local ganization and the

In Ontario as a chants' associatio for of the farm vinal Legislatio House of Common operative effort to by effort manu to farmers' organ dealers sometimes club at a low creating dissatisf and breaking up t These facts are farmers and in the tural, therefore, s such a meeting as of interest. Prob the subject was g on both sides, a ring for positio, as to future policy the conference sho ter understanding a the

First of all, let Joint Council of of Farm and Dairy in Windsor some of the business int Council was forme strength of the far add a conviction sp in the west, an to a joint confer many ways in wh and this they were they believed that matters likely to be said so, but we

CANADA & RURAL HOME

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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. XXXVII

TORONTO, ONT., APRIL 4, 1918

No. 14

Should Farmers Embark in Trading Operations?

What the Business Interests Think About It. What the Farmers Reply. The Question Debated at a Joint Conference of Farmers and Business Men.—H. Bronson Cowan, Editor in Chief of Farm and Dairy.

THE whole question of the advisability of farmers undertaking trading organizations among themselves, including their right to do so, how far they should go in this direction and what the results of such action are likely to be, was debated at a joint conference held by representatives of the organized farmers of Ontario and the West and of the business interests of Western Canada, held in the Parliament Buildings, Regina, March 13 and 14th. The conference throughout was an interesting one. The discussions were conducted in the best of spirits. The farmers have reason to feel satisfied with their presentation of their side of the case. It was so strong that representatives of the business interests frankly complimented them upon the manner in which they had made and sustained their points.

From the outset of the farmers' movement business interests have not hesitated to attempt to block the efforts of the farmers to undertake trading operations among themselves. This was true in the early days of the movement in western Canada. It is equally true of the farmers' movement in Ontario to-day. In fact, opposition still exists in the west as well as in the east, in the interests of the farmers to extend their business activities.

This opposition has manifested itself in various ways. Manufacturers and wholesalers often refuse to sell to the farmers' organizations. When they do sell, they sometimes quote lower rates to the local farmers' clubs than to the central, with the object of making local dissatisfaction with their central organization and thereby breaking up the whole movement.

In Ontario as well as in the west, the retail merchants' associations have strenuously opposed efforts of the farmers to secure acts from the Provincial Legislatures, as well as from the Dominion House of Commons, that would tend to promote co-operative effort by farmers. They have threatened to boycott manufacturers and wholesalers who sell to farmers' organizations. Country merchants and dealers sometimes undersell their local farmers' clubs at a loss to themselves with the object of creating dissatisfaction among members of the clubs and breaking up their organization.

These facts are well known both to the organized farmers and to the business interests. It was natural, therefore, that a discussion of the subject at such a meeting as was held in Regina would be full of interest. Probably for the first time in Canada, the subject was discussed by representative leaders on both sides. While there was a good deal of sparing for position, and while no conclusive decisions as to future policy were reached, still the result of the conference should serve to give each side a better understanding of the other's difficulties and position.

What the Council is.

First of all, let me explain the character of the Joint Council of Commerce and Agriculture. Readers of Farm and Dairy may remember the meeting held in Winnipeg some two years ago by representatives of the business interests and farmers at which the Council was formed. Owing largely to the growing strength of the farmers' movement in Western Canada, a conviction sprang up among leading business men in the West in the fall of 1915, that an effort should be made to bring about a better understanding between the farmers and the business interests. Representatives of the large business organizations in the west met and decided to invite the farmers to a joint conference. They felt that there were many ways in which they could help the farmers, and that they were most willing to do if they could. They believed that it would be dangerous to discuss matters likely to be controversial, such as the tariff, and said so, but were willing to discuss other mat-

ters likely to be of mutual interest and benefit.

A long list of subjects which they felt they would like to discuss, was prepared by them and submitted to the farmers. There can be no doubt that at that time they did not fully appreciate the fact that the farmers in Western Canada have some of the ablest businessmen in the Dominion in their organizations, and that they have grown past the stage where they need help from other business interests, with men in other lines of industry in ways that will be mutually advantageous.

The conference was held in due course. The farmers quickly played havoc with the proposals made by the business interests. They made it clear that they would not agree to confer with them if values, which they considered to be of paramount importance, could not be discussed. They showed, also, that they felt perfectly capable of taking care of matters purely agricultural in character, and that they did not desire assistance from outside sources. The business men quickly saw the mistake they had made, graciously admitted it, and conceded the points demanded by the farmers. The result was that there was then formed what is known as the Joint Council of Commerce and Agriculture. The

Council is composed of an equal number of representatives of the big business organizations of the west, some of which, like the banks, railway companies and manufacturing industries, have their headquarters in the east. Several meetings of the Council have been held during the past few years and beneficial results have followed from the meetings.

The Regina Meeting.

The meeting in Regina gave clear evidence of the progress that has been made towards bringing about a better understanding between the two sides. There was not the slightest indication on the part of the business interests that they wanted to help the farmers. Instead their whole attitude showed clearly that they now realize that the farmers are perfectly well able to take care of themselves. On the other hand, the farmers were not so suspicious as they were two years ago, that the business men were trying to put something over on them, and thereby possibly weakening the farmers' movement. In the interval both sides have grown to respect and have greater confidence in each other.

Those Who Were Present.

First of all, who were present? The farmers were represented by some 25 members of the Canadian Council of Agriculture who had been in session the two days previous, in the offices of the Saskatchewan Cooperative Elevator Co. Those present included H. W. Wood, of Calgary, the President of the Council of Agriculture and of the United Farmers of Alberta; J. A. Maharg, M.P., of Moose Jaw, the president of the Saskatchewan Grain Growers' Association, and of the Saskatchewan Cooperative Elevator Co., Limited; R. C. Henders, M.P., the president of the Manitoba Grain Growers' Association; C. Rice-Jones, the vice-president of the United Grain Growers, Limited, of Winnipeg and Calgary; J. Murray, the manager of the United Grain Growers, Limited; F. Riddell, the manager of the Saskatchewan Cooperative Elevator Company; J. J. Morrison, of Toronto, the secretary of the United Farmers' Cooperative Company, Limited; and other leaders in the farmers' movement. There were also present from Ontario, J. N. Cornish, of Goderich; and H. B. Cowan, of Farm and Dairy.

The business interests represented were the banks, railway companies, loan and trust corporations, the Retail Merchants' Association, the insurance companies, boards of trade, and other similar organizations. Dr. J. B. Rutherford, former Dominion Live Stock Commissioner and now in charge of the Live Stock Department of the Canadian Pacific Railway with headquarters in Calgary, made a most capable chairman. He was eminently fair, witty, and tactful in all his rulings.

Farmers' Trading Organizations.

At the request of the business interests, it had been arranged in advance to hold a discussion in regard to the trading operations of the farmers. Mr. C. Rice-Jones, on behalf of the farmers, had prepared in advance, a statement, setting forth the reasons which had led farmers to undertake trading operations. This article was published in full in the March 21st issue of Farm and Dairy. In brief, Mr. Rice-Jones claimed that farmers were forced to conduct trading operations in order to reduce the cost of their supplies which were unduly high because of the multiplicity of local stores, the lack of business training on the part of many country merchants, the tendency of merchants to charge unreasonable and unjust prices, the lack of business sense and uncut prices, the practice on the part of merchants of charging farmers, willing to pay cash, the same price for their goods as farmers who bought on credit, and the practice of merchants in charging up

(Continued on page 14.)

ALFALFA

LOW the furrow wide and deep,
Run it true and turn it fair,
Far across the sloping sweep,
As the team rolls from the share
Polishing the mold-board bright
Till it glitters in the light.

Follow quickly with the harrow;
Crush the clods, and fine the soil,
While the untamed strip grows narrow
As the sweating herds toil.
Harrow quickly, beat it hard;
Fine the soil as for a garden.

Sow the seed, and let it slumber,
Warmed by sun and drenched by rain,
Till the days in steter sleep,
Waken it to life again,
Then unfolds before our eyes
One of nature's mysteries.

On the slope where first was showing
Just a shimmering haze of green,
Day by day the shoots are growing
Till no sign of soil is seen;
And the beauty is revealed
Of a June alfalfa field.

Thicker grow than meadow-grasses,
Firm and fixed it seems to be,
But when morning's swift wind passes,
It's a restless moving sea,
Wave on wave its fellow follows
Toward the upland from the hollows.

When the keen knives cut it down
Hope of higher yield seems vain
From a spot so bare and brown,—
Then it greens and grows again,
Thrice and four times thus it keeps
Its first promise ere it sleeps.

—ELDRIDGE DANISON.

dition. After this, again, when the surface approaches a crumbly texture, the drag may be used very successfully.

Raising Calves Without Skim Milk

The Methods of a Cheese Factory Patron

By BRUCE P. WESTCOTT.

MUCH is being said these days about the scarcity of dairy cows, and there is a constant inquiry for good cows from all parts of the country.

What is the cause? First, the high price paid for veal in the stock yards; second, the high prices paid for milk at the cheese factories and condenseries. These together have sent a large percentage of the heifer calves to the veal market in the last few years, and I dare say that, unless we, as farmers, get busy and raise our heifer calves, there will be a greater scarcity of dairy cows in the next few years than there is now.

I have talked with a number of farmers this winter in regard to this matter, and they say, "Oh, we are not raising many calves this year; veal is so high and we are sending our milk to the cheese factories. Milk is too high to feed to calves." They also say, "We can get \$15 for a calf three weeks old; and that will almost buy a yearling." But what kind of a dairy cow will that yearling make? I am not speak-

ing they can drink often. It is surprising how much water they will drink. Most farmers fail to realize that the calf requires water at this young age.

Do not misunderstand me, and think your calves will be quite as fat and sleek as those that you buy, but take good care of them, and when they are three months old they will be just as growthy as though they had been fed on milk. At least such has been my experience.

Never Had Case of Scours.

I have never had a case of scours when calves were fed calf food, but young calves that have contracted the ailment are cured by taking away all the milk and feeding nothing but this food. The germ cannot live without milk. It has been my experience that calves raised in this way develop into cows with splendid digestive organs and they have good, large barrels and will consume a large amount of rough feed.

There are many other farmers in the same situation. Like myself, they simply do not have the skim milk. Our monthly milk check is our chief income, and it comes from the disposition of our whole milk. We cannot afford to keep back enough of this whole milk to skim, so we have the skim milk for the calves; for these we would be confronted with the additional problem and trouble of disposing of the cream so left on our hands. To us the calf foods, or so-called milk substitutes, have an important mission to fill and a very considerable value.

The Indiana Experiment Station realizes that there are those conditions existing in some dairy farming communities, such as my own in which a prepared calf food is an economical item in calf feeding. And so it has carried on some experimental tests along this line and succeeded in preparing a home mixed calf meal, which it has found satisfactory in producing a good growth and condition of thrifty calves.

This calf meal so prepared by this station contains equal parts by weight of hominy feed, linseed meal, red dog flour, and dried blood, all of which may be purchased on the feed markets and the mixing is done at home. The advertised brands of calf meal usually contain in addition to some such combination of feeds as this, a combination of two or more condimental drugs, or so-called appetizers and tonics.

However, let me say in conclusion, get busy and raise a lot of good dairy calves. In that way you can establish a better herd of dairy cattle, as you can be constantly weeding out the poor ones and need keep only the best in the herd. What can you raise that is more profitable on the farm to-day than a few extra dairy cows at the present high prices? I believe prices will go much higher than they are now.

Grain Ration of a Dry Cow

To Ensure Results Let It Be Liberal

R. M. HOLTVY, Port Perry, Ont.

I HAVE been asked just why I advocate heavy grain feeding to high producing dairy cows when they are dry. My answer is, that I take this stand I do because my experience has taught me that it is profitable to feed a good grain ration to the dry cows. One of my first experiences was with a cow of mature age that I purchased. During her first lactation period with me she gave 16,000 lbs. of milk in Record of Performance with 62 lbs. as her production in her best day, and 33 lbs. in her worst day. Before she freshened she had not been fed any grain. During the following dry period, I fed her as high as 20 lbs. of grain a day—a mixture of oats, bran and oil cake. When she freshened this time (Continued on page 8.)

The Split Log Drag.

Road Making with a Drag

Construction and Use of Split Log Drag

THERE are many miles of roads which must be maintained by some means, more or less inexpensively. On the Dominion Experimental Farms, the split-log drag is found to be one of the most useful implements for this purpose. It is now in use in many localities and an increasing mileage of the rural highways of this country is being kept in repair economically by the use of this simple implement.

Construction of the Split-Log Drag.

A dry, sound red cedar log is the best material for a drag, the hard woods being usually too heavy for this purpose. The log should be from seven to eight feet long and from 10 to 12 inches in diameter, and carefully sawn down the middle. The heaviest and best slabs should be selected for the center, both flat sides to the front and set on edges 30 inches apart, giving the back half a set-back of 16 to 18 inches at the right end, so that when the drag is drawn along at an angle parallel to the ditch on the right side of the road, the end of the back half will be directly behind the front half, as otherwise the ditch end of the rear slab would stick out past the ditch end of the front slab, crowding into the bank and interfering with the proper working of the drag.

Two cross-pieces are wedged in two-inch auger holes bored through the slabs, and on the right hand side a piece of scantling is inserted between the ends of the slabs. This is of great value in strengthening and stiffening the end of the front slab.

In working a clay or gumbo road it is advisable to put iron on the lower edge of both flat sides. Handles may be attached to a piece of iron similar to a piece of wagon tire, the irons to be hinged to the back of each end of the front slab. By pressing the handles the drag could be raised, thus depositing a load of dirt which is desired to fill a hollow or increase the crown at some particular spot.

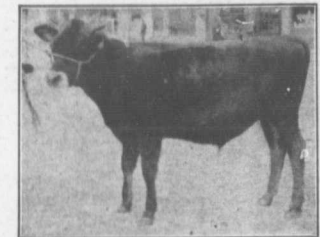
A platform of inch boards held together by three cleats should be placed on the stakes between the slabs. These boards should be spaced at least an inch apart to allow any earth that may heap up and fall over the front slab to sift through upon the road again. The end cleats should be placed so that they will not rest upon the cross stakes, but drop inside them. These cleats should extend about an inch beyond the finished width of the platform. An extra weight may be added if necessary, but it is seldom needed.

To Use the Drag.

To use the drag attach a chain to the left cross piece which is behind the front slab, running the other end of the chain through the hole in the front slab near the right end. It is a mistake to hook this end of the chain over the front slab as in the case of the other end, for when the drag strikes a stone or snag there is great danger of toppling forward. With the right end of the chain drawn through the hole in the slab as suggested, this danger is entirely obviated.

The operation of the drag is very simple, though there are many fine points that may be learned by experience. For ordinary smoothing purposes, the drag may be drawn up and down the road one or two rounds, commencing at the edge and working towards the centre. Usually it is drawn at an angle of about 45 degrees. For the last stroke or two the drag may be drawn backward with the road side of the slab to the front and with comparatively little angle.

There are two stages when roads will drag and one when you cannot do a job satisfactorily. The first stage is when they are in a very sloppy condition in spring or in other seasons after a heavy rain. A road may then be shaped up wonderfully well, and after the surface has a chance to dry a little, before it is cut up with traffic, it will make a smooth, fine road. Dragging at this stage fills ruts and sends the water to the ditches. After this soft stage, comes a sticky stage, when the mud will roll up under the drag and the road cannot be reduced to a satisfactory condi-



A Promising Youngster.

This typey Jersey bull calf was first in the Junior Calf Class at the Quebec Winter Fair this year. He is from the well-known herd of Jas. Baggis, of Edgely.

ing of the man who raises purebred cattle, but of the farmer who is keeping a high grade herd and using a good purebred sire; the only kind any of us should use. The man raising purebred cattle will raise all his heifer calves, even though he has no skimmed milk. He will feed them the whole milk and be well paid for it.

In a Cheese Section.

I have always lived in a cheese producing locality where skimmed milk is not known on the general run of dairy farms, and where the raising of our dairy calves has been a very important, and sometimes trying problem. I have made this thing a study for 15 years and have raised all my heifer calves without milk; namely on calf food. I have raised good calves that made good cows. Others can do as well or better if they will be sure to get a good standard brand advertised in the farm and dairy papers, and follow directions very carefully. Or they can use home-prepared calf foods, such as they have tasted out and found economical and efficient by the experiment stations.

Give the calf whole milk for about two weeks, then decrease the milk and add a very little gruel made from the calf food. Thereafter continue to gradually increase the calf food ration and to decrease the milk until the calf is receiving a full feed of this gruel. Now this is the critical time, and, if you can make this change without the calf realizing it, you have won the battle.

Get the calves to eating alfalfa, silage, and a grain ration just as young as you can. Do not overfeed on the calf food gruel and be very careful to keep all milk sweet and clean. I find that one of the best preventives for indigestion in calves is keeping fresh water where



Snowdrifts as they had them in Wentworth County.

The snowdrifts speak for themselves. Incidentally, we must remark that the team belongs to one of Our Folks, Mr. Win. Seoble, and is engaged in a most unsatisfactory form of farm work—driving water for the stock.

British Col
her dairy

Why Not

THE hog in grain can be made as profitable as the cow. He has become a great asset to the farmer and gradually a grain-eating hog so cheap would return a profit in the last two or three years of hog feeding and in the coming years it is considered more general use of home-grown pig manure we can take low times.

The clovers in Western States are being raised in practically the same way as to red clover and amount of seed, for instance will pasture from 125 lbs. per head to 150 to 200 lb. Alfalfa comes as if kept from being nitrogenous forage in the fall. An alfalfa hay, especially feeders.

In pasturing should not be started, should not start so heavily the same time to grow large enough to use the alfalfa be divided, and growing. The enough pasture hay are harvested if for pasture. (In the States, where alfalfa) by cutting few days apart, or the other is being there is furnished Clover and alfalfa crops without a crop. In all cases pasture a supplement to the Nebraska) hogs of age daily gain of 34 lbs. when 2 of corn. When of their range feeders at all these Prof. E. S. Archibald



A Healthy Dairy Herd in a Province to which no Purebreds may be Imported Unless Tuberculin-free. British Columbia, although a comparatively new province to enter dairying, is already becoming famous for the excellence of her dairy herds and the progressiveness of her dairy legislation. Her rigid anti-tubercular laws, no less than her moist climate and luxuriant pastures, are placing B. C. dairymen on a solid foundation.

Hogs Are Not Naturally Exclusive Grain Eaters

Why Not Try Pasturing Hogs? Some Suggestions as to the Merits of Different Pasture Crops That Will Reduce the Cost of Hog Production

THE hog in his natural state was not an exclusive grain eater; plant and animal life in any form was made use of as food by the wild hog. But as he became domesticated the hog has been deprived of the opportunity of choosing his own food and gradually we have come to regard him as purely a grain-eating animal. In the past, too, grain has been so cheap, comparatively speaking, that hogs would return a profit on an exclusively grain ration. In the last two or three years, however, this style of hog feeding has become a doubtful investment, and in the coming season pasture for hogs will be considered more carefully than ever before. A more general use of proper pasturage in summer and of home-grown protein in winter, is the longest step we can take toward reducing the cost of pork production.

Pasturing Clover or Alfalfa.

The clovers are the prime pasture crops. In the Western States of the United States, where pasturing is practiced extensively, alfalfa is shown by the experience of its users to be somewhat superior to red clover as a hog pasture, both as to quantity and amount of feed furnished. The Missouri station, for instance, reports that while an acre of clover will pasture from eight to 12 hogs averaging 75 to 125 lbs. per head, the same area of alfalfa will pasture 15 to 20 head of the same kind of hogs. Alfalfa comes earlier in the spring than clover, and nutritious forage from spring until heavy freezing in the fall. As a dry roughage for winter feeding, alfalfa hay, especially the last cutting, excels all other feeders.

In pasturing both alfalfa and clover, the hogs should not be turned on before the pasture is well started, should not be pastured while the land is wet nor so heavily that the plant does not grow well. At the same time the clover should not be allowed to grow large enough to get woody. If the purpose is to use the alfalfa solely for pasture, the field should be divided, and one part pastured while the other is growing. The common practice, however, is to allow enough pasture so that about two crops or more of hay are harvested each year while the hogs are using it for pasture. (I here refer to practice in the corn belt States, where hogs are pastured extensively on few days apart, one part is finishing pasture while the other is being cut for hay, and in this way pasture is furnished a very large part of the year. Clover and alfalfa will come nearer to maintaining hogs without grain than any other of the pasture crops. In all cases, however, it is advisable to make pasture a supplement to grain rather than grain a supplement to pasture. In an experiment in Nebraska, hogs fed no grain whatever made an average daily gain of 32 lbs., as compared with a gain of 34 lbs. when the hogs received a light feeding of corn. When one wishes to push the hogs right along, grain may be kept before the hogs in self-feeders at all times. A good rule recommended by Prof. H. S. Archibald for young pigs on pasture con-

sists of two parts each of ground oats or barley, and wheat middlings, with the addition of one part ground corn. This is an excellent growing ration, but as the animals reach sufficient weight to finish, the corn may be materially increased. Little corn is available at present, but by the time hogs are on pasture, it may be abundant. Skim milk, fed separately from the grain, will reduce the consumption of the latter.

Rape for Pasture.

In the greater part of Canada, and on even the best farms, there are times during the season when the regular pasture is short and it is not making sufficient growth to pasture the hogs. On such occasions a quick growing plant that will furnish a large amount of forage per acre is exceedingly useful. Rape fits in well on these occasions, and in any case is one of the best forage crops for hogs. After many years' experience with rape, Prof. Carbyle, at the Wisconsin Experiment Station, drew the following conclusions:

"With pigs from four to 10 months old, an acre of rape when properly grown has a feeding value when combined with a ration of corn and shorts, equivalent to 2,438 lbs. of the mixture of these grain feeds.

"Rape is a better green forage for growing pigs than good clover pasture. The pigs fed upon rape have made an average 100 lbs. of gain on 24.5 clover pastures to a gain that was required by the pigs fed on clover pastures."

"Rape should be sown for hog pasture in drills 30 inches apart to facilitate cultivation of the ground after each crop of forage is eaten off.

"Hogs should not be turned in until the crop is 12 to 14 inches high, and should be prevented from rooting while pasturing rape. Rape alone, however, is not a satisfactory feed. Hogs will just about maintain their weight on it, and it should always be supplementary to a grain ration."

An Ontario hog man who pastures rape sows the seed broadcast and allows the rape to make a good crop. When the first crop is well eaten down the roots will have become strong and vigorous. He takes the cultivator and cultivates the field with a spring tooth weeder, but does not appreciably injure the rape which then makes a strong second growth, and affords so closely that nothing except the bare stock remains. A few leaves are necessary to start new period of two or three months. 15 to 20 hogs for a year can be pastured 15 to 20 hogs for a year on a planted than is necessary for pasture or soiling. Many farmers who plant to use clover as a hog pasture frequently use rape when the clover winter kills.

Other Pasture Crops.

Ordinary blue grass pasture, as is found quite commonly in Ontario, and to some extent in the other provinces, especially in conjunction with white or Dutch clover, makes an excellent pasture for hogs.

and if they are allowed a fairly large area over which to roam, it has an advantage in that it comes on year after year without the necessity of re-seeding. There is, however, a period in mid-summer when blue grass is in its "resting stage," and is too dry and woody to give good hog pasture. In this case a small area of clover or rape can be used to tide over the mid-summer season until the blue grass comes on again in the fall. As a late fall and early spring pasture, rye is used by many hog feeders, particularly in Missouri. Early sown oats make good hog pasture early in the spring, and oats are sometimes sown in conjunction with rape. Pumpkins are especially relished by swine, and have been used very satisfactorily. Those of inferior quality can be fed first and sound ones stored for winter use.

A crop which may be used in lieu of a fall pasture crop, and one which has been experimented with by Mr. J. B. Brethour, is artichokes. Artichokes are grown somewhat like potatoes. They may be planted near the hog lot and harvested by turning the hogs in the field and allowing them to eat the tubers out that if a crop of the same kind is desired on the same ground. The Missouri Station recommends during next spring this land will be cultivated and another crop raised without re-seeding. Artichokes are planted in rows 24 inches apart, and cultivated like potatoes. One acre will pasture 15 to 25 hogs from the time the tubers are ready until the ground freezes.

Hogs which derive a portion of their sustenance from pasture will make cheaper gains than hogs that are entirely pen fed. There is an additional advantage in pasturing in that the hogs are healthy and more vigorous, and when finally put on heavy feeding to finish, they will make more rapid gains. One of the difficulties in adopting pasture feeding on the average farm in Canada will be the lack of suitable fencing. Portable fences, however, may be used, and to hold hogs on pasture if they have a fairly good range.

It is not price that matters so much now, it is food. If the consumer will not pay a price which leaves a fair margin of profit, the producer is forced to stop producing that particular line. The law of supply and demand cannot be set aside by any Board of Control any extent. The more price control we get the fewer farmers we have. Price control increases consumption and decreases production. The only solution for the food problem is to get more food, and to get more in 1918, farmers must have help and deserve an assurance that price control is not going to be such as to force them in the end to farm labor, and fair treatment are all the farmers ask. He is going in to make 1918 a record year, and let no one hamper his efforts.—Farmers' Advocate.

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POULTRY



A Profitable Flock

T. J. ADAMSON, of Laurel, Pa., is well satisfied with the returns from his poultry flock of about 900 birds. In a recent issue of The Journal of Agriculture he presents his yearly statement as follows:

235 pullets @ \$1 each	\$235.00
75 rearings @ \$1 each	75.00
18 cockerels @ \$5 each	90.00
127 market cockerels @ 50c	63.50
	\$463.50

1917.	
274 pullets @ \$1 each	\$274.00
135 rearings @ \$1 each	135.00
19 1-year-olds @ \$1 each	19.00
25 cockerels @ \$5 each	125.00
166 market cockerels @ 50c	83.00
Value of increased stock	\$136.50
Actual cost of feed	\$1091.75
Coal oil and other expenses	72.15
	\$1169.53

Value of income.	
Income from eggs	\$963.94
Market value of eggs used at home	57.78
Sale of stock, chickens, hatching eggs	216.64
	\$1238.36
Profit over cost of food, etc.	\$707.87

"From above figures one can see that our net profit was \$603.87 for the 394 birds, or \$1.55 per hen. Now this is not as large as some claim, and I think it can easily be bettered. We hope to better it this season by saving our early chicks, and instead of having to write up a loss for September and October eggs we hope to make a profit. Many others could considerably increase their profits by taking advantage of the summer visitor trade, especially by crate-fattening the old hens and culls and disposing of them at good round prices, and also watching the market. The Jewish population pay fancy prices for nice weeks in the fattening crates make very nice eating fowls and certainly improve the look and quality, always a profitable undertaking."

Cooperative Egg Farming
COOPERATIVE egg farming, as carried on in parts of England, gives a method for disposing of eggs to a good advantage. It is a plan especially beneficial to the farmers of the district, as, no matter how few dozens they may have for sale, the same market rate can be realized as if they had a large quantity to ship. A similar plan has also been tried in Canada in connection with the egg circle movement.

The Framlingham and District Cooperative Society, Limited, of Suffolk, England, takes the eggs from the farmers, tests them, and then ships the entire lot to market, giving an official stamp of guarantee of quality, which finds for them a ready sale.

The Society receives eggs only of good size and quality. Each egg must weigh not less than two ounces, and a deduction of two cents in price is made for every ten coming under the weight of two ounces each.

Each farmer is supplied with a small rubber stamp, with which he must stamp each egg before it will be received for shipment. All eggs coming to the shipping house are tested by experts, who can tell pretty closely the age and condition.

The exactness of the Society has been the means of inducing the farmers to improve their stock, and mate for good sized eggs, and they are careful to bring to market only the strictly fresh articles.

Each offering stands upon its own merits. There is no limit to quantity—quality alone being the considera-

tion. A dozen or a hundred eggs will receive the same kind of attention, and given the same advantage of sale, as will a thousand, provided, of course, they are properly stamped by the farmer from whose yard they have come, and meet the requirements of the official test. The Society guarantees to dispose of all the eggs, no matter in how large quantities they may be offered, at the best prices obtainable.

In Paris markets the eggs are dated, and one pays according to the freshness, so that it is possible to be certain of newly-laid eggs, or, if it is necessary to be economical, of yesterday's eggs, or the day's before, are offered at a reduction.

Here our own farmers and poultrymen can find an object lesson, especially in communities more or less remote from a good market. The common practice of farmers carting their eggs to the village store to be traded off for groceries, is an unwise act for both the farmer and the consumer. In the first place, the farmer is indifferent as to the age and condition of his eggs. During scarcity he will save up his eggs until he has a sufficient number of dozens to make it an object to "go to town." If a society would exist in the locality that would test the eggs, the farmer would soon learn that condition meant money for him, and would take greater care. By such a practice there would be less such on the market, and if this had eggs, the farmer would become cooperative principle would become general there would soon be a scarcity of preserved or pickled eggs, or eggs from cold-storage plants, on the winter market, to compete with the fresher trade, and the housewife would no longer look upon an egg with suspicion whenever she came to use one. —M. K. B.

Housing the Laying Flock

I HAVE just read in the United States Farmer of a poultryman who converted an old barn into a three-story poultry house with little expense. We have a small barn, an ell to the main barn, which could be made into a three-story house, similar to the one described. What do you think of this would you consider advisable to keep all the laying flocks in their winter pens all through the summer months, giving them no range whatever?—B. P. B. York Co., Ont.

I have never seen chickens kept for a long period of time with satisfaction in two or three decked houses. At the present time I would hesitate to advise any one to try such a scheme unless he had had with one and two decked houses.

You can keep birds indoors the year round, but it requires much more attention, and extreme attention to green food. With the ordinary person I would not advise it. If you can see of green food and look after the birds thoroughly and be sure that the house does not get very hot, that is, about 85 degrees as a maximum, I think probably you could keep them indoors entirely with a fair degree of success.—Prof. W. R. Graham, O.A.C., Guelph, Ont.

When Combs Lop Over

Many cockerels of the Mediterranean class, especially Minorcas, are discarded because their combs lop over while they are young. If a fine comb bird be a little out of sorts, his comb will at once drop. After he comes into good condition again, the comb generally stands erect, especially if the base of it is thick and strong. If cockerels of this class are forced too much, especially if given a lot of soft food, their combs occasionally lose firmness. When a comb is noticed to fall, the bird should be given a cod-liver oil capsule at night, and fed entirely on grain. In some cases, cockerels' combs are so weak at the base that they will make them stand, but even such birds should not be discarded, for if they are otherwise good they will be valuable for pullet-breeding.

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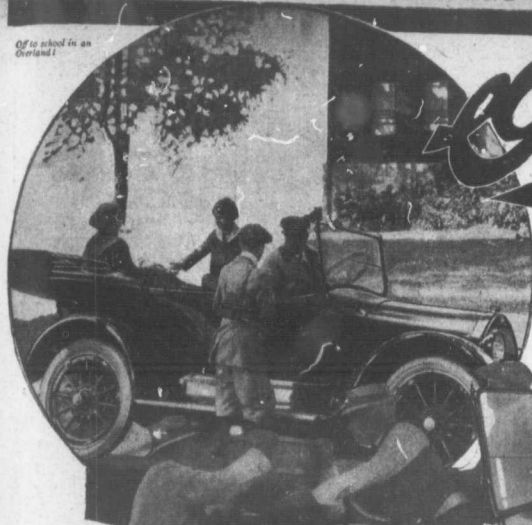
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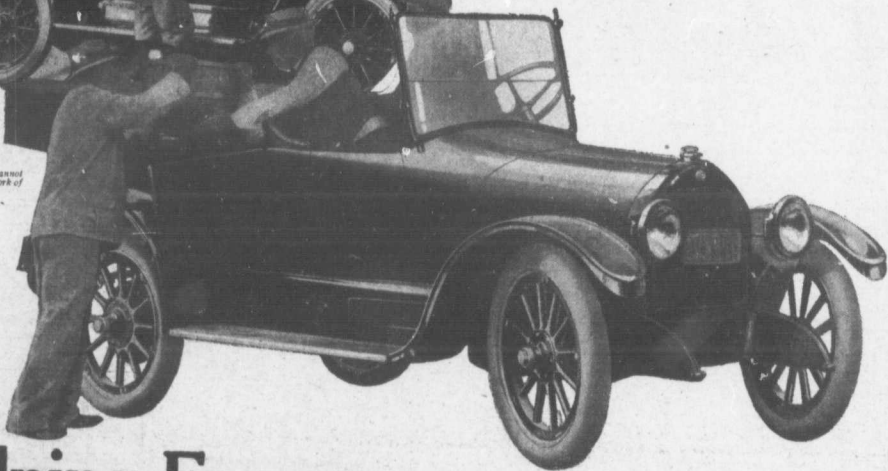
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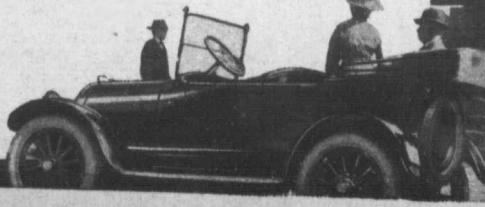


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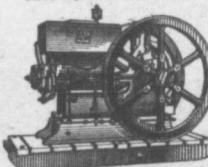
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Notes, Queries and Answers

Neighbor Objects to Bees

I KEEP bees in my orchard, which is between my neighbor's house and my own. Can my neighbor make me keep the bees a certain distance from his house, as being on the line between us? Am wintering 50 swarms, and the orchard is the only sheltered place I have.—T. Greenleaf, Ont.

There is no law to prevent you keeping your bees in your orchard, as stated in your enquiry, nor are you required to keep your bees a stated distance from your neighbor's premises.

Squirt Gun or Hose and Funnel

I SEE a hose and funnel advocated for douching cows to prevent abortion. Would not a squirt gun do as well? Where could I get such a gun and what would it cost?—Suburban, Ont.

The proper instrument is a veterinarian's injection pump. The hose and funnel is preferred to a squirt gun, as the latter is too slow in operation. Any of these can be purchased from dealers in veterinary instruments, or the hose from a dealer in rubber goods, and the funnel for a tinSmith. We do not know what the cost will be now, as like most things, it has increased.

Chronic Cough

HAVE a mare eight years old who has had a cough for the past 13 months. It is not hoarse, but I do not know what the trouble is. She holds her head straight out and tries to work her jaws when coughing. Would her teeth have anything to do with this cough? Would like to know of a remedy to remove the difficulty, as she is a valuable animal.—A. Rich, Writtle, Que.

Chronic coughs are very hard to treat successfully. Her teeth may be at fault. It will be wise to have her mouth examined by a veterinarian, and if necessary, her teeth dressed. Give her every morning one and a half drams of solid extract of belladonna, one dram powdered opium, 30 grains digitalis and half dram gum camphor. Add sufficient oil of castor to make plastic. Roll in tissue paper and administer as a ball, or dissolve in warm water and give as a drench. Moisten all she eats with lime water.

Bots in Horses

WILL you kindly give me a treatment for bots in horses?—A. T., Oxford Co., Ont.

Bots in the stomach of a horse that has been exposed to the attacks of the bot fly last summer, is a normal condition. At a certain stage of maturity they become detached from the mucous membrane of the stomach and pass out in the faeces. Some of them live to develop into gad flies to deposit their eggs on the legs and jaws of horses the next summer. The idea of treating horses "For Bots," is as irrational as it is ancient. No treatment will dislodge the bots before maturity. They are attached to the mucous membrane of the stomach by their tails, hence the common idea that they "eat holes in the stomach" is totally wrong. They do no harm except in very rare cases, in which they exist in very large numbers, and let go in large numbers, are formed into a ball and block the passage out of the stomach. This condition produces the symptoms of intestinal obstruction, and unless the mass becomes displaced, will cause death.

Computing the Butter

HOW many pounds of butter are there in 363 pounds of cream? Please explain the method of computing the butter.—J. G. Co., Que.

There are three different methods of computing the butter used from butter fat. In commercial work, it is common to add one-sixth of the number of pounds of butter fat to determine the amount of commercial butter. One-sixth of 363 lbs. is 60.50, and the number of pounds of commercial butter, would, therefore, be 423.

778. In computing the butter records in the Holstein-Friesian breed of cattle, the cream-tester works on an 80 per cent. basis. That is, they assume that butter is 80 per cent. fat, and in computing the butter, they divide the number of pounds of fat by four, and add the result to the pounds of butter.

On this basis 363.38 pounds of butter fat would figure out to 454.275 pounds of butter. The Friesian breed works on an 85 per cent. figure with the 85 per cent. basis, and in this case, the number of pounds of fat would be multiplied by one half, and would result in 181.69, which could result in 485.33 pounds of fat.

Grain Ration of a Dairy Cow

(Continued from page 4.)

she milked up to 85 lbs. a day and made an R. O. P. record of 15,700 lbs. of milk in the year, and she seemed to make the greater record with greater ease. During her second period she was shown in the Ottawa Dairy Test. After this experience I would not be afraid to feed grain to dry cows.

In an experiment down in the States, several cows were put on a maintenance ration for some days. They averaged 30 lbs. of milk a day, and at the end of the test weighed 400 lbs. less than at the beginning. This illustrates what happens to many fresh cows that come in when in fair flesh. They milk well for a time under any conditions, and accordingly little grain is fed. When the bodily reserves begin to be used up, Nature calls a halt, the milk flow slackens, and then the dairyman starts to feed her grain. The first effort of the cow will be to recuperate her lost weight and vitality, and the result will be an unsatisfactory milk flow. The time to start feeding grain to a cow is when she is dry, and after freshening she should be gotten back on full grain rations just as soon as she can safely work up to it. I believe in feeding concentrates to even present condition.

LETTING IN THE SUN

On Sawing Wood

ONE DAY I journeyed to the village to get some figs and bran, for flour and beef and beans and bacon, I'm saving all I can. The day was bright; the sun was shining in his accustomed place as at the village store I halted and wiped my sunning face. Then came the merchant, sad and gloomy, "Oh grin not this," he cried. "We're faced with famine, war and earthquakes and other things beside. The times are out of joint I'm thinking; the garbage men have struck; the price of gaiter feed's still rising; the world has run amuck! You don't go; you had the crops you water when you were young and smart. The kind of punkin pie they're baking would fairly break your heart!"—Then with a sob he fell down cellar and beat his collar bone. I left all the quivering cheese handy took up his ghastly moan.

With tear dewed eyes I quit the building, but seated on the stoop I found a politician acting as though he had the crop. He patted me like a colt with coils, he tore his hair and wailed, "Old Russia's surely up against it, and Irish peace has failed. I don't see nuthin' now but ruin!" But ere he ceased his bray, I wept aloud and rent my garments, then homeward took my way.

In this distracted state of feeling I called on Uncle Jim, where "whistling like an English rick" he sat, and said himb. "Oh James," I cried, "Good Uncle Jimmy, what think you of the war? What can the farmers do with prices of mill feeds when they are? I fear me that our hogs will never lose fat and our sheep again, for balsam boughs and musty stover can't take the place

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of grain. When on farming? I'll kill my pig, make pot roasts. But Uncle Jim, as chesny as aired my dark saving wood. I had times a day, little homemade mack? The fo and served a propheated a doge birth to statestman. I find there's a nasty rule might make our corner all day long, a home at evening a song. There's keep some milk keep on making. Then home I and served a chicken the have some eggs whisked like a cherry note, you won't see a tripe drive my pigs to hoo my corn and produce on three summaries.

Now, there's liver's not working him to some vim him saving wood will keep a small nose and play a garden, will I

Some G

HERE are in 1917 this note. First neighborhood of had an average yield of 231 lbs. fat of 4,897 lbs. milk or considerably much. This is an est better care a cow produced as much of the best cows ply by being better.

The second herd average of 11,215 lbs. fat; the increase milk and 199 lbs. by double. This is all care and in this herd in 1915 and in 1916 her records; she took the Ottawa Winter lead works to good. It will evidently of what cows are then what they can do. Just write to the milk record forms get full satisfaction from improved cows make each cow pay.

Young Arthur a lesson in grammar, thoughtfully, "Is woman?" "Woman, my dear speech; she is all father.

Bobby. And all his the are kept in. Why did hee? Bobby. 'Cause he own.

They had lost their new and expensive. "There's a sign, do right road?" "With his flashlight the Poor-house?" "Yes," he answered right road and

of grain. What use is there to keep on farming? I think I'll sell my flocks; I'll kill my pigs and with a hatchet make pot roasts of my cocks."

But Uncle Jim just kept a whistling as cheery as he could, and while I aired my dark forebodings, he went on sowing wood. "My son," quoth he, when I had finished, "I know the times are dark, but why not make your little homestead come up and toe the mark? The failure of mankind, unaided, to bring in peace on earth, was prophesied a dozen ages ere Mrs. B. gave birth to Wm. Jennings, far-famed statesman. And in The Book you'll find that only One will e'er be able to justly rule mankind. Yet we can make our corner brighter by grinning all day long, and when we gather home at evening, we might e'en sing a song. There may be famine headed upward, but if you'd know the way to keep some milk in baby's bottle, why keep on making hay."

Then home I went with heart uplifted and sowed a field of wheat. I fed the chickens that our soldiers might have some eggs to eat. I worked and whistled like a trojan and sang my cheery note, until my neighbors fell upon me and tried to cut my throat. I drove my pigs to verdant pastures; I hood my corn and beans; I shipped my produce on three vessels—all sunk by submarines.

Now, when I meet a chap whose liver's not working as it should, I take him to some virgin forest and start him sawing wood. The nation that will keep a smiling and practice frugality and plow the fields and hoe the garden, will win the war I guess.

Sam Ray

Some Good Results

HERE are two dairy herd records in 1917 that are worth careful note. First, a herd in the neighborhood of Oxford Mills, Ont., had an average yield of 9,008 lbs. milk and 281 lbs. fat, an increase from 8,217 of 8,897 lbs. milk and 114 lbs. fat; or considerably more than twice as much. This is attributed to weeding out, better care and better feed. One cow produced as much milk as two of the best cows the year before simply by being better fed and cared for.

The second herd, six cows, gave an average of 11,218 lbs. milk and 349 lbs. fat; the increase is from 6,338 lbs. milk and 199 lbs. fat in 1915, or nearly double. This is the result of feed and care and an AI sire. One cow in this herd in 1915 gave 8,817 lbs. milk, and in 1916 her record was over 19,000 pounds; she took a high standing at the Ottawa Winter Fair. Hard record work leads to good results.

It will evidently pay to keep track of what cows are doing now, and note them what they can be induced to do. Just write to the Dairy Division for milk record forms, they are free, and get full satisfaction and better returns from improved cows. Test the herd, make each cow pay.—C. F. W.

Young Arthur was wrestling with a lesson in grammar. "Father," said he, thoughtfully, "what part of speech is woman?"

"Woman, my boy, is not part of speech; she is all of it," returned the father.

Bobby. And all the animals went into the ark 'cept the dog.

Elsie. Why didn't the dog go in, too?

Bobby. 'Cause he had a bark of his own.

They had lost their way in their new and expensive car.

"There's a sign, dear. Are we on the right road?"

With his flashlight he read. "To the Poor-house."

"Yes," he answered. "We're on the right road and we didn't know it."

THE DEEPER MEANING

BISSELL FARM IMPLEMENTS

Silos Disk Harrows Land Rollers

T. E. BISSELL CO. LTD., ELORA, ONT.

The name "Bissell" stands for quality of recognized Merit and Superiority. Business in its highest aspect is "ESSENTIALLY SERVICE".

Just as "Greatness is in proportion to service" in an individual, so the Implement which yields the greatest service to farmers is the best article. Look for the name "BISSELL." Disk Harrows bearing this name are "Built for Business," and none others are genuine. Built also in sizes for use with Tractors.

NEPONSET ROOFS

NEPONSET PAROID ROOFING

NEPONSET TWIN SHINGLES

The Long-Life Roofing For Farms, Factories and Railway Buildings

STUDY the roofs in your neighbourhood, particularly those that have been up for 10 years or more. Now, as a guide to the roofing YOU should buy, remember that Paroid Roofs laid 19 years ago are still giving excellent service. Could other roofings equal this record at anywhere near the same first cost?

NEPONSET Paroid ROOFING

You cannot beat the quality of this asphalt-saturated Paroid, so why pay more than the cost of Paroid? It is the utmost in quality you can buy in roofing for service and satisfaction. Rain, hail, heat and cold won't hurt Paroid, and it offers real protection when fires are raging nearby.

Look for the roll with the Paroid label. There is only one genuine PAROID. This is it

Sold by Lumber and Hardware Dealers

Paroid is made with a Grey surface; also with a permanent Red or Green surface of crushed slate, which is in demand for roofing residences, as well as farm, factory and railroad buildings.



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WAREHOUSES:

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The Largest Manufacturers of Roofings, Wall Board and Roofing Felts in Canada

For Your War Garden

RENNIE'S SEEDS

EVERY person whose conscientious desire is to help the cause of the Allies, will plant a garden this year. The food situation is more serious than realized and unless each back yard is cultivated, actual hunger may be felt before the close of the year.

To help beginners get the best results from their gardens we have made up a War Garden Collection of Rennie's high standard crops. Plant these—you can then be sure of abundant crops.

War Garden Collection

This Complete Collection will stock a Moderate Garden. BEANS, Dwarf Stringless Yellow, Round White Table, low Pod. BEANS, Dwarf Stringless Green, Round Red. POD. PARSNIP, Long White. CABBAGE, Early. CARROT, Intermediate Red. CORN, Early Sugar. CUCUMBER, Slicing. LETTUCE, Cabbage Heading.

\$1.00 Prepaid.

"Cottage Garden" Flower Seed Collection

Alumina, Sweet. Asters, Mixed. Balsam, Mixed. Candytuft. Dianthus (Chimera Pink). Gillyflowers. Morning Glory.

50c Prepaid.

The Stars Point to Bargains.

Whenever you see items in our 1918 catalogue marked with the star border—you find real bargains in seeds. Watch for these carefully and save money when buying.

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ALSO AT MONTREAL WINNIPEG VANCOUVER

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We supply cans. We pay all express charges. We remit daily. We guarantee highest market prices. For prompt service ship your cream to us. A card will bring you cans.

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SWEET CLOVER

A farmer near Durham, Ont., realized \$2,500 for the seed from 15 acres of Sweet Clover. Another near Newmarket got \$600 for the seed from less than five. But that isn't all that they got. A big lot of feed, some splendid pasture, and a big accession of fertility in their soil. Sweet clover is coming into its own—the plant intended for the farmer's use when it was created. Just now we must have bigger crops of feed, we must re-build our soil, and do both with less expense and labor than is possibly done by old methods. We are offering a limited quantity of our own select strain of Yellow Blossom Sweet Clover, and recommend it as possessing a splendid wealth of foliage, making a super quality of hay. It is more succulent, easier to cure, higher in food value than the common White Blossom. It is a lower growing plant, therefore safer from damage from cutting too low when taking off the first crop.

Canadian Albotra costs a little more per bushel, but actually less per acre, for its big and rapid germination. It is the 15 to 12 seed weight seed, and when with common White Blossom 20 lbs. to 25 lbs. are recommended.

Write us placing your order at once. Prices are as follows:

Grade No. 1, per bushel	\$25.00
Grade No. 2, per bushel	20.00
Grade No. 3, per bushel	17.50
White Blossom Sweet Clover, per bushel	15.00

NOTE—Grades 2 and 3 contain some alkali, with traces of dock, rib-grass seed, but none of the more poisonous weeds. For growing seed we recommend our Grade No. 1.

Prices are f.o.b. Listowel, L.

ADDRESS:

Canadian Albotra Clover Co., Ltd.

Shipping Office and Warehouse: Listowel, Ont.

The Y.M.C.A. and the Canadian Forestry Corps

"Till the Boys Come Home." The Red Triangle is Taking Home to the Boys. By John L. Love

ON many a track of forest land laid waste by fire is to be found growing a crimson flower. This plant is known in some localities as the "fire weed," owing to the fact that it is said to spring up in the wake of a huge conflagration.

There is another healthy growth springing to life in the track of the awful conflagration in Europe to-day, and it is known as the "Red Triangle," the crimson sign of the Y.M.C.A.

Wherever the Khaki goes, the Red Triangle follows. In some cases this insignia of comfort and cheer for the troops keeps almost abreast of the marching columns. At Vimy Ridge, for instance, the "Y" man was on the job with his coffee-stall before the place was consolidated, serving biscuits and chocolates to the weary men. The work of the Red Triangle is not confined to training camps and bases, and there are dozens of Y.M.C.A. dug-outs in the forward trenches, some of them only taken over by the German line, and where the Secretaries are under continuous shell fire. Ten days after the Canadians began their thirty-seven centurion operation on the battlefield, the Y.M.C.A. was given the definite responsibility of caring for the wounded, and as the streams of men came in they were cared for by the "Y" Secretaries, and given free hot drinks. According to one Senior Medical Officer, this service was the means of saving hundreds of lives.

The work of the Y.M.C.A., however, is not confined to the war-stricken areas. The Secretaries and their dogtags are to be found in France and Flanders, Mesopotamia and Palestine, in every field where the allied armies are fighting; but they are also very much in evidence with the non-combatant forces.

In the Forestry Camps of Britain.

From end to end of Great Britain are the camps of the Canadian Forestry Corps. These are nearly fifty in number, and in most of them the Y.M.C.A. has a centre. Each leader is a trained and qualified man, and there are ordained ministers among them. The staff is supervised by Captain Claverville, the Y.M.C.A. Headquarters, who spends most of his time going from camp to camp in the interest of the Foresters.

The men in the Camps, while not called upon to face the rigors and risks of actual warfare, are none the less rendering a tremendous service to the Empire. Their chief releases them from the tedium of a life that otherwise would be employed in conveying timber from Canada and other parts to England; and if their physical dangers are not extraordinary, still they are strainers in a strange land. The camps are for the most part isolated, and after a long absence the bug of loneliness and a homesick yearning bites no less sharply in one foreign strand than in another.

"Till the boys come home" the Y.M.C.A. takes home to the boys. At the sign of the Red Triangle the loneliness of lambsick plains for his "ain country," can find American and Canadian magazines. He can purchase, for a nominal rate, numerous variations of camp diet, such as hot and cold drinks, sandwiches, pastries and cakes. Any profits are paid over to a Company Fund, which devotes them in the main to defraying expenses connected with the Y.M.C.A. work.

Entertainment Provided.

Concert parties from the nearest towns make frequent visits to the camps, and the social and entertainment features include cinema shows and dances.

Checkers, chess, dominoes and letter-writing fill many an evening's

leisure, and for the more studiously inclined there are classes where men may learn knowledge that will make them more efficient in days to come, when the sword is sheathed and the battle flag is furled.

Over two hundred men in different units are taking specially selected courses related to forestry work. For this a small fee is charged, and the balance is divided between the Forestry Corps Headquarters and the Y.M.C.A. Classes in English and arithmetic are also conducted by teachers from local schools where camps are in sufficiently close proximity to town or village.

Amongst the most enjoyable and best attended functions at the Hut are the Parade Services on Sunday mornings, and the Song Services in the evening. The latter is a quite informal gathering, and as the men choose their own hymn the singing is most hearty.

What the Boys Think of It.

In what light the men of the Canadian Forestry Corps view the work of the Red Triangle is seen in the large numbers that through the building every night, making full use of the privileges provided.

The Officers' estimate was expressed by Brigadier General McDougall, Director General of Timber Operations, London, in a letter to Lieut.-Col. Gerald W. Birks, the General says:

"This work of yours, which is educational, inspiring and entertaining, has, I feel sure, helped us in our production, because it has shown to the men a healthier outlook on life in general, and thereby been the means, indirectly maybe, of stimulating them to greater efforts."

Touching the lives of these men so intimately on their spiritual, mental and physical sides, the work of the Canadian Y.M.C.A. has earned the ever-increasing gratitude and unstinted support of all who would see not only honor and glory come to the flag wherever this modern Armageddon is being waged; but also hold that no service, no sacrifice, is too great to render the men who by their supremely unselfish labors are giving Canada a "place" in the sun and a foremost seat in the councils of the great civilized nations of the world.

The Farm Well

GOOD water is as essential as good food for the maintenance of health in the family and the thrift of the farm live stock. An ample supply of pure wholesome water is not only a blessing of inestimable value but one of the most valuable assets a farm can possess. There is no country in the world with a greater rivers and springs than Canada, and there is no insuperable difficulty in the larger number of our agricultural districts in obtaining a supply ample and pure.

A glance through the annual reports of the Experimental Farms shows that the Division of Chemistry is doing a valuable work towards the improvement of the farm water supplies throughout the Dominion. In the course of the past 20 years many hundreds of samples from farm wells have been analysed and reported on. A perusal of these reports shows that, year in and year out, only about one-third of the water were pronounced as being of a wholesome character. In other words, were free from excretal drainage matter. This is not as it should be, and the reason is not hard to find. In too many instances conveniences only have been considered in locating the well. For the most part we find these polluted wells under stables, in barnyards, or dangerously near the

privy, or where farm house are such locations as do not yield most accurate or by ditch drainage, surrounding a becomes saturated. These case pits, and a few instances of such wells polluting water excretal matter.

The lesson. Don't sacrifice. Don't locate the well 60 to 100 yards possible source bore or drilled from the surface. At the junction of the well, line it to meet with concrete to six inches above the excavation surface layers coverings of the from the accumulation of water to carry off the pump, so the well, and so the well that is for it, and they are excluded. These pure water windmill, gasol pump well venturist, and siphoned to the best this securing rural farm buildings blessing that is perceived to be.

Field

In the vicinity of saw standing on concrete for bulle-crete silo and building alone, and un-erchages of a building of a barn is fair in any case it comes to rebuild; a concrete silo and both standing and seen as usual; if more encouragement ahead and rebuild.

While spending an Eastern Ontario used that he had gone for running his. I also noticed that pulley on either the separator and advised to be engaged to start the speed as it was the separator. He starts the separator in belt off. Then water reached a fast one on the belt and that starts the in this was that if a person to use cranking the cream was in cranking a

One of the more able things while country during the followed the estimate was the great num shaking on the field, since such an opportunity has come to the man ever, while low on the a fine thing for the not looked on with small boy's father. His conditions as a result are not good for fall the following summer my mind, how when

griv, or where the slope from the farm house are thrown out. Wells in such locations can never be depended on to yield pure water. They must sooner or later become polluted by filth draining into them from the surrounding soil, which inevitably becomes saturated with manurial products. These wells, indeed, act as cess pits, and the records show not a few instances in which the water of such wells possessed a distinct fertilizing value from the presence of excretal matter.

The lesson from these facts is: Don't sacrifice health to convenience; locate the well at a safe distance—10 to 100 yards at least—from any possible source of contamination. A bored or drilled well, tapping a deep-seated source, tightly sealed off at the junction of the soil and rock, is likely to give the purest supply. If a dug well, line it to a depth of 10 or 12 feet with concrete or puddled clay, four to six inches in thickness, to ensure the exclusion of water from the surface layers of soil. Keep the surroundings of the well absolutely clear from the accumulation of filth, and preferably in the grass. Make provision to carry off the waste water from the pump, so that it may not re-enter the well, and so protect the mouth of the well that surface water cannot flow in, and mice, frogs, snakes, etc., are excluded. With wells such as these pure water may be secured. A windmill, gasoline engine or hand force pump will be found a paying investment, enabling the water to be piped to the house, stable and barn, thus securing running water in the farm buildings—a convenience and blessing that needs only to be experienced to be appreciated.

Field Notes

By "Mac."

IN the vicinity of Ingersoll I recently saw standing beside the road a fine testimony as to the value of concrete for building. It was a concrete silo and barn foundation, standing alone, and unscathed amid the wreckage of a burned barn. The burning of a barn is a serious enough affair in any case but when the farmer comes to rebuild and finds that he has a concrete silo and basement walls both standing intact and saying "business as usual," there is considerably more encouragement for him to go ahead and rebuild.

While spending a few minutes with an Eastern Ontario dairy farmer, I noticed that he had a small gasoline engine for running his cream separator. I also noticed that he had no friction pulley on either the engine or the separator and asked him how he managed to start the engine, at as slow a speed as it was necessary to start the separator. His answer was, "I start the separator by hand with the belt off. Then when the separator has reached a fast enough speed I throw on the belt and turn on the gasoline and that starts the engine." His idea is this was that it was just as well for a person to use up their strength cranking the cream separator as it was in cranking a gasoline engine.

One of the more particularly noticeable things while going about the country during the cold spell which followed the extensive February floods, was the great number of small boys skating on the fields. It is many years since such an opportunity for pleasure has come to the small farm boy. However, while ice on the fields may be ever, while ice on the fields may be a fine thing for the small boy, it is not looked on with much favor by the small boy's father. He knows that such conditions as a rule mean that chances are not good for fall wheat and clover the following summer. It brought to my mind, how when a small boy my-

self, I had heard older people discussing the proposition of putting a large drain through a piece of flat land which habitually froze over and defied all attempts at growing clover. I was much concerned regarding the fact that that particular field had been the one recreation ground for the small boys of the neighborhood, "also the girls." However, "it is an ill wind that blows nobody good." If undrained land affords pleasure to the small boy of the farm, let him enjoy it while he may. No doubt one of the after-the-war problems will be the draining of a large part of the flat land of Ontario, which at present is more useful as a pleasure ground for the young people in winter than it is for the growing of clover in summer.

While in the barn of Mr. W. F. Elliott, Unionville, recently, I could not



DICKINSON'S PINE TREE BRAND SEEDS

Timothy, Clover, Alfalfa and
Other Field Seeds

If Your Local Dealer Cannot Furnish This Brand

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THE ALBERT DICKINSON CO.
MINNEAPOLIS CHICAGO

help noticing the material which he had used for the partitions in his calf and hog pens. He secured some heavy iron netting, commonly used for concrete reinforcing work. This he stretched across, wherever he wished

partitions. This material is strong enough to hold any animal on the farm. It does not interfere with the light and its appearance certainly adds much to the attractiveness of the stable.



A Truck for the Farmer

FARM equipment which will effect a time and labor-saving, and therefore a money-saving, must be carefully considered by every good farmer now-a-days.

The farm wagon, which for years was the most useful of all farm equipment, is now being replaced on the best farms by a sturdy, dependable motor truck. The truck will haul any farm product—fruit, grain, vegetables, stock, fertilizer, or wood—around the farm, or to the town or city many miles distant, in half the time, and at a much lower cost.

The Ford One-Ton truck is a rapid, economical and very serviceable means of transport. One of these on your farm will save you weeks of time in a single season and will enable you to pass through a crisis of labor shortage with less difficulty.

The Ford truck is supplied as a chassis only. This permits you to select any of the many body styles especially designed for the Ford truck and already on the market. Thus you can mount the one which suits your individual requirements.

Price \$750 f.o.b. Ford, Ont.

See any Ford Dealer in Canada, or write for a catalog

Ford Motor Company of Canada, Limited Ford, Ontario



Three of the many body styles that may be mounted on the Ford truck chassis

drying. It should be dry enough before sowing so that it will feed freely through the drill. In case the grain has become swollen, the feed on the drill can be opened to effect the swelling of the grain. The drill should be sprinkled thoroughly with the above solution before being used.

Preparations Made for Important Fruit Legislation

(Continued from page 2.)

offered for sale shall be well and properly filled at point of shipment, and if cases where fruit inspectors find evidence of under-filling, they shall have the right to weigh or measure the contents of the package at the point of shipment, in order to determine whether or not the package had been well and properly filled. It was also decided that in cases where packages are re-packed for sale they shall be marked as such and bear the name of the re-packer. No grades or marks on the package shall be altered except on authority of the Dominion Fruit Inspector. In cases where re-packing is practiced, all former marks on the package must be obliterated.

False Marking.

It has frequently occurred in the past that Fruit Inspectors have found packages of fruit not properly marked. They have not had authority to re-mark these goods so as to show their correct grade. All they could do was to mark the packages "wrongly marked." Even after they have been so marked the dealers have often been able to sell the fruit as though it had not been wrongly marked. It was decided that when an inspector finds packages of fruit falsely marked at the shipping point, he shall have power to remove original grade marks and place the proper grade marks on the package and that he shall also have power to hold such fruit until proper marking is done.

Canada has not had a standard bushel basket hitherto. It was decided to adopt the American standard bushel basket.

Immature Fruit.

Great injury has been done to the fruit industry hitherto through the practice of some growers of shipping immature fruit early in the season when prices were high. It was decided to ask for legislation which will provide that no immature fruit shall be marketed except where the demand is legitimate nor any fruit that is so materially diseased, wormy, or otherwise depreciated so as to be unfit for consumption. "Immature" was defined to include all fruits that are unsuitable for consumption, because of lack of those desirable and necessary qualities of a culinary or dessert product.

Open Boxes.

Hitherto a great variety of boxes have been used in the marketing of small fruits. It was decided to recommend three sizes only: the four-fifth quart, the two-fifth quart and the British Columbia pint box made square. These will be the standard sizes for domestic trade only.

It was decided not to recommend any legislation that will prevent the United States fruit entering Canada in packages, the use of which may not be legal for Canadian growers, and that baskets, box and barrel manufacturers should be allowed ample time to dispose of stock on hand.

Those Present.

The sessions of the committee were presided over by the Dominion Fruit Commissioner, Mr. D. Johnston. Those present included: From British Columbia—C. E. Barnes, Walschinsky, J. E. Heskin, H. Brown; G. A. Chick, Kelowna; E. Traak, Oryama; Prof. F.

M. Clement, Vancouver; H. C. Airth, New Westminster; Prairie markets—L. E. Muttien, Regina, Ontario—R. W. Grierson, Oshawa; W. F. W. Plank, or Burlington; F. A. Sheppard, St. Catharines; Dr. A. J. Grant, Theford; S. H. Hiltchouse, Jordan Station; P. W. Hodgkiss, Toronto; F. Carpenter, Grimby. Quebec—Prof. T. G. Bunting, Macdonald College; Peter Beeve, Chateaugay Basin; Rev. Father Leopold, La Trappe, New Brunswick—A. G. Turry, Fredericton, Nova Scotia—F. H. Johnston, Bridgetown; F. W. Bishop, Paradise; A. S. Banks, Waterville, M. K. Ellis, Port Williams; A. E. McMahon, Derwick, Prince Edward Island—A. E. Dewar, Charlottetown. The basket manufacturers present included A. W. Reid, Beamsville; W. P. Thomas, St. Thomas; J. H. Baskette, of Owen Sound. Others present included J. H. Hastings of Winona; W. T. Macoun, Ottawa; and Fruit Inspector T. J. Carey, Toronto; C. W. Baxter and C. H. Snow, Oshawa; F. H. Steele, Winnipeg; R. G. L. Clark, Vancouver; G. H. Vroom, Middleton, N.S.; and Messrs. Geo. Macintosh and F. H. Grievley of the Dominion Fruit Division.

A bride entered a grocery store and asked the man if he had any eggs. "Yes," he returned proudly, "and they are not to be beaten." "Well," returned the woman, turning away, "they will be of no use to me, for I want to use them in a pudding."

Experiments With Farm Crops

The members of the Ontario Agricultural and Experimental Union are pleased to state that for 1918 they are prepared to distribute into every township of Ontario material of high quality for experiments with grain, fodder crops, roots, grasses, clovers and alfalfa, as follows:

- LIST OF EXPERIMENTS FOR 1918.**
- No. Grain Crops Plots
1. Testing two varieties of Oats..... 2
 2. Testing D.A.C. No. 1 Barley and Banner..... 2
 3. Testing two varieties of Hulless Barley..... 2
 4. Testing two varieties of Spring Wheat..... 2
 5. Testing two varieties of Hard wheat..... 2
 6. Testing three varieties of Oats..... 2
 7. Peas..... 2
 8. Testing two varieties of Spring Rye..... 2
 9. Testing varieties of Jay, Soja or Japanese Beans..... 2
 10. Testing seven varieties of Plint and Dent Hybrid Corn..... 7
 11. Testing three varieties of Plint Hybrid Corn..... 3
 12. Testing four varieties of Dent Hybrid Corn..... 4
 13. Testing two varieties of Fall Turnips..... 2
 14. Testing two varieties of Carrots..... 2
 15. Fodder, Silage and Hay Crops..... 2
 16. Testing the planting of Cows at distances in the row..... 6
 17. Testing three varieties of Millet..... 2
 18. Testing three varieties of Sorghum..... 2
 19. Testing Grass, Peas and two varieties of Vetches..... 2
 20. Testing Rape, Kale and Field Cabbage..... 8

21. Testing three varieties of Clover..... 3
22. Testing two varieties of Alfalfa..... 3
23. Testing four varieties of Grasses..... 4
24. Testing three varieties of Field Beans..... 3
25. Testing two varieties of Sweet Corn..... 2
26. Testing Fertilizers with Rape..... 5
27. Testing Fertilizers with Rape..... 5
28. Testing three grain mixtures for Grain production..... 3
29. Testing three grain mixtures for Fodder production..... 3
30. The size of each plot is to be two rods long by one rod wide.

Any person in Ontario may choose any ONE of the experiments for 1918 and apply for the same. The material will be furnished in the order in which the applications are received while the supply lasts. Each applicant should make a second choice, as the material for the experiment selected as first choice might be exhausted before his application is received. All material will be furnished free of charge to each applicant, and the producer will, of course, become the property of the person who conducts the experiment. Each person applying for an experiment should write his name and address very carefully, and should give the name of the county in which he lives.—C. A. Zavitz, Director, Ontario Agricultural College.

Bobbie had been taken by his father to the circus. The youngster came home round-eyed with excitement and flushed with enthusiasm. "Oh, ma," he exclaimed, "if you go once to the circus with me you'll never want to fool away time going to church again."



"Motorwise" Buyers are using McLaughlin Cars

McLAUGHLIN cars are more and more coming into popular favor among Motor wise men who make a minute study of seal motor car values.

Now that motor cars are such a factor in business, men look for that particular make of car representing highest value for the amount involved. McLaughlin cars give uninterrupted service due to their efficiency.

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The Handy Scales for Farm Use

Here is the handiest weighing outfit ever designed for farm use. Convenience and service are the chief features of this

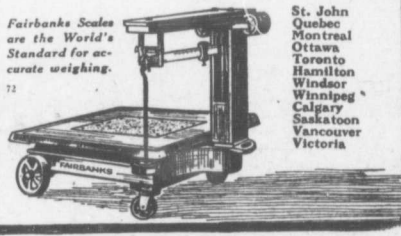
Fairbanks Farm Scales

The handle at the base of the weighing post permits of ready transportation on its own wheels to any part of the farm buildings. In house or barn or dairy it serves any purpose up to 2000 pounds capacity. The Fairbanks Portable Farm Scale has a low weighing post, is compact and absolutely accurate. The platform is 34 x 25 1/2 inches and has a clearance of 11 8/8 inches above the ground. Write our nearest branch for full details of this and other types of scales.

The Canadian Fairbanks-Morse Co., Limited.

Fairbanks Scales are the World's Standard for accurate weighing.

72



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Letters to the Editor

The Farmer's Labor Income

EDITOR, Farm and Dairy—In your issue of Jan. 24th, there is an editorial and also a brief report on the rural survey of certain parts of Ontario. This is something entirely new to us here, but, so far as I can gather from reading the articles referred to, it means that the Ontario Government is trying to find out how profitable or how unprofitable farming really is. The subject is very interesting and is the one subject connected with farming which, more than any other, needs careful attention. Almost all branches of farming have been gone into very elaborately by the various agricultural departments, but this one subject has until recently entirely neglected, and even now, either may venture to say so, it is being approached by the experts from a wrong angle.

Why should capital employed in farming operations be figured at 5 per cent? Capital in no other industry is figured at this low rate, and no farmer in any part of Canada can now or ever has been able to in the past, get money at a half as low a rate of interest may be a trifle lower in Ontario than they are in British Columbia, but, speaking generally, I have no doubt that the conditions are generally the same in both provinces. A farmer wants to borrow money the bank will charge him from seven to eight per cent, and will only lend him a mere fraction of what his farm, stock and outfit are worth. If he goes to a mortgage company, he will have to pay from seven to nine per cent, and will be able to borrow only from a third to a half as much of what his farm alone is worth, without counting the stock. If he borrows money on a chattel mortgage on the stock, he will be able to get about a third of the value, and probably have to pay from ten to twelve per cent. These, with slight variations, are fairly well known conditions all over Canada, and have been the ruling conditions for generations.

Estimates on an impossible basis.

Then why should the department start now making their estimates on a basis which is now, and always has been impossible? Take any other business enterprise—cotton, factory, iron works, shipbuilding, railway—anything else you like to name—and, while the amount which can be raised in these industries is generally a far higher proportion of the assets than a farmer can borrow under any circumstances, the manufacturer would have to pay for these debentures at least as high a rate of interest, quite certain that nobody would dream of putting money into any manufacturing or trade enterprise as a shareholder where he did not expect to get considerably more than six per cent. While one's expectations in this respect are very often not justified, if the enterprise does not pay seven or eight per cent, it is not considered profitable, and as a rule, the shareholders or lenders get out of it as soon as they can.

I think that the basis taken for estimating the profitableness of Canadian farms should be not less than six per cent for two-thirds of the value of the farm and buildings alone, and not less than eight per cent for the value of the stock, outfit and the remaining third of the land. This would probably make an average of about seven per cent, all through in most cases, instead of the five per cent, as estimated by the department—and when one considers the hazardous and speculative nature of farming, dependent as it is upon many things entirely outside of the control of the farmer himself, I would say that an average rate of interest of seven per cent is extremely small, and it is doubtful whether anyone could be induced to invest money in farming

with the expectation of getting only this amount. I suppose the reply of the Agricultural Department would be that if capital were figured at seven per cent, there would be no labor income at all in many cases, and that they did not want to show that farming is entirely unprofitable. I am looking to further immigration to fill up our vacant lands, and this would have a tendency to prevent immigration. I have often noted in this argument used by this connection, and would say that the truth is the best every time, no matter whom it hurts. Moreover, it is a very wrong thing to induce immigration on false pretences.

The idea of the feeding of a population of 8 million people being left in the hands of what can only be described as a cottage industry, is both foolish and dangerous, and if this rural survey has done nothing else, it has proved beyond question that, as you say, the vast majority of small or family-sized farms is not economical in any way.

A Permanent Laboring Class.
In my humble opinion, farming will never be a satisfactory or sound economic basis until farmers are able to get a class of labor which is both steady and contented. That can never be got until the same wages are paid that hold in other skilled industries, and I am sure that any thoughtful farmer must have often been pained to feel that the only wages he could afford to give to a man who is really a highly skilled laborer were less, in many cases, than the common unskilled laborer was getting in the cities.

I believe it is the idea of the small, family-sized farm which has been so prevalent in Canada so long, and the constant "talk to the land" talk which is heard in the cities, that is at the bottom of the whole trouble. Hundreds of men have been induced to go into farming and invest their total capital in it—men who had neither previous experience or natural ability nor sufficient capital. These men have become stuck there, and it has been impossible for them to pull out many reasons, and from their old mode of life and they have simply plodded along from hand to mouth ever since. This class of men is the weakest link in the chain, and we all know that the strength of the chain is the strength of the weakest link, and it is the constant economic pressure upon this large class of farmers, forgotten by them, that is in order to get the immediate relief, which has been the bane of the farming industry. One cannot help thinking sometimes that the large interests, particularly the large employers of labor, are giving a great deal of outside encouragement, possibly some direct financial assistance, to all the back to the land talk, and the various kind of "talk to the land" nature of farming operations. Their interest, for more than the interests of the working class, is in keeping the cost of living as low as possible, particularly that of food—Charles E. Hope, Deep Creek Farm, Limited, Langley Fort, B.C.

Socialism the World's Hope

EDITOR, Farm and Dairy—In the last issue of the Farm and Dairy appeared a letter under the caption of "On Dynamite," regarding the views of unrest that is spreading and continually gathering momentum all over the civilized world, and which shows itself by spontaneous outbursts of lawlessness here and there as cited in that letter.

The causes of this are neither shallow nor artificial, but are deeply embedded in the very roots of our social order, and the elimination of these causes will necessitate radical and sweeping reforms in this privileged and monopolistic world of ours, along socialistic lines.

What have we under our present order of things? On one hand we have the wealth of the country in the hands of the privileged class, while

on the other hand we have the masses of the producers, without that they produce the bulk of the products of the earth and proceed in instruments and the higher mounts, the heavy forest that it entails back of the wealth which has reached the masses are no longer able to load and demand produced go to the justly belongs. The writer wishes to tell us to be based on, principally on modified state of our people, and to keep out of the trial despotism in Western Europe and French revolution of the end of the Russian revolution of the end of the century.

The blind and which has filled this era and crime, and clamorously on a peace can no longer be paid by the fruits of a life, the evil fruits of it to death. The darkness which we, the striving socialist parties in promote peace and end industrial despotism, and it does come, of this chaos of shed, brighter days of nation will no longer of all the great bliss, it the greatest of all M. Compton Co., Qu

The Big Fight ; R

EDITOR, Farm and Dairy—The agricultural class is necessary of workers. All depend on them. They should be in the industrial class in. Through lack of co-operation they stand out class in any common. Agricultural trade all other industrial. As an asset it is the farmer takes a the powers that be. He buys all his requirements by someone else produce at a price. Impositions are held other classes control responsible? Government classes? No. Who himself. If it be the farmer is the rest of the farmer spends long, big alone; his thought apart from his individual cramping his his him suspicion of having no confidence they may take.

Reduce Poverty.
Such conditions as far each been on the record. He has in plenty, but his share in every age, in every farmer has had his complaint. The heavy burden carries for others; get redress, time and money be looked for every day. Why does he on himself for redress change are doing all to keep the farmer up it is to their benefit.

on the other hand we have the army of producers, with the surplus wealth that they produce going into the hands of the privileged ones who have control of the railroads, the factory, the mills, the natural resources of the earth and every other wealth producing instrument in the universe; and the heavier the load of interest that it entails, presses on the back of the wealth producers, till we have reached the climax, where they are no longer able or willing to carry the load and demand that the wealth produced go to the producer, where it justly belongs.

The writer of the letter I referred to tells us he has lost faith in socialism, principally on account of the unskilled state of affairs in Russia, brought about by a good and generous people, who having overthrown autocracy and feudalism, are striving to keep out of the clutches of industrial despotism which characterizes Western Europe and America; as the French revolution was the beginning of the end of feudalism, so will the Russian revolution be the beginning of the end of capitalism.

The blind and grasping greed, which has filled this world with slavery, crime, and brought this world calamity on a peace loving people, can no longer be permitted to live, by the fruits of a tree ye shall know it, the evil fruits of this tree condemn it to death. The only bright spots in the darkness which now enshrouds us, is the striving by the labor or socialist parties in all countries to promote peace and harmony and to end industrial despotism. The cooperative commonwealth comes slow but it does come, and I believe that out of the chaos of strife and bloodshed, brighter days are dawning, when nations will no longer lift hand against nation, and humanity will learn that of all the great blessings enjoyed by the greatest of all is peace.—D. R. M., Compton Co., Que.

The Big Fight ; Right vs. Might

EDITOR Farm and Dairy: The agricultural class is the most necessary of all the world's workers. All depend on them for existence. They should be the most influential class in all communities. Through lack of cooperation or class coherence they stand to-day the weakest class in any community.

Agricultural trade exceeds in value all other industrial trade combined. As an asset it is Canada's largest. The farmer takes a back seat while the powers that be rule his destiny. He buys all his requisites at a price fixed by someone else; he sells his produce at a price fixed by others; impositions are heaped upon him by other classes controlling. Who is responsible? Government? Other classes? No! Who? The farmer himself. Is it to be wondered at that the farmer is the least of burdens for the rest of the human race? The farmer spends long, hard hours, toiling alone; his thoughts are of self; he is alone in body, soul, and industry, apart from the world, an individual cramping his intellect, making him suspicious of fellow workers, having no confidence in any action he may take.

Produces Plenty—Gets Little.
Such have been the farmer's general conditions as far back as we have record. He has always produced in plenty, but his share was minute. In every age, in every land, the farmer has had his constant complaint. The heavy burden; the load that he carries for others; he has tried to get redress, time and time again, but invariably he looked for it from someone else. Why does he not depend on himself for redress? Privileged classes are doing all in their power to keep the farmer under the yoke. It is to their benefit to keep him

there. He is to them the human ox, the political jackass. They drive him, hitched to the plow, to produce the world's wealth and sustenance, on which they thrive and grow fat. During the present world's struggle for freedom and justice the farmer has nobly done his duty. He has produced, and produced blindly, so far as his assured gains were concerned. He is being treated as a slave, driven by the lash of the profiteer. We find the Empire prepared to pay extra high rates for assured supplies of meats, wherewith to feed her armies. Was this not an opportunity for increased production? Most decidedly. We find, though, the packers took the extra high prices, being patriotic, but when coming to the producer for supplies to fill the orders, they employed the usual tactics—glutted market, drop in prices.

The farmer is finding himself in such tight corners during these trying times that he has begun to think about some way out. The only way out is weapon of defence some decades ago, but, so far, has never learned the use of it. We admitted the farmers were the majority of the people; then it is in the position he is. In the past he

has not shown himself as wise as his own stock. Even they know that in times of danger safety lies in hunching. Their ballots have in the past neutralized each other, gaining them no power in politics. To get the use of their ballot, they must vote together, with one essential object in view. That object must be to have representation in government. The governments of to-day are controlled and manipulated by the privileged and manipulated by the farmers as clay, moulding them to suit their purpose. Farmers, unite! Use your ballot to your own good! Get control! Turn potter, and mould the clay to finer vessels than heretofore!—W. E. Smith, of The United Farmers of British Columbia.

At the auction sale of Mr. Jas. Leahy in Duoro township, Peterboro county, five horses and a filly sold for \$1,882, nine grade milch cows for \$1,052 and the total of the sale including implements, five last summer calves, 12 rising two years old and seven store hogs, was \$4,162. This is a record sale for the district. The most interesting feature was the price realized for the horses which were just good agricultural horses. It would seem that the slump in the horse market is about at an end.

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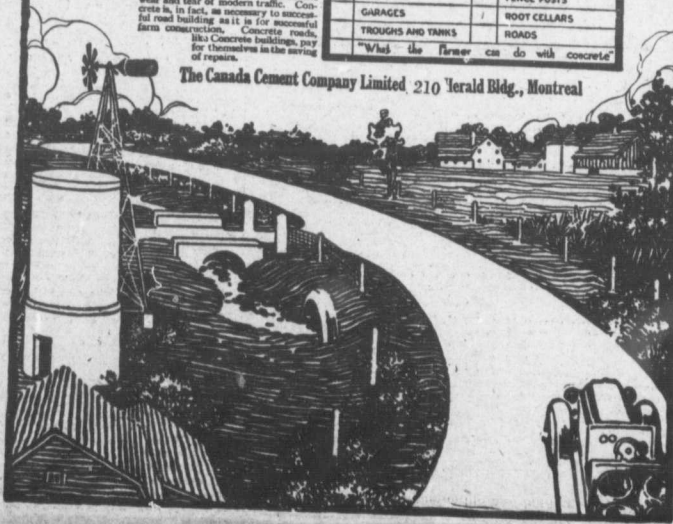
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losses through giving credit on the goods bought by their other customers.

In reply to Mr. Rice-Jones, Mr. H. H. Pigott, of Winnipeg, had prepared in advance, a reply on behalf of the business interests. A summary of this reply was published in last week's issue of Farm and Dairy. Both papers had been printed and distributed in advance, and formed the basis of the discussion which took place.

The two subjects were discussed all one afternoon. It is impossible to give a full report of it in the space available. Both sides seemed a little afraid to lay their cards on the table, and held considerable material in reserve which was not used. The final result of the discussion was that a committee was appointed which will go into the various points that were raised more fully, and report at a later meeting. In brief, some of the main points made by both sides were as follows:

The Discussion.

Mr. H. W. Wood, on behalf of the farmers, early in the proceedings frankly asked the business interests why they did not want to recognize the farmers, and what they would advise the farmers to do. On the one side are the farmers, on the other the wholesalers and the manufacturers, in between are the retailers. The latter, he said, have sided for the most part, with the business interests. The farmers do not want to injure any legitimate business interests; they appreciate the value of the work done by country merchants, they desire to do what is fair, but they feel that they should have the right to conduct trading operations when they can do so to advantage. So far, their cooperative efforts have proved eminently successful, and they could not see why they should not continue to conduct them.

Mr. Montgomery of Montgomery Bros., Deloraine, Manitoba, said that he had been in the retail business for 30 years and agreed with what Mr. Wood had said that the retailer and the country merchant are the buffer between farmers and the wholesaler. Most farmers seem to think that the country merchant is getting rich at their expense. He knew that this was not the case. Nineteen out of 20 retailers in Southern Manitoba had gone out of business during the last 19 years. Most retailers would gladly sell out if they could. He admitted that there were too many retailers in some districts, white in others there were not enough. Incidentally, he described a community in which there had been several stores, a blacksmith shop, a boarding house, and other local enterprises. One day another of these had given up business, with the result that the life of the whole community had become stagnant. The tendency of farmers to patronize the small order houses and to conduct their own trading operations was forcing retailers and country merchants out of business, with the result that community life was deteriorating and farmers were among the main sufferers. He felt that if farmers did not get over looking at the merchants as though they were daylight-robbers, and if the merchants would cease looking upon farmers as pinheads, better conditions would prevail. He asked frankly what had led the farmers to commence trading operations.

Although Mr. Montgomery's question had been pretty well answered by Mr. Rice-Jones, the latter replied for the farmers. One farmer from Alberta said that in his local town there were three hardware stores where one was all that was needed. All were short of capital and carried only limited stocks. The result was that frequency farmers could not pur-

chase any of them the things they needed. Each of these merchants had an assistant. Under normal conditions, one store with sufficient stock there would be a saving in rent, in taxes, in wages, in capital invested and a larger and better stock could be carried. Similar conditions were applicable to other industries, as these were. In instances where two banks were one would have been sufficient. Co-operation apparently was the only thing which would rectify such conditions.

Mr. J. A. Maharg, M.P., gave another reason. The summer of 1914 was dry in Saskatchewan. The potato crop was largely a failure. In September 1915 a bushel for potatoes and claimed that the price would go up to \$2.00 by spring. They advised the farmers to buy early. The farmers could not sustain the situation as they knew there were plenty of potatoes in Ontario. They imported several car loads of potatoes, with the result that their potatoes cost them 75c a bushel that fall and 90c in the spring.

Mr. Rice-Sheppard, of Alberta, said that his club had not wanted to buy from outside provinces. They had gone to the local agent and asked him to handle their order for 24,000 lbs. of binder twine. The Massey-Harris agent had replied by inviting them to go to a warm climate. They then tried to buy from the wholesaler, but without success. The result was that they were forced to send their order to the Kingston Penitentiary where they obtained their supply at a much lower price than was being asked locally.

The Chief Objection.

One retailer made the claim that they had no objection to farmers undertaking trading operations if they would conduct them on the same basis that the merchant did. "Farmers respect us," he said, "to maintain our stores all the year around, keep them supplied with the many little articles which they do not care to handle themselves, extend them credit, pay taxes, and be ready to supply their wants at all times. They then make it difficult if not impossible for us to do this by commencing to trade in certain of the more profitable lines on a wholesale and cash basis, thereby leaving us only the lines on which we can make the least profit. If they will operate the way we do, we will respect them to their doing so if they find that they can undersell us."

Mr. J. B. Musselman, of Regina, secretary of the Saskatchewan Grain and Manufacturers' Association, replied that the whole matter was that the business interests did not want to see the farmers conduct their own business on a cooperative basis. Under such a plan the farmers would benefit the business mainly for his own benefit. Under the other method, the people do their own business, for their own benefit.

Mr. Pigott had pointed out in his paper and the charge was sustained by those present, that the farmers did not act fairly to the community at large because they refused to sell to any except their own members. Hon. Geo. Langley, countered hard on behalf of the farmers by showing that when the farmers had asked for legislation granting them power to cooperate in trading operations, the retailers had engaged a lawyer, and had fought strenuously to prevent the farmers from getting the right to trade with any except their own members. It was pointed out that the farmers had been refused the right to trade with any except their members. The

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business men were asked if they would unite with the farmers in asking to have this restriction removed. They saw the point, laughed, but did not offer to cooperate.

Privileges or Restrictions.

One retailer complained that the farmers had obtained special privileges from the Government. When asked to state what these privileges were, he replied that he understood that they could not be sued except on certain conditions not enjoyed by retailers. Mr. Musselman replied by pointing out that the act restricted the ways in which farmers could buy and sell, such as by making it obligatory that they must sell only for cash. He pointed out that this was a restriction, not a privilege, and asked if the retailers would unite with the farmers, petitioning the Government to remove the restriction, but received no response.

Another retailer pointed out that the country merchant has competition from three sources, the mail-order house, the pedlar and the farmer. If farmers would confine their operations only to bulk articles, such as binder twine, feed and apples, the retailers might get along. Now, however, farmers are dealing in groceries and other similar supplies. This is making the situation acute. If the farmers persisted in this action, they would drive the country merchants out of business, destroy their own community centres, and work an injury to themselves. Mr. Wood replied that farmers are in full sympathy with the community unit, but there is another unit which must take precedence even over that of the community, and that is the family unit. It was the necessity for protecting the family unit and that reason alone which had led farmers to patronize the mail order house, and to commence trading operations for themselves. "We don't believe," said Mr. Wood, "that sending away our orders is the best system, but we do not see anything else that we can do. If the country merchant's business was on a right basis he should be able to give us the cheapest and best service. In many cases he is not doing so well and not until he does get on a basis where he will be able to give us the service we expect will we be able to give him as much of our business as we would like to. Many changes in methods of doing business in the past, have been forced by the need for improved method. The trading business in local communities is undergoing such a change now. In the process, some country merchants are being injured. Unless, however, they recognize that they must give the efficient service that the community demands, they must not complain if they lose business. We must either get together on a new and better basis, or fight the whole problem through to a finish."

Mr. Wood asked the wholesalers and manufacturers to state plainly why they refused to sell to the farmers, except in certain lines. "You tried to prevent us from trading with just our own members," he said, "and you make it difficult for us to trade at all by refusing to supply us with the goods that we need. What leads you to treat us so?"

A representative of one of the largest implement manufacturing concerns in Canada, replied that it was very difficult for them to sell goods to their local dealers and at the same time sell goods to interests that were competing against the dealers. They found that the dealers gave the farmers service in the way of setting up implements, keeping repairs on hand, and in other similar ways that the farmers did not attempt to do for themselves. This service, he thought, represented about the difference in price between what the farmers charged for the goods, and the charges of the dealers. He was anxious to see the farmers and dealers get together

(Continued on page 37.)

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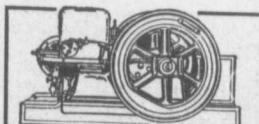
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AND
Rural Home

"The Farm Paper for the farmer who milks cows."
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The paid subscriptions for Farm and Dairy approximate
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We guarantee the every advertiser in this issue is
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Requests shall not ply their trade at the expense of our
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The Rural Publishing Company, Ltd.,
PETERBORO AND TORONTO

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

The Production Campaign

THE "spring drive" is on both in America and in Europe. The military campaign in Flanders may tend to detract attention from the production campaign in Canada, but from the standpoint of national security one may prove as important as the other. Recent developments in the Far East have given the advantage in food supply to the Central Empire; they may now draw at will on the wheat fields of Russia, Roumania, Poland and Ukraina. These sources of supply are not at hand, and the transportation problem an easy one. Among the Entente allies, on the other hand, the food situation has assumed a serious aspect. One year ago, only the enemy was on rations; to-day, Great Britain, France and Italy are all on rations, and it is upon the 1918 crop from Canada and the United States that the fate of the democratic peoples of the world depends. If that crop is sufficient, the Allies can be fed. If the crop prove insufficient, the Allies may have to accept a humiliating peace.

These are general statements, and such statements are not always convincing; but there is no getting around the bald facts. We know that lack of fertilizer is playing havoc with the crops in both Great Britain and France, and in the latter country the wheat crop of 1918 will be only one-half of normal. Italy has been living from hand to mouth for months. Together, the Allies are taking America for 250,000,000 bushels more wheat than last year. Present prospects are for only a seventy-five per cent. crop of fall wheat in the United States, and the Food Controller of that country has stated that they will not be able to produce over 70,000,000 bushels of a surplus over last year.

The balance must be had from somewhere. Even were they supplied the full amount, the Allies will be obliged to tighten their belts and go on reduced rations. If Canada cannot produce the 180,000,000 bushels still required, ships must be spared to bring the wheat from Australia and India. This would mean less ocean space for the transportation of men and munitions and would place a serious obstacle in the way of moving United States armies to France and for carrying their supplies once they got there.

A small part of this great wheat surplus will be produced on banana farms operated by men of wealth. The great bulk of it, however, must come from the small farms of the land. The Ontario Department of Agriculture is asking for five extra acres of spring wheat on each farm in the province. The prairie farmers will be asked to increase their crop area by ten acres, if possible. Farmers in other provinces are also being asked to do their share. As farmers, we may think that we are already doing all we can. We may feel aggrieved at times because of the inopportune advice and criticism that is so frequently levelled at us. But as patriots we will do our best to produce that 180,000,000 bushels. The fearful possibility of a starving allied world will be our greatest incentive to greater exertion in the crop drive of 1918.

Labor, Equipment and Prices

THREE factors, aside from the willingness of the farmer, which we take for granted, and the weather, which is always problematical, will decide the success of the endeavor to secure greater production in 1918—labor, equipment and prices. The first will probably prove the most difficult to adjust. It has to be, but there is a reason why the difficulties should be insuperable. It all depends on the willingness of city laborers and employers of labor to cooperate in the drive. There are many men with farm experience working in city factories, shops and offices. Are they willing to go to the land for a month or two in seeding, or for a few weeks at harvest time? Several thousand will be required for the whole season. Are the employers of these men willing to release them for the summer on favorable terms? We understand that the Cockshutt Plow Company have already taken action along these lines, and many men from their works will be available for work on the land. Other employers of labor, who realize the seriousness of the situation, are falling in line, and on all employees the Organization of Resources Committee is bringing pressure to bear. A goodly number of men it is hoped will be recruited for work the season through, and a vastly greater number for short time assistance. The 25,000 teen age boys who will spend their summers on the farms will be an important aid in production. City girls will work in the fruit districts, but as they refuse to do house work, we do not see where they can be of any assistance to the general farmer. A sincere endeavor is being made to find the labor, and while it will not be of the highest class, it is hoped that the farmers will make the best use possible of such as is available.

The equipment is already largely on hand. As to the extra equipment necessary, its acquisition should be made as easy as possible for the farmer. Mr. Dunning, who is commander-in-chief of the production drive, is demanding few implements. The removal of the customs duty on implements at this time would materially lower the prices on many of those needed to speed up seeding operations; double cutaway harrows, for example, which cut the work of diskling in half, would be owned by many more farmers were tariff restrictions removed.

Labor will be necessarily expensive, and tariff or no tariff, equipment will cost more than in pre-war days. In investing in either labor or equipment, the farmer is called upon to take a chance: a chance that he cannot reasonably be expected to take without some assurance that prices will warrant him in making the investment. Price fixing in the past has been designed, not to aid the farmer, but to keep prices down for the consumer. Ontario wheat, for instance, is selling for a little over two dollars at country stations, whereas it would be three dollars at least, and perhaps more, had it been allowed the same free market as is accorded to all manufactured products. What is needed now is a guaranteed minimum price for the 1918 wheat crop. With a satisfactory minimum established immediately, farmers will proceed with much more confidence in undertaking the heavy expense involved in producing the extra crops that are needed for the Allied world. It is time that the Government came to realize that the farmer is a business man and cannot be expected to finance his farm operations without reasonable assurance of a fair business profit. The business manufacturer in war production demands a contract that will cover

all costs and all risks. The farmer does not demand so much, but he is well justified in asking for a guaranteed minimum price sufficiently high to safeguard the business risk involved. The setting of such a price would act as another proof of the sincerity of those behind the production campaign.

With a supply of labor made available, with implements more easily procurable, and his market safeguarded, the farmer would be in a good position to handle successfully his end of the production campaign.

The Income from Investment

ELSEWHERE in this issue, Mr. Chas. E. Hope, a British Columbia subscriber, takes exception to the method of calculating the labor income as employed in the recent rural survey in Caledon township. In this survey the farmer was credited with five per cent. on his total investment in land, buildings, stock and equipment. Mr. Hope contends that the basis of computation should be the value of the farm, six per cent. for two-thirds of the value of the farm and buildings alone, and not less than eight per cent. for the value of the stock, outfit and the remaining third of the real estate.

In so far as the land is concerned, Farm and Dairy is inclined to regard five per cent. as a fair basis for an estimate. Many farm mortgages are held at this rate, and even in the business world investments as safe as that represented by farm lands rarely command over five per cent. in normal times.

When it comes to improvements on farm land, five per cent. is not a fair basis of computation. A large element of risk is involved which no insurance company will completely cover. Here eight per cent. is not too much, and practically all business concerns charge eight to 10 per cent. on buildings and equipment, with an additional charge to cover depreciation. In live stock the risk is even greater. The danger of loss through disease or "bad luck" is ever present, and ten per cent. is the minimum that should be expected on this investment. Such would be a fair commercial rate on other investments involving the same amount of risk.

Farm and Dairy agrees with Mr. Hope that the basis adopted by the Ontario Department of Agriculture is low. Probably, too, Mr. Hope is right in claiming that on the large proportion of the farms surveyed the labor income would have disappeared altogether had the farmer's investment been properly rated. However, we are not inclined to be too critical of the work being conducted under the direction of E. Leitch. It is still in its initial stages, and its weaknesses will be discovered and corrected as time goes on. We anticipate that much good will result from this new line of investigation.

The Weight of Eggs

SIR GEO. E. FOSTER, Minister of Trade and Commerce, has introduced a bill in the House governing the weight of eggs offered for sale on any market in Canada. If we read the bill aright it practically prohibits the sale of all eggs that do not weigh twenty-four ounces to the dozen. The directors of the Dundas Cooperative Association have vigorously protested.

Other associations of producers should voice their protests with equal vigor, as it is poultry producers principally who will suffer should this legislation become law.

Farm and Dairy is prepared to concede that a dozen small eggs have not the nutritive value of a dozen large eggs, and that they should not sell for as much on the market, providing the quality in both cases is the same. If the Minister of Trade and Commerce feels that the present system demands a change we would suggest the equivalent of the "Fruit Marks Act" for eggs. Let eggs be classified for sale. New laid eggs weighing twenty-four ounces or over to the dozen might be in one class, those weighing twenty-two ounces to twenty-four ounces in another, and so on, as a representative meeting of poultry producers and dealers might decide. This would be fair and just to all parties. But to prohibit eggs from being marketed because they fall below a twenty-four ounce standard is just another sample of the arbitrary and unfair regulations which are causing a loss of confidence on the part of producers the country over.

In Union There is Strength

U.F.O. Take Important Action

AT a meeting held last week in Toronto by the joint executives of the U.F.O. and of the U. F. Company it was decided to sign a lease for a store, warehouse and new offices on King St. immediately adjoining the present offices of the company. The new offices will be a great improvement on the present offices and will have an entrance from King St. The store will be used for selling farm produce. In the warehouse will be kept samples of the harness, agricultural implements and other supplies handled by the company. A considerable increase in trade along those lines is expected to result from this action. It is one of the most important moves the organization has made for some time.

The committee dealing with the live stock situation has been active. The executive of the company has been granted power to take certain important steps. Action may be taken soon and if so a considerable development in the shipping of live stock by the local clubs through the Central Company may be anticipated.

Representatives of the organizer farmers on the Leave of Absence Military Tribunals have reported that through some official order issued recently it has become very difficult to obtain leave of absence for men to work on farms. It was decided to lay the situation fully before Sir Robert Borden in the hope of bringing about an improvement.

Secretary J. J. Morrison this week is addressing a series of meetings in New Ontario.

The company expects to be able to handle considerable quantities of binder twine this season.

It was decided not to hold the usual series of district summer conventions next summer. Instead speakers will be held at many meetings of local clubs as possible in those sections where it is believed to be most desirable that organization should be strengthened.

United Farmers of New Brunswick

EDITOR, Farm and Dairy.—You ask for information on the organization of the United Farmers of New Brunswick. The first branch of the association was organized at Pembroke, on Feb. 3 of this present year, and at that meeting C. L. Smith, M. F. Phillips and C. Gordon Sharpe were appointed an organizing committee and in the short time since the date of the first branch being organized, Carleton County has been quite thoroughly organized and today we have the largest membership of any organization of farmers in New Brunswick.

We are using the same constitution that the United Farmers of Ontario are organized under, and no small part of our rapid success is due to the fact that we have a good constitution, and that we are linking up with the rest of Canada. As yet we have no central organization. We plan on forming our central on or about April 15, at Woodstock, N.B. We are getting in the organization the very best farmers in the province. We are meeting with opposition from the ones who stand between us and manufacturers and the farmers on the one hand, and the farmers and consumers on the other, but we find that the opposition from such sources does not hinder but rather helps the movement. The consumers here are chattering us on, as they feel that with some of the middle men gone, the cost of food might be materially reduced.

This movement was brought before the Farmers' and Dairymen's Association, in annual session at Fredericton, March 19-16, and was most enthusiastically received and everywhere the feeling is that this organiza-

tion will fill a long felt need. The time is surely ripe here for this movement.

C. Gordon Sharpe has been made general secretary pro tem. As soon as the central is formed and officers elected, I will give you a list of them. In closing, I wish to thank the officers of the U. F. of Ontario for words of encouragement.—C. Gordon Sharpe.

A Real Farmers' Company

By B. C. Tucker.

THE question is sometimes asked by farmers what benefit they derive through dealing with our company instead of some other company which may be in a position to sell them goods on equally advantageous terms. Some of our own shareholders have apparently found it difficult to answer this question satisfactorily. There should be no trouble in doing so. In our cooperative farmers' company, the shareholders and directors are farmers. The profits realized by our company are distributed among the farmers' clubs and the individual farmers who hold stock with us. Our surplus profits are devoted in part to promote the work of the United Farmers' of Ontario, which is advocating all the great reforms that are so intimately connected with the welfare of farmers in Canada. Any extra profits we may have after these matters have been provided for are used for expanding the business operations of our company and thereby enabling us to buy on better terms and to force other business concerns to lower their prices in order that they may compete with us. We can say with every confidence that because our company has been in business other companies have sold goods to the farmers of Ontario during the past four years at prices not much lower than they otherwise would have charged, that it has meant savings of hundreds of thousands of dollars to the farmers of Ontario as a whole. These are only a few of the reasons then why the farmers of Ontario should support and deal through the United Farmers Cooperative Company, Limited.

Looking Ahead in Cooperation

E. H. Blatchford, Mgr. U. F. Co-operative Co.

I BELIEVE we are past the days of small business. This year we will pass the million mile stone and opportunity looms large ahead. The greater the opportunity the greater the responsibility, and this works both ways. We strive and are rewarded according to our relative positions. We have reached the stage in our business where I believe we could give more efficient service if we branched out in department. There are a few lines that we feel could be made profitable in time, if properly handled. Take our live stock, produce and feeds. These are at present only side lines and do not receive the attention they deserve for the simple reason that we have too much to do as it is. These departments should each have an experienced energetic man, who would devote his whole time to developing them. No doubt this would have to be done at a loss for a time, but there is no reason why they should not be made important parts of our business and in time departments that will be profitable to all. Rome was not built in a day. The company has been doing business for three years and yet when one considers the possibilities it is only in its infancy.

We have not more than scratched the surface, but it is going to take men and money to develop it. We want the best brains we can get to manage and direct and plenty of them.

Patriotism Demands Grain Conservation

We must save all we can of the 1918 grain crops, so we shall have enough to send to our armies and insure Canada an adequate home supply.

Thousands on thousands of bushels can be conserved if we feed less grain to cattle.

By substituting silage, every Canadian farmer can do his part in the grain conservation movement, and at the same time increase our milk supply, so we can send more butter-fat to the boys at the front.

Get more Milk with an IDEAL GREEN FEED SILO

An Ideal on your farm will cut 15 to 20% off your next winter's feed bill and enable your cows to give 20 to 25% more milk, it will "put your cows on pasture" from November to April.

Now is the time to buy your Ideal Silo. You can get it installed before the rush of spring work comes on. Write today for our catalogue.

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OF 140 ACRES EACH. Government lands along the Canadian borders, surveyed and ready for entry. Yours in waiting, and a share of the three-quarter billion dollars for crop production to be distributed to farmers this Fall. Estimated crop values of Wheat, Oats, Barley and Flaxseed alone for 1917 in Manitoba, Saskatchewan and Alberta is \$61,285,700.00.

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ALONG CANADIAN NORTHERN. Rich, well located farms, close to railway—mineral products can be purchased on easy terms, cash, or cash and crop payments. Home schools, good roads, telephone and convenient transportation. Act now—get away this spring.

Tractors and Farm Implements

Easily available—new Government assistance plan. Capital or no capital—the work, the opportunity, is there, and the Canadian Northern offers the way. Write today for the new, and the complete valuable information leaflet. Government attention. Ask C.N.R. Agent, or General Passenger Agent, Montreal, Que., Toronto, Ont., or Winnipeg, Man.



WE are preparing today for tomorrow's victory or defeat.

The Heart of the Desert

(Continued from last week.)

HE looked at the watch. Five hours till dawn. She would let John have all that time in which to sleep. His ten minutes would be worse than useless, while to find the camp after the moon had set would be quite out of the question. Her own eyes were wide and sleepless. She sat in the sand beside DeWitt until driven by the cold to pace back and forth. John slept without stirring; the sleep of complete exhaustion. Rhoda was not afraid, nor did she feel lonely. The desert was hers now. There was no wind, but now and again the cactus rustled as if unseen wings had brushed it. The dried, leathery cholla stirred as if unseen paws had pressed them. From afar came the demagogical laughter of coyotes on their night hunts. But still Rhoda was not afraid.

At first, in the confusion of thoughts that the day's events had crowded on her, her clearest sense was of wonderfulness. Then she fell to wondering what had happened to Porter and Kutie. Suddenly she caught her breath with a shiver. If Porter went there could be out an answer as to Kutie's fate. John's attitude of mind told that. Rhoda twisted her hands together.

"I will not have him killed!" she whispered. "No! No! I will not have him killed!"

For many minutes she paced back and forth, battling with her fears. Then she suddenly recalled the fact that vengeance was to be saved for John. This uncanny thought comforted her. She had little fear but that she could manage John.

And then in the utter silence of the desert night, staring at the sinking moon, Rhoda asked herself why, when she should have been mad with joy over her own rescue, she was giving all her thoughts to Kutie's plight! For a moment the question brought a flood of confusion. Then, standing alone in the night beauty of the desert, she girl acknowledged the truth that she had denied even to herself so long. The young Indian's image returned to her endowed with all the dignity of his remarkable physical perfection. She knew now that from the first this physical beauty of his had had a strong appeal to her. She knew now that all his unusual characteristics that at first had seemed so strange to her were the ones that had drawn her to him. His strange mental honesty, his courage, his brutal incelsiveness, all had fascinated her. All her days with him returned to her, days of weakness, of anger, then the weeks on the ledge, and the day when she had found the desert, and finally the day just past, to the very moment when Billy Porter had come upon them on the ledge.

Rhoda stood with unseeing eyes while before her inward vision passed a magnificent panorama of the glories through which Kutie had led her. Chaos of mountain and desert, red-ident with color, cool, green, depth of canon; burning height of tor-

tured peak; slope of pungent pines forest—all wrapped in the haze which is the desert's own.

Rhoda knew the truth; knew that she loved Kutie! She knew that she loved him with all the passionate devotion for which her rebirth had given her the capacity.

With this acknowledgment all her calm was swept away. With fingers clasped against her breast, with wide eyes on the brooding night, she wished that she might tell him this that had come to her. If only once could the inscrutable tenderness of his black eyes were upon her! If too deep imperative voices were but sounding in her ears again! If only she could feel now the touch of his powerful arms as he carried her the long sick miles to Chirn. Trembling with longing, her gaze fell upon the man sleeping at her feet. She drew a sudden troubled breath. Must she renounce this new rapture of living? Must she?

"Have I found new life in the desert only to lose it!" she whispered. "O Kutie! Kutie!"

DeWitt slept on, unmoving, and Rhoda watched him with tragedy-stricken eyes.

"What shall I do!" she whispered, lips quivering, shaking hands twisting together. "Oh, what shall I do!"



Getting the Last Drop.

"Sap's running!" is a remark which is quite in order these spring days, and the boy shown in the illustration herewith is enjoying one of the pleasures of maple sugar making. This snap was taken on the farm of Mr. W. J. Hardy, Victoria, Co., Ont.

She tried to picture a future with Kutie's eyes saw his tenderness, his purposefulness, the brightness of his mind and spirit. Then with a cold clutch at her throat came the thought of race barrier, and in a moment Rhoda was plunged into the oldest, the most hopeless, the least solvable of all love's problems. Minute after minute went by and the girl, standing

by the sleeping man, fought a fight that shook her slender body and racked her soul. At last she raised her face to the sky.

"I want to do what is right!" she said piteously. "It doesn't matter about me, if only I can decide what is right!" Then after a pause, "I will marry John! I will!" like a child that has been punished and promises to be good. Still another pause, then, "So that part of me is dead!" and she put her fingers before her eyes and fell to crying, not with the easy tears of a woman but with the deep, agonizing sobs of a man over his dead.

"Kutie, I wanted you! I wanted heard you, seen you, felt you once more! Nothing else would have mattered. I wanted you!"

A long hour passed in which Rhoda sat in the dead, limp and quiescent, as though all but wrecked by the storm through which she had passed. Dawn came at last. The air was pregnant with new hope, with a vague quivering of sense and held the child of the coming of a new day. The east glittered with prismatic colors and subdued the sun appeared.

Rhoda rose and stooped over DeWitt to smooth the hair back from his forehead.

"Come," she said softly. "It's breakfast time!"

DeWitt sat up bewildered. Then his senses returned, and he exclaimed, "what do you mean by this?"

Rhoda's smile was a little wan. "You needed the rest and I didn't!" DeWitt rose and shook himself like a great dog, then looked at Rhoda wonderingly.

"And you don't look much done up! But you had no right to do such a thing! I told you to give me ten minutes. I feel like a brute. Lie down now and get a little sleep yourself."

"Lie in the sun? Thank you, I'd rather push on to the east and give some breakfast! How do you feel?"

"Much better! It was fine of you, dear, but it wasn't a fair deal."

"I'll be good from now on!" said Rhoda meekly. "What would you like for breakfast?"

DeWitt looked about him. Already the desert was assuming its brazen aspect.

"Water will be enough for me," he answered, "and nothing else. I am seriously considering a rigid diet for a time."

They both drank sparingly of the water in Rhoda's canteen.

"I have three shots in my Colt," said DeWitt. "But I want to save them for an emergency. But if we don't strike camp pretty soon, I'll try to get a jack-rabbit."

"We can eat desert mice," said Rhoda. "I know how to catch and cook them!"

"Heaven forbid!" ejaculated DeWitt. "Let's start on at once, if you're not too tired."

So they began the day cheerfully. As the morning wore on and they found no trace of the camp, they began to watch the canteen carefully. Gradually their thirst became so great that the desire for food was quite secondary to it and they made no attempt to hunt for a rabbit. They agreed toward noon to save the last few drops in the canteen until they could no longer do without it.

Hour after hour they toiled in the blinding heat, the strange deep blue of the sky reflecting the brazen light of the desert. In their careful avoiding of the mountain where they had rested at sunset the night before, they gradually worked out into a wide barren space with dunes and rock heaps intermingled.

"That won't do at all," said DeWitt at last, wearily. "We had better try for any old mountain at all in the hope of finding water."

They stood panting, staring at the distant haze of a peak. Trackless and tortuous, the way underfoot was incredibly difficult. Yet the distances melted in ephemeral spaces as lovely in their tints, as they were accursed in their reality of cruelty. Rhoda, unaccustomed to day travel, panted and gasped as they walked. But she held her own fairly well, while DeWitt, sick and overstrained at the start, was falling rapidly.

"It's noon now," said John a little thickly. "You had better lie in the shade of that rock for an hour."

"You sleep too!" pleaded Rhoda. "I'm too hot to sleep. I'll wake you in an hour."

When Rhoda awoke it was to see DeWitt leaning against the rock heap, his lips swollen, his eyes unseeing. Weak and dizzy herself, she rose and laid her hand on John's, every maternal instinct in her stirring and speaking in her gray eyes.

"Come, dear boy, we mustn't give up so easily."



On the Inside Looking Out.

This illustration was taken on the farm of Mr. Frank Webster, Victoria, B. C., and shows Miss Bernice Webster and her dog "having their picture taken."

John lifted the little hand to his cheek.

"I won't give up," he said uncertainly. "I'll take care of you, honey girl!"

"Come on, then!" said Rhoda. "You see that queer bunch of cholla yonder? Let's get as far as that before we stop again!"

With a great effort, DeWitt gathered himself together and, fixing his eyes on the fantastic cactus growth, he plodded desperately through the sand. At the cholla bunch, Rhoda pointed to a jutting lavender rock.

"At that we'll rest for a minute. Come on, John!"

John's sick eyes did not waver but his trembling legs described many circles in their journey to the jutting rock. Distances were so many times what they seemed that Rhoda's little scheme carried them over a mile of desert before DeWitt sank to his knees.

"I'm a sick man," he said humbly as he fell in a damp heap.

Nothing could have appeared more opportune than this new hardship to take Rhoda's mind off her misery of the night. Nothing could have brought John so near to her as his utter helplessness brought about through his toiling for her. She looked at him with tears of pity in her eyes, while her heart sank with fright. She knew the terrible danger that menaced them. But she closed her lips firmly and looked thoughtfully at the mits of water that remained to her. While she held the canteen to DeWitt's lips. He pushed it away from him and in another moment or so he rose.

Rhoda, fastening her hopes to another mountain, said to herself:

(Continued on page 25.)

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THE UPWARD LOOK

God's Miracles

HE streweth snow like wool; He scatters the hoar frost like ash; He casteth forth His ice like morsels; He causeth His wind to blow and the waters flow.—Psalm 147: 16-18.

Among my Christmas cards was a beautiful photograph of a bed of exquisite Christmas roses, set in a great bank of snow. Lately I was visiting the very friend who took the picture. I asked her if there were any out in blossom then that I could see. She said that for some time the snow had not been moved so they could be seen, but they were there under the snow just the same. And she added that it was such a delight to think of them as being there, even though they were not visible.

This does seem so wonderful to think of those fragile, beautiful flowers growing and blossoming under their covering of snow. But think of all of God's wonderful works that are taking place all about us, the silent, invisible miracles that are being performed through His agencies. Very soon now also miraculous results will be seen in unbound rivers, leafing trees, bursting buds, and all manner of spring's wonder-growth.

Is it because we are so accustomed to these wonderful season transitions that we do not wonder, and enjoy, and praise enough the Creator of them? From this wonder of the world about us, we can reverse and stand in awe at the wonder of the power of the Maker of it all. From the beauty we can marvel over the master-mind, that could possibly have conceived of creating such loveliness.

With our limited understanding, how little we can grasp the greatness of the mind, that can transform our world of snow and ice into our other world of green and growth. And all this is done so silently and gradually that we have no knowledge of the process.—I. H. N.

Simplicity in Flower Arrangement

A BOWL or vase of flowers on the dining table adds materially to the attractive appearance of a meal, and if it is the wrong season of the year to get flowers from the garden, a fern or flowering bulbs make a very pleasing contrast. Every housekeeper does not seem to have "the knack" of arranging flowers tastefully; all of us, in fact, can probably study this small point in home decoration.

Simplicity in the arrangement of flowers is highly essential. A few flowers simply and naturally arranged in a well shaped vase, dish or bowl is more pleasing to the eye than a mass of bloom stuck carelessly into anything conveniently at hand which will hold water. We recently read of a woman who was a great lover of flowers and who claimed that she had 153 flower vessels of different shapes and forms and was desirous of adding to her collection. While none of us expect to gather together such a quantity of flower receptacles as this woman, it is a good idea to have several dishes, bowls or vases in which flowers can be placed on the table.

The crowding of a lot of flowers into a vase might be excusable where a solid mass of flowers might be needed for effect, but it could not be said that the effect produced was pleasingly artistic. When cut flowers are arranged in a manner similar to that in which nature arranges them, they are much more attractive. Three or four flowers arranged in a flat bowl in such a manner that all the foliage on the stalk is visible, or in the case of bare stems additional foliage is included sufficient to relieve bareness, they will create a natural appearance, even though the flowers perhaps did not grow that way. The flowers should show a little difference in the length

of the stems to prevent straight line arrangement.

Sweet peas look well in a tall, straight tumbler. There is nothing better than a low bowl for pansies and violets, while lilies, callas and the taller flowers require high vases to give them individuality. Color is the predominant feature in pansies, violets, sweet peas and the like, therefore they may be massed. Hot orchids, iris and similar flowers should be arranged so that their form is accentuated; massed arrangements do not suit them.

When there is a wide range of tone in flowers of one kind, say a run from white to red, and including pinks, it is a good plan to arrange them so that the run from light to dark will be apparent.

Where Shall the Line be Drawn?

AT the recent convention of the United Farm Women of Alberta, Mrs. Leona E. Barritt the secretary, touched upon a point in her address which is a source of considerable perplexity to many conscientious but intelligent and public spirited women. The question under discussion was, under what conditions is a woman justified in confining her attentions to her home to the exclusion of all matters of public interest, or how far is she justified in trying to attend to both. This is the way Mrs. Barritt presented the matter:

"I say, intelligent and public-spirited, for the indifferent woman will excuse herself by saying, I have my home and children, and that is enough for me to look after. Now how much we should try to do outside of home is a matter which each woman must settle with her own conscience. When the physical, mental and moral well-being of children must be neglected if a public work is to be done, then it is obvious that the public work must be left in other hands. A woman's first and highest duty and her greatest service to the state is in the caring for all three sides of child life. But a meeting once in two weeks or a month should not imply neglect of either home or children. On the contrary it should leave a woman better fitted, physically and mentally to care for both. True she may have to leave the dinner dishes unwashed up in her return, but dishes not washed in their proper time cannot be considered a social crime. A far greater crime is the indifference to and want of cooperation in the great movements of social reform. The selfish woman leaves the working out of better social, educational and economic conditions for herself and her children to women who need her sympathy and cooperation but who only get her criticism."

In these days of stress and strain, when the old order is changing and giving place to new, and especially in view of her great privileges and opportunities, the woman who remains aloof and out of sympathy with the strivings of earnest, organized men and women to bring order out of chaos and to make the community, the province and the world, a better, sunnier and happier place to live in, is not only striking a great responsibility, but it is dead weight, or worse, on society. There are various conditions under which a woman can be excused from undertaking a public work, or even attending meetings; but there is no excuse for withholding her sympathy and interest, or the help she might render. Whether we like it or not, we come under one of the two classes. Which it shall be for us depends, but whether we believe it or not, care or not, we are shouting it from the housetops by our words and deeds."

To make Hamburg steak go farther, beat into it a cup of sweet milk, then enough rolled crackers to thicken well. This will also improve the flavor.

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The Circulation Department
FARM AND DAIRY,
PETERBORO, - - - Ont.

COOK'S CORNER

Helping Out Meatless Days

WITH the necessity of doing without meats to a large extent nowadays, fruits will probably be used more freely in our menus. To help out the supply of canned fruits, we can use dried fruits to advantage occasionally and very palatable dishes can be concocted by using some kind of dried fruit for the basic ingredient. Below are a few recipes which are worth trying out:

Date and Cranberry Marmalade.
One quart cranberries, one pound dates (stoned), one pint water, two cups brown sugar. Simmer together for 30 minutes, put through a sieve, add sugar and cook 15 minutes longer.

Stewed Peaches With Raisins.

One-half pound dried peaches, one-quarter cup raisins, one-half cup sugar. Wash peaches, soak over night with water enough to cover and stew in water in which they were soaked. When about half done, add the raisins, which have been seeded, and the sugar. Cook slowly that the peaches may keep their shape and skins become tender.

Prune Puff or Souffle.

One cup chopped or strained cooked prunes, two or three egg whites, one-quarter cup powdered sugar. Chop prunes up fine or put through strainer. Beat egg whites stiff, add powdered sugar slowly, beating all the time. Fold into prunes. Place in buttered pudding dish, set dish in pan of hot water and bake in moderate oven about 15 minutes. Sprinkle with nutmared made with yolks of eggs or with whipped cream. Other dried fruits may be used if desired, instead of prunes.

Stewed Prunes.

If properly cooked, stewed prunes are a dish which anyone should relish. They should be washed and soaked overnight. Then heat gradually in water in which they were soaked and cook slowly on back of range or over an asbestos mat. They should be kept closely covered till skins are tender, letting water cook away until syrup is thick. Most prunes contain so much sugar that lemon juice improves the flavor. They seldom need any sugar added.

Scalloped Apples.

One pint sliced apples, one pint stale bread crumbs, one-quarter cup melted butter, two-thirds cup sugar, one teaspoon cinnamon, one cup water. Mix bread crumbs with butter and put a layer in a buttered dish; add a layer of sliced apples; sprinkle with sugar mixed with cinnamon. Repeat until all material is used, having crumbs on top. Add water and bake in a slow oven until crumbs are browned.

Good Rubber Rings are Essential

THIRTY-FIVE per cent. of the total spoilage of canned goods last year was charged to poor rubber rings, according to reports which come from the United States Department of Agriculture. The experts of this department have investigated the part which inferior rings have played in the spoilage of canned products and the statement above is a result of their investigations. It behooves us all, therefore, to be very careful about our rings as now more than ever before, we cannot afford to lose fruit through this cause. O. H. Boncom, agriculturist in charge of boys' and girls' extension work, explains the reason for this loss through rubber rings as follows: "Housewives would carefully can fruit and vegetables according to the approved methods and yet this spoil-

age would occur. This was because of the worthlessness of most of the rubber rings used. They came with the jars and were intended for the old style of canning by the open kettle method where the glass jar and the rubber ring did not come in contact with the sterilizer. This method was used for fruits almost exclusively because there was until recently no well known method that would successfully can vegetables and meats. The method instituted by the government required the rubber ring to go into the boiling liquid and the rings in use were of such poor quality that they were ruined by the process.

To meet requirements, the ring should fit closely, requiring a little stretching to get it around the neck of the jar. For standard jars the inside diameter of the rubber rings should be two and one-quarter inches. Tests showed that one-twelfth of an inch in thickness is sufficient to take up the unevenness in the jar. Cold pack canning requires a rubber ring that is tough, does not enlarge perceptibly when heated in water or steam, and is not forced out of position between the top and the jar by slight pressure within the jar. The United States Department of Agriculture also claims that for the one-piece cold-pack method, the ring should be capable of withstanding four hours of sterilization in boiling water. Good rubber rings will stretch considerably and return promptly to place without changing the inside diameter. They should be reasonably firm and able to stand bending without breaking. The color is no index to the strength of the ring.

HOME CLUB

Who Decides What We Shall Eat?

"I AM quite willing to agree with Lloyd George that "the kitchen must help as well as the war shop and the trenches to win the war. Here is a problem in connection with conserving the food supply, however, on which I wish Home Club members would throw some light. What is a housewife to do if her husband and the other men folk around the farm will not co-operate in helping to conserve? It seems to be one of the characteristics of womanhood to sacrifice, no matter in what way, but when it comes to asking the men folk to deny themselves, especially along the eating line, they are usually ready to register a kick."

I remember when attending the Women's Institute Convention in Toronto last fall and the question of food conservation came up for discussion, one woman made the remark that it is the men who make it hard for the women to conserve food. "Drop in on a woman at dinner time when her husband says 'hear, hear,'" she said, "and see what she has for a meal." I felt like saying "Hear, hear," to her statement. Not long ago I had a letter from a friend of mine who is a very busy farm woman. Among other things, she happened to mention some of the baking and cooking she had been doing that week, and one sentence of her letter ran thusly: "I sacrifice in a good many ways, but our menfolk must have lots of good things just the same as usual."

The United States Food Controller, Mr. Hoover, says that the guiding hand of woman can control what the world shall eat. I understand, however, that in the United States about one-third of the population is an adult man, and that men consume more than one-third of all the food eaten. It seems to me then that if the winning of the war is largely dependent on food conservation, our men folk must be willing to co-operate with us women and thus make this conservation possible. Most men eat more meat than is good for them. And

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yet our men on the farm claim that when they are working hard, they must have meat twice a day in order to keep up their strength. What use is there then of the housewife preparing meat substitutes? If a woman is willing to go to the extra trouble of planning and preparing meals without meat, it seems to me the men should be willing to make a little sacrifice and give our war menus a fair trial. I would like to hear from other Home Club members on this subject.
—AUNT GRETA.

Garden Cleanings

ENRICH the garden soil, not only by the application of manure, but by using wood ashes, and soot. Soot is a good soil cleaner as well as a tonic. Applied dry or by mixing with water, it is valuable. Leaf mold, mixed with fresh horse manure, is the foundation principle of the hotbed. Bury all vegetable refuse in a compost heap, turning soot upside down, a layer of manure, another of weeds, sods, or vegetable parings. Anything of this nature that will decompose, add it to the garden soil and make it food for the plants.

With the best of seed, and the richest of soil, the crop is poor unless cultivated. There are so many tools on the market now that it pays to invest. One of the best is the hand cultivator, a five-pronged tool, which pulls out the weeds, works up the surface of the earth, forming a fine earth mulch for dry weather, or working deeper to prepare the soil for planting. The wheel hoes and cultivators are indispensable. Invest in the best garden tools and exercise them frequently.—A. A. F.

Ideas on Papering

Nellie E. Maxwell.

FOR the housekeeper who has to economize (as a large majority of our housekeepers do, which makes life interesting) and who finds it necessary to repaper because the walls are faded, calomine may be used with good effect. It is very satisfactory even over cheap paper if it is firmly attached to the wall. If there are any loose portions they should be carefully pasted and dried before putting on the calomine. Put the calomine on the ceiling first, of course, to save spattering the side walls. A long stroke down the length of the paper makes a smoother finish than if put on with a side stroke. This is a saving of time as well as money and one need not tear up the house as a careful worker will do no spattering. Cover a green paper with a green calomine and the walls will look fresh and new. Usually one coat is sufficient to cover; but two may make a better finish.

In rooms that have only north light a paper with a good deal of yellow will add the desired sunlight color to the room. A paper should be tried in the room in which it is to be used, in both daylight and with artificial light. Some colors so absorb the light that a cheerful room at night is impossible. An oil cloth wall covering is good in the bathroom or the kitchen where a more expensive covering cannot be afforded. This can be wiped and cleaned as easily as a dish.

Corn Meal Head Cheese

ONE of our subscribers, Mrs. Wm. Gordon of Simcoe Co., Ont., has sent in the following recipe for making corn meal head cheese:

Scrape and clean head and boil till meat drops off bones. Take out and chop as usual, add pepper, salt and sage to taste. Add about half the liquor in which meat was boiled, or more if desired, and thicken with corn meal. Set away and when you want to use it, slice it thin and fry brown. It will go twice as far as in the ordinary way and helps out the meat question.



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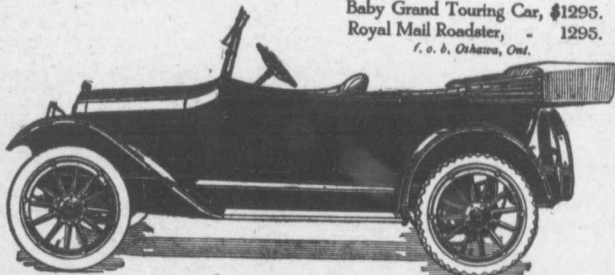
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Spring Hats and Summer Dresses

Farm and Dairy patterns shown in these columns are especially prepared for Our Women's Book. They can be relied upon to be the latest models and include the most modern features of the paper pattern. When you receive our order please be careful to state how many sizes you require, for children, and the number of the pattern described. Orders are filled within one week to 10 days after receipt. Prices of all patterns in Our Women's Book are mailed. Address orders to Pattern Dept., Farm and Dairy, Peterboro, Ont.



2417—Girl's Dress.—The young girl who is going to have new dresses this spring will be eagerly examining the fashion catalogue, for, as a rule, they are just as anxious to be dressed becomingly as are the grown-ups. This catalog will be desirable to many of our girls. Five sizes: 6, 8, 10, 12 and 14 years.

2418—Infant's Cap.—This infant's set consists of a cap, a neck, a night-gown and a dress. A good idea is given from the shoulder. Please just how this set looks when completed. It is cut in but one size.

2422—A Pretty negligee.—During the winter months we sometimes pick up a pretty piece of material for making a kimono, and those who have kimono material on hand will be interested in this kimono here shown. Four sizes, small, medium, large and extra large.

2430—Girl's Dress.—Some of the kimono materials which are so popular this season, and which make up so nicely for the girls, would look attractive if fashioned according to this design. Five sizes: 2, 4, 6, 8 and 10 years.

2437—Boy's Suit.—We do not forget our boys in our fashion columns, and herewith is a neat suit which should meet with favor by the little man of the house. The trousers are belted straight instead of in blousier effect, which is variation from some boys' suits. Four sizes: 2, 4, 6 and 8 years.

2446—Lady's Apron.—Aprons will wear well and those who are contemplating making new ones may well try out a new style occasionally. How does this one appeal? The back view shows the unique effect of the belt. Four sizes; small, medium, large and extra large.

We are receiving quite a number of orders for our new spring and summer catalogues, and we have many more of Our Women's Book will take advantage of our offer and send along an extra 10 cents which entitles you to a copy.

Strout's New Spring Farm Catalogue

Describes hundreds money-making outfit for farmers, including 31 pages, 9 to 16 acres main state road, mile to village and creamery, near lake, 4-room house, 4-room barn, 2-room cow house, 2-room calf house. Owner wanting larger farm makes low price, \$12,000.00. If taken now, horse, 3 cows, hens, cream separator, etc., etc. included. Read on page 7 about all 22 acres, good 3-room house, convenient farm, poultry-raising, cow-calf, horse, hay, tools, wagon, machine, motor-sawing, saw, etc., and outfit complete, \$1,750.00 takes everything, \$1,000 down and easy terms. Village dairy farm, page 12, has 146 acres, 3-room state cow house, big barn, including 37 acres, 12 young cattle; br. horses, hens, hogs, tools, wagon and machinery; aged cow's price for all 225.00, say terms. On page 22 is 200-acre stock, corn and straw farm on main road, half mile to village high school, 120 acres brick house and building, 10-room barn, basement barn 30 x 40, ten-cow house and outbuilding, 20 acres wheat, 40 acres new clover, pig sty, 15 head of new aged pig, owner for \$75,000 one-third cash. Write now for your free copy, this big money-making outfit, and get it easily and find the farm you want.

Department 9

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We are closing out our wholesale implement business and are offering for sale at reduced prices the following lines: Potatoes Planters (horse), Potato Diggers (4-horse), Little V-plow, Grain Grinders, Plant Transplanters, for planting tomatoes, cabbage, strawberries, or tobacco. For further information and prices apply to WESTMAN BROS., Chatham, Ont.

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WHITE AND COLUMBIA WYANDOTTES, LIGHT BRANHAS, S. C. WAZITA & GATERS
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FOR SALE—Privet, Barberry, Cotoneaster, Pyracantha, Dogwood, Wagnall, Mulberry, for hedges, Windbreaks, Timber, mailing lists. Proprietary. Dunes can variety, 100 to 500 dollars. Catalogue, 50c. Lists free. John Dewban, Stratford, Ont.

DAIRY FARM FOR SALE—200 acres, with good buildings for \$90,000. Large well-equipped farm, abundance of water, eight-room solid brick house and steel roof drive house. Write C. C. Broyles, R. R. No. 3, Jolieton, Ont.

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FOR SALE—Large capacity bottle-washer built for 100,000 bottles. 20 points at one end and 12 quarts at the other. Write to: J. J. Galt, 2500 Spadina, R. R. No. 2, Napanee, Ont.

FOR SALE—Two second hand stationary boilers—4 and 15 P. V., three steam engines—4 and 10 H.P., one cut mill, suitable for Cheese Factory or Creamery, also one of the best creameries in Quebec for sale. J. M. Dunn & Son, Cowanville, Que.

FOR SALE—S. Unit. Sharples Mechanical Milter, has been in use about 1 year. In good repair. Terms reasonable. Has not been used as a cheese farm. Phone or write JOHN MCNAT, Box 346, Southport, Ont.

FOR SALE—Cheese Factory, in good dairy district north of Watford, Ont. Fully equipped, large churning room, etc. In good condition. Write to: J. J. Galt, 2500 Spadina, R. R. No. 2, Napanee, Ont.

PLEASE MENTION FARM AND DAIRY

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The Heart of the Desert

(Continued from page 20.)

other distant choirs, led the way on again. But she too was growing a little lightheaded. The distant cactus danced grotesquely and black spots flitted between her and the molten iron over her fancy and they traveled. Suddenly she laughed crazily:

"I was brillig, and the slythy toves Did gyre and gimbale in the wabe; All minxys waws the borogoves, And the mome raths outrgrabe!" DeWitt laughed hoarsely.

"That's just the way it looks to me, Rhoda. But you're just as crazy as I am."

Rhoda jerked herself together and tried to moisten her lips with her swollen tongue:

"We must take it turn about. When you are crazy I must try to be sane!"

"Good idea!" croaked DeWitt, "only I'm crazy all the time!"

"O fabulous day! Calloot Collyat! He chorled in his joy!" Rhoda patted his hand.

"Poor John! Oh, my poor John! I was not worth all this. You may not have an Apache's strength, but your heart is right!" Two great tears rolled down her cheeks.

DeWitt looked at her seriously.

"You aren't as dry as I am. I haven't enough moisture in me to moisten my eyeballs, let alone cry! I am so cracked and dry that you will have to soak me in the first spring we come to before I'll hold water."

Rhoda laughed weakly and John turned away with a hard look.

"It's not a joke!" he said.

How long they were, in their staggering, circuitous course, in reaching their goal of cholla, Rhoda never knew. She knew that each heavy foot, treading and scorched, seemed to drag her back a step for every one that she took forward. She knew that she repeatedly offered the last of their water to John and that he repeatedly refused it, urging it on her. She knew that the pulp of the barrel cactus that she tried to chew turned to bitter sand in her mouth and sickened her. Then suddenly, as she struggled to refocus her wandering wits on the cholla, it appeared within touch of her hand. Afraid to pass, she adopted a new goal in a far mesa, and clutching DeWitt's unresponsive fingers she struggled forward.

And so on and on toward a never seeming goal; now falling, now rising, now pausing to strive to hush DeWitt's cracked voice that wandered aimlessly through all the changes of verse that seemed to his delirium appropriate to the occasion. It seemed to Rhoda that her own brain was reeling as she watched the illimitable space through which they moved. John's voice did not cease.

"Alone! Alone! All, all, alone!
Alone on a wide, wide sea!
So lonely 'twas that God himself,
Scarce seemed there to be!"

"Hush John! Hush!" pleaded Rhoda.

"Alone! Alone! All, all, alone!" repeated the croaking voice.

"But I'm with you, John!" Rhoda pleaded, but DeWitt rambled on unheeding.

The way grew indescribably rough. The desert floor became a series of sand dunes, a rise and fall of sea-like billows over which they climbed like ants over a new-plowed field. In the hollow of each wave they rested, sinking in the sand, where, breathless and searing, the air scintillated above their motionless forms. At the crest of each they rested again, the desert wind hurling the hot sand against their parched skins. Presently John refused to rise and Rhoda in her half delirium would sink beside him until she met lifted from her brain and since more the distant mesa forced itself upon her vision.

"Come, John, we will soon be there. We can't keep on this way forever

and not reach some place. Please come, dear!"

"He maketh me to lie down in green pastures. He leadeth me beside still waters. He restoreth my soul."

"Perhaps there will be water there! O John, dear John, if you love me, come!"

"I don't love you, little boy! I love Rhoda Tuttle."

"O for a draught of vintage that hath been

Cooled a long age in deep delved earth!"

"Pleas, John! I'm so sick!"

The man, after two or three attempts, staggered to his feet and stood swaying.

"God help me!" he said. "I can do no more!"

(Continued next week.)

HYLO SILO
Sweet Fresh Ensilage down to the last forkful!

It feeds at night. No heat or special treatment around the walls. Convenient and perfect fitting doors, adjustable without hammer or wrench. Made of Guaranteed Long Leaf Yellow Pine. Built to last a life-time. Stands rigid when empty.

Write for particulars. **GILETTE PATENTED**
GILETTE Mfg. Co. Ltd. 47 York St. (4)



CREAM WANTED

We again solicit the patronage of both old and new shippers for the coming season.

Shipments will receive the same careful attention as in the past, and highest prices will be paid promptly for good churning cream.

WRITE US FOR PRICES AND PARTICULARS.

Reference, Merchant Bank, or any of our cream shippers.

Valley Creamery of Ottawa Limited
319 Sparks St., Ottawa

CANADA MUSTERS HER MANHOOD



FOR the war against hunger as well as for the war against the Hun. For every Canadian fighting overseas, at least two on farms at home are serving none the less effectively because they wear neither uniforms nor marks of rank or valour.

Long and strenuous days are there, without leave or furlough! A steady drive through the daylight hours to keep the work abreast of the season, and save the crops so sorely needed to feed our fighting men.

summer, the more you'll need a Gillette Safety Razor, with its clean, comfortable, five-minute shave. And the better you know and like good tools, the more you'll appreciate the simple mechanical perfection that gives the Gillette such a lead over every other razor.

Only those who spend such days can realize how good it feels to have a "wash-up" and a clean Gillette shave at night—or how it fits a man to enjoy the evening's rest or pleasure of the trip to town.

The Gillette Safety Razor is made in several different styles, civilian and military. Choose one of the former for yourself and delight some soldier friend with a new Military Set. Your dealer can supply you at \$5.00 up.

The busier you are going to be this



Gillette Safety Razor Co., of Canada, Limited
Office and Factory:
GILETTE BLDG., MONTREAL.



STANDARD \$5.00

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PEERLESS PERFECTION

Absolute Security

WHEN you go away for a day or turn in for the night, you are certain your stock is locked in—they can't get over, under or through the spaces—a perfect fence for hilly or uneven ground, through streams; protects poultry, ducks, geese, sheep and hogs. Can't sag or break down and will turn an unruly horse.

Peerless Perfection Fencing

is made of best heavy Open Heart steel fence wire, the impurities burned out and all the strength and toughness left in. Makes the fence elastic and springy. It will not snap or break under sudden shocks or quick atmospheric changes. Our method of galvanizing prevents rust and the coating will not flake, peel or chip off. Every intersection is securely clamped with the famous Peerless Lock.

Good for catfing. It also describes our farm gates, poultry fencing and ornamental fencing.

Dealers nearly everywhere. Agents wanted in un-saturated territory.

The Gaswell-Heale Wire Fence Co., Ltd.
WINNIPEG, MANITOBA, CANADA



ONTARIO GROWN SUGAR MANGEL SEED

GIANT WHITE SUGAR MANGEL—Selected for three years for size, shape and ease of harvesting. Germinates over 900 per cent. Direct from the grower at \$1.00 per lb., 4 lbs. at 55c. You run no risk in sowing this seed.

DETROIT BLOOD RED BEET—For feeding during Dairy Tests. Germinates over 110 per cent. This is reliable seed, and you will save from 50c to \$1.00 per 100 lbs.

OTHER HOME GROWN SEED for sale in large or small packages. Egyptian Beet, Chautauque Sugar, Iceberg Slanish, Dwarf Slanish Range.

FARMERS' CLUB ORDERS of 500 or over receive 10 per cent discount. Check numbers sent up separately if names are given.

Grown by **RALPH R. MOORE**, at Norwich, Ontario

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We are the largest manufacturers of creamery butter in Eastern Ontario.
WE PAY EXPRESS
WE FURNISH CANS
PROFITABLE PRICES PROMPTLY PAID.

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We Buy Cream and what's more important We Pay for It

TWENTY YEARS experience is at your service. We furnish cans and do all that any other reliable firm can promise.

References: ANY BANKER. ANY CREAM SHIPPER

TORONTO CREAMERY COMPANY, Limited
9 CHURCH STREET, TORONTO, ONT. A Line Brings Particulars

The Makers' Corner

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

Pasteurizing Cream and Butter

ONE of the outstanding features in connection with the past year's creamery business in Manitoba that deserves more than passing notice, is the adoption of effective pasteurization of cream for butter making by a large number of the creameries. We are glad to report that 78% of all butter manufactured this year has been made from properly pasteurized cream.

Although the equipment necessary to perform this work entails a large expenditure, the creamery operators have been prepared in a large number of cases to meet this cost, and are fully alive to the importance of maintaining the high standard which Manitoba butter has now reached. One operator, who required persuasion before purchasing a pasteurizer at a cost of \$1,050 in May, volunteered the statement in August that the milk had already increased in price for itself, in the extra prices received for his butter through increased grades. This fact is still more significant when we realize that a large percentage of the increased prices received by the creamerymen, as a result of improved methods of handling the cream, finds its way into the pockets of the patrons of the creameries.

The temperature generally advocated for pasteurizing cream for butter-making previous to 1916 were 140° to 145° F. held for 20 minutes. Those temperatures effectively disposed of the micro-organisms, and to a lesser degree eliminate the free, fatty acids from the butter fat, but at least some of the unorganized fermenting organisms survive to carry out their function of deteriorating the resulting butter. We found that in order to secure the results we really wanted, it was necessary to use somewhat higher temperatures than these, and the temperature of 165° to 170° F. held for 10 minutes, was recommended, as this temperature is sufficient to destroy both bacteria and enzymes, which are undoubtedly responsible to a large extent for the deterioration of butter in storage.

We found that butter made from cream with a low acidity (3-3%) and treated as in this manner, will hold up in storage for a period of twelve months, where butter made from raw or improperly pasteurized cream will show a decided rancidity in a few months. The general adoption of pasteurization, with a low acidity cream, will place our dairy industry upon a practically new basis, more particularly in relation to the export trade. Very satisfactory reports have been received from a number of wholesale produce firms, both East and West, in regard to the butter which was made from properly pasteurized cream.—L. A. Gibson, Dairy Commissioner for Manitoba.

Save Whey Cream

IT is essential that the whey from Cheddar cheese factories be separated for two reasons: first, the waste shortage of food products, and especially of fats is so great that a waste or partial waste of any product fit for human food is almost a crime; and second, the financial returns are such that no factory can afford to leave the whey unseparated. There is no longer any question about the advisability of whey skimming. Butter at fifty cents per pound is too high to feed to hogs. Fat can be purchased much cheaper in feeding stuffs. Be-

sides, even if the whey is not skimmed only a small part of the cream ever reaches the hog trough. Most of it sours on top the whey tank and is then discarded as waste.

Before us are the results of three factories in Vermont State that skimmed whey last season for the first time. These results agree with results which have been obtained by Ontario whey-butter makers. (And in this connection it may be of interest to know that of 820 cheese factories in Eastern Ontario, 351 now make whey butter.)

Factory No. 1 put in whey skimming equipment and operated for about six months. The results were 1,578 pounds of milk were received. The whey from this yielded 3,543 pounds of butter or about three pounds from the whey for each 100 pounds of milk. After paying all running expense, including labor and interest and depreciation on equipment, this venture netted the patrons (the arrangement was cooperative) \$982.14 or 7.44c per hundred pounds of milk.

Factory No. 2 equipped in the middle of the season, was actually running less than four months. In this time 424,300 pounds of milk were made into cheese, the whey from which yielded cream containing 1,578 pounds of butter or 3.7 pounds per hundred. The net returns were \$438.25, equal to 10.5c per hundred pounds of milk. This was also strictly a cooperative venture.

The cost of equipment for these two factories averaged \$535. Interest and depreciation were figured high at twenty per cent. The cost of running six months or 13c per 100 pounds of milk from which the whey was skimmed. The fuel and oil cost averaged 1.0c, and the labor cost was 17c, making a total expense of 4.4c for skimming the whey from each 100 pounds of milk. The average gross receipts were 13.50c, leaving a net profit of 8.53c on each 100 pounds of milk and being 5.43c pounds of good butter was added to our food supply.

Factory No. 3 skimmed the whey as a private enterprise, one-half the gross returns being given the patrons as their share. The milk received was 1,435.360 pounds, but considerable whey was lost due to a shaft down for repairs. However, 2,343 pounds of butter were made, the patrons' share of which amounted to \$748, or 3.21c per 100 pounds of milk. These three illustrations prove that whey skimming pays.

Mr. M. Robertson, President of the Belleville Creamery, Limited, has been again invited by the Agricultural Department of the Government of Nova Scotia to take charge of the class for creamery managers, which is held in Truro, Nova Scotia, between March 12th and 26th. Creamery owners and managers from Nova Scotia, New Brunswick, and Prince Edward Island attend this course.

A number of firms in the United States are recommending the use of metal coolers, which is to treat a supply of ice on the farm. Some of these outfits are now patented and in use in several States. Since none of these have been tried out in this part of the country, one cannot vouch for their practicability. "The chief advantage of such a home ice making outfit is the probable purity of the ice. Many people who object to the use of water from streams and ponds, even for cooking purposes, do not hesitate to put ice from such places in drinking water or tea.

"I" said the temperance man, "strongly object to the custom of christening ships with champagne."

"I don't," returned the other man. "I think there's a temperance lesson in it."

"How can that be?"

"Well, immediately after the first bottle of wine the ship takes to water, and sticks to it ever after."

Should Farming

(Continued)
and bring about a revolution in the economic method they did not work. The farmers were in fine lines which handle the most ignore the other.

A Revolt

Hon. Geo. Spoke right to operative traders, farmers," he said, "the prices they Year by year, they were going belly in too many cases relationship between our paid for their cost of these merchants and do there was a relation of the article their price to the price to their movement bound to go ahead movement among he said, "don't

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ness when we vators and fore most would quick!"

"I! You know I sary, we are pro our own goods to sell them to our tions. We want get settled immediately where the sale determined by the on the part of the rimer methods basic principle, failure."

Lack of time r complete the di

be doubtful, even be reached, if a been reformed, was appointed to matter comprised the farmers, the wholesalers, it

meeting. In the ers purpose co their trade oper they find desirab that it may not Canada before the at their own ma a considerable w wondered at the ness interests ar der where this farmers is likely

outcome is going tants that some to enter in the place from of supplying the farm

Farming in a w some paintings. That's and man management dro business. Later

examine closely tenned on close of debts of pro tion I mean that right perspective

Growing animal and muscle man than fat. Oats are more than a sustenance for your

Along towards come dusty and meet any hay is fed by the cow water before

Should Farmers Embark in Trading Operations

(Continued from page 17.)
and bring about a better understanding. Another manufacturer replied that the reason they dealt as they did was because they found it the most economical method. The main reason they did not want to trade with the farmers, was because they found the farmers were inclined to pick out a few lines which they found they could handle the most profitably, and to ignore the other lines.

A Revolt Against Conditions.
Hon. Geo. Laney for the farmers, spoke right to the point. "This co-operative trading movement among farmers," he said, "is a revolt against the prices they have been charged. Year by year, farmers found that they were going behind. They noticed that in too many cases, there was no relationship between the prices farmers paid for their goods, and the real cost of these goods. Until country merchants and others recognized that there was a relationship between the cost of the articles they handled and their price to the farmer, they might make up their mind that the co-operative movement among farmers was bound to go ahead. "Because this movement among farmers is small," he said, "don't think that any combination on your part can put us out of business. Our friends, the grain operators, tried to put us out of business when we started our grain elevators and foretold that our movement would quickly collapse. But has it? You know the answer. If necessary, we are prepared to manufacture our own goods in order that we may sell them to our own local organizations. We will never get this subject settled until we reach the point where the sale price of the goods is determined by their cost. Any effort on the part of business men to re-arrange methods which ignore this basic principle, is bound to prove a failure."

Lack of time made it impossible to complete the discussion, although it is doubtful, even if there had been more time, if a conclusion could have been reached. The committee that was appointed to further consider the matter comprises representatives of the farmers, the retailers and the wholesalers. It will report at a later meeting. In the meantime, the farmers purpose continuing developing their trade operations in every way they find desirable. It is understood that it may not be long in western Canada before they commence to operate their own manufacturing plants on a considerable scale. It is not to be wondered at, therefore, that the business interests are beginning to wonder where this movement among the farmers is likely to end, and what the outcome is going to be. It is unfortunate that some of them are likely to suffer in the transition that is taking place from old to new methods of supplying the farmers' needs.

Farmer in a way is something like some painters. I once was in a big theatre and admired the immensely the magnificent drop curtain and stage handings. Later I had a chance to examine closely the canvas, and it seemed on close inspection a series of patches of paint. By this illustration I mean that it is hard to get the right perspective of our own work.

Growing animals are in need of bone and muscle making material rather than fat. Oats and bran immediately suggest themselves as an ideal combination for young animals.

Along towards spring clover hay becomes dusty and in late spring almost any hay is eaten with little relish by the cows. Sprinkle with water before feeding is a help.

Butter Prices Will Be Maintained

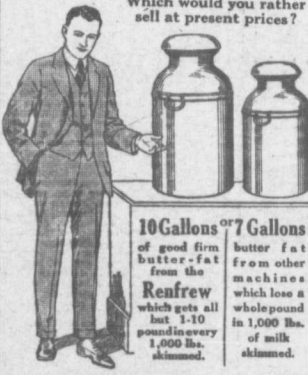
THE Food Controller for Canada states: "I do not expect that the sale of oleomargarine will result in any reduction in the price of butter. The overseas demand is practically unlimited—For years after the war Europe will require all the butter which Canada can produce for export, and the prices are certain to be high."

High prices for butter make every pound of butter-fat saved a source of extra profit that is a revelation to many farmers and dairymen. The

Renfrew

saves you about one half-pound of valuable butter-fat, per cow, per week, over other machines, even if they are in running condition, and much more if they are not running properly. Multiply this half-pound by the number of cows in your herd and then calculate what this means to you in dollars and cents per year. Will it pay you to continue losing money by using an ordinary machine? The Renfrew gets all but the last three ounces of butter-fat in a ton of milk skimmed.

Which would you rather sell at present prices?



10 Gallons of good firm butter-fat from the Renfrew which gets all but 1-10 pound in every 1,000 lbs. skimmed.

7 Gallons of butter fat from other machines which lose a whole pound in 1,000 lbs. of milk skimmed.



MADE IN CANADA

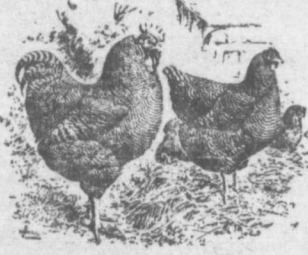
Besides quantity, the Renfrew gets quality. Good first-class cream means globes of fat unbroken, and better, firmer butter. This high quality of cream is secured by the exclusive curved wing centre-piece of the Renfrew, which distributes the milk to the discs in thin sheets, and prevents the slapping of milk and breaking up of the fat globules, which occurs with the ordinary straight wing machines.

Our illustrated booklet gives Government Dairy Schools proofs of the close skimming. Also read about the Renfrew's exclusive interchangeable-capacity feature, self-oiling system and many other modern advantages. Write for booklet today.

NOTICE.—The Renfrew Separator illustrated here was for many years sold under the name "Standard," which identified it as a high efficiency cream separator. The name "Renfrew" has been used on the same machine for several years for our United States and foreign trade and under that name has become so popular in those markets as to make the name "Standard" in Canada. Now the name "Renfrew" has been adopted for Canada so as to link the name more closely with that of our company and so that we can sell the machine under a uniform name throughout the world.

The Renfrew Machinery Co., Ltd.

Head Office and Works: Renfrew, Ontario
Eastern Branch: Sussex, N.B. Agencies almost everywhere in Canada
Our Other Lines: Renfrew Kerosene Engine, Happy Farmer Tractors, Farmers 2,000 lb. Truck Scale, Wood Saws, Grain Grinders.



Baby Chicks—Eggs for Hatching

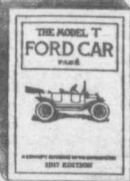
Now is the time to have your orders coming in for these. Shrewd poultrymen are now getting ready for the spring hatch. They are on the lookout for supplies. Get your name before these fellows. Do it now, before they have placed their spring orders. Your best time to advertise will be in

April and May

These issues will cover closely the whole poultry situation, including better flocks. It will be a great stimulus for pure breeds on hundreds of farms, or a change of breeding strain. Whether it is ducks, geese, turkeys, or one of the many breeds of hens, have an attractive advertisement with us in these coming months.

FARM AND DAIRY, Advertising Department, Peterboro, Ont.

KNOWLEDGE IS POWER



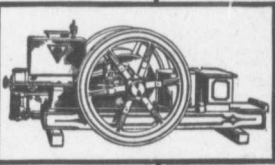
There are, with this book, you have the power to overhaul and repair all parts of the Ford Car. This is one of the most complete instructions ever published on all parts of the Ford Model T Car. Complete instructions for giving and repairing are given. Every detail is treated in a non-technical yet

ing are given. Every detail is treated in a non-technical yet thorough manner. This book is written specially for Ford drivers and owners, by a recognized automobile engineering authority and an expert on the Ford, who has driven and repaired Ford cars for a number of years. He writes for the average man in a practical way from actual knowledge. All parts of the Ford Model T car are described. All repair processes illustrated and fully explained. Latest edition. **LARGE FOLDING PLASTIC ILLUSTRATIONS 300 PAGES. PRICE, \$1.00.** We will send this book prepaid on receipt of price or will send you free on request our special circular on Automobile Books and Charts.

BOOK DEPARTMENT, FARM AND DAIRY, PETERBORO

Alpha Gas Engine

So simple
your boy can
operate it—
and always
dependable



When you buy a gas engine you want one that your boy or your hired man can look after.

You want an engine that will always RUN when you want it. That is the kind of an engine the ALPHA is.

There's nothing complicated about it—no fragile electric batteries, no attachments that puzzle you. Every part is sturdy—built of the best materials—and will stand up under hard work.

You simply oil the Alpha, turn on the fuel—either gasoline or kerosene—give the flywheel a turn, and your engine has started chugging away on an all-day run. You can go away and leave it—pumping water, running a feed-cutter or doing any of the many other things you want it to do. Any one of the thousands of Alpha owners in Canada will tell you that you cannot do better than to use this engine.

Write today for complete information as to how you can save time, labor and fuel with an Alpha Gas Engine.

The De Laval Company, Ltd.

LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA. Sole manufacturers in Canada of the famous De Laval Cream Separators and Ideal Green Feed Silos, Alpha Gas Engines, Alpha Cows and Butterworkers. Catalogues of any of our lines

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is a standard,
reliable,
concentrated
Feed that
gives you

This feed will give you all the Protein needed to balance the lack of Protein in hay, roots and ensilage.

Our book on feeding for profits, shows the money in milk—and shows how you can make 25% more profit out of the cows you are milking. Write for copy, sent free.

Edwardsburg Oil Cakes in the Meal ration for fattening Hogs. Try it.

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TORONTO

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The Wonderful Light-Running Gilson Thresher



Save Time—Money—Labor. Be independent of the gang. Keep your farm free of weeds. Do your threshing and winnowing with the Gilson Thresher. The Wonderful Light-Running Gilson Thresher. Portable and with or without engine. See the full particulars in our literature. Write for it.

THE GILSON MANUFACTURING COMPANY LTD.
487 York St., Guelph, Ont.

Deal with Farm and Dairy Advertisers

City Milk Supply

Toronto Milk Prices

AT ONE of the greatest meetings ever held by the Toronto Milk Producers' Association it was decided to ask for a continuation of winter prices through the summer months. The meeting was great both in numbers and in the spirit displayed. All speakers agreed that the price set last year had been high enough in view of conditions that developed later in the season. There was a general feeling, too, that even a continuance of winter prices through the summer would leave a margin of profit on production for the entire year and yet the producers were willing to leave prices as they were rather than endanger

tion. He deprecated the general belief that milk producers practically will not cut once the grass is green, placing the really good pasture season at just five or six weeks.

The Motion Introduced.

Mr. R. F. Hicks, in introducing the measure, said that to cover losses of recent months the price of milk should advance, but qualified his advance of anything that would stir up violent opposition. Mr. Jno. Newhouse of Shelgrove, seconded the motion.

But the motion was not due for a month past. Mr. Richard Malton, questioned if the best way to serve the producer was to give him milk at less than cost of production and referred to the milk famines of the New York and New England States, which resulted from exactly this policy. He then quoted the results of an investigation conducted from Ottawa in 1917 on 25 farms and with

Can Returned Soldiers Succeed on the Land?

AT THE recent meeting of the Canadian Council of Agriculture in Regina, the former soldiers' settlement question was discussed.

"On behalf of the organized farmers of Canada the Canadian Council of Agriculture desires to express in the most heartfelt manner possible their deep appreciation of the services rendered to the people of Canada as a whole, to the cause of democracy, and on behalf of civilization by the members of the Canadian Expeditionary Force. Our realization that sacrifices have been made, and are being made, that human powers never can fittingly reward, and our conviction that it is the bounden duty of the citizens of the Dominion to make suitable and generous provision for the soldiers who have returned, and who are yet to return from overseas, and whose condition, because of the services they have rendered, makes it necessary that such provision shall be made.

"In this connection we are pleased to note that the Dominion and Provincial Governments have expressed their sense of obligation and their determination to act in this regard, and we would urge that action, where such has not already been taken, shall be taken without delay. Incidentally, we desire to point out, in the clearest possible way, both to the Governments and to the soldiers concerned that all efforts to establish returned soldiers on the land are doomed to failure, in the vast majority of cases, unless economic conditions in Canada which now impose similar and unbearable conditions on the industry of agriculture, are changed along the lines that frequently have been recommended by this Council, particularly in the direction of tariff reform, the taxation of land values, the conservation of our natural resources, and the rationalization of our transportation systems.

"In proof of this statement we

would point out that in spite of the millions upon millions of dollars that have been expended by the Dominion and various Provincial Governments of this country to promote settlement in Canada of a superior class of experienced agricultural workers from European countries and the United States and the many additional millions that have been expended through our various departments of Agriculture, the results have been more profitable. These expenditures have proved largely abortive as shown by the rapidly declining rural population in Eastern Canada, this population being less in 1914 on the outbreak of the war, than it was forty years before, before the time that the Canadian population has steadily grown more rapidly than the rural population. This condition being due to the fact that urban industries have been and are, because of the conditions already referred to, relatively much more profitable than farming.

"We contend therefore, and maintain that to expect our returned soldiers to turn to advantage and contentedly under these conditions is to expect the impossible, except in a few comparatively exceptional cases.

"It is our conviction, however, our conviction that where soldiers who have had practical experience in agriculture are desirous of settling upon the land arrangements should be made to provide them with land in the settled districts instead of sending them to the outskirts of civilization largely, or entirely lacking in railway facilities, as has been proposed. It is our opinion that such facilities should precede and not follow settlement in a case of this kind.

To this end we would urge the imposition of special taxation where necessary of land values of acres of idle land both east and west, that are now available for speculative purposes and for other reasons."

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Tests—A Western Opinion

EXTOR Farm and Dairy: The discussions in Farm and Dairy and some other publications on the relative merits of the official short-line test and the semi-official or R.O.P. test has been rather interesting, and I believe is rather important to Holstein breeders.

The official seven-day test was certainly done a great deal in advance of the Holstein breed. It is a test system that has been widely used, and any system of testing cannot but be of great advantage. It has some defects. It does not indicate how persistent a milker a cow is. In fact it may be an advantage in making a big seven-day record to have a cow that will dry off early and easy. The greatest objection I see to these tests, even 30-day ones, is that they are no indication of the fat percentage of the cow's normal milk.

Late, if any, improvement has been made in the average quality of Holstein milk, and it is largely because there has been so little information about the normal fat content of the milk of the various families of the breed. There is nothing that would do so much to make the Holstein cow unapproachable as the foremost dairy breed as to have the average fat percentage of Holstein milk raised even a half of one per cent. This should be a quite possible attainment without losing any of her great milk production. If the normal fat production of various families were ascertained by a lot of yearly tests a big step would have been taken towards improvement in this direction. At the present time some of the most popular strains of Holsteins, many of whose members have made big official butter records, are really, as far as yearly records show, low testing strains, and their general use may be really a backward step in breeding.

The Yearly Test.

The main objections raised to the yearly test are that it is expensive, that it hurts the cow, and that it is not accurate.

As to the expense, the tester in R.O.P. tests is paid by the Department of Agriculture, and as most people are keeping cows for the milk that they give, it is surely no great

expense to keep a record of the production. The main object should be not to break records, so much as to have records of the production of a lot of cows. There are lots of Holstein cows that will show good records if they are given a chance without any expensive additions to the ordinary feed and care. The good R.O.P. records have not all or mainly been made by rich men but mostly by farmers, and are pretty generally scattered. No doubt a lot of expense can be made trying to put a big record on a poor cow, but a good record can make a good R.O.P. record without the expense being prohibitive.

As to it harming a cow to do R.O.P. tests it seems to me a libel on the breed to make the claim that they cannot stand anything but a short test without danger of harming them. Personally my experience has been that it is a great developer of cows to make them produce as much as can probably be done. Has there not been lots of harm done by excessive biting and feeding for seven-day records? No doubt a cow can be hurt even by overfeeding or wrong handling, but the blame should be put where it belongs—an ill-advised feeding, not on testing. The great records made in R.O.P. tests surely are conclusive answer to this objection. The greatest long distance producer, Tilly Alcaraz, goes on year after year making huge records, and also at nine years of age has six calves.

Accuracy of R.O.P.

It has been suggested that the R.O.P. is not accurate. Supt. Gardner, of the A.R., has stated that in the cases where comparisons with official work were possible the results were approximately the same. There has been only one case, I believe, where a cow on official test was also in the R.O.P.—the cow, Lady Pinjig Canary Jewel. The R.O.P. estimate of the butter fat was almost identical with the official figures for the year.

Any changes in the R.O.P. rules that will induce more breeders to test will be a good thing. Personally I think they are very satisfactory now. A man can milk only twice daily for nine or ten months, or he can milk four times for the year, or even, if he wants a test without breeding, still it is over, it is possible. All these circumstances are recorded in the

R.O.P. reports, and one can, knowing these things, make comparisons. No one would expect a cow that was milked twice a day and calved in 11 months to equal one that was milked four times and calved in 18 months, but knowing these things we can estimate the relative value of the records and the cows.

Tests are made to locate the good cows. Both the men doing official short-line tests and those conducting semi-official testing, if they are not trying to put big records on poor cows, are doing service to the breed and good commendation. Those deserving commendation are the ones not testing at all.

I believe it is harder to put a good R.O.P. record on a poor cow than to put a big R.O.M. record on her. With the assistance of the Department of Agriculture gives us should have a great many more semi-official records made.—B. H. Thomson, Boharm, Sask.

APICULTURE

Treatment For American Foul Brood.

AMERICAN foul brood is now pretty well distributed over the south-western portion of Ontario. Unlike European foul brood, this disease may be present in some colonies of an apiary for several seasons before it is finally spread throughout all the colonies. It has this feature, however, in which it is worse than European, that no known race of bees is immune to this disease.

The disease may be known by the characteristic glue-like odor, by the brown scales in the lower side of the cells, and in the case of larvae which have not reached this stage by the rupture of the putrifying mass. The cappings of any diseased larva which may be capped will be found to be darker than normal and to be somewhat sunken. Usually these cappings will also be found to be perforated.

Its Worst Feature.

The worst feature of the disease is that as the bees are unable to remove the dried scales from old cells on account of their glue-like nature, honey

is stored in these cells, becomes inoculated with the disease, and so serves as a carrier for the bacterium to other larvae. On this account also, honey from a diseased apiary is a dangerous source of infection for other apiaries. This is especially noticed in bee yards in the vicinity of cities, where the bees have a chance to clean out old honey receptacles.

The treatment for this disease must be given when a good honey flow is being harvested. Colonies should first be strengthened by uniting two, three, or four together. The principle underlying the treatment is that all diseased brood, comb, and honey is taken away from the diseased colony and destroyed. Thus the only time when treatment should be attempted is when there is plenty of honey coming in to supply new food and materials from which new comb may be built to replace that which has been removed. It is not enough to take bees from their old comb and put them on new drawn combs, for they will carry a certain amount of honey in their honey sacks and will store this in the new combs. The principle adopted in treating this disease is that no comb be given the bees—only a little strip of foundation to show the bees where to build their combs. By this means the bees are forced to use up the diseased honey which they may have in their honey sacks in the building of comb.

Treatment.

In treating the bees, the old hive is removed from the stand and placed a little to the rear. A new hive is placed on the stand, with new frames in which are placed starters of about one-quarter on an inch foundation. The bees are brushed into this off the old combs rather than shaken, for it has been found that the disease is liable to drop into the hive and cause infection. Precautions must be taken to prevent the bees from swarming out of this hive. A good plan is to place at the bottom of the hive a queen excluder, to prevent the queen from deserting the hive.

On the third evening after the operation, the bees should be examined in their new home. All the combs which they may have built should be removed and melted down into wax, for fear they may contain any spores of the disease. Full sheets of foundation are then given, and the treatment is complete.—S. R. N. H.

The "How" and "Why" of Cow Testing

Just these questions and a hundred and one of a kindred sort that arise in the mind of the dairy farmer are answered in

Dairy Farming by Eccles & Warren

This is a new book on the subject and is a mine of information for the dairyman. The writers have treated their subject in a non-technical and pleasantly readable style, and have produced one of the most authoritative works on the subject of dairy farming. When you have had the book a week you will thank us for putting you in touch with it. Splendidly bound in hard linen covers.

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Cockshutt No. 5 Row-Crop Cultivator

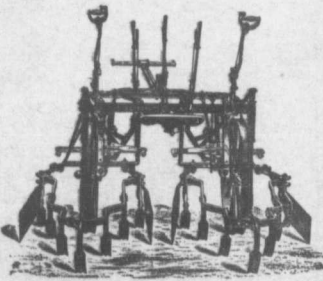
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The Stock Boar

By G. B. Rathwell, Assistant Dominion Animal Husbandman.

SUMMER FEEDING.—Supply a pasture of clover, alfalfa, or fine grass with water and shade. If no pasture is available, supply fresh green food liberally—clover, alfalfa grass, green peas and oats or weeds, as lamb's quarter, pig weed, dock, etc.

Feeding the Year Round.—If skim-milk, buttermilk or whey are available, supply at rate of three to 10 pounds daily as needed. The meal ration may be made up of ground oats, ground barley, bran and shorts in any combination of two or more,

fed at the rate of two to five pounds a day, as needed. Use judgment in feeding the boar. If overfat, he will prove a poor or uncertain stock-getter. If he is too thin, he will transmit to his get, lack of vigor and vitality and poor constitution generally.

Exercise.—Importance cannot be overestimated. Supply a roomy, shady pasture in summer, not a filthy, fly-infested, pen or corner. In winter, arrange a paddock out-of-doors, close to the barnyard. Build a cheap, portable, single-boarded cabin about six feet by eight feet. Supply plenty of bedding. By feeding and caring for, as outlined, crippling and rheumatism, so common in boars, will be avoided.

The Brood Sow.

Summer.—Pasture, same as advised for boars.

Winter.—Roughage same as for boars. Meal mixture of bran two parts, shorts, one part, except when nearing farrowing time, when the mixture should be of equal parts. If necessary ground barley or oats might replace either. Avoid corn in more than one-quarter the ration. For the breeding sow it is debilitating and over-fattening. Feed meal at the rate of two to four pounds as needed.

During Gestation.—Fresh, or bring the sow into good condition before breeding. Maintain this condition after breeding. Avoid over-fatness by the ensuing troubles—difficult farrowing, small weak or dead pigs. Too thin condition, particularly with

a young sow, may permanently injure, in any case will likely mean small, thin pigs, a high percentage of runt, and a milk secretion. The pig should receive a cooling ration tending towards a laxative nature. The ration above advised qualifies in this regard. Remember, first and last, that constipation at this time makes very certain, serious trouble with the litter—small, unthrifty, poorly doing pigs, due to constipation in both themselves and their mother. Such litters dwindle rapidly with no perceptible cause.

Exercise.—Equally as important as with the boar. With the exception of a period spent in the farrowing pen, house the brood sow outdoors the year round in a portable cabin, eight feet by 10 feet, and as described, placing four or five sows in each cabin. Choose a dry site. Make the sow work to obtain feed. This has an unfailing influence on the vigor, size and numbers of the coming litter, and lessens liability to rheumatism and crippling.

After Farrowing.—Avoid exciting the sow during or after farrowing. Always be present at this time, but give only such attention as may be required; no more. The first feed should be a tepid slop of middlings. During the first ten days gradually increase ration to maximum. Particularly avoid overfeeding, causing scours and thumps in little pigs. Feed the sow for milk production in such rations as ground oats, middlings (equal parts), or ground oats, bran, shorts (equal parts), both combinations with mid-summer alfalfa green feed or pasture only after pigs are two weeks old. In winter, feed roots, clover hay, etc. to keep the body functions healthy and blood cool. Empty a barrel of earth and wood ashes in a corner of the pen. When weaning cut down meal supply and remove young pigs for longer periods each day until the sow is dry.

The Farm Implement Shed.

FARM machinery depreciates very rapidly. For instance, the value of the threshing outfit, the hay loader, the grain binder, and the moving machine depreciate at the rate of 10 or 12 per cent. or more per year. This means that the average life of these implements is 10 years or under. Experience has shown that the life of farm implements may be prolonged to at least 15 or 20 years with proper care. Proper care includes careful handling, oiling and, last but not least, protection from the weather.

On the ordinary farm we are prone to leave our plows, harrows, cultivators, and many other implements just where we finished with them in the fall. This results in two sources of loss—loss from depreciation and loss in efficiency. The farm machinery should be carefully gone over in the winter, and this will not be the case if the machine is back in the barn. We would not for one minute advocate expensive machine sheds. Building material, like everything else, is soaring sky high. A simple shed to back the machinery into; perhaps a shed roof, covered with paper, with the two ends and the back boarded in, and with sliding doors in front, is about as simple as the machine shed can be made.

The location of the machine shed is worthy of consideration. One can locate it very conveniently in the lane where it enters with the farm yard; the face or front of the shed in line with the lane fence, and extending backward to the desired depth. If something more elaborate is desired, the cost will increase with each added improvement. Often it is desired to locate a small machine shop in one end. This is a feature worth noting, and will result in a great deal of satisfaction to the farmer when he is going over his machinery in the winter.



Military Service Act

Important Announcement to All EXEMPTED MEN and to the Public Generally

IN dealing with the very large number of claims for exemption brought forward for consideration in connection with Class I under the Military Service Act, it has occurred, as was inevitable, that as a result of false statements and difficulties put in the way of investigation, some individuals have secured exemption whose proper place is in the Army.

It is not the intention of the Government to allow these men to evade permanently their obligation to bear their part in the military defence of the Country and of the ideals for which we are fighting. To do so would defeat the purpose of the Act, and cause grave injustice to men in the second class necessarily called out to fill their places.

Exemptions Granted on False Grounds

It is, therefore, proposed to scrutinize carefully all exemptions granted to date in order to separate those which have been granted on false or insufficient grounds from those that are well founded.

With this object in view the various Registrars under the Military Service Act have been instructed to issue a series of questionnaires to exempted men. These questionnaires must be filled up correctly and returned promptly under penalty of forfeiture of exemption for failure to do so.

Exempted Men Who Have Changed Address

It is therefore important in their own interest that all exempted men who have changed their address since their exemption was granted and who have not already notified the Registrar of such change should notify him at once. Under the Regulations it is the duty of exempted men to keep the Registrar advised of any change of address, and failure to receive the questionnaire by reason of neglect of this duty must be treated as equivalent to failure to return the questionnaire after receipt.

Citizens Urged to Assist

In many instances information has been furnished by members of the public which has led to the cancellation of exemptions obtained by false or misleading statements. Further co-operation of this character is invited. The Government regard it as the duty of all loyal citizens, not only to the Country, but to the men at the front, to assist in this way in securing reinforcements on a just and legal basis. Correspondence of this character will be treated as strictly confidential and will receive the fullest investigation.

CHARLES J. DOHERTY,

Minister of Justice.

Correspondence should be addressed to the Registrars under the Military Service Act.

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MARKET REVIEW AND FORECAST

ONTARIO, April 1.—The week's markets have not developed any serious changes. Live stock prices have been holding up well on account of the better demand and there is not likely to be a sufficient run of animals for prices materially for some time. There is little movement in the prices of the grain market, except that noticed in the mill receipts. Occasionally a few cars of corn come in from the West of a low grade. With No. 1 a kill dried selling at \$1.50 to \$1.55, it is not long as farmers have their own wheat on hand for which they own what but slightly over \$1 at country points.

centres are extremely light, and the demand good. The same condition prevails throughout both Canada and United States. Toronto is quoting:

- Cattle 27c weight. Dressed
Milk cows 30c to 35c to 38c to 39c
Hens, 1-1-10 lbs. 25c to 35c to 35c to 36c
Hens, 1-1-10 lbs. 30c to 35c to 35c to 36c
Roosters 25c to 35c to 35c to 36c
Turkeys 25c to 35c to 35c to 36c

Dairy Products. Butter prices are unchanged. At country points the wholesalers are paying for 40c to 45c for dairy butter, 48 1/2c to 50c for creamy solids, and 48c to 50c for creamery prints. The retail trade is paying the wholesale houses 48c to 50c for creamery solids, and 51c to 52c for creamery prints. The price of cheese is 30c to 35c per pound. So far no soap found. Taken in the market of these prices, and there are still being sold at last season's market at 2 1/2c for No. 1, 3 1/2c for No. 2, and 3 1/2c for No. 3.

Live Stock. Cattle closed the week at the level of the previous week. The market was druggery early in the week, but improved in light receipts. The Easter demand took up the choice offerings. Small meats were 10c per lb.

SALES CLAIMED

OXFORD COUNTY. April 10th.—T. G. Greig, R.R. No. 2, Ingersoll, Ontario, Holsteins.

ONTARIO COUNTY. April 1st.—Duncanson Farms, Heavens, Ontario. Dispersed sale of Holsteins at Union Stock Yards, Toronto.

Yates, Toronto. June 11th.—Complete dispersion sale of pure-bred Holsteins. A. S. Farver, Oshawa. NORTHERN BRUNSWICK COUNTY. April 2nd.—Middle District Ayrshire Breeders' Club, contingent sale of pure-bred Ayrshires at Campbellton, Ont.

VICTORIA COUNTY. April 4th.—Dispersion sale of pure-bred Jersey Stock at New Masilia, Ont. Hy. Glendonian & Son.

HASTINGS COUNTY. April 3rd.—Belleville Holstein Breeders' Club sale of 100 head at Belleville, P. R. Malley, Secretary.

YORK COUNTY. May 15th.—York County Holstein Breeders' Club sale, at Richmond Hill, Ont. R. W. E. Burnaby, Ont. Mgr.

held firm. Small meats were steady and active. Hog receipts are light and prices firm.
Quoteations:
Heavy steers, choicest.. \$ 12.00 to 13.75
do good .. 11.25 to 11.75
Butcher's steers .. 10.25 to 11.50
heifers, choice .. 11.50 to 12.00
do good .. 10.50 to 11.40
do medium .. 10.25 to 11.00
Butcher's cows .. 8.75 to 9.75
do good .. 9.00 to 9.50
do medium .. 8.50 to 8.75
do common .. 7.75 to 8.25
Butcher's bulls .. 8.00 to 8.25
do good .. 8.25 to 10.75
do common .. 7.50 to 8.00
Freeder, but .. 9.50 to 10.50
Stock cows .. 10.00 to 12.00
Grown cows .. 7.00 to 7.75
Milkers .. 10.00 to 12.00
do choice .. 10.00 to 12.00
do to medium .. 8.50 to 9.00
Calves .. 12.00 to 12.50
do medium .. 11.00 to 11.50
do common .. 8.00 to 10.00
Heavy fat .. 8.00 to 10.00
Lams, choice .. 12.50 to 14.50
Shorn choice heavy .. 11.50 to 12.50
do heavy and fat butch .. 11.50 to 12.50
do off .. 11.00 to 12.00
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less 1c to 1 1/2c on haws. Less 1/2c on stages:
less 50c to 1/2c on haws.

FARMER WANTED—An experienced and industrious man of sober habits to take charge of a small dairy on a vacant, and comfortable, modern farm. For good references, position vacant May 1st. Apply to Edward Galt, 211 St. Valer St., Quebec, P. Q.

THE STONECROFT SALE OF Ayr-Shires.

THE dispersion sale of high-class Ayr-shires held at Stonecroft Stock Farm on Tuesday, the 26th of March, has been a decided success. The manager of the sale, Mr. McQuat, is to be commended for the good management of the sale, and the general appearance of the animals. The highest price paid was \$205 for Holstein, born of Howick, Quebec. The highest price paid was \$205 for Holstein, born of Howick, Quebec. The highest price paid was \$205 for Holstein, born of Howick, Quebec. The highest price paid was \$205 for Holstein, born of Howick, Quebec.

A BOUT 200 farmers gathered at Woodstock on Wednesday, March 27th, to attend the sixth annual annual meeting of the Ontario County Ayrshire Breeders' Association. The price has been the case in most of the previous sales. The young stock of which there was quite a few included, want for low prices.

Bob Long Union Made Overalls. Includes image of a man in overalls and text: 'My Dad wears Bob Long'.

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HOLSTEIN BULLS

No. 1. A 6 year old, sired by SIR REVUBADALE... No. 2. A 4 months old, sired by KING MORNINGDOR...

For Particulars and Prices, Write or Call COUGHLIN BROTHERS, R.R. No. 9, PETERBORO, ONT.

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Type Breeding Production Present offering, calves of either sex, sired by British Royal...

W. E. McKilloan & Sons Maxville, Ont.

Your Chance For A Herd Sure

Harlot Butter King (17536) four yr. old A bull with seven 100 lb. cows in his pedigree...

A. W. CRAIG, R. R. No. 5 Bradford, Ont.

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YOUR CHOICE ON THE RIGHT AUCTIONEER.

A third of a century's experience has made us specialists in Holstein lore.

F. H. McCullough & Son Live Stock Auctioneers, EDWORTH FARM, NAVAN, ONT.

DON'T ADVERTISE IN FARM AND DAIRY

Unless You Actually Want to Sell

Farm and Dairy, Peterboro, Ontario Dear Sir:-

In regard to results obtained from advertising in your valuable paper, we are glad to say we have been completely satisfied...

Yours truly, (Sgd.) EDWARD McDUGALE, HILMERTON ROAD PETERBORO.

We have equally good results in store for owners of our other breeders of good dairy cattle...

C. G. MCKILLICAN Live Stock Dept. FARM & DAIRY, Peterboro, Ont.

The Allison Sale of Holsteins

One of the Best Sales of Registered Cattle Ever Held in Canada

THAT breeders of Holsteins appreciate and will eagerly buy for was clearly proved at the Allison Sale...

The highest price of the sale was paid by Messrs. Geo. Winter & Son, of Lindsay, Ontario...

The following is a list of animals sold, the prices and the names of the buyers...

C. SLAVIN'S SALE. THE sale was largely successful in view of the unusually early season...

Bulls—Count Echo Pontiac, 3 years, \$200; C. T. Fraser, Western; Manor Segs 1 year, \$177; R. A. Jefferson, Western.

Loyne Belle, 3 1/2, Hugh Carson; Jean Lyons DeKalb, 3 1/2, Wash. Chester...

SALE OF W. A. MEADOWS.

FAVORED with fine weather, a good crowd and spirited bidding, the good W. A. Meadows, Newcastle, on Saturday...

C. SLAVIN'S SALE. THE sale was largely successful in view of the unusually early season...

Females—Pietertele Fadorik DeKalb, 9 years, \$75; Albinah, 6 years, \$100; Wayne Saccatoe, 6 years, \$100...

THE HOSKINS THE auction sale of certain advertising signs was held at the Ontario Cattle Co. building...

LAIDLAW BRIDGES The sale of pigs to be held at Our Assin, Ont. had some fairly good top-notch prices...

60 P H G

This is a fine stock of sheep, and every bull is a son of the best.

We are off of bulls of service in this sale the Canadian CALMITY 2ND, at 3 yrs. 1.653 lbs.

T. G. G. R.R. No.

THE HOSKINS SALE AT COBOURG.

The highest priced animal was \$225 for the best cow of the herd, bought by J. T. Nixon, Cobourg. The following is a list of the other animals sold: Sir Henservold Walker Saddle, \$150; Colton, Cobourg; Queen Emery Fayne, \$117; J. T. Nixon; Sunrise Aargie, \$112; J. T. Nixon; Lady Queen, \$110; H. G. Welton, Cobourg; Fanny DeKok Concordia, \$140; N. Metcalf, Howmanville; Lady DeKok Hamming, \$141; Carman Baker, Brighton; Flora Farm, DeKok, \$129; W. H. Colton; Pauline Fontaine DeKok, \$108; N. Metcalf; Jennie C. Merrens, \$134; Thos. Lard & Son, Garden Hill; William John DeKok, \$110; Wm. Hoskins, Cobourg.

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LIDLAW BROTHERS' SALE.

The sale of pure-bred Holstein cattle held at Our Villa Holstein Farm, Aylmer, Ont., Laidlaw Brothers realized some fairly good prices. \$375 was the top-notch price paid for females; \$330 for males. The 26 head brought a total of \$6,165; average price of females, \$235.50, and males, \$172.50. The following were the prices paid and the purchasers: Ourville Alcott, \$180, F. Weaver, Belmont; Boutaja DeKok, \$195, T. G. Brown, Aylmer; Ourville Canary, \$180, E. Plant, Burford; Ourville Canary Queen DeKok, \$185, W. Sinden, Belmont; Ourville Calamity Queen, \$195, W. Sinden; Ourville Boutaja Canary, \$180, W. H. Baxter & Son, Aylmer; Ourville Heibon Queen, \$265, J. Schieb, Rodney; Ourville Sarda Colantha, \$115, E. Knott, Aylmer; Ourville Belle Dewdrop, \$200, T. G. Brown; Ourville Calamity Queen, \$110, E. Plant; Belle Drop 2th, \$200, F. Wilson, Hagersville; Ourville Maplecrest Abbecker, \$155, T. Dowler, St. Thomas.

Ourville Sula, Korndyke, \$185, Mr. Goodfellow; Ourville Cornelia Teaks, \$170, A. Johnston; Ourville Patricia, \$110, A. Featherington, Glenora; Ourville Korndyke, \$125, W. E. Leson, Aylmer; Helbon DeKok 5th, \$375, E. Plant; Ourville Sula Spottie, \$150, Wm. Dill, Rodney; Ourville Sula, \$245, W. Sinden; Ourville Sula's Prince, \$180, T. G. Brown; Ourville Baroness Canary, \$110, W. Sinden; Prilly, Harriot Clyde, \$150, E. Plant; Ourville Wanda Coltha, \$200, R. McCartney, London; Ourville

Helbon Colantha, \$295, E. Plant; Ourville Pieterella Canary, \$175, W. E. Leson; Ourville Aargie Korndyke, \$145, E. Plant; Ourville Dutchland Colantha, \$295, E. Plant; Ourville Sir Helbon DeKok, \$145, C. F. Froux, Aylmer; Ourville Sula Terak, \$145, W. Wagner, Kingsmill; Ourville Prinsine Teaks, \$210, W. Chaik, Colton, Ont.

AN OPEN LETTER.
Paris, Ontario,
March 31st, 1918.
Mr. C. G. McKillop,
Live Stock Representative,
Farm and Dairy,
Peterboro', Ontario.

Dear Sir:—
Through my recent advertising in Farm and Dairy I have sold the first two sons of King Sylvia Keyes. These were very choice calves and did not last long after being advertised. Premier Sylvia Butler Boy, No. 28824, born December 6, 1917, whose dam at 1 1/2 years made 67.7 lbs. milk, with 25.56 of butter with her best day's milk of 28 lbs., went to a new breeder of the black and whites. Mr. J. Van Davis, St. Catharines, Ont. Mr. Davis paid a good price for this calf, but he saw in him a breeder, realizing the future of his sire and the wonderful breeding that backed the dam of his calf. Premier Keyes Korndyke, 25886, born January 21st, 1918, whose dam made 68.2 lbs. of milk with 25.1 lbs. of butter and her best day with 38.1 lbs. of milk. This cow is closely related to Sadio Vale Concordia, the dam of Sadio Vale Concordia 4th, 4106 lbs. butter. This calf went to Mr. C. E. Hope of the Deep Creek in of Langley Fort, B. C. at a good price. The two nearest dams of the former calf average 59 lbs. of milk per day and of the latter average 32.25 lbs. At present 20 of the nearest relatives of King Sylvia Keyes average 32.25 lbs. of butter with 64.4 lbs. of milk in 7 days. This blood should surely sell his sons. I have only a few left now, and they will be found for sale in the columns of Farm and Dairy.

Mr. W. J. Bailey, of Oak Park Stock Farm, is well known among the breeders of Ontario. He is a breeder, too, that knows the value of publicity when he has something to offer. He has been a consistent advertiser in Farm and Dairy of high-class stock and his letter above speaks for itself. Breeders who are in need of some choice stock will do well to look up Mr. Bailey's copy elsewhere. Those who have stock to sell will find that it will pay similarly well to use FARM AND DAIRY in finding the right kind of buyer.

AVONDALE FARM OFFERS

1. A choice young bull, born Nov. 2, 1917, sired by "Woodcrest Sir Clyde". Dam, a 25-lb. daughter of "Prince Hengerveld Pietsie"; 2nd dam, 27.63-lb. A bargain for immediate sale.

2. Also a grand young bull, born Oct. 6, 1917, light in color, sired by "King Echo Sylvia Johanna". This is the 25,000 yearling son of Belle year-old daughter of "K. P. A. Canada"; 2nd dam of calf is a 16-lb. two-31.70-lb. A bargain.

H. LYNN, Avondale Farm, Brockville, Ont.

SUNNYBROOK FARM HOLSTEINS

Get them while they last! We have only 3 of our young bulls of serviceable age left. Do not miss this opportunity. You will never get finer individuals, with such official backing, so reasonable.

Jos. Kilgour - Eglinton P.O. - North Toronto

HIGH GRADE HOLSTEIN COWS

I HAVE 6 to 8 splendid Holstein Grades to offer immediately. One is fresh, and the others will be in shortly—will sell individually or all together.

JAS. STOTHART - R. R. No. 4 - PETERBORO, ONT.

LANINGDALE STOCK FARM

HOLSTEINS Offers for Sale HOLSTEINS

Bull calves, one to four months old, sired by REUBEN ABBEKERK MERCEBENA, whose two nearest dams average 29.67 lbs. butter, who has a 34.32 lb. sister, and who is sire of a 25.49 lb. junior 4 yr. old. These calves are from B of M dams—all straight and square. Price \$25 to \$76. Correspondence solicited.

ROBERT C. LANING - VILLA NOVA, ONTARIO

LYNDALE OFFERINGS

No. 1—A son of CHAMPION BCHO SYLVIA PONTIAC, 12 months old—show bull—dam a 15-lb. junior 2-year-old daughter of KING PONTIAC AETIS CANADA.

No. 2—A 13-month old son of MAY SYLVIA PONTIAC COENUCOPIA (W. brother to Champion Echo Sylvia Pontiac). Dam—PETEETJE INKA butte; milk 1 day, 102½ lbs.; 7 days, 696 lbs.; 30 days, 124.94 lbs.

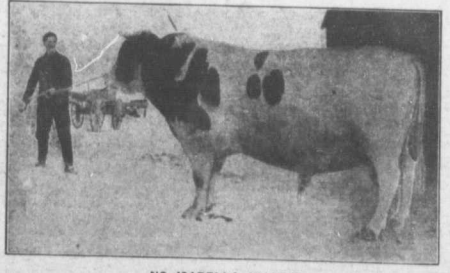
BROWN BROTHERS - LYN, ONTARIO

60 HEAD Dispersion Sale of 60 HEAD PURE BRED HOLSTEINS

And a Number of Young Calves at HIGH STOCK FARM, INGERSOLL, Ont. Wednesday, April 10, 1918 at 10.30 o'clock

This is without a doubt an exceptionally high class sale. Breeders on the lookout for a young herd sire, or some choice foundation stock, cannot afford to miss this sale. The first bull used in this herd was Homestead Dewdrop King, a son of Belle Dewdrop, she having a record of 574 lbs. of milk and 25.18 lbs. butter in 7 days, and 2,843.7 lbs. milk, 103.07 lbs. butter in 30 days. This bull is a son of Dutchland Colantha Sir Abbecker; whose dam and sire's dam average 31.83 lbs. butter in 7 days, and 122.77 in 30 days. He has 31 R. O. M. daughters, and 16 proven sons.

We are offering 8 choice young bulls of serviceable age. Included in this sale are sisters of two of the Canadian R.O.P. champions, CALAMITY SNOW METCHILDE 2ND, at 3 yrs 22.27 lbs. milk and 1.053 lbs. butter, and DUCHESS WAYNE CALAMITY 2nd, at 2 years 15.714 lbs. milk, 864 lbs. butter in 1 year. We are also offering a daughter, 3 granddaughters and a number of great grand-daughters of FAIRMONT WAYNE, who has a record of over 20,000 lbs. milk, and over 800 lbs. butter, two years in succession.



NO ISABELLA WALKER.

Thirty head in this herd are the get of KING ISABELLA WALKER (Imp.), whose dam has a record of over 25,000 lbs. of milk and 987 lbs. butter in 1 year; also a grandson bull; 1 day, 102½ lbs.; 7 days, 696 lbs.; 30 days, 124.94 lbs. Fully 90 per cent of the entire herd carry blood of the Canadian R. O. P. champions. Conveyances will meet morning trains at Ingersoll; also C. P. R. noon train from the south at Salford. Write for catalogue. Lunch provided.

T. G. GREGG,
R. R. No. 5 Ingersoll, Ont.

Auctioneers
MOORE & DEAN
WM. PULLIN

AYRSHIRE NEWS

AYRSHIRE COWS AND HEIFERS THAT HAVE QUALIFIED IN R.O.P. FROM FEB. 7 TO MARCH 25.

Mature Class.

M. H. K. M. D. OF ORKNEY, 29334; 14013 lbs. milk, 539 lbs. fat, 4.84 per cent. fat. Harmon at Orkney.
Jeau of Cottage Hill, 35187; 9996 lbs. milk, 539 lbs. fat, 5.35 per cent. fat. Leslie Algaire, Brerwick, Ont.
Rubel of Crystal, 21295; 9930 lbs. milk, 513 lbs. fat, 4.81 per cent. fat. Algaire.
Brooks, 35082; 9982 lbs. milk, 469 lbs. fat, 4.14 lbs. butter. Lewis Algaire.
Four-year-old Class.
Beauty of Craigville, 4114; 9898 lbs. milk, 546 lbs. fat, 4.47 per cent. fat. E. C. Jansill, Markham.
Tangwilde Impudense, 4170; 9662 lbs. milk, 528 lbs. fat, 4.10 per cent. fat. Woodbine Bros., Moorefield.
Autumnal Broie 3rd, 48424; 8124 lbs. milk, 347 lbs. fat, 4.26 per cent. fat. J. C. & C. Bellington, Chateaufort.
Archimed Myrae 2nd, 48436; 7658 lbs. milk, 348 lbs. fat, 4.78 per cent. fat. J. C. & C. Bellington.

Three-year-old Class.

Terrace Bank Fanny, 45532; 8417 lbs. milk, 375 lbs. fat, 4.03 per cent. fat. Chas. P. Hyde, Huntington, Que.
Snowflake of Spring Hill, 39519 lbs. milk, 311 lbs. fat, 4.01 per cent. fat. J. Hastings, Orkney, Que.
Tangwilde Queen 3rd, 45178; 7704 lbs. milk, 316 lbs. fat, 4.00 per cent. fat. Woodbine Bros., Moorefield.

Two-year-old Class.

Queen of Spot 14943; 4754 lbs. milk, 412 lbs. fat, 4.56 per cent. fat. W. E. Bradley, Lanawash.
Humdauch Knie 1st, 47354; 7784 lbs. milk, 397 lbs. fat, 3.95 per cent. fat. Alex. Hume & Co., Campbellford.
Helen of Glenora, 44828; 4156 lbs. milk, 316 lbs. fat, 4.16 per cent. fat. E. T. Gay, Bowmanville.
Per of City View, 42921; 7240 lbs. milk, 363 lbs. fat, 4.97 per cent. fat. J. W. Waters, Moorefield.

Little Gem of Beaker Meadow, 44883; 4416 lbs. milk, 318 lbs. fat, 4.16 per cent. fat. W. C. Tully, Arthursville, Ont.
Ottawa Belle, 45675; 4763 lbs. milk, 293 lbs. fat, 4.57 per cent. fat. Thos. Dennis, Jr., Stratfordville, Ont.
Clora, 44181; 4592 lbs. milk, 349 lbs. fat, 4.11 per cent. fat. W. H. Bradley.
Queen of Islands Valley, 45199; 6996 lbs. milk, 353 lbs. fat, 4.17 per cent. fat. W. H. Bradley.
Blossom, 35467; 5830 lbs. milk, 242 lbs. fat, 4.10 per cent. fat. J. Harley Purdy, Waterloo, Ont.
Lily of Gold Coin, 52480; 5526 lbs. milk, 215 lbs. fat, 4.07 per cent. fat. John W. Rollins, Latta.
J. V. P. 878191932N, Secretary.

HOWICK-HUNTINGDON AYRSHIRE CLUB.

The annual meeting of the above Club took place at Orkney, Que., on March 25th. It was presided over through the lens of the President, Mr. James Ilyson of Bergamoville, Que., the Vice-president R. N. Neas, Howick, Que. presided. The gathering was large and representative of the counties of Beauharnois, Chateaufort and Huntington. The report of the Secretary-Treasurer Gilbert McMillan, Huntington, Que., was favorable and showed a balance over \$10 on hand. A resolution of appreciation of the faithful services of the president, regret at his illness, and hopes of an early recovery was passed. Also a resolution favorable to holding a convention east of Ayrshire in the spring of 1919 was passed.

It was decided to hold a PRIZE GIFT sale of live stock early in June next. The proceeds to be divided between the Red Cross and Patriotic Funds. This sale to be held under the auspices of the Club and any farmer so desirous may donate an animal to this sale, and the same will be acceptable. W. P. Stephen, Secretary of the Canadian Ayrshire Breeders' Association, was present and gave an address on "The Advantages and Value of Club Work." He stressed that in the holding of field days and demonstrations the club could do much to disseminate knowledge about, and create interest in, the breed. He also spoke of the value of advertising in the press and especially to clubs. He advised the breeders to do more exhibiting at the small and large exhibitions and considered it one of the best means of advertising their herds, and the breed. He laid great stress on the value of the Record work and requested the breeders to enter their cows in the R.O.P., as the records of the cows were indications of their value.

N. E. McIlwain, Macdonald College, gave a splendid talk on "Cleaning up Herds and Keeping them Clean," and gave much valuable information about abortion, and suggested methods for eradication. To clean herds of this trouble two things are necessary, thorough douching and sanitation. Douching with some mild disinfectant used in bottled

water to be followed with a weak saline solution of two tablespoons of salt to a pail of boiled water. This latter would counteract the effect of the disinfectant. He also spoke briefly on tuberculosis, and gave interesting cases of herds being polluted by the presence of diseased animals. He said to eradicate this isolation of infected animals and also the feeding of the calves from tubercular cows with milk from cows whose herds were clean not to bring any animals into their herds without being tested with tuberculin and then re-tested with a double dose of tuberculin within 30 days. The District Veterinarian, N. H. Mondy gave a brief address on the need of increased production of milk this year. He also spoke on the acute shortage of milk feeds, and advised farmers to grow more heavy feed crops coming season. The ad Board of officers was re-elected as follows:
 Pres., James Bryson, Brysonville, Que.; Vice-Pres., R. E. Neas, Howick, Que.; Secretary-Treasurer, Gilbert McMillan, Huntington, Que.; Directors—D. A. Macfarlane, Gossesville, Que.; W. G. Tully, Atholville, Que.; J. J. Cayes, Orkney, Que.; R. Howden, St. Louis de Gonzague, Que.; Hester Gordon, Howick, Que. Auditor—M. T. Robb, Huntington, Que.

JEAN ARMOUR 3RD IS DEAD.

In the death of Jean Armour 3rd, the Ayrshire Breed loss one of its greatest animals. Jean Armour 3rd was owned by W. P. Schack, Ayr, N. Y. She was a daughter of the famous Jean Armour, whose death was reported in December. Jean Armour was the first Ayrshire cow to produce 30,000 pounds milk, her record of 20,174 pounds milk, 7473 pounds fat being made when she was eleven years old. At the age of 14 years she was reared. She produced 20,000 pounds of milk, 7135 pounds fat. She recently died at the age of 18 years, giving birth to a bull calf, Jean Armour's Last Gift. Jean Armour 3rd, was a dairymaid of giving inherited her mother's ability as a producer. At a two-year-old she produced on official test 14,877 pounds milk, 699 lbs. pounds fat. She came back as a senior three-year-old with a world record of 21,935 pounds milk, 8923 pounds fat. Ayrshire breeders anticipated that Jean Armour 3rd would one day hold the world's record over all breeds of cows, however, Paralysis set in and she passed quickly, a cow in her condition to reveal any internal trouble—J. G. Watson, Extension Service.

AYRSHIRE ADVANCED REGISTRY.

THE advanced registry statistics of the United States Ayrshire Breeders' Association for the quarter ending March 31st, shows in a striking manner the reason for the growing popularity of the Ayrshire. For January 1st, 99 forty records have been completed in the several classes. The average of the 36 animals, all ages, is 2,962 pounds of milk, 61 pounds fat, average test, 4.33 per cent. This is an average increase of 145 pounds milk and 17.90 pounds fat over the previous quarter, whose average for 104 animals was 2,819 pounds milk, 58.46 pounds fat.

Class	Lbs. milk	Lbs. fat
25 Mature	3,483	452.26
6 Senior 4	10,189	447.75
19 Senior 3	11,032	391.91
5 Junior 3	2,962	322.88
11 Senior 2	8,124	340.17
11 Junior 2	2,819	322.89
99 Total Records		
Average	2,962	401.61
Average per cent. of fat, 4.91.		

J. G. WATSON, N. Y. Extension Service.

FREIGHT ASSISTANCE DISCONTINUED ANNOUNCES LIVE STOCK COMMISSIONER.

In the fall of 1917, the Dominion Live Stock Branch announced a Special Stock and Feeder policy under which a fifty per cent. freight rebate was allowed on cattle and sheep feed purchased at the Winnipeg Stock Yards and shipped from there to country points in Eastern Canada for feeding purposes. As was clearly intimated at the time of its inception, this form of assistance was regarded by the Department as a special measure introduced to take care of a temporary and more or less critical situation. During the past few weeks, however, the supply of feeding cattle at Winnipeg has barely met local demands, and, consequently, it has been decided to discontinue the special Stock and Feeder policy. The Dominion Live Stock Branch will accordingly, kindly note that shipments leaving Winnipeg after April 1st, 1918, will be charged the fifty per cent. rebate.

R. O. P. CHAMPIONS

According to the R. O. P. reports a Jersey cow produced more butter fat during last year than any other cow of any other breed. We have now for sale Twenty Cows, Fresh or springing, also Young Bulls, all sires from these cows closely related to the champion butter cow mentioned above.

B. H. BULL & SON, BRAMPTON, ONT.

JERSEY SIRE

I am now ready to dispose of a young bull from Saddle Miss Polo, record 254 lbs. fat at 2 years old. Her dam is Saddle Mac 2nd, 8446 lbs. milk, 481 lbs. fat in yearling class. Granddam 754 the fat in a year. 216 sires is by Saddle Mac, former Canadian champion and John 104, whose granddam had 2000 lbs. record at 18 months. This milk and 690 lbs. butter, and great-granddam 15,000 lbs. milk and 936 lbs. butter.

M. H. GEE HAGERVILLE, ONTARIO

AYRSHIRE BULLS FIT FOR SERVICE.

No. 1—15 months; Dam, White Legged Christy, 2nd prize at Ottawa Winter fair dairy test, 1917.
 No. 2—16 months; Dam, R.O.P. 5,600 lbs. milk testing 14.54. Both bulls at quality.

JAS. BEGG & SON, ST. THOMAS, ONT.

AYRSHIRES

If you want Ayrshires of first class quality watch this space in future issues. **PALMER BROTHERS NORWICH, ONTARIO**

CHOICE YORKSHIRE HOGS AT RIGHT PRICES

Bears and sows, all ages, from best prize-winning strains—A few good bred sows, also younger stock. S. C. White Leghorn eggs for hatching—Barrow's 283-egg strain. \$2. Brown Leghorns, Barred Rocks, R. I. Reds, \$2 per 15; \$10 per 100. Pawn and White R. Duck eggs, \$3 per 11. Chinese goose eggs, 50c each.

T. A. KING MILTON, ONTARIO.

PEACH BLOW AYRSHIRES

Young Stock for sale, always on hand (both sexes), from high-testing dairy producers. Good udders and large test a special feature of my herd. Three fine young Sires ready for service. Get particulars of these if you need a sire. **R. T. BROWNLEE, Peach Blow Farm, HEMMINGFORD, Que.**

Every Farm Should have
The Cow For Profit
 Rich milk—high in butter fat—docile and good feeders.
 WRITE W F STEPHEN Secretary CANADIAN AYRSHIRE BREEDERS' ASSN BOX 508—HUNTINGDON, QUE.

TANGLEWYLD AYRSHIRES
 The Leading R. O. P. Herd Large Cows, Large Tests, Large Records, High Testers, Choice Young Bulls and Bull Calves and a few Cows for sale.
 WOODBINE BROS., P. R. RR. MOOREFIELD, ONT.
SPRINGBANK AYRSHIRES
 Bulls from one month to seven months old for sale. All are bred to color and type, and from R.O.P. dams. If you need a well bred bull write to us.
A. S. TURNER & SON, Ryckman's Corners, Ontario.

SAIDWELL'S FEEDS
 For Stock and Poultry

CONSERVE MILK! Feed Calves Our Cream Substitute Calf Meal

Get in step with the times and save! Save your skim milk and whole milk and turn it into cheese or butter. Raise all your calves on Caldwell's Cream Substitute Calf Meal. It will not derange their systems—they will develop equally as fast as on milk, and the cost will be considerably less. You also save your milk for other needed purposes. Give Caldwell's Calf Meal a trial at once. After you note the saving—tell your neighbors about Caldwell's, the calf meal that is "doing its bit" toward saving needed food. Directions for feeding come with every sack.

Feedmen all over Canada handle Caldwell products or we will supply you direct.

The Caldwell Feed & Cereal Company, Limited DUNDAS, ONT.

Makers also of—Melasses Horse Feed, Dairy Meal, Hog Feeds and Poultry Feeds of all kinds.

When Writing Mention Farm and Dairy

Stolen from Farmers in 1917- \$100,000,000

The enemy is upon us again--the invasion of fungi and insects commences. These pests last year destroyed crops worth \$100,000,000. Can we save this huge sum in 1918?



ONTARIO

We can save--most of it. Every year the knowledge of how to control insect and fungus pests is being rapidly increased. More advance has been made in the last ten years, in this line of work, than in the previous hundred. There are to-day thoroughly tested and efficient remedies for most of our important pests. The Ontario Department of Agriculture now desires to bring these to the attention of every farmer in the province.

Barrage Against Fungus Invaders

Oat Smut, Bunt or Stinking Smut of Wheat and Covered Smut of Barley destroy these crops and reduce profits. The formalin treatment is not expensive or difficult--and it will control these diseases.

Apple Scab still collects its annual toll of hundreds of thousands of dollars. Intelligent and careful spraying with proper pruning will almost always prevent it, no matter how wet the season.

Potato Blight and Rot destroys thousands of bushels of potatoes every year--but the Bordeaux mixture properly applied will check its ravages.

Peach Leaf Curl, Potato Scab, Black Knob of Plums and Cherries, Brown Rot of Plums and Cherries, Celery Blight and Tomato Blight--all can be prevented from exacting their yearly tribute by efficient methods of control.

A Vigorous Offensive Against Insects

The San Jose Scale is smaller than the head of a pin--but it has ruined hundreds of thousands of fruit trees in Ontario.

The Codling Moth occurs in every apple and pear orchard in the Province.

The Plum Curculio often destroys nearly every plum in many orchards.

Maggots in Cherries may destroy 50 per cent or more of the crop. Yet all these Pests can be controlled.

It is not difficult nor costly to destroy Grasshoppers, Cut-worms, Army Worms, or Cabbage Worms.

The Hessian Fly, Wheat Midge, White Grub and Wireworm, weaken our war-time strength--but much may be done, too, to check their ravages.

Horn and Stable Flies and Cattle, Hog and Poultry Lice yield to proper treatment.

Ants, Cockroaches, Bed Bugs, Buffalo Carpet Beetles, Clothes Moths, House Flies--all the household insect pests, in short--may be partially or completely controlled.

A Few Timely Suggestions

Treatment for Smut--Mix one pint of formalin with thirty gallons of water. Place grain on clean floor and sprinkle with formalin solution. Stir grain and repeat until every kernel is moistened by solution. Cover pile with sackings and leave for couple

of hours. Then spread grain out thinly to dry.

Late Blight and Rot of Potatoes--Commence spraying with Bordeaux mixture when plants are six inches high. Spray thoroughly so every leaf is drenched. Add arsenate of lead or Paris green when necessary for beetles. Spray regular, throughout season--from three to seven applications are necessary, according to wetness of weather.

Grasshoppers, no matter how abundant, can readily be controlled. Mix 20 lbs. bran with 1 lb. Paris green. Squeeze juice of three lemons into 2 gallons of water, chop pulp and rinds of lemons and add to water; then add a gallon of molasses to water and stir well. Mix poisoned bran and molasses mixture until every part is moist and will run through fingers like sawdust. Scatter this mixture between 5 and 7 o'clock in the morning thinly over infested field, so that quantity given will be sufficient for 4 or 5 acres.

Maggots in Cherries--This curse to the cherry grower can be absolutely controlled at a cost of about 5 cents per tree. Spray with 2 lbs. arsenate of lead paste in 40 gallons water; first, when the early varieties begin to turn red; second, two weeks later.

Blister Mite can be annihilated by a single spraying of trees with lime-sulphur wash, 1 gallon to 9 gallons water.

There are a few methods of control. There are as efficacious remedies for most of pests. Methods sometimes need to vary according to local conditions, but the result is the same. To assist the farmer in this regard the

Ontario Department of Agriculture

has the following up-to-date bulletins ready for distribution: Nos. 219, 227, 228, 240, 250, 251, 257, and 258. These treat the subject from every angle, and in them the farmer may find with very little trouble just the information regarding this question he requires. A Spray Calendar will also be sent upon request, which gives very briefly complete directions for treating all ordinary fungi and insects. All bulletins are free.

Personal Attention

Will also be given to any Ontario farmer or fruit-grower requesting information. All are invited to write regarding their peculiar problems of this nature. Experts of the Department will give requests prompt attention. Each case will be considered and as exact information as possible will be forwarded.

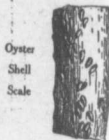
In writing give complete details of your particular case and address all correspondence to the Office of the Commissioner, Ontario Department of Agriculture, Parliament Buildings, Toronto.

TRACTORS

The Canada Food Board, Ottawa, has purchased 1,000 Fordson tractors for distribution among the farmers of Canada at cost price. They have asked the Provincial Department of Agriculture to co-operate with them in the distribution in the respective Provinces. In accordance with this arrangement this Department is now prepared to accept orders for these tractors for delivery in this Province. The price is \$750, f.a.b. Detroit, Mich., duty free. Deliveries begin under the contract on the 1st of April, and will continue thereafter as rapidly as possible in the order in which orders are received. Cheque must be forwarded with order, and should be made payable to the Ontario Department of Agriculture.



Codling Worm



Oyster Shell Scale



Apple Scab



Loose Smut--Barley



White Grub



Plum Curculio



Peach Leaf Curl
Lowers Viability of Tree



Late Blight of Potato



Potato Scab
Destroys Crops for Market Purpose



Black Knot
Has destroyed thousands of Plum and Cherry Trees



Army Worm
Caused great damage in 1915



Cut Worm
Destroys to Vegetables



San Jose Scale

Ontario Department of Agriculture

Parliament Buildings, Toronto

SIR WM. H. HEARST,
Minister of Agriculture

DR. G. C. CREELMAN,
Commissioner of Agriculture