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VOL. LII

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LONDON, ONTARIO, MAY 31, 1917

No. 1288

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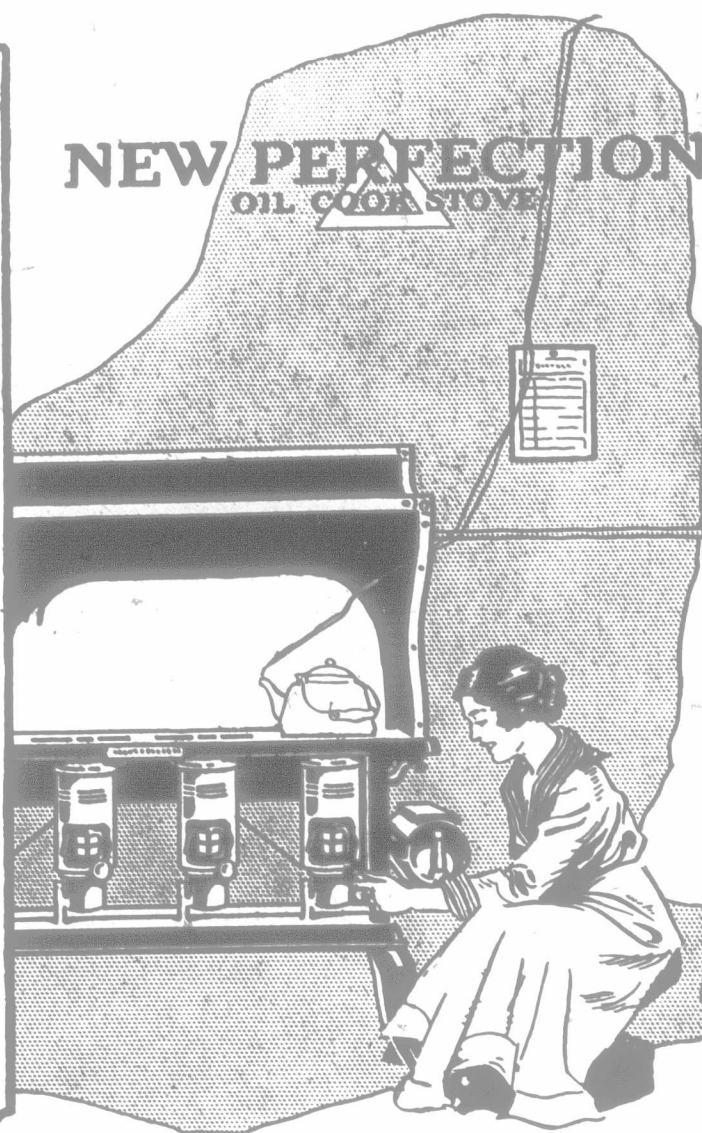


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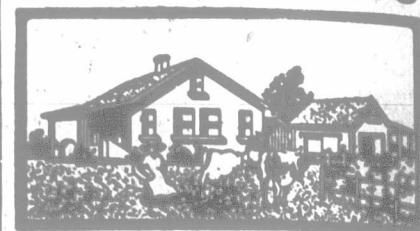
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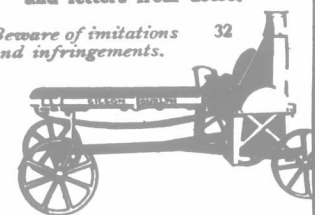
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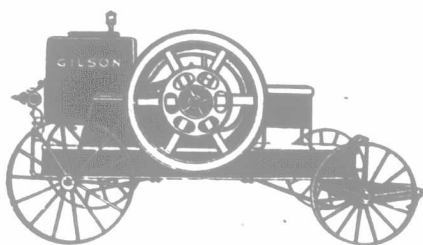
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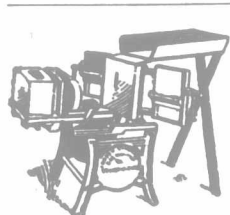
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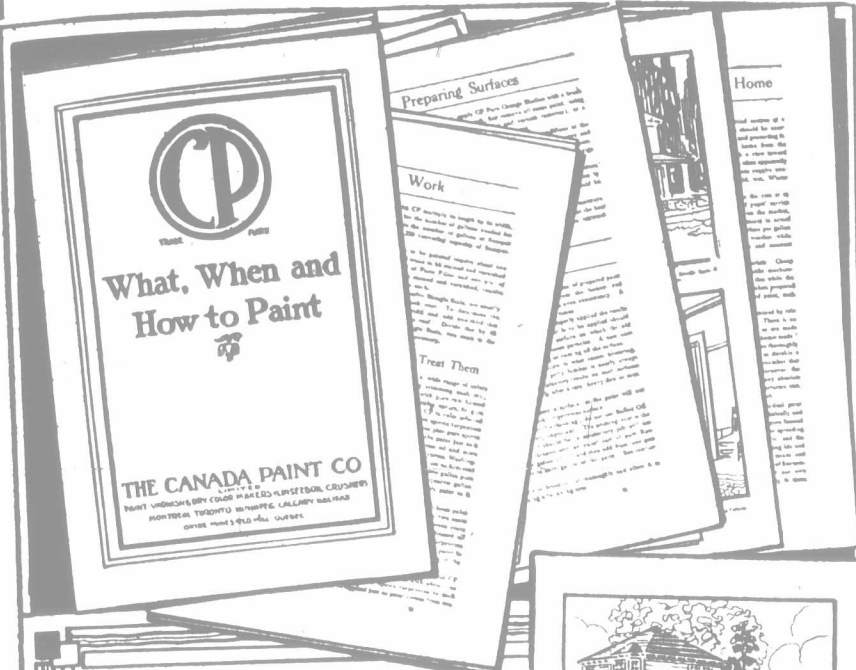
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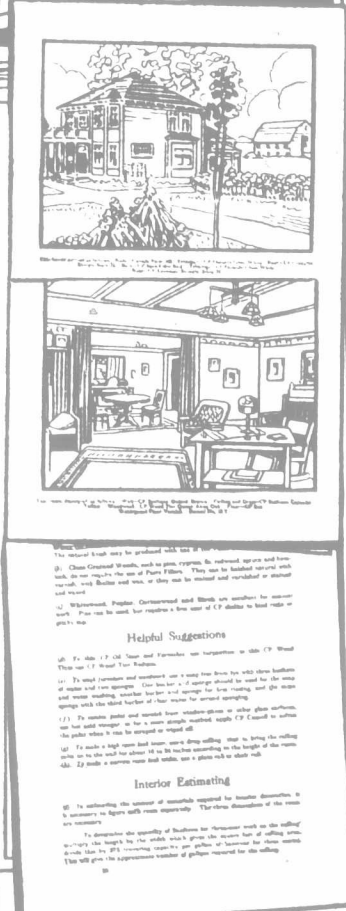
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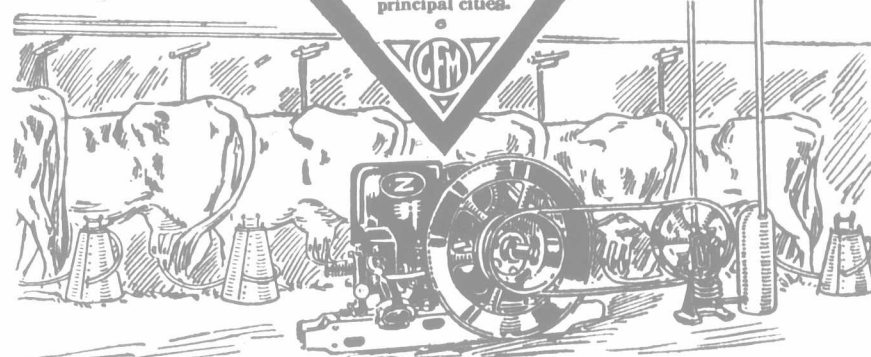
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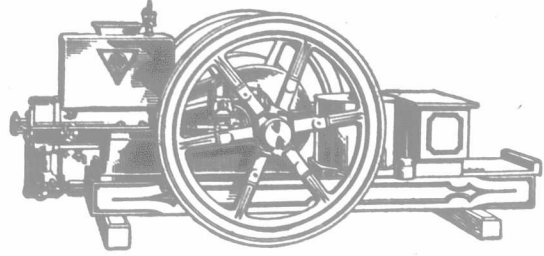
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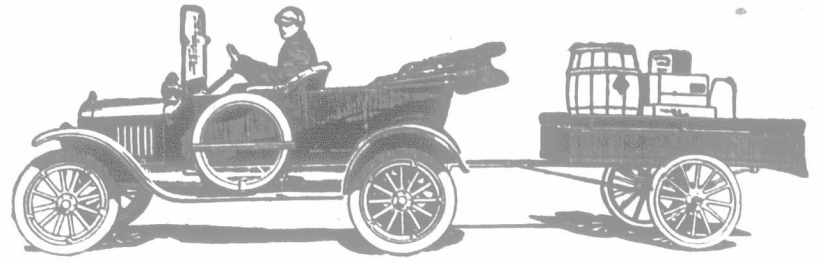
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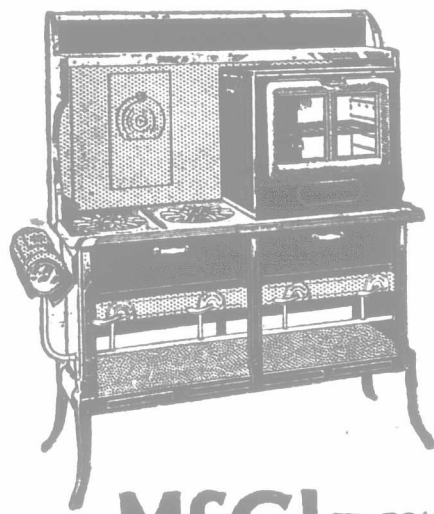
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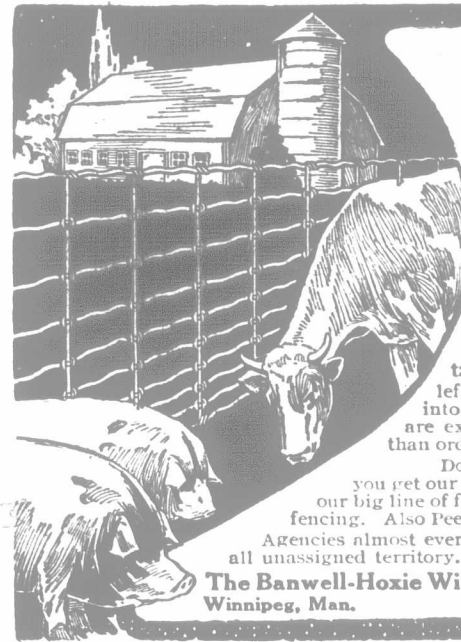


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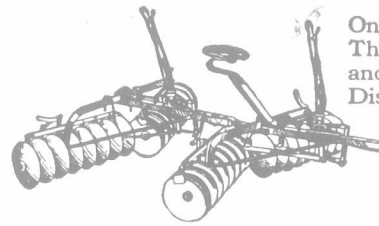


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# The Farmer's Advocate and Home Magazine

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LONDON, ONTARIO, MAY 31, 1917.

1288

LII.

## EDITORIAL.

There is a lot of "fixing" needed besides price fixing.

The hen is worth good care summer as well as winter

Conscription, properly carried out, will put all on a fair basis.

A summer-fallow for wheat may mean a real crop next year.

France is deserving of all the help her Allies can give, and that immediately.

May 1917, though cool, was a big improvement on the same month in 1916.

Canada is being defended on the fields of Flanders and France. All must help

The pride of the owner is never in the cull; neither is the profit which accrues to him.

Watch our new market reports carefully. They contain valuable information for every farmer.

When the speculator gets a hold of the food up good prices, and the producer and consumer both suffer.

There will now be system in raising the army. Let us hope that system is not found wanting in other national things.

Choose brood sows from large litters and from sows which produce such litters regularly. Pay attention also to uniformity.

Up to the present the German socialists have been "German" first and socialists afterwards. They surely will not always be thus.

The National Service cards evidently revealed the fact that few "eligibles" remain in the rural districts. Rural Canada has done well.

A few women seem to think they can save food for the nation by refusing to eat veal and lamb. They may save more veal and lamb for someone else to eat.

The handiwork of the oleo-margarine interests is plainly seen in most of the turns taken in an effort to secure right of entry of the product into Canada.

Some people seem to think that eggs are a natural product of hens whether they are fed or not. They should keep a few for a year on grain at present prices.

Canada's national debt is growing very rapidly. This means a heavier tax on every home in this country. There will be need of further consideration of methods of raising money to pay the interest on our national indebtedness. Something fair and equitable is needed. With such accomplished the rural problem would soon begin to solve itself.

Many a pasture field has this spring shown the results of the too close cropping it got in 1916 because of the late summer drouth. Eating down too closely has an effect over more than one year. Good pastures are generally found where the old, dry grass from the previous year is long and thick. It protects the new grass in the spring and gives it a great start. Where possible change pasture fields this summer, resting them before they get too bare.

## The Oleo Interests Still Busy.

Considerable publicity has recently been given to a meeting, purporting to be of consumers, held in Toronto a short time ago, and at which a resolution was passed asking the Government to allow oleo-margarine entry into Canada. Last fall and early winter there was considerable agitation on the part of those interested in the manufacture and sale of oleo-margarine to gain admittance for the material into this country. There was such strong opposition to such a proposition that the Government did not listen to the appeals from the oleo interest, but all winter and even up to the present time the latter have been working and scarcely a week passes but some announcement is made which shows that they are still agitating. At the meeting previously referred to we understand that eight women actually voted, and that an oleo manufacturer's representative was present with samples of his goods for them to taste and try. His presence rather gave the meeting away. The intelligent Canadian consumer is beginning to understand the situation, and is not asking for something which will give untold trouble to the authorities and little, if any, relief from the high prices to the common folk. Oleo can be manufactured for around 15 cents per pound. If it were allowed into Canada at the present time, colored to look like butter, it would doubtless be sold at a price very slightly under that of good Canadian dairy butter. The manufacturer would like to get this market at a big price and a correspondingly big profit. He is not anxious that our people get real cheap food. We have gone into the question fully on previous occasions, have shown the difficulty of regulating the trade, have proven that the consumer in the end would gain nothing, and that the dairy industry would be called upon to face unfair competition, and we feel sure that unless a different situation presents itself our Government will not let down the bars which keep oleo out. We might just state that at the present time in the Old Land oleo has gone so high in price that housewives who had formerly used it are returning to butter. The dairy industry does not fear any product sold on a fair basis, but it does not propose to stand idly by while its trade mark is stolen.

## The Poultry and Egg Situation.

Some people are wondering why eggs should be so high in price at the present time. A few days ago a representative of one of the biggest egg-handling concerns in Canada called at this office, and, among other things, we discussed the poultry and egg situation. At that time his firm was paying 42 cents per dozen for fresh eggs in the country, having them transported to the city and put in storage. He pointed out that it costs more than double to store eggs at upwards of 40 cents per dozen than it did when they sold in the summer for about half that figure. Every egg lost in storage means a double loss, and the expenses all the way around are just about twice what they formerly were. The public can rest assured that eggs out of storage will not sell at a very low price next winter. At the time of his visit his firm had only forty per cent. as many eggs stored as they had at the same time one year ago, and he says conditions are the same practically all over Canada and the United States. Eggs were quoted in our last week's Montreal market report at 50 cents per dozen. The reason the prices are so high and eggs so scarce is that a great deal of the laying stock was sent to market last fall and more is still going. Farmers were short of feed and are still short of feed, and they could not see their way clear to feed high-priced grain to hens. Others kept their hens but fed them sparingly. The result has been a falling-off in egg production, which is having an effect on the market. Predictions

are that eggs will range from 15 cents to 20 cents per dozen higher next winter than they did the past winter, and prices were high during the winter which has gone. It would seem advisable for farmers to keep their good laying hens and to rush pullets to maturity as soon as possible that eggs may be produced during the coming winter. There is no danger of overstocking the market. Eggs can be produced profitably at present prices if early-hatched pullets of a laying strain are kept and well fed. They will pay a good profit on feed at present prices, but it is no use to half starve them.

## Compulsory Military Service.

For almost three years Canada, a young, democratic and peace-loving country has been engaged in the worst war the world has ever known. During that time voluntary enlistments have totalled considerably in excess of 400,000 men, and taking in reservists and naval forces over 360,000 have left our shores for the scene of conflict. These figures represent an effort which will ever be remembered with pride in this country. Canada responded nobly to the call to voluntary service. It is said that volunteering is in harmony with the popular temper in young and sparsely-settled countries like our own. The New York Tribune says that is why Canada stuck to the voluntary system so long. There may be something in it, but the real reason compulsion did not come sooner was probably largely because Canadians came forward in goodly numbers fast enough to build up and maintain the fighting forces of the Maple Leaf at the front. But there is a limit, and voluntary service had about reached that limit in the Dominion. Premier Borden immediately upon his return from Britain took the matter in hand and announced a form of selective conscription, details of which will probably be out before this is read. We said Canada responded nobly to the voluntary call; her men will respond just as readily to the State's demand. Slackers there may be and are in this country, but the rank and file of the people are not shirkers. It is a mistake to call all men, who have not offered their services, by such a name. The State has called and they will go forward with willing hearts to help their comrades, who have gone on before, finish the task set for democratic peoples. Mobilization of the country's man power is now possible. System will, if conscription is properly carried out, replace muddling. Men will find themselves doing that which they can do best for the nation. The farmer or his son will not be exhorted to produce one day and called a slacker if he doesn't enlist the next. Men working at munitions and other necessary industries will be encouraged to do their best at their jobs for it all helps, and the men will be sent forward to fight in their proper order of economic sequence. Conscription is no disgrace to the men who go forward under its system. Selective conscription, provided it is administered justly, fairly and without favor, is the only democratic method of fighting such a war. Necessary industry must go on. Food, fuel, munitions, transportation and certain allied industries must not lag. Some other things can wait. The task in hand is the winning of the war and a start at proper organization is about to be made in this country. A prominent Frenchman has said that conscription does not militarize democracy, but democratizes the military system. Conscription need not mean militarism and will not after the war is over.

The farmer who hasn't a hired man and doesn't want one should not grumble about the shortage of labor, but he who needs and desires a man who knows how to farm and cannot get such a man has reason to complain.



## The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE  
DOMINION.

Published weekly by  
THE WILLIAM WELD COMPANY (Limited).

JOHN WELD, Manager.

Agents for "The Farmer's Advocate and Home Journal,"  
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THE WILLIAM WELD COMPANY (Limited),  
London, Canada.

### Assurance of the Future.

For the past few months a few Canadians have been greatly exercised over that un-named something which they said must take place in the British Empire as a marked change from conditions which have been and which have unified and strengthened Britain and her institutions. Nothing could ever be the same again. There must be some binding agreement, some central control, some closer Imperial relations, but none of the enthusiasts cared to clearly define the change and its meaning. It is probable that even they were none too sure that the rank and file of Canadian people desired any great change, for, as a matter of fact, they do not. Great and lasting empires are not built by binding documentary agreements and Imperial central control. People, whether they live in the heart of the Empire or in the farthest young nation within that Empire, insist upon self government and in the British Empire get it in full measure. Systems may not be perfect; improvements will come but only when the people demand them. The young nations overseas from the Home Land prefer to love, respect, honor and fight for the Home Land not by any binding law, and Sir Robert Borden's statement that, "the best assurance of the future is the record of the past" is most fitting just now, and with his further words to the effect that an Imperial Parliament would be "neither feasible nor wise" at the present time was welcome to the ears of loyal and true Canadians who asked nothing but the right for themselves and for Canada to do their duty as they saw it and carry on the great constructive work of democratic principles in the greatest Empire that has been. Standardization is, as General Smuts recently intimated, in the Old Land, impossible in the British Empire. If a few agitators will leave the peoples of the various nations within the Empire alone, they will eventually improve the system now in vogue, provided it needs improvement. Suggested changes with nothing more definite in view than mere change do not appeal.

As already announced the Empire is to have an annual meeting of what is called by some an Imperial War Cabinet, composed of Premiers or other accredited representatives from the overseas Dominions together with representatives of the British Government. Imperial Conferences such as this cannot

but work for the good of all concerned, but a conference is not a federated parliament. Just one suggestion: Since the nations of the world are fighting for permanent world peace (at least they all say so, and everyone believes the Allies are sincerely striving toward that end), would it not be well if the words "war" or "peace" are to enter into the nomenclature of the cabinet after the war, to call it the "Imperial Peace Conference," or the "Imperial Peace Cabinet," rather than "The Imperial War Conference," or "The Imperial War Cabinet?" After the war, if peace is to be maintained, some of the brains, effort, time and money formerly used to prepare for war should be utilized for permanent peace, else it will never be realized.

### Humbugs.

One would naturally think that at this stage of the development of commercial things that enough good and valuable articles could be found to sell to the farmer without having to resort to humbugging him. The virtues of articles which are of real value do not have to be overdrawn very much in order to get a lasting demand for that article, no matter what the class of goods may be. When you see a patent medicine advertised to cure everything from chillblains to bald heads, you can bet with assurance that many will buy and be humbugged, and that the dope has very little value for any one specific trouble. Cure-alls cure nothing. When an agent calls around with a fruit catalogue illustrated with overdone plates of new fruits with high-sounding names and descriptions which are impossible, a percentage of the public buys the new in preference to the tried and proven varieties. Human nature likes to take a chance—likes to be humbugged.

Then there is the cure-all for crop ills. Recently a so-called food for plants has been introduced into Ontario, and it has been claimed that it would not only feed the plants and produce large crops, but it would relieve from all bother of grubs, wire-worms, Hessian fly, would purify the soil and be death to all insects; it would cause garden vegetables to grow free from insects and diseases; toads and grasshoppers would not frequent a berry patch where the plants were dusted; it would cure the unsanitary condition of soil in orchards, and thus remove a great portion of the cause for spraying. A number of other things were claimed for it, and yet just recently the Department of Inland Revenue at Ottawa got out Bulletin No. 371 dealing with this material called "Nature's Plant Food," which states that it is nothing more than crudely pulverized rock, such as may be obtained from the siftings of any stone pile where Syenite has been crushed for road-making, and is not even ground to any uniform degree of fineness. The bulletin characterizes the attempt to sell this material in Canada as a "gross fraud."

We might further state that representatives of the firm handling Nature's Plant Food attempted to place some of their ground rock on "The Farmer's Advocate" farm, "Weldwood." The extravagant claims made for the material, the analysis which did not reveal much available plant food on the surface, together with Prof. Harcourt's note regarding it, caused us to refuse to give the stuff a place on the farm or to give those connected with it any chance to use the good name of "The Farmer's Advocate" in any literature they might get out. Such are fond of testimonials. Moreover, "The Farmer's Advocate" would not carry any advertisement for any such questionable material.

### Enlarged Market Reports.

A thing of great importance to the farmer is his market. It is important that he get full reports of the prevailing prices and general trend of that market. In the past "The Farmer's Advocate," with special correspondents on Toronto, Montreal and Buffalo markets has given its readers the best available information. In the future we hope to do even better. The Markets Intelligence Division of the Live Stock Branch, Dominion Department of Agriculture, is collecting much valuable market data, and in co-operation with them we are able to publish each week a full and complete comparative statement which, as readers would notice last week for the first, somewhat changes the complexion of our market page which we now hope to continue as two pages or more. There is much food for thought in these new reports. The destiny of the stock sold is shown. Highest prices and average prices are compared with those of previous weeks and of a year ago. Numbers of each class of stock marketed are given in a

complete classification. This is additional to our former market service which is being continued. "The Farmer's Advocate" market page is worth money to you. Make use of it. Save it each week.

### There's a Limit to Endurance.

BY ALLAN MCDAIRMID.

The man on the farm has to listen to more appeals and advice to-day than ever before since old Father Adam began to till the soil of the Garden of Eden. According to the records, man was first made to work as a punishment for disobedience, but since that time it would appear that he has so developed the habit that he is now more or less unhappy unless he has a regular occupation to take up his time and attention and to give him the sense of being of some service to the world in general and to his friends and relations in particular. In fact, it would seem that without this regular employment of mind and muscle, man would soon degenerate into the condition of the wild animal; but so far is this from being likely to take place at the present time that the tendency is all in the other direction. Men are being coaxed and driven to greater efforts this year than ever before in history. And this is especially so in the case of the farmer. As we said, he is getting all kinds of advice and encouragement to strain every muscle for greater production, and no thought seems to be given to the fact that there is a limit to the endurance of even farmers. Having been a farmer all my life and consequently living in a community of farmers, I think I am in a position to say that what the average farmer needs is not an incentive to greater efforts and longer hours in the field, but something in the way of an education along the lines of shorter hours, efficiency and recreation. As a class, men on the farm are working from fourteen to sixteen hours a day at the present season of the year, and this rule holds good for the greater part of the summer as well. This being the case it should be evident that the efforts of outsiders to get the farmer to speed up, and to even work on Sunday if the case seems to require it are misdirected, to put it mildly. Why are men whose work is not any more laborious than that of the farmer, agitating for, and getting, an eight-hour day? It is because both the men and the employers are beginning to realize that a man who is going to put the best of his thought and energy into his work must have sufficient time for rest and recreation. It has nearly always been found that a reduction of the hours of labor in a factory employing a considerable number of hands, has been followed by an improvement in the quality and an increase in the quantity of the manufactured article. The reason for this is not far to seek. Men's faculties are restored by rest and recreation and they are consequently more efficient. They have been re-created, and they have a surplus of mental and physical energy to give to their labor. The consequence, as we have seen, is more and better work. Time and again I have noticed the fact, and heard others remark it as well, that the farmers that make a habit of doing chores and other odd jobs until nine and ten o'clock at night are almost invariably behind with their regular farm work. They will be seeding when others are cultivating their corn, and then in haying time they will be making a half-hearted attempt to get the better of the weeds that their more practical neighbors had ceased to think about for the season, and of course, it is the same throughout the whole of the farm operations. If these men got away from the same old round of duties occasionally, and took a reasonable amount of rest every twenty-four hours, they would probably become roused up sufficiently to take a real interest in life and to have their work done at the proper season and in a workmanlike manner. So, arguing from this standpoint, I maintain that it is worse than useless to urge the farming community to greater effort than usual, when that effort has the element of aimlessness in it that has characterized it in the past. What we need are better methods. Farmers' lives need to be better balanced. The rest we have spoken of as being so necessary need not all be taken in the form of idleness. Almost every one has the chance now-a-days to substitute certain kinds of mind work for the work of the hands. As the eye, that has become trained at short-distance work, can be relieved by fixing it on objects that are far off, so can the rest of our make-up be renewed and revived by change of scene and thought.

And one thing, more than any other, that will increase our capacity for production without increasing the strain, is to so work that we will develop an interest in what we are engaged in up to the point where we almost forget the means, in the thought of what the accomplishment is going to be. An object in life creates enthusiasm and enthusiasm lightens labor and increases ability. One of the best things that can be said about money is that it furnishes an object in life for millions of people who would otherwise probably have developed a habit of laziness that would have degraded them infinitely more than did the habit of acquirement. I have in mind two brothers, one of whom might be said to have had an enthusiasm on this matter of money-making. To the other it seemed to be almost a point of indifference whether he made money or anything else. The first made a success of his calling and in his latter days was able to retire from the farm with a comfortable income and the consciousness of a well-earned rest. The other who had, if anything, a better start, ended up by losing his farm and having to go and work by the day for less than ordinary wages. So much for enthusiasm. It's the one thing that is going to increase production in these war-times. If we can't work up a case of it for anything but for the financial rewards



for our labor, let it be for that, and we may develop a patriotic enthusiasm later on. There is no doubt about this being the more worthy one of the two. I heard a farmer's wife say recently that the farmers were "dying of prosperity", and there may be some truth in it, taken as she meant it; but the fact remains that man must have some material reward for his efforts or he will cease to put forth any. In other words, to labor effectually, man must have encouragement, and there isn't much encouragement, after one has gone about the limit of his physical ability, in being asked to work longer hours, Sundays and week days, simply that the people of the world, non-producers and producers alike, may not be so hardly hit by the high cost of living. Making slaves of one class so that another might live in luxury was a pastime of the first century. We don't want any of it in the twentieth.

**Nature's Diary.**

A. B. KLUUGH, M.A.

The Broad-winged Hawk, (*Buteo platypterus*), is a summer resident in the forested parts of the country from the Maritime Provinces to Alberta and as far north as Hudson's Bay. It is scarce in most parts of the Maritime Provinces, and its centre of abundance is in Ontario, from Muskoka northward to the height of land.

This species may be recognized when overhead by the characteristic Buteo outline—ample wings and a short, broad tail—taken in conjunction with its medium size, and the three dark bars, the terminal bar being much the broadest, on the tail.

The Broad-winged Hawk is easy, graceful, and at times, quite rapid in flight. All the Buteos are given to sailing in circles high in the air, but the Broad-wing is even fonder of this occupation than its relatives. These aerial evolutions seem to be pursued purely for enjoyment, as when thus engaged it does not swoop upon any prey even when such appears in full view. It moves in wide spiral circles, without apparently vibrating its wings, and keeps up this sailing for a considerable time. Then it glides earthward with prodigious speed. Once during a migration of Broad-wings I saw a large flock of these birds going through a performance which I had never seen before and have never witnessed since. They were sailing round in circles at various elevations over a large bush. Every few minutes one would close its wings, shoot down a sharp incline almost to the tree-tops and then swoop up again. As they checked their descent they produced a tremendous noise almost like an explosion. The effect which this noise produced on me is one I shall not soon forget, as it gave me the impression that I was about to be hit on the head, and made me duck. Even after I ascertained what was the cause of this peculiar noise and sensation I found myself unable to avoid ducking whenever a hawk checked itself over my head. Altogether, it was one of the most remarkable of all my ornithological experiences.

The note of the Broad-wing is a high-pitched, penetrating, whistled, "Chee-e-e-e."

The nest of this species is usually located in the midst of heavy timber, and is, as a rule, placed in the crotch of a many-branched tree, at the point where the main branches are given off from the trunk. The height from the ground varies from ten to ninety feet, the average being thirty-five feet. It is composed chiefly of dead sticks, twigs, and pieces of bark, and lined with bark scales, bits of moss and green leaves. Often an old nest of a crow or other species of hawk is used as a foundation. An almost invariable custom of the Broad-wing is that of placing sprays of fresh, green leaves, and sometimes blossoms, of the oak, poplar, maple, wild cherry, basswood, elm, pine, spruce, hemlock or balsam in the nest, under and around the eggs or young. Seldom more than one kind of leaf is used in an individual nest, and this material is frequently renewed. The sprays are broken from the tops of trees and are carried to the nest in the bill. This lining of the nest with fresh, green foliage is common to most of our hawks, but is not practiced so extensively or consistently by other species as by the Broad-wing. Various theories have been advanced to account for this habit,—a desire to ornament the nest; a method of rendering the nest less conspicuous; and a lingering vestige of the instinct which led their reptilian ancestors to employ decaying vegetation as a source of heat to hatch the eggs—but it is far more likely that this constant addition of fresh leaves serves a sanitary purpose.

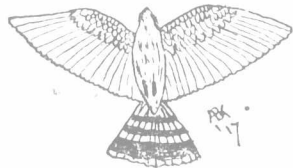
The eggs are from 1 to 4, usually 2 or 3 in number, and under ordinary circumstances but one set is laid in a season. If, however, the first set is destroyed, another set, consisting of one egg less than the original clutch, is laid. The eggs show great variation in color, the ground color varying from pure white to grayish, cream, bluish and greenish, and they may be unspotted or with faint shadow-markings, and are usually spotted with red-brown, vandyke, chocolate, claret, cinnamon, russet, chestnut, seal, brown, tawny-olive, brick-red and burnt-umber, these colors being combined in various ways. The set is usually completed during the first week of May and the period of incubation is from 23 to 25 days.

The young are protected by the parents from the direct rays of the hot sun, from rain and from the cold of the night, and are fed on pieces of flesh which the parents tear from the prey which they bring.

The food of the Broad-winged Hawk is very varied, the main items being small mammals, large insects, the main items being small mammals, large insects, caterpillars and snakes. It is especially fond of large caterpillars which feed on the leaves of trees, and also consumes numbers of grasshoppers, crickets, cicadas, June

Beetles and other large beetles. It sometimes takes small-birds and has been accused of taking poultry, but in most cases these accusations result from mistaken identification, the robber being not this species but the Cooper's or Sharp-shinned Hawk.

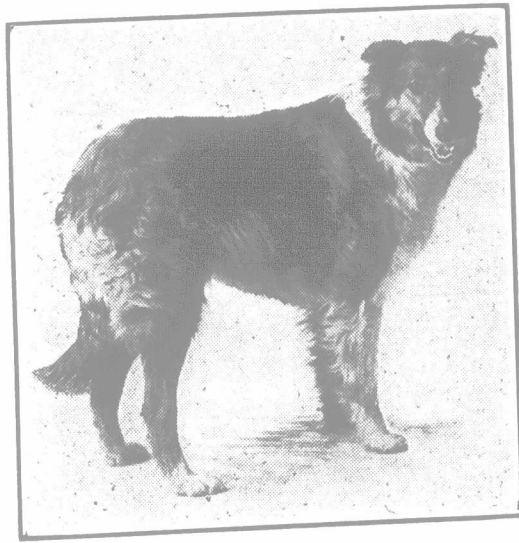
(To be continued.)



Broad-winged Hawk.

**Where the Men Are.**

In a list of men, in No. 1 district, who are available for the army and which has recently been compiled from the National Service cards sent to headquarters last winter, the fact is revealed that of 12,602, who are apparently available for military service, 10,210 are residents of the eight cities in that territory, namely, Woodstock, London, Windsor, Guelph, Sarnia, Chatham, Kitchener and Galt, while only 2,392 are residents of the counties in Western Ontario, namely, Kent County, with 153; Oxford County, 212; Wellington County, 139; Lambton County, 134; Essex County, 434; Elgin County, 183; Middlesex County, 198; Perth County 194; Bruce County, 229; Huron County, 215; Waterloo County, 301. When it is considered that these county figures take in the villages and towns in the counties named, one sees something of the scarcity of men available for work in the rural districts. In former times farmers got a good deal of their hired help from the towns and villages in the district, but most of these men have already enlisted or gone to the cities. Of course the men following farming as an occupation are not listed in these figures, but it is significant that the numbers available for military service in this district find nearly five times as many in the cities as in the counties.



Belle.

A good working collie which is now nursing a fine litter of seven puppies by Avonhurst Model, whose sire and dam were both imported. She is owned by A. B. Armstrong, Codrington, Ont. Puppies \$15.00 each.

**THE HORSE.**

**Diarrhoea in Foals.**

While young animals of all species are subject to diarrhoea from various causes, it is probable that none are so susceptible as foals. We do not refer to that form of diarrhoea that, in some cases, becomes epidemic in some localities or premises, and is doubtless due to a specific virus, and from which calves chiefly suffer. We propose to discuss sporadic or accidental diarrhoea in foals.

This is a serious and often a fatal malady, and in some cases its appearance cannot readily be accounted for. The newly-born foal is very susceptible to the action of irritants of any kind to the intestines. Internal irritation may be caused in many ways, and usually results in diarrhoea. In some cases it is evidently caused by some unfavorable condition of the dam's milk, and this is especially the case when the mare has been fed largely on food of a laxative nature; in other cases it occurs without apparent cause. The dam's milk, in some cases, contains an abnormal percentage of fat. This will cause diarrhoea and the cause will not be known, or probably not suspected unless the milk be tested by a bacteriologist. In many cases no doubt there is some injurious ingredient, the nature of which there is some understanding, in the milk under certain conditions.

In other cases it is caused by careless or ignorant administration of drastic purgatives to the nursing mare. Aloes, especially, appears to have an affinity for the lacteal apparatus; at least it is largely excreted by these glands, as is demonstrated by the well-marked odor of the drug that can be detected in the milk a few hours after the administration of a dose. In such

cases the drug has not been deprived of its purgative properties, and a foal partaking of milk thus contaminated is very likely to suffer from acute diarrhoea. This teaches us that we should not administer aloes to a nursing mare unless absolutely necessary. In most cases where purgation in the mare is demanded, it can be caused by the administration of raw linseed oil, which has not the same injurious action upon the lacteal secretion.

Another common cause of diarrhoea in the young animal is exposure to damp and cold weather, or confinement in damp, foul and ill-ventilated premises. One of the most frequent causes, probably, is allowing the foal to partake freely of milk from a mare that is in a heated condition, especially when she has been at work and the foal confined in the stable for a few hours, and as a consequence is hungry after its long fast. In such cases, some of the milk should be extracted by hand, and the mare allowed to stand for a few minutes and become somewhat cool before the foal is allowed to nurse. Another and not uncommon cause of the trouble is the dangerous and uncalled-for habit which many people have of administering a laxative or purgative to a foal shortly after birth. This, even though the dose be light, often causes serious and sometimes fatal diarrhoea. Under ordinary conditions nature should be allowed to have her course in these cases and we find that the first milk of the mare, called the colostrum, has a sufficient laxative action. In rare cases, when the mare has lost considerable milk for a few days before foaling, hence the colostrum has escaped, it may be wise to give the foal a slight laxative, as about an ounce of castor oil, but in most cases it is wise to withhold medicines until symptoms indicate their use and this is seldom seen, especially when the removal of the meconium has been attended to as discussed in a previous number.

In colts that from any cause are reared by hand, we find that the partaking of cow's milk in its purity usually causes serious digestive derangements, which may be diarrhoea or the reverse condition, constipation. In such cases about one part of warm water or two parts of milk, to each pint of which has been added about a tablespoonful of sugar, gives good results at first, and when the colt becomes older, stronger and accustomed to the food, he can digest pure cow's milk.

The symptoms, of course, are evident and unmistakable. The little animal voids liquid or semi-liquid faeces frequently. At first there is usually little distress noticed, but in a short time more or less violent straining occurs, indicating that the mucous membrane of the intestines has become irritated and inflamed. The patient becomes dull, lies a great part of the time, refuses to partake of his usual amount of nourishment, or probably refuses to nurse at all. He loses strength quickly, will not or cannot stand for any considerable length of time, pants, looks towards his flank, strains violently, or, in the latter stages the liquid faeces escape without apparent effort on the part of the patient. His mouth becomes cool, the circulation very weak and pulse frequent and death soon occurs.

Preventive treatment should never be neglected. When we understand the causes we should endeavor to prevent them. When the disease occurs in a very young animal, from a few hours to a few days of age, we are forced to admit that it is a very serious case. If it occurs in a strong foal of a few weeks of age, it is not nearly so serious, but in all cases requires prompt and energetic treatment. The patient should be made as comfortable as possible, and efforts should be made to allay pain, check the secretions of the mucous membranes and glands of the intestines and keep up strength. Many authorities claim that the trouble is always due to some irritant in the stomach or intestines, and that this irritant must be removed before a cure can be effected, hence the administration of a laxative is the first essential. Theoretically, this argument may have force, but the writer has noticed that in most cases it is unwise to treat this way. The administration of a laxative can do no good unless a reasonable length of time, at least twelve hours, be allowed before means of checking the diarrhoea is resorted to.

The disease causes weakness and loss of appetite very quickly, and if the necessary time be given as stated, it is highly probable that the patient will be dead, or at least beyond any reasonable hopes of recovery, unless he is of considerable age and strong, in which cases it is wise to administer a laxative. In quite young or weakly animals prompt measures to check diarrhoea should be taken. Probably for such purposes opium gives the best results. It is generally given in the form of laudanum. It eases pain and checks secretions. It is usually given in one to three-dram doses, (according to the size and breed of the patient) in a little of the dam's milk every three or four hours until diarrhoea ceases. An ordinary teaspoon holds about a dram of sixty drops. Care must be taken to not continue the administration after the cessation of diarrhoea else constipation may be produced. In the meantime efforts should be made to get the foal to nurse. If he refuses to do so, small quantities of the dam's milk should be given hourly, with a spoon or out of a bottle, and if he be quite weak, stimulants, as a tablespoonful of whisky or brandy, should be added to the milk to keep up the heart's action. In cases where the trouble is thought to be due to the nature of the mare's milk, the patient should be given cow's milk, water and sugar in the proportions already noted, and the mixture heated to about one hundred degrees Fahrenheit.

If the patient be a few weeks old the amount of laudanum must be proportionately greater, and to it may be added one to two drams each of powdered catechu and prepared chalk, and if necessary to give nourishment and stimulants, the amounts should be



according to size and age. In the majority of cases where treatment is resorted to in the early stages two or three doses of laudanum, with or without the astringents mentioned, will check the disease, but if diarrhoea has been acute for some hours or perhaps a day or longer, before treatment is commenced, it usually requires continued treatment and attention to effect a cure. If the weather be damp or cold, the patient must be protected from draft or chill, while if the weather be quite warm he should be kept in a cool, shaded place.

WHIP.

## LIVE STOCK.

### Money in Hogs.

EDITOR "THE FARMER'S ADVOCATE":

Thinking it would be of some interest to readers of "The Farmer's Advocate" I give herewith my experience

in feeding hogs with profit. Following is a complete estimate of cost, feed eaten, weights, etc.

On January 13, 1917, I bought six hogs at \$7.00 each. They weighed about 55 pounds each at time of purchase.

#### Meal Consumed.

130 lbs. meal at \$1.50 per cwt.	\$ 1.95
319 lbs. meal at \$3.00 per cwt.	9.57
1,807 lbs. meal at \$2.50 per cwt.	45.12
400 lbs. shorts at \$2.00 per cwt.	8.00
300 lbs. shorts at \$2.15 per cwt.	6.45
200 lbs. shorts at \$2.20 per cwt.	4.40
3,156 lbs.	\$75.39

It will thus be seen that the total cost of the hogs and feed amounted to \$117.39.

April 14, I sold the six hogs at \$15.50 per cwt. Their average weight was 200 pounds each, thus giving me gross receipts of \$186, or a net profit of \$69.61. I think

this is pretty good for three months' feeding. The difference in price represents a difference in the quality of meal, market fluctuations, etc.

Halton Co., Ont.

A FARMER.

Note.—In summarizing the data from over 500 feeding trials with more than 2,200 pigs, at many American experiment stations, Prof. Henry, in "Feeds and Feeding", shows that pigs weighing 50 to 100 pounds each required 400 pounds of meal, or its equivalent, to produce 100 pounds of gain; pigs weighing 100 to 150 pounds each required 437 pounds of meal to each 100 pounds of gain, and pigs weighing 150 to 200 pounds each required 482 pounds of meal, or its equivalent, to produce 100 pounds of gain. Our correspondent has been able to produce 100 pounds of gain on slightly over 360 pounds of meal, which no doubt accounts for the splendid profit shown. This is particularly good work, especially for winter feeding, but perhaps some roughage, skim-milk or other meal equivalent was fed which has not been mentioned in this estimate.—Editor.

## How the Government and Stockmen Should Combat Tuberculosis.

According to the latest official figures Canada now has approximately 6½ million cattle and almost 3 million swine. The Health of Animals Branch of the Dominion Department of Agriculture has repeatedly declared that tuberculosis, which for some time has been present in our herds, is on the increase. What should we as breeders of live stock, and the Government as guardian of the live-stock industry, do about this insidious disease that last year exacted a toll of \$25,000,000 from United States farmers, and was in nowise a whit more lenient towards the cattle and swine raisers of this Dominion? It is high time that some policy acceptable to the Health of Animals Branch and endorsed by the stockmen of Canada at large be adopted. We are not going to repeat here any of the lamentations so frequently heard from the Western Provinces, that have in good faith purchased pure-bred cattle from what Dr. J. G. Rutherford has called "the good old live-stock breeding Province of Ontario." We shall not mention here either the faltering confidence of Eastern buyers. Ontario has been and will continue for years to be the stud farm of Canada, and only by exercising such measures of caution and prevention as will maintain healthy stock will the traffic in pure-bred cattle be prolonged in its erstwhile vigour and healthy manner. Western Canada will still require thousands of pure-bred foundation stock for breeding herds. New Ontario is only in its infancy in respect to live-stock development. Eastern Canada is just awakening to the importance of the industry. No Government can be so lax after war is over as to consider 6½ million cattle anything but a paltry bovine population for a country like Canada, and a progressive policy will surely be announced with the aim of doubling or trebling the number of cattle during the next two decades in this Dominion. It would be a sad day, indeed, if the traffic in tuberculosis were boosted then and the efforts for more and better stock frustrated in part by a stubborn disregard for the insidiousness of certain contagious live-stock diseases. It is a splendid time now for a clean-up of pure-bred herds. Such a move would be in the interests of the breeders, buyers and the live-stock industry at large.

It is not alone in the pure-bred herds that tuberculosis gets in its deadly work; the farm herds of cattle and swine the country over are affected more or less, according to official reports, and that is why some form of insurance against condemnation of carcasses enters into transactions at the stock yards. Many a time and oft raisers of cattle and swine arraign the drovers, stock yards' managements, abattoirs, or anyone who comes first to mind, for the reductions in price on account of probable condemnations. It is not fair, of course, for a careful farmer to make good the loss of a careless breeder who houses his cattle in dark, ill-ventilated stables, or feeds his swine unpasteurized whey or uncooked city garbage. However, the condemnation charge is the easiest way of getting over the difficulty, and the evil will, no doubt, persist until such time as groups of farmers will take it upon themselves to rid their herds of tuberculosis so as to be able to show a clean bill of health and demand recognition of the same.

In respect to the relation of human health to the milk supply from tuberculous herds, little need be said. Scientists practically agree that bovine tuberculosis is communicable to humans, particularly invalids and infants, and under date of April 16 the Canadian Government passed new regulations offering to co-operate with urban centers which will do their part in bringing about a pure milk supply. No doubt this move will have significant and far-reaching effects as years go by, for people are beginning to be particular as to what they eat and drink. The old superstition that sickness or death is an "act of God" is quickly fading into oblivion.

Before the writer makes further comment, we should like to present a few statements from well-known live-stock men in regard to tuberculosis.

#### Education and Diplomacy the best Weapons.

BY PROF. G. E. DAY, O. A. C.

I am not at all sure that legislation is necessary to reduce tuberculosis in this country, nor am I sure that legislation would be in the best interests of the cattle industry. I am inclined to think that education is of greater importance than legislation in this matter, and that the whole problem should be approached, by those in authority, with a great deal of caution.

One of the great difficulties in connection with this

problem is the tendency to arouse a spirit of antagonism on the part of the breeder against any means proposed regarding the control of the disease. This antagonism is the result, very largely, of the enforcement of rigid rules in connection with measures looking towards the eradication of tuberculosis.

I am of the opinion that if the Dominion Health of Animals Branch would deal with this problem in a very liberal and sympathetic manner, it would be possible to induce the cattle breeder to fall in line and work with the Department, with a view to the betterment of existing conditions. If the cattle breeder could be induced to look upon those in authority as friends, who are willing and anxious to help him, much more would be accomplished than when he is inclined to regard them merely as the enforcers of arbitrary regulations, the justice of which he has never been taught to discern.

One of the great difficulties in connection with the handling of tuberculosis is the unreliability of any known test for the disease. Even when administered in all fairness, the tuberculin test is not infallible and, worse still, there are means of rendering the test absolutely worthless. A prominent live stock man, who has large numbers of cattle tested, once told me that he never had an animal react, and the smile which accompanied the statement explained the reason that the animals always passed the test successfully. If, for example, the man in question could be induced to use the test for his own information and guidance, he would be interested in securing a fair test, and any inaccuracies pertaining to the test itself would not cause him any serious loss, providing the authorities were willing to allow for possibilities of this kind.

From any point of view the problem is a very difficult one, and, if the matter is to be handled in such a way that it will result in good to the cattle industry, it must be handled in a very diplomatic and sympathetic manner on the part of those who seek to eradicate tuberculosis.

#### Tuberculosis Retards Trade.

BY PROF. M. CUMMING, N. S. AGR. COLLEGE.

We have been regularly tuberculin testing our herd of cattle at the College Farm at Truro, since the year 1911, and consider that its use has been invaluable to us. We have had extensive opportunity of making diagnoses after cattle had reacted to the test, and our evidence is that the tuberculin test properly used will locate tuberculous animals in over 90 per cent. of the cases tested.

The percentage of reactions in our main herd since reacting animals were removed from it and kept in a separate barn by themselves, has been not more than two per cent. during the past five years. Our main difficulty is in cases where we wish to purchase new animals to add to our herd. In purchasing these animals, which we usually select in the Province of Ontario, we have always had them tuberculin tested, but we have never put them in with our regular herd until they have been three or more months on the place by themselves and then retested. The unfortunate part of our experience has been that on retesting we have had as high as four out of one shipment of eleven animals, all of which had passed the test in Ontario, react to this retest on our own farm. Moreover, of this four two of the animals developed marked symptoms of the disease, and when slaughtered were found to be badly infected.

On account of our experience, we are now in the position that we are afraid to buy breeding animals from the average herds of Canada, and have practically adopted the policy that hereafter we will not buy any more females and will confine our operations entirely to the purchase of bulls, which we can keep by themselves without fear of infection to our herd even if they should have the disease.

From the above account you will readily appreciate the fact that, so far as we are concerned, the general trade in breeding animals is seriously affected by the fact that it seems difficult to buy breeding stock that is sure to be free from tuberculosis. Consequently, we believe that if measures could be adopted to clean up all the tuberculosis, especially in the pure-bred herds of Canada, it would lead to a much larger and more

healthy trade in pure-bred stock between all the provinces of the Dominion of Canada.

This question should be dealt with in a Dominion-wide way, for provincial measures are too local in character, and in any case do not safeguard the Province using any system of treatment from infection from other provinces where a system of tuberculin testing is not adopted.

It is hard to see how a general system of testing animals for tuberculosis with subsequent isolation or slaughter can be adopted without provision being made for compensation.

At the present time the individual who decides to put his herd under tuberculin test is likely to suffer losses and temporarily will be at a disadvantage, especially in buying animals. We think, therefore, that some general measure embodying the principle of compensation should be adopted so that a large number of herds, if not all the herds in Canada, would be freed from this disease, and consequently one could buy as well as sell with perfect impunity.

#### The Control of Bovine Tuberculosis in Canada

BY E. S. ARCHIBALD, DOMINION ANIMAL HUSBANDMAN.

Such concise and definite information has been written on this subject by the Veterinary Branch of the Federal Department of Agriculture and other veterinary authorities in Canada that little more need be said. However, we have been informed by these authorities for at least ten years, of the ravages of this disease amounting to many millions of dollars annually in cattle and hogs, and also have been informed of the methods of prevention, control and eradication, yet few Canadian stockmen have profited thereby. There is evidence that the disease is still increasing in its widespread destruction and is becoming of such national importance that the time is near at hand when the farmer may no longer have any option in the handling thereof. In other words, if each farmer who has cattle and hogs will not use sane methods in preventing and controlling this disease, it may be a national necessity to pass such laws that the disease may be curtailed and eventually eradicated. Such laws may entail the freedom of disease for interprovincial or intercounty trade in addition to the international regulations now in force. Certainly something must be done and that quickly.

Undoubtedly, large areas of Canada are free of this disease, while even in affected areas a large percentage of herds are healthy. Why farmers who are so situated do not appreciate their good fortune is beyond comprehension. That they do not is clearly evidenced in the fact that few animals change owners subject to the tuberculin test, and little is known of the general health of herds from which purchases are made. It is surely criminal to subject the healthy herds to this disease without at least taking all possible precautions against the same. Will not every Canadian stockman face this question, cease deceiving himself as to the health of his own herd, and guard against future infection? If so, he will not have the future disappointments of animals dying from the disease or carcasses rejected at the abattoirs.

This is no fad or fancy, but a stern reality. There is no need for panic, but rather for honest, intelligent and diligent work. The eradication of the disease does not necessitate wholesale slaughter of infected animals, for such is sheer waste, but it does necessitate the maintaining of stock under sanitary conditions and reasonable isolation of animals infected. The control of this disease must be done with the whole-hearted co-operation of all Canadian stockmen whether or not legislation is passed or government assistance given. Space does not permit details as to methods which must be employed by every farmer, but these might be enumerated as follows:

1. Tuberculin test the herd, and if valuable animals react isolate these from healthy individuals, and particularly from their progeny. From these isolated animals a valuable herd free of the disease may be built up in a very few years.
2. Make purchases subject to tuberculin test, or at least from reputedly healthy tested herds.
3. Isolate these purchases, if possible, for a retest, as they might be incubating the disease.
4. Overhaul buildings and install all the light possible. Thorough ventilation, sunlight and systematic disinfection, particularly with whitewash, will keep the quarters sanitary.



5. Do not scoff at the tuberculin test or testing. It is the best means of diagnosing the presence of disease, and must be used until something better is discovered. The test is not absolutely infallible even in the hands of the well-trained men, but it is a means of control. The greatest shortcoming of the test is that it diagnoses only the presence of the disease and not the extent or the possibility of a cure. However, if the disease is to be stamped out, all reactors must be considered as possible of spreading the disease, and must be isolated and treated accordingly.

6. Perseverance is one of the greatest needs for tuberculosis control. This, coupled with a careful study of the work done by our best authorities, will do much to increase the faith of the farmer in the possibilities of tuberculosis extermination. Write to such authorities as the Veterinary Director-General, Department of Agriculture, Ottawa, and obtain free the most recent literature on this subject.

**The Tuberculin Test.**

BY DR. F. TORRANCE, VETERINARY DIRECTOR-GENERAL.

In reply to yours of recent date, requesting an opinion on the reliability of the tuberculin test, and as to the extent and manner in which it should be used in a crusade against bovine tuberculosis, I beg to say that the reliability of the test appears to be established beyond question by the vast amount of experience accumulated in the past twenty years.

It is true that occasional mistakes are made, that errors creep in, sometimes through carelessness and incompetence, sometimes through deliberate fraud, but on the whole, the tuberculin test is the most practical and useful method of diagnosing the disease.

The International Commission on Bovine Tuberculosis enquired very fully into the available facts relative to the tuberculin test, and in their report, published in 1910, gave their dictum in the following words, which are, I think, equally true to-day:

1. That tuberculin, properly used, is an accurate and reliable diagnostic agent for the detection of active tuberculosis.
2. That tuberculin may not produce a reaction under the following conditions:
  - (a) When the disease is in a period of incubation.
  - (b) When the progress of the disease is arrested.
  - (c) When the disease is extensively generalized.
 The last condition is relatively rare, and may usually be detected by physical examination.
3. On account of the period of incubation and the fact that arrested cases may sooner or later become active, all exposed animals should be retested at intervals of six months to one year.
4. That the tuberculin test should not be applied to any animal having a temperature higher than normal.
5. That any animal having given one distinct reaction of tuberculin should thereafter be regarded as tuberculous.
6. That the sub-cutaneous injection of tuberculin is the only method of using tuberculin for the detection of tuberculosis in cattle which can be recommended at the present time.
7. That tuberculin has no injurious effect on healthy cattle.

The only clause in the above which, in my opinion, may require modification is clause 6. This is rather sweeping in its implied condemnation of the newer methods of applying the tuberculin test. The intradermal test is now largely used, and in some of the States of the Union is the official test. It is officially employed in British Columbia. The Health of Animals Branch is still using the subcutaneous method.

Your second question, as to how and to what extent the test should be used in a crusade, might be answered by another question: how could you conduct the crusade without the tuberculin test?

In any movement to suppress a disease, the first step is always to ascertain its presence; in other words, the diagnosis is an essential part of the scheme, and for this nothing can at present take the place of the tuberculin test. It is equally necessary when the extent of the disease is to be ascertained. No other method of examination can pick out the diseased animals in a herd with the same degree of accuracy.

It is high time that stock owners were awakened to the injury this disease is causing. By united effort much could be done to lessen its ravages.

**The First Step Forward.**

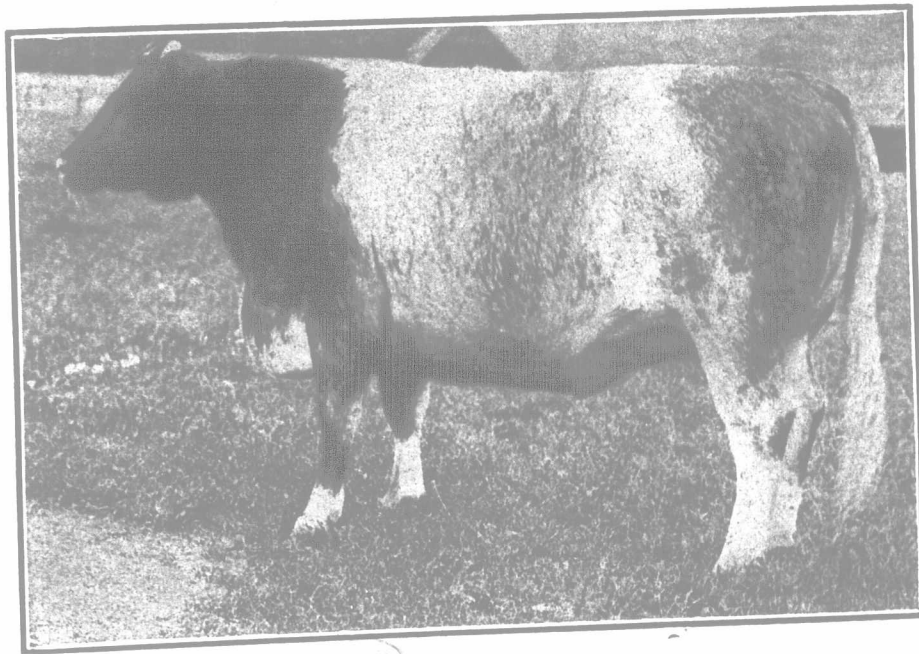
Undoubtedly the first step to be made is to restrict inter-provincial trade in cattle to tubercular-free animals, unless intended for immediate slaughter. Such a step now would not be premature, for if we can reach men's minds with any degree of accuracy, they are ready in provinces that import rather than export pure-bred stock. Restrictions are more or less odious (sometimes more so to one than to another) but cattle must pass the tuberculin test before they are allowed to cross the border between Canada and the United States. This does not impose any severe burden on States. This does not impose any severe burden on States. This does not impose any severe burden on States. Furthermore, what breeder of pure-bred cattle desires to foist a diseased animal on to another breeder in a neighboring province? Assuming the test is ninety per cent. accurate when handled by competent officials, it affords buyer and seller a means whereby they can anticipate any differences, and it exonerates the vendor from any blame. This practice, we believe, would be acceptable to the stockmen of all the provinces, and would be sufficiently diplomatic in character as well as lenient in its exactions to satisfy Professor Day, whose remarks precede these, and who knows stockmen and live-stock conditions in Canada as few others do. We cannot see where objections could be raised to this first step, namely, the restriction

of inter-provincial trade to tubercular-free cattle, unless intended for immediate slaughter. A clause, in the nature of a proviso, would of course have to be included in such an Act to permit the movement of store cattle intended for feeding purposes.

Some will, no doubt, question the reliability of the test. True, it is not fool-proof or crook-proof, but it is a test that has been used to eradicate tuberculosis from thousands of herds already, and if the stockmen will give an anti-tuberculosis movement their support the tuberculin test can be used with splendid success in Canada. The application of the test must be guarded and competently handled, but more of that later.

**The Second Step Forward.**

The restriction of inter-provincial trade would, no doubt, encourage the breeders of pure-bred cattle to inform themselves in respect to the health of their herds. Here the Health of Animals Branch might put their shoulder to the wheel rather than apply the whip. At first the testing of herds should be optional, rather than imperative, in so far as the trade in cattle only is concerned. The stockman who desires to establish a tubercular-free herd should receive every possible encouragement from the Department. Officials should render all necessary assistance in the test; they should advise as to the proper isolation of reactors, and the Government should create a fund ample in magnitude to allow for a liberal compensation where it is desirable or expedient to destroy diseased or suspicious animals. A certificate of health should be forthcoming with the Veterinary Director-General's signature when the regulations have been properly observed and his officials find the herd to be tubercular-free. There is a splendid opportunity right at the present time for any progressive breeder who will establish a disease-free herd and advertise to that effect. There are many such herds already in existence, but some official seal is required upon which the owner can base his declaration of the fact. This second step, we repeat, should be optional at first rather than imperative, not because testing and means of eradication are unwise or uncalled for, but because compulsory testing would appear autocratic and would antagonize the very men whose whole-hearted support must be enlisted. This method supported by an educational campaign of far-reaching dimensions would



**Erowal Gwynne.**

A Shorthorn heifer in England with many show yard wins to her credit.

create an awakening, and soon the trade would demand tubercular-free, pure-bred cattle, and breeders would realize that it would be good business to give the people what they wanted.

**Still Another Step Forward.**

There is no reason why the optional testing system just referred to should not be extended to the rank and file of cattle breeders, whether of pedigreed or non-pedigreed stock. We have mentioned the pure-bred pedigreed stock because it furnishes foundations as well as sires for other herds. Through the trade to which it caters splendid opportunity is presented for the dissemination of disease, and a healthy bunch of grade or pure-bred cattle may be exposed simply through the introduction of a new herd header or breeding female. However, any farmer desirous of testing his cattle should be assisted, and a fair measure of compensation should be granted in case the owner desires to eradicate the disease and establish a healthy herd. Isolation of animals in ordinary farm practice is out of the question, so the compensation should be ample to allow for the destruction of reactors. The work in grade cattle should also be optional, unless in certain municipalities or in comparatively young provinces where it is desirable to start right, and plenty of money is available to make good the losses to stock owners.

Where dairy products are being vended the matter becomes slightly more serious in respect to non-pedigreed cattle. The Government has already declared itself ready to assist any urban municipality which desires to ensure a pure supply of milk. The buying sires to ensure a pure supply of this intervention on the community must first ask for this intervention on the part of the Health of Animals Branch, and thus will be

obliged to shoulder a portion of the blame for the apparent interference with the producer's end of the business. However, there is in one sense nothing compulsory about the work which the Department has undertaken. If a producer ceases to supply the city, which has questioned the quality of his milk, or if he disposes of his product to an institution with pasteurizing facilities installed, the Department ceases to have anything to do with his cattle. Full information with regard to this matter can be obtained from the Department of Agriculture, at Ottawa, and all milk producers should acquaint themselves with the text of the Act, for it is rather suggestive of what in future years may come into vogue.

Breeders and vendors of pure-bred cattle and producers of milk for other than home consumption should, by virtue of the position they occupy in relation to the public, lead the way in the cleaning up of tuberculosis. If the cities and towns want tubercular-free milk and are willing to pay for it, they should have it.

Another feature in connection with dairying is the infection of swine herds from dairy by-products. The Government would not be exceeding its duty if it made the pasteurization of whey at all cheese factories compulsory. During 1916, fifty per cent. of the factories in Western Ontario and only nine and one-half per cent. of the factories in Eastern Ontario pasteurized whey. This untreated by-product of the manufacture of cheese is a potent factor in the spread and infection of swine herds with a disease that renders the condemnation reduction at the stock yards necessary. Whey can be pasteurized at approximately one-half cent per one hundred pounds. Pasteurized whey is easier on cans, a more even distribution of fat in the whey is brought about, and no disease is returned to the patrons. All factories should be obliged to pasteurize their whey.

What is true in relation to unpasteurized whey is also true in regard to raw skim-milk in creameries. Tuberculosis in hogs is closely associated with the same malady in cattle, and the scourge in the porcine tribe is traceable to a large extent to their associations with bovines. Because of the early age at which hogs are slaughtered they do not propagate the disease among their own kind to any appreciable extent. Farmers' Bulletin 781, issued by the United States Department of Agriculture, has some alarming

statements in connection with tuberculosis in hogs. It says: "Hogs from Arkansas, Oklahoma and Texas are remarkably free from this disease, owing probably to the method of caring for them or rather the lack of caring for them. They are not confined in feed lots, as in the sections where the disease is mostly found, but are allowed to roam over large areas of pasture and to shift for themselves. And when they are found affected the majority show very slight lesions." During the fiscal year 1915 only 2.4 per cent. of the 451,478 hogs slaughtered at Fort Worth, Texas, showed tuberculous lesions. "In striking contrast to this

may be given the percentages for the same period of four cities in one of the leading dairy States, which show 9 per cent., 10.9 per cent., 12.1 per cent., and 25.1 per cent. respectively, of the hogs slaughtered to be affected with tuberculosis. There are a large number of co-operative creameries in the territory contiguous to the four cities alluded to, and the raw, skimmed milk is taken home by the patrons for their hogs." The farmers, not the abattoirs, stand these losses.

**Testing and Compensation.**

With regard to the application of the test and the detection of disease it should be left only in the hands of thoroughly competent veterinarians. This country can afford to reimburse reliable men engaged in such work, but it cannot afford mistakes or blunders, particularly in the initial stages of a crusade against tuberculosis. Distrust, lack of confidence and antagonism would soon block the path to success if the Veterinary Fraternity began to muddle away with this thing.

There should be no loop-holes left whereby trouble might enter in regard to compensation. However, we shall not say more here in connection with this matter except that appraisals should be made by experienced live-stock men, rather than by veterinarians, particularly in case of disputes. A board of three to decide repeated appraisals should comprise two breeders and one representative of the Department.

**Methods in Other Countries.**

The breeders in Great Britain have turned a deaf ear to discussions anent tuberculosis, and no doubt they will keep the same deaf ear to windward so long as their trade is as good as it is. The Argentina exporters



issued an ultimatum early in 1916 to the effect that all cattle purchased for that trade should be proved tubercular-free beyond a doubt. They could not carry it into effect, and inside of twelve months they were buying and selling on the same basis as before. However, some agitation is being constantly raised in respect to the testing of cattle exhibited at some of the larger fairs. No doubt in a few years the slow-moving Englishmen will realize the importance of the movement in this regard, and then they will do it right when they start.

In the United States there is a Federal Law prohibiting the interstate movement of tuberculous cattle. The District of Columbia has decreased the percentage of tuberculous cattle within its confines from 18.8 per cent. to 1.1 per cent. by a thorough system of testing all cattle and the removal of reactors. Other States are following suit. Minnesota, for example, has a system of certifying herds to be tubercular-free; some States have their accredited herds brought about by the application of the tuberculin test and the isolation or destruction of reactors. The Iowa Senate has before it a bill for an Act to eradicate tuberculosis, and if passed without serious alterations it will convey the power to test, destroy condemned animals, to compensate for same, to disinfect premises, and do almost anything in respect to the control of the disease. There is also a bill before the Legislature of Illinois looking to the eradication of tuberculosis in the State. It proposes that bulls, cows and heifers over six months, when plainly showing the disease, be slaughtered. Tested animals that react, but do not show it badly, may be kept separate if branded a "T." One provision is that after a certain blank date, no pure-bred cattle be offered at public sale, except from state accredited herds. In public sales the number of quarantined reactions is to be stated in the catalogue and announced by the auctioneer.

#### Symptoms of Tuberculosis.

A circular issued by the University of Purdue enumerates the symptoms of the disease as follows:

"In the early stages of tuberculosis the symptoms are not sufficiently marked to attract attention. In animals that are well cared for and in excellent physical condition the development of the disease is slow, and it is not until the vital organs become so badly affected that their functions are deranged that the stockman is able to detect symptoms of disease.

"In tuberculosis of the lungs and air passages there is first a slight, but harsh cough; later on in the most advanced stage the animal shows labored breathing on exercising.

"If the disease involves the digestive tract the symptoms are less characteristic than when the respiratory organs are affected. The animal is often out of condition and may show attacks of bloating, constipation and diarrhoea. It loses flesh and the hair takes on a rough appearance. In dairy cows the neck may become thin or lean, and there is a falling off in milk production.

"Tuberculosis of the udder is commonly found in dairy cattle. Nodules are present in glandular tissue, that when pressed do not cause the animal pain. In advanced cases the milk is abnormal.

"In the generalized form of the disease both the respiratory and digestive organs are involved. The recognition of the disease by a study of the physical symptoms is based on their chronic character.

"EFFECT ON THE DIFFERENT BODY ORGANS.—Whenever the germs of tuberculosis attack and destroy the body tissues, small nodules or tubercles form in such organs as the lymphatic glands, lungs and liver, and as the disease advances large masses of tubercular tissue form. On the outside of the tubercle or tubercular mass is a fibrous capsule, and within a yellowish, cheesy material or pus. In advanced cases of pulmonary and intestinal tuberculosis this degenerated tubercular tissue may be discharged into the air passage and intestines, and the germs escape from the body in the manure and the material coughed up by the animal."

#### Isolation as a Controlling Factor.

The destruction of reactors, especially in pure-bred herds, is not to be recommended unless they show advanced physical symptoms. The Bang system of isolation has long been known and practiced to some considerable extent. This demands the strictest form of isolation of diseased cattle, separate attendants for diseased and healthy herds, no interchange of utensils, and the removal of the offspring as soon as born to the healthy herd to be fed pasteurized milk or nursed by a healthy cow. This entails considerable labor and expense.

A modification of the foregoing plan was used in the eradication of disease in the beef herd at Iowa State College. In 1907 the herd was tested and a large percentage of the animals were reactors. These were put into absolute quarantine. They were kept and fed in the open, with a shed open to the south for protection during stormy weather. The calves were dropped in the quarantine pasture and allowed to remain with their dams until 9 to 11 months of age, when they were weaned. Then they were tested and retested in 60 to 90 days and removed to the clean herd. From 1908 to 1914, 23 calves were dropped in quarantine; 21 of which were tested. Only 3 reacted, while the remaining 18 passed the test successfully. This herd is reputed to have been free from tuberculosis since 1912, and it contains daughters, granddaughters, and great-granddaughters of tuberculous ancestors. This modified Bang system surely requires less skill and attention than the original plan.

#### Conclusion.

Enough has been said, we believe, to show that

Canada should take some action in respect to bovine tuberculosis. It is the duty of the Eastern and Western Live Stock Unions and the Breed Associations to give this matter their consideration and assist the Health of Animals Branch in formulating a policy to which the stockmen and Department of Agriculture can both subscribe with confidence. Practice and science should co-operate in this matter and establish the thing on a safe and satisfactory basis. Canadian farmers look to their representatives who are directors or officials in the breed associations and other live-stock organizations to introduce this matter and lead the way. In conjunction with this movement there should be a campaign to instruct breeders in those matters pertaining to light, ventilation and sanitation about the stables, such as were enumerated by the Dominion Animal Husbandman, in preceding paragraphs. We again appeal to the stockmen and cattle breeders at large to take this matter in hand and enlist the scientific assistance of the Health of Animals Branch in eradicating a disease that robs farmers of millions of dollars.

## THE FARM.

### The Labor Question in Western Middlesex County.

EDITOR "THE FARMER'S ADVOCATE":

Allow me a little space in your valuable paper to express my views of the labor problem in this district. In the first place, our Government seems to have lost sight of the fact that farmers have had this problem to contend with for the last ten or fifteen years. People leaving the farms and going to cities and to Western Provinces have nearly depleted the farms of Western Ontario, and those left have been trying to solve the problem without the aid of our Government, and I believe they have been fairly successful. They have now got it to such a stage that they can do their own work without hiring very much.

How? In the first place they put in more wheat, which can be harvested before spring crops are ripe. Secondly, they put in more corn which can be looked after before and after harvest. Thirdly, as they have more corn they have to have more cattle, and that means more pasture, and taking it all together they have distributed their work over the whole season so well that they are able to do their work, by a little co-operation among themselves, without very much hired help. Of course there have been quite a number enlisted, but to offset that there have been very few who go to the city, and taking it all around, as a hog does a pumpkin, they are getting along about as well as usual, weather considered.

Our Government seems disappointed that farmers have not taken advantage of the assistance they were trying to render them, but when you take into consideration the inexperience of the help they could get, and the backward spring, the farmer could not use them to advantage.

Then again, why didn't the Government give us a fair show with their offer of \$200 to buy seed grain with? Nearly every farmer had his seed bought and most had it sown before they knew anything about the offer at all. If they want to help the producer why don't they put us on an equal footing with the munition factories? They are guaranteed a certain sum for the finished article, but the farmer has to take chances with his finished product.

Now, I would say, for instance, that the Government guarantee the farmer \$1.00 per bag for potatoes, which is a fair price. That would also give the farmer a chance to utilize the Government grant of \$200 to buy the seed with. He then would be able to safely put in as many potatoes as he had land for, and then when they were fit to be harvested if the Government would give help at a reasonable rate they would truly be helping the farmer, and also help to bring down the high cost of living.

I believe in the township of Caradoc alone, if the farmers could get assistance, they could grow enough potatoes to feed the County of Middlesex, but, with the existing conditions, with seed at from \$3 to \$4 per bag, the farmer is not going to put in as many potatoes as he could put in if he were sure of \$1.00 per bag and help to harvest them, and can you blame him?

I believe our men in the Government are either misinformed or not informed at all, but if they would get out among the farmers and see for themselves what is needed they could prevent any chance of a famine this fall and winter. But no, they sit in their cushioned chairs and think if they get counties to buy gasoline tractor plows they have done their duty. And what good will they do? Probably help a few of the largest farmers who have their farms in large fields of from 20 to 30 acres. If they get in small fields—we know we will have to strike out the lands and finish them, and when you consider that, the teams will be plowing about a third of it and most farmers would plow the whole field.

I am probably wrong, but that is the general feeling in this district, and once again I say for the men in our Government to find out what is needed and then make it available in time to be of some benefit to the rural district.

You will gather by this that the farmers of this district think of nothing but themselves, but not so; they are just as patriotic here as elsewhere. But they are not going to put in more crop than they can handle unless assured of help when they need it, and also at a reasonable rate.

Middlesex Co., Ont.

ROGER PERRY.

### Increase The Food Supply by Growing Beans.

The bean crop is grown for the ripened seeds which are used as human food. In some countries they comprise a fairly large portion of the daily diet, but they do not hold as high a place in Canadian homes as their food value would warrant. They are high in protein, which builds muscle and tissue, and in material which furnishes energy to the body. In bulletin No. 245 on "Food Values", written by Prof. Harcourt, of the Ontario Agricultural College, a dollar's worth of beans, figured at ten cents per pound, has a fuel value of 15,500 calories, compared with 13,397 calories from a dollar's worth of potatoes figured at \$2.25 per bag. Thus it will be seen that beans have a higher value for furnishing energy to the body than have the potatoes, and yet beans are only used occasionally, whereas potatoes are generally placed on the table at least once a day. Beans can be grown on a variety of soils. Not only are they nutritious and valuable for human food, but, being a legume, the crop is beneficial to the soil. Cultivation through the growing season also cleans the soil of noxious weeds, and if the crop can be harvested in time the land is usually in excellent condition for sowing fall wheat. While beans are not valued highly as a feed for stock, the straw is readily eaten by cattle and they apparently do well on it.

The bulk of Canada's bean crop is produced in Western Ontario, where the soil is suitable and there is less danger of frost than in more easterly or northerly locations. However, the season is sufficiently long, and the value as a food great enough to warrant the growing of beans in large acreages, not only in Ontario but in some of the other Provinces. The price at the present time is exceptionally high as compared with what beans brought on the market a few years ago. It is not a crop that must be marketed at a given time in order to avoid loss from spoiling; beans can be stored and kept from year to year if necessary. At the present time the demand to supply war orders for food has been partially responsible for the high price, but there is no reason why the home consumption of beans should not increase which would necessitate a larger acreage being sown. It is a crop which works into the general rotation. It is planted after the spring grains have been sown and is generally harvested after the grain has been garnered, and just before silo filling. No milling process is necessary to prepare beans for human consumption. They can be grown, threshed and prepared for the table on any farm. If not desirous of growing beans on a commercial scale, a few rows might be planted in the root field to furnish a supply for the table this coming fall and winter.

It is essential for heavy production that the soil for beans have good underdrainage. If there is any choice of land, sandy-loam soils are preferred, although the crop grows satisfactorily and yields well on a clay soil that is in good tilth. Many make the practice of planting beans on a clover sod. If on clay soil, it is generally advisable to plow in the fall, but on lighter land spring plowing is satisfactory. From ten to twelve tons of barnyard manure applied and thoroughly incorporated in the soil aids in giving the crop a start and tends towards maximum production. It is advisable to give plenty of cultivation in the spring to destroy weeds and put the land in good tilth before planting. It is a mistake to plant on poorly-prepared land. Planting does not take place until the last of May or early part of June, when danger from frost is over, so that there is splendid opportunity to give the field a partial summer-fallow.

There are a number of varieties which prove satisfactory, but it is important to select the kind which will grow most successfully on the type of soil on which it is to be sown. It is well to consider the market demands, as some markets have a preference for a certain type or variety. Pierce's Improved Tree bean, the Schofield, Marrowfat, White Wonder, Medium, Common Pea bean, and Yellow Eye, are some of the common varieties grown. The seed for planting should be carefully selected and only well-developed, mature, sound seed used. In some cases it will pay to hand pick the seed, care being taken to discard all showing spots or indications of disease. By selection it is possible to increase the yield. Growers find it to their advantage to select the seed in the field so that it may be picked from the healthiest and most productive plants. On account of the scarcity of seed this spring many will have to plant what they can get, regardless of whether it has been selected or not. Care should be taken, however, not to sow diseased seed. Like all other crops, the bean may lose in vitality during the winter. Consequently, in order to ensure an even stand of strong plants the seed should be tested for germination. Some kernels may germinate but show weak growth. If a large percentage appear weak, the amount of seed per acre should be increased and the weak plants cut out during the season. A spindly plant resulting from a seed that is low in vitality seldom gives a profitable yield and is more subject to attacks of disease; therefore it may be the medium through which the crop becomes infected. Too much emphasis cannot be laid on the importance of quality in seed.

The time of planting depends on the nature of the soil and on climatic conditions. The bean plant is very tender and a light frost will injure the young growth. In some districts planting can be done earlier than others. The last week of May or the first week in June is the time for planting in many districts. The soil and weather must be suitable to give the beans a rapid, continuous growth, if the greatest success would be obtained. While special bean planters are used in some districts for putting in the crop, the ordinary grain drill is more generally used. The rows are spaced about

twenty-eight plants from amount of of the varieties kind of the depth one-half in not advisable half deep.

A light two after on the sur weeds. U quickly, a cultivator cultivate not to cu the plants disease kr field. W cease. If thorough during th for using. In so curtailed pod spo greatest pod, thus rendering as dark-noticeabl It is belie ding thi treatment consequ ed. It is to infect to hand rust arc on pod, first to stem an

#### Prod

This or busi as on t schem is used by th always why th than it revolu but th follow marke ducing grown what To e eat fa call fo buy they pay applet them difficu to e what willin for. slight in th but ing bette t we meth who tom a n his mat and you hare they the selv ing loof dec sto loca of f rea fou top lar it me Me sto



twenty-eight inches apart, and the aim is to have the plants from three to six inches apart in the rows. The amount of seed to sow per acre depends on the size of the variety. It runs from three pecks of the small varieties to five pecks of the Marrowfat variety. The kind of soil, the temperature and moisture regulates the depth of planting. On a loose, warm soil, two and one-half inches is not too deep, while on a stiff soil it is not advisable to plant much more than an inch and a half deep.

A light harrow may be run over the field a time or two after the crop is planted, but before growth appears on the surface, to break the crust and destroy the small weeds. Under proper conditions the bean germinates quickly, and the rows can soon be followed with the cultivator. Through the growing period it is well to cultivate once a week if possible; care being taken not to cultivate too deeply, and avoid working when the plants are wet as there is danger of spreading the disease known as anthracnose, should any appear in the field. When blossoming commences, cultivation should cease. If beans are planted on a clover sod that has been thoroughly prepared, and then frequent cultivation given during the growing season, there will not be much need for using the hoe.

In some localities the growing of beans has been curtailed owing to the inroads of disease. The bean pod spot, or anthracnose, is believed to cause the greatest amount of damage. It not only attacks the pod, thus curtailing development, but it infects the seed rendering it unfit for market. It appears on the pod as dark-colored sunken spots, which are probably more noticeable on the light-colored pods than on the dark. It is believed that diseased seed is responsible for spreading this disease. It is not practicable to apply any treatment to the growing crop to combat anthracnose, consequently growers must be careful of the seed planted. It is claimed that one seed in a thousand is sufficient to infect a field. This is one reason why it is advisable to hand-pick the seed for planting. Bean blight and rust are also enemies of the crop; the former appears on pod, leaf and stem. While the leaves are usually the first to be attacked, the disease soon spreads to the stem and pod and eventually destroys the plant. Clean

culture and the destruction of all infected plants is the remedy. Thus it will be seen that the bean grower must exercise great vigilance to prevent disease absorbing a large portion of the crop.

Beans are needed this year for food, not only to feed the army but the civilians as well. From three to five pecks of seed planted on an acre of suitable, well-prepared land, the first of June, should furnish from fifteen to eighteen bushels of highly-nutritious food by the first of September. Like potatoes, it is a crop which gives comparatively quick returns and a larger acreage than usual might advisedly be planted this spring.

East Middlesex Notes.

EDITOR "THE FARMER'S ADVOCATE":

As Sambo predicted the spring has been backward. Some say it's because Good Friday was a cold, rainy day, so we are bound to get at least six weeks backward weather. As the six weeks are now up we look for better prospects. There is very little growth yet (May 15), and some of the early garden stuff is ruined by frost. However, the seeding is completed and most of it went in in pretty fair condition in spite of considerable rain. It was a splendid seeding for the horses. None of those sultry, hot days we sometimes get in seeding time, and every day that the land was fit to work the team could be kept going right along. We believe that more than the usual acreage has been sown in spite of scarcity of seed and help. Farmers are learning to use more horse-power and wider implements. Three and four-horse teams are common, though many still seem to dislike hitching up more than two—or maybe it's the driving them after they are hitched. Although the weather is cold it is not abnormally so, and we do not think that the sprouting of the grain will be seriously impaired, but it is very slow. Some who sowed early with 1915 seed are talking of re-sowing, but we haven't heard of any actually being done. On the whole we would say that the prospects for the spring crop are so far very good. Though a little late there is plenty of moisture

in the ground, and it is better to have the cold weather now than in June.

Cattle are going out to grass, but the latter affords only meagre picking yet, but the long winter and scarcity of feed compels a run on the grass. Fortunately there seems to be plenty of pasture for the number of head this year, as farmers have doubtless sold off heavily during the winter. Butchers complain that it is next to impossible to get any fat stuff. Most of those who had cattle or hogs to finish or cows milking had to purchase nearly all their feed, and as there was practically none for sale locally, hundreds of tons of Western grain were used. The most of this was of very fair quality, and some of it beat anything we ever saw in Ontario. Some of it had wheat mixed in it which, of course, improved its value. Hens which were dying on the Ontario grain soon picked up and began to lay when they got the Western product. It looks as though we cannot compete with the West in grain unless we get more favorable seasons than we've had for several years past.

Eggs are selling at 35 cents now (May 15) at the farmer's door, and prospects are good, as there is competition among the cold storage owners. The supply has been very good so far, but the increasing scarcity of grain may cause a reduction. One farmer we know is selling 150 dozen per week.

Cheese is paying a little better than butter this year. At least in the estimation of those who do not value the skim-milk much above the whey, and count nothing at all for difference in loss of fertility from the soil. The pasteurized whey is in high favor for pigs. The prospects for clover and fall wheat are none too bright, although those who sowed the latter under the best conditions obtainable will probably have a fair crop. But they, we think, are in the minority.

Bees wintered well where they had a fair chance, but this spring is hard on them. There is almost nothing doing yet as far as they are concerned. Colonies of bees and supplies generally have all advanced in price and it is expected that honey will also, though it is still the cheapest food on the market.

Middlesex Co., Ont. J. H. BURNS.

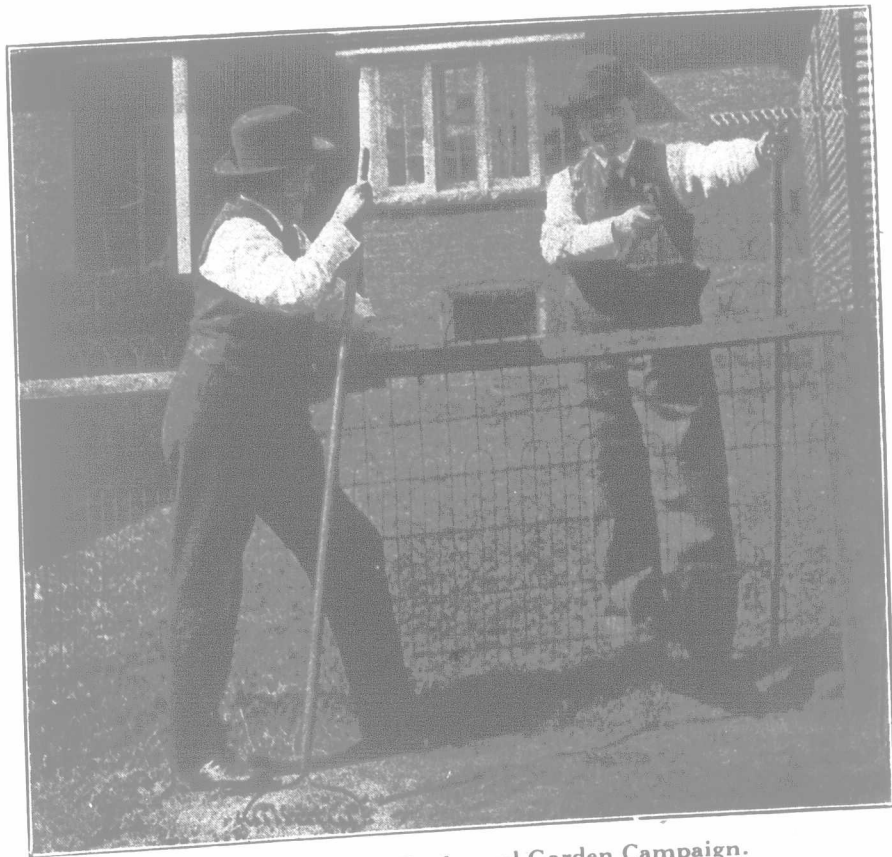
Canada's Young Farmers and Future Leaders.

Produce What The Public Demands.

This is the young man's age, and in no occupation or business are there such golden opportunities afforded as on the farm. True, farming is not a get-rich-quick scheme, but there is a living there and more if the head is used in conjunction with the hands. We do not mean by this that farming is light work, far from it. It will always require physical effort, but there is no reason why the head should not co-operate with the body more than it apparently has in the past. There is no call to revolutionize the present farming system all at once, but the aim should be to follow the trend of the markets and aim at producing what can best be grown on the farm and what consumers demand. To educate the public to eat fat pork when they call for the lean kind, to buy red potatoes when they demand white, to pay extra for boxed apples when they want them in barrels, etc., is a difficult task, better far to endeavor to produce what the consumer is willing to pay the most for. This may require slight changes being made in the farm management, but the young man starting for himself is in a better position to adopt twentieth century methods than is his father who has become accustomed to working along a certain groove. Once a man becomes "set in his ways" it is no easy matter to change him, and we doubt if the young men should be too hard on their parents if they cannot see things in the same light as themselves.

The young men starting for themselves should look to the future when deciding on the line of stock to keep. Of course, a good deal will depend on the location of the farm and nature of the soil as to the line of farming followed. Certain types of horses usually find ready sale and this should be considered when purchasing foundation stock. It costs little more to raise a colt that tops the market than one for which the demand is not large. If contemplating following the dairy business it is advisable to secure breeding stock that has good records and which has descended from heavy producers. More money may have to be paid out than for average stock, but the records and quality of the stock greatly

aid in selling the progeny and their progeny. It is but necessary to attend an auction sale of dairy cattle and note the difference in the bidding as different animals are brought into the ring. The price rises rapidly if the animal appears to good advantage and has a milk and butter-fat record to her credit, or is descended from a famous cow or bull. The cow without a record is a famous cow or bull. The cow without a record is a famous cow or bull. The cow without a record is a famous cow or bull.



The Result of the Back-yard Garden Campaign.

"Are you making a garden?" "That's what I call it," replied Mr. Crosslots. "My wife and daughters call it merely musing up the yard."

for further improvement. Disease, especially tuberculosis, has made inroads into many herds, causing heavy losses. Tubercular-free animals are in demand. Buyers are willing to pay more for such stock than for that which they are not sure are free from this scourge. It is the young man's opportunity to plan to supply the demand for this kind of stock. By vigilance and care the herd can be kept clean. The tuberculin test picks out the reactors.

In beef cattle there is a particularly strong demand for certain families. Breeding stock of high quality in

all the beef breeds is in demand, and, no doubt, will continue to be so for some time to come. The poor stuff are not wanted, then why breed them?

There are those who claim that the fat type of hog can be fed to better advantage than the bacon type. The latter class has its advocates, and there is a strong market for bacon sides. The system of buying hogs by grade is being agitated, and rightly so. If the export trade wants the bacon hog and is willing to pay the price, it is only fair that those who breed that type should receive a premium.

The poultryman finds a ready demand for eggs for hatching purposes and stock for breeding if his particular strain is noted for heavy egg production, and is of a utility type. So it goes on down the line of farm products. There is a demand and a high price for the stuff that has quality and meets the desire of the purchasers or consumers. To produce that which is not in demand is folly. When commencing to work for oneself is the time to start in right. The line to follow should be decided upon, and then every effort made to perfect it.

How the High School Boy Can Help.

EDITOR "THE FARMER'S ADVOCATE":

It is a common opinion among the older people that the youth of this generation lack the initiative and tenacity possessed by those of earlier times, and which comes of being obliged to shift for oneself. But, in the olden times, while a few achieved success, unremitting toil and the narrowed outlook brought the majority of people to a state bordering on that of mere work-a-day drudges. Those methods are too rigorous, when avoidable. What is needed, and what will give the largest sum-total of results for the most people, is a system of practical training in outdoor work which is at once healthful and useful, that is, beneficial both to the individual and to the state, and by means of which the character of the youth will be strengthened and made firmer, but not calloused and made dull.

But, necessity, while the mother of invention is also first cousin to progress. The exigencies of the war, and the unfavorable crops of the last two years have brought us such an opportunity in the option now extended to High School students, of working on a farm during the summer months.

The benefits to the student from this work will be valuable and various. When one asks where many of the most prominent men of the nation were reared, the answer almost invariably given is, "On the farm." This is due to the habits of industry and self-reliance formed there as well as to the simpler and more wholesome life. By working for several months on a farm the average boy will acquire these qualities and so become better fitted for his life-work, whether it be farming or any other calling. It is undeniable that farming is the most healthful of pursuits. This is to be expected from the fact that the work is carried on in the open air and sunlight, and has, moreover, plenty of variety. The whole career of the boy will be placed on a sounder basis by the work done this summer. Besides this, a new and wider outlook and a faith in one's Maker cannot fail to result from work carried on in the presence



of Nature, and which is subject to such a changeable element as the weather for its complete fulfilment.

The boy will be called upon to shoulder new responsibilities, and to accustom himself to new and different kinds of work. The habits of alertness and self-reliance gained in this way will be of permanent value in his life.

The benefits accruing to the farmer by this system will not be confined to direct financial profits, although besides the increased production, the markets will probably be enlarged in virtue of the fact that as most High School boys are residents of the cities, this method of working will mean, to some extent at least, the getting together of producer and consumer. But, a greater advantage to the farmer, though an indirect one, will be the improvement in the relations between the farm and the urban population. The attitude of the average city boy toward farmers is peculiar. "Oh yes," he will say, "it's the farmer who feeds us." Yet he continues to regard farmers as another class of beings having few comprehensible tendencies. While the farmers, as a class, are not particularly sensitive to opinion on this point, it is doubtless true that if the city people in general had a better appreciation of the farmer and his rights, their representations might find greater difficulty in forming the combinations by which he is oppressed.

Further, one must remember that the boys of to-day will be the voters of to-morrow, and that the effect of thousands of them having worked on farms and seen the life at first hand will have a salutary influence on the welfare of the farmer.

The boys should keep alive in their employers the more youthful and enthusiastic views of life. Certainly the farmer will require a large fund of patience and an ever-present sense of humor to endure the blunders of a novice in his calling, blunders which may become laughable in retrospect, but which are far from such in the hurry of harvest. But, perhaps the largest and most apparent benefit will be that many of the boys will be induced by a liking for the work to come back to it another year, to include a course at the Agricultural College in their educational plans, or even to make farming their means of livelihood. After all, the average farm is not so dull and lonely a place as it is often represented as being, and if the wholesome and stirring life has the effect it should have, it is probable that the problem of farm labor may be solved for some years to come.

Of the many advantages which this method of instruction will bring to the state, none is greater than the warmth of loyalty and patriotism which will be excited in the youth by the consciousness that they are doing

something to increase production, to save the Empire, and to win the war. Of almost equal importance will be the effect on the educators of the country. They will wake up to the position of agriculture as the basis of Canadian progress, and steps will accordingly be taken to procure universal opportunity of education along that line as one of the chief means of increasing the prosperity of the country in years to come.

The back to the land movement will be regulated, for, the work on the farm, undertaken as it will be, at the most impressionable and enthusiastic period of life will attract to agriculture those minds best fitted for grasping its problems. The intrinsic value of this arrangement is clearly apparent. Instead of being a burden to it, thousands of its youth will be aiding the Empire in the increase of production, when such an increase is indispensable to its safety.

Nor must we forget that besides all this we will have the upbuilding of a sturdy manhood and sound citizenship, at the same time ensuring a supply of physically fit men available at any time for war purposes, placing us in a position,

"That we may bring if need arise,  
No maimed and worthless sacrifice."

Essex Co., Ont.

ONE WHO IS TRYING IT.

## Automobiles, Farm Machinery and Farm Motors.

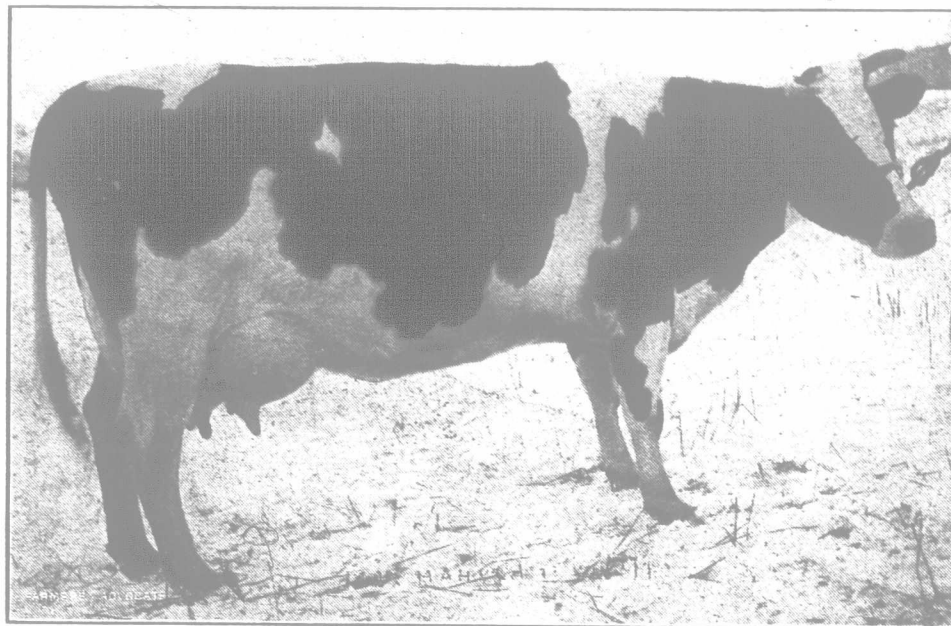
### The Gasoline System.

In the old style cars you will find that the gasoline is invariably fed to the carburetor either by a gravity or a pressure system. The gravity system was constructed with the idea of allowing the fuel to run from a tank under the cowl or the seat, down to the carburetor below. This gravity arrangement was all right as long as the proper balance of the car could be maintained, but sometimes in hill climbing the fuel would not flow to the carburetor and so the engine stopped. Drivers have frequently been compelled to back up inclines. Then someone thought of the pressure system. It worked with a mechanical device which allowed air to be pumped by the driver and force developed that urged the gasoline to the carburetor. Both these systems have been improved in recent years, and a new one called the "Vacuum System" has been conceived. You will have little trouble looking after the gravity plan of fuel supply because it simply consists of a pipe from the tank to the carburetor. Keep the pipe clean and the tank filled and your difficulties will be almost nil. The pressure feed calls for careful attention to the pipe and the maintenance of the pressure itself. With the vacuum system, you must bear in mind the mechanism, while extremely clever, is somewhat complicated, and requires an average amount of care. Perhaps it would be well to realize in the first place, that the motor calls for its fuel through the carburetor by means of the upward and downward motions of the pistons. It is this action which draws the gasoline from the supply tank into the vacuum tank. The ordinary vacuum system is extremely small and will be found mounted on a power plant almost directly over the carburetor. It is usually about four or five inches wide and nine or ten inches deep. Inside you will find two chambers, the upper one is used for filling and the lower for emptying. In the partition between the two chambers is a valve. When a vacuum is created in the upper chamber the valve is closed, and subsequently the gas rushes into this vacuum, raising a float valve which upon arriving at a certain point, automatically shuts off the suction and opens an air valve. When the outside air comes in, the vacuum suction is released and the valve into the lower chamber opens up and allows the gasoline to enter.

It is unlikely that you will ever have to give much attention to the vacuum system, but it is well that you understand a number of things regarding it. It is always advisable, before you begin to tamper with the system, to make sure in your own mind that you have located your trouble. Sometimes a difficulty arises in a power plant that seems blameable upon the vacuum tank, but a minute investigation often proves otherwise. Here are a few of the little troubles that may be experienced—a leak in the tubing or in the carburetor connection in the bottom the tank. There may be also a leak in the outer wall of the tank. Common sense will advise you how to handle yourself in any of these emergencies. If the vent tube is over-flowing you may find that the air hole in the main gas tank filler cap is too small or plugged up. Either enlarge the hole or clean it out, as occasion demands. It is also possible to remedy the over-flowing by attaching a tube to vent connection and carrying it up to the highest point under the hood. If occasion should ever demand the removal of the top of the tank, carry out this operation with the utmost care, as the gasket must, of necessity, be shellaced into place to provide an air-tight joint. Perhaps the main thing to remember is to clean the tank every three months. It is just possible that you may have used gasoline that has not been filtered through a screen or chamois and that dirt is accumulating. If any foreign matter is drawn into the vacuum tank, you are going to have trouble if you don't clean the tank. Remove the top and take out the inner shell or vacuum chamber. This gives an opening

to the lower chamber which can then be readily cleansed. Sometimes the feed becomes a little faulty. This may arise through a leak in the float. It may also come from trouble with the flapper valve or the manifold connection may be loose. Do not conflict carburetor troubles with vacuum difficulties. You may not be using your fuel to advantage but in a great many cases this can be attributed to the carburetor. Should it become necessary to take your tank apart for repairs, remember to fill up the tank again before starting. Your best plan would be to turn the engine over at least half a dozen revolutions. By doing this, you create sufficient vacuum in the tank to fill it. However, should the rotating of the engine not accomplish the purpose you desire, remove the plug in the top of the tank and put in a little gas for the purpose of washing and wetting the valves.

We are endeavoring, in these articles, to train the average motorist to a point where he will feel confident in taking his machine upon even the longest journey, but we do not wish to do anything that would bring the expert mechanic into disrepute. We rely absolutely upon his judgment and we must ask you to do the same thing. Not only with the vacuum system, but with all other intricate parts of an automobile, we would strongly



Mollie of Bayham 3rd 9671.

Seven-day record at four years: Milk, 546.3 lbs.; butter, 24.50 lbs. Thirty-day record at four years: Milk, 2515.7 lbs.; butter, 101.65 lbs.

urge that no drastic steps be taken until a mechanic has been consulted. When you go to him with some knowledge of the trouble to be overcome, you add to your store of information when you find out exactly how he handles it. If, however, you simply run your car into a garage and give instructions for having it put back into first class running order, you are not getting all that you should out of the situation, unless with the repair of the machine you add to the aggregate of your knowledge regarding it. There are many books published upon the aims and purposes of the vacuum feed, and it might be well to use one of these at frequent intervals and so acquaint yourself with the method behind this new system and the plans most suited to its perfect operation.

AUTO.

### An Inspiration.

We find your paper a source of inspiration in our home, and the subscription money is money well spent. I have taken "The Farmer's Advocate" for four years, and consider it the need of every young farmer.

Oxford Co., Ont.

FRED LOWES.

## THE DAIRY.

A can of warm milk left near the barnyard will become tainted. Warm milk readily absorbs odors.

If the pasture-field fence is out of repair, don't blame the cow if she breaks into the oat or corn field.

Cool the cream as soon as it comes from the separator. Mixing warm and cold cream is not a good practice.

Now that the cows are on grass, don't neglect to allow them a constant supply of water and salt. They require both.

Statistics show that there are over 20,000,000 dairy cows in the United States. Canada has nearly a million and a quarter milk cows.

Those young calves in the stable require a daily supply of fresh, clean water besides their morning and night allowance of milk.

What have you done, Mr. Dairyman, to let the authorities know that you are not in favor of having oleo-margarine sold in this country?

There is always room for improvement in the average milk yield and percentage fat production of the herd. Set a high standard and then strive to reach it.

Milk is too high in price to run any risk of an entire milking going sour before it is delivered at the factory. Cool the milk as soon as it is drawn and keep it cool. The milk can may be set in a tank of cold water and a small can of water set in the milk.

A feed rich in protein isn't required to balance the ration for calves when they are fed skim-milk. A little cornmeal or other substance fairly high in carbohydrates and fat might profitably be added. It must be remembered that the fat of the milk has been removed, leaving the original amount of protein nutrients in the skim-milk.

At a dispersion sale of Holsteins in California, 32 animals averaged \$344. One hundred and nine Holsteins were recently sold at Buffalo, N.Y., for an average of \$535. The top price was \$5,700 for the bull calf King Rag Apple Hopeful. At the Stephenson dispersion sale of Holsteins, in Wisconsin, 176 animals sold for \$57,210.

The oleo interests have not yet given up the fight to have oleo-margarine manufactured in or imported into Canada. That the oleo interests are behind the agitation to allow this butter substitute sold in Canada was evidenced a short time ago when their representative addressed a meeting supposed to represent the consumers of Toronto. Those present had an opportunity to sample the product and pronounce upon its qualities. It was reported that eight voted on a resolution requesting the Government to allow its use in Canada; five were in favor. This vote is hardly representative of the great consuming public.



### Holsteins Bring Good Prices at Springbrook Stock Fair.

The weather was unfavorable on May 23 for the dispersion sale of Holsteins, at Springbrook Stock Farm, Breslau. However, there was a fairly large crowd and the bidding was brisk on most animals. Taking everything into consideration good prices were received. Springbrook Stock Farm has long been noted for its high-quality Holsteins. The proprietor, A. C. Hallman, was among the first in Canada to recognize the possibilities of the Black and Whites and to introduce the breed into this country. He succeeded in building up a large herd of excellent individuals. Not only was heavy production aimed at, but care was taken in breeding and selection to obtain type, big, strong-framed individuals with great capacity. A couple of decades ago Springbrook Holsteins were prominent at the leading exhibitions, where they carried off the lion's share of the highest honors. Of late years Mr. Hallman's services have been in demand in the capacity of judge, and while he has not exhibited his stock he nevertheless had show stuff in the stable. The value of the sire in improving the herd was always recognized, and price did not stand in the way of securing the best bulls to head the herd, provided they had the proper backing and individuality. Many of the animals offered at the sale were sired by the seven-year-old bull, Sir Korndyke Boon. A good deal of the stock offered have made creditable records and are descended from heavy-producing individuals. The blood of such animals as Pontiac Korndyke, Count Mercena Posch, Inka Sylvia Beets Posch, May Echo, and like individuals with high records, flows in the veins of much of the young stock. The thirty-nine head sold brought a total of \$6,645. The sixteen cows averaged \$232.20, while the heifers, many of them 1917 calves, averaged \$145.90. Following is a list of the animals selling for \$100 and over, together with the names and addresses of the purchasers.

Canary De Kol Butter Maid, O. Burton, Wood-bridge.....	\$235
Korndyke Canary Butter Maid, E. S. Archibald Ottawa.....	140
Korndyke Gem Lutske, C. G. Pritschau, Kitchener.....	270
Korndyke Segis De Kol, MacLeod Bros., Stamford.....	245
Sir Korndyke Fay Boon, D. Aitchison, Elora.....	155
Korndyke Segis De Kol 2nd, A. Becker, Petersburg.....	175
Countess Polly, Wm. A. Scott, Galt.....	135
Countess Korndyke Hengerveld, A. L. Shantz, Kitchener.....	250
Springbrook Korndyke Queen, C. G. Pritschau.....	240
Sir Echo Korndyke Boon, W. M. D. Smith, Palmerston.....	100
Acme Sadie Pauline, C. G. Pritschau.....	270
Korndyke Pietertje Hengerveld, W. H. Scott, Galt.....	225
Sir Hengerveld Boon, A. Hardisty, Galt.....	135
Korndyke Griselda Boon, C. G. Pritschau.....	270
Griselda Korndyke Boon, J. C. Brown, Stamford.....	255
Korndyke Aaggie Cornelia 2nd, R. M. Holtby, Port Perry.....	125
Korndyke Aaggie Cornelia 3rd, R. M. Holtby.....	100
Wayne De Kol Butter Maid 2nd, O. Schmidt, Elmira.....	175
Wayne De Kol Boon, H. Taylor, Cheltenham.....	175
Korndyke Segis Ormsby, P. Dill, Dublin.....	185
Korndyke Segis Ormsby 3rd, J. H. Sherk, Centreville.....	130
Canary Segis Mercedes, G. Forrester, Mitchell.....	270
Canary Echo Korndyke, J. H. Sherk.....	105
Sir Korndyke Cornelia Boon, L. Snyder, Hespeler.....	100
Minnie Statesman Posch, Wm. Cleland, Listowel.....	230
Minnie Statesman Boon, A. Becker.....	170
Countess Polly Korndyke, E. B. Hallman, New Dundee.....	190
Countess Polly Korndyke Boon, E. B. Hallman.....	140
Korndyke Pamela Boon, E. Hunsberger, Waterloo.....	245
Wayne Butter Maid Boon 2nd, E. S. Archibald.....	150
Korndyke Boon Lad, E. Panabaker, Hespeler.....	185
Sir Korndyke Pamela Boon, F. Hilliker, Norwich.....	100
Cornelia Statesman 2nd, H. Hammond, Millbank.....	215
Sir Echo Korndyke Beets, W. Bean, New Hamburg.....	125
Echo Korndyke Hengerveld, E. B. Hallman.....	110

### Grading Butter in Ontario.

The time has evidently come when most farm products will be graded and sold on a quality basis instead of a flat rate. This is a big step forward and will tend to the general improvement of quality. There is that spirit in everyone to produce the best possible goods, provided he is paid for the extra trouble. Fruit has been graded for years and has meant much to fruit growers. Grain is divided into different grades for market. First-grade eggs bring a higher price than case lots. The price of cattle varies according to quality, and now a movement is on foot to market hogs on a graded basis. In the West butter is graded and has led to grading of cream. Old Ontario, which naturally should have taken the lead in improved methods of handling butter, failed to take the initiative. If it is advisable to grade such products as grain, stock, fruit and eggs, it is doubly so to grade cream and butter, the quality of which is influenced by a multiplicity of factors. Poor quality cream mixed with good cream makes average quality butter, which cannot compete favorably on the world's markets with first-grade butter. Until recently there has been no incentive for Ontario dairymen to exercise extra effort to market high-quality cream. It takes more care to keep the cream in good condition and if it will make a higher priced manufactured article than the average cream, the producer should be paid accordingly. Uniformly high quality is wanted in all dairy products if a place is to be held on the best markets. This should be the

aim of every individual of every nation. This brings competition into force and keeps urging the producer and manufacturer to further improve the quality. At present there is a ready market for all the dairy products Ontario can produce, but will it be ever thus? When things again become normal and many of the present consumers and non-producers of food products again become producers, it is reasonable to expect that prices will recede to a lower level. It is then that high uniform quality products will count. Will Ontario's butter then retain first place in the export markets? It depends on the producers and manufacturers. Alberta, Manitoba and New Zealand dairymen are among those who have taken the lead in regard to preparing their butter products for the best markets. They took time by the forelock and even now they are profiting by it. It must be remembered that it is impossible to have the product of an entire Province raised from average quality to all first-class quality over night. It will take time and the united efforts of all interested in dairying to bring the output of butter in Ontario to say eighty-five per cent. first grade.

Grading of butter has been discussed a good deal during the past few years in Ontario, but no concrete action was taken until the summer of 1916, when experiments were conducted to prove the feasibility of grading butter in this Province. It was found practicable, and this year grading will be conducted on quite a large scale. There are many ready to criticize the system and to throw cold water on the scheme of grading. Paying for milk on a quality basis has been shelved for the time and there are those who would clog the wheels of progress in regard to grading butter, which would lead to grading cream. True, there are obstacles in the way; there are to every advance movement, but they are not insurmountable.

The Government has arranged for grading the butter at a central point. The creamerymen are required to pack fourteen pounds of butter from each churning, brand it with their factory number, the month and day of the month, also the serial churning number. The figures are separate and are fitted into a frame for stamping. The following represents how the stamp will appear on the sample boxes:

+21+  
5-4  
6

Twenty-one is the factory number, 5 represents the month, and 4 the day of the month. Six is the number of the churning. In some creameries there are several churnings some days. A sample is taken from each and numbered consecutively. The same marking will be put on the entire churning as on the sample box, so that the churning can be sold according to grade. These samples of butter will be held in storage for one month for reference in case of any dispute between the manufacturer and produce man. Arrangements are also being made to grade shipments of butter in storage.

The man doing the grading takes flavor, body and texture, color, salting and finish into consideration. A score card giving the score on each point is returned to the manufacturer. In this way he knows where his product falls down and can then set about to rectify mistakes. This in itself should result in rapid improvement in quality. The entire churning can then be sold according to the score. The dealer knows what he is buying and is able to pay accordingly.

Under the present system first-grade butter scores 92 points or over out of 100, with a minimum score for flavor of 39 points. Second-grade butter scores 87 points or over and under 92 points, with a minimum score for flavor of 37 points. Butter scoring between 82 and 87 points is put in the third grade. There is always a demand for butter that is of good quality. Both manufacturer and producer are responsible for the quality of butter. One cannot blame it entirely on the other. The following are some of the defects in butter of flavor which the producer can control in the case of cream: unclean, rancid, weedy, old cream, sour, cowy, cream; unclean, rancid, weedy, old cream, sour, cowy, cream; bitter, cheesy, stale, fishy, metallic, stable. Proper cooling of cream, keeping it cool and in a clean, well-aired place, and not holding it too long, will largely overcome these defects. In scoring for texture, the following terms express defects: weak, salvegy, greasy, brittle, milky brine, loose, excessive free moisture. While some of these faults result from failure to properly look after the cream they are partially under the direct control of the manufacturer. Defects in color are laid chiefly at the door of the creameryman. Butter may be too light, too high, mottled, uneven, show white spots, wavy or streaked. It may be salted too lightly or too heavily. The salt may be undissolved or irregularly distributed through the butter. The butter may be poorly packed in boxes that are not properly finished, or are dirty. The weaknesses of the sample of each or are dirty. The weaknesses of the sample of each churning will be designated on the score card, so that the manufacturer will know wherein he failed and be able to overcome the defects. The producer should also be informed of deficiencies in quality, due to the handling of cream before it leaves the farm. There are but few dairymen who will not endeavor to do their utmost to market good cream, provided they are shown how and are paid according to the value of cream for making high-grade butter.

In reality, improvement must start with the producer. So long as he sells average-quality cream, so long will average-quality butter be put on the market, which will permit him of receiving only average price for his cream. If grading of butter works out in Ontario

as it has in other Provinces, the first-grade will command several cents per pound more than second-grade. In most cases the producer gets the benefit of the increase; at least, he should. When grading of butter becomes established on a firm, workable basis in Ontario, grading of cream will naturally follow and the careless man will pay the penalty for his carelessness. The whole thing will eventually be a big advantage to the creamery industry and to the careful man behind the cows in particular.

It is not so easy to adopt a new plan in Ontario, even though it is in the best interests of the entire butter industry. Creameries have been established, gathering stations have been opened up and markets for cream have been found at points one hundred or more miles distant. In every community there are competitive companies bidding for cream. It is difficult for one company to commence buying cream on a graded basis, unless all do; consequently, the producer should encourage his creameryman to have the butter graded and sold according to that grade. The result of this may not be seen in dollars and cents just at the present, but the time is coming when it will.

Grading of butter is only in its infancy in Ontario, but we believe it will grow to be a strong factor in giving to and holding for this Province a place on the market for butter which will rank with the best of the world. It will not be done by knocking the grading system, or by sitting with folded hands until you see how it works out in the neighboring creamery. Your wholehearted support is needed right now. What benefits the dairy industry as a whole, benefits the individual and vice versa.

During the month of April, 23 Ayrshire cows and heifers qualified in the Record of Performance test. Dairymaid 2nd was first in a class of six mature cows with a production of 15,365 lbs. of milk, testing 4.01 per cent. Hobsland Barbara, as a four-year-old, gave 8,989 lbs. of 3.86 per cent. milk. Seven three-year-olds qualified. White Violet of Hickory Hill was first with a milk yield of 9,764 lbs., testing 4 per cent. Floss of Springbank headed the two-year-old class, her record being 11,430 lbs. milk and 453 lbs. of fat.

## POULTRY.

### Preserving Eggs For Next Winter's Use.

Spring is the natural laying season, and the farm flocks usually produce fairly liberally during March, April, May and June. The high temperature of July and August, coupled with other conditions, induces biddiness to go broody and cease laying. Irregular feeding and insufficient feed are also responsible for a dropping-off in the egg supply. When the new crop matures and the hens have the run of the field the egg yield usually advances a little, but only for a limited period. Moulting and the arrival of cold weather end the average hen's working period for the year and she naturally becomes idle until spring or the natural laying period.

What about eggs for cooking and table use during the long winter months when they are not being produced in quantities? If farm hens cannot be induced to lay during the winter the family must pay a high price for hen fruit, resort to preserved eggs, or else do without this article of diet. The latter is the course forced upon many. Whether the hens are winter layers or not it is both economical and advisable to preserve a supply of eggs during the time they are plentiful. While many store a few eggs the practice of preserving a liberal supply is not generally followed. Eggs put in water glass keep in excellent condition if directions for use are closely followed. In the spring the price of eggs generally recedes to low-water mark. This year, however, the price has kept up to a high standard, but this should not deter anyone from preserving a supply for next winter. If eggs are forty cents a dozen in May, what will they be worth next December and January? They usually bring the maximum price during these latter months.

New York State College of Agriculture has recently published a pamphlet giving concrete directions and suggestions relative to preserving eggs in water glass. The information is to the effect that eggs should be preserved during March, April, May and June, when the production is the greatest and the price lowest. Eggs preserved in water glass can be successfully kept for as long a period as one year, and for cooking purposes they are practically as good as when fresh laid. Commercial water glass solution can be obtained from most drug stores. It may also be secured in the form of a powder and dissolved in a quantity of water according to the directions, on the package. When using the commercial water-glass solution, mix 1½ quarts with 18 quarts of pure water that has previously been boiled. Stir the mixture until the ingredients are thoroughly mixed. Stone jars are the most suitable vessels to hold the mixture, and two eight-gallon jars are sufficient for thirty dozen eggs, with the amount of solution just described. When the water glass is thoroughly mixed, pour it into the vessels which have been made absolutely clean. The eggs can then be placed in the solution, care being taken that the top ones are submerged at least two inches in the liquid. The jars should be covered to prevent evaporation and put in a cool place where they will be undisturbed during the year. The following suggestions are offered: Preserve only fresh eggs, as stale eggs would not keep in any preservative. Have the preservative ready so that the eggs may be put in it as they are gathered. If in doubt regarding the freshness of an egg, candle it or else place it in a dish of fresh



water; if it sinks it is reasonably fresh. Dirty eggs, or eggs that have been washed should not be put in the solution, washing the eggs removes the natural protective gelatinous coating, and dirty eggs become tainted in flavor. Spring eggs keep better than summer or fall eggs and infertile eggs are preferable to fertile eggs for preserving. The eggs should be rinsed in water after removal from the solution, and if in good condition when removed from water glass they will usually remain good for a couple of weeks. If desirous of boiling the eggs which have been preserved in the way mentioned, pick a small hole through the large end of the shell before placing them in the water. The pores of the shell have been sealed by the water glass solution and without the pinhole the expanding air within the shell will burst them.

Other methods of preserving eggs that have been practiced are to pack them in salt, oat chop or bran. Some merely wrap the eggs in paper and put them away in a cool place. While eggs will keep for a considerable length of time by these methods, they are not considered equal to putting the eggs down in the water-glass solution. It is a mistake to wait until late in the season to commence packing eggs, as there is little likelihood of the price being much lower, and as previously stated, summer eggs do not keep as satisfactorily as spring eggs. If the hens do lay next winter, the packed eggs may be used for cooking purposes and the fresh eggs sold at the usually high winter price. Water-glass solution is not expensive. The directions for using it are simple. Its effectiveness as a preservative of eggs has been assured and a supply of eggs for winter use should be put away now while the hens are laying.

### The Hen Question.

EDITOR "THE FARMER'S ADVOCATE":

Among other things in several publications I have noticed a call for more poultry, more hens, more chicks, more eggs. Right here I may say I've answered the call, and at the present moment I hear dozens of chicks "yip, yip, yip" in the incubator near by. It is my first trial at the incubator, and the chicks shouldn't have arrived until to-morrow, so I am naturally quite proud of my success, especially as the chicks are extra smart and seemingly healthy. The good man set a hen at the house the same day but he hasn't a chipped shell yet, and we had been saying all along that the hen with 15 eggs would hatch more than the artificial hen with 120 eggs. When I started to write I just meant to say that last year we thought our fifty hens had done so poorly that it wasn't worth while to settle up the account which I had kept of them. However, on a slack day we decided to look it over, and to our surprise those hens had supplied us with eggs to eat and set for the year, paid for their feed and cleared quite a bit (I forget the exact amount and unfortunately the book is lost) over a dollar a hen. We were greatly surprised as we honestly thought they hadn't paid for their feed. However, they were getting old, and as we couldn't get the eggs we wanted for pullets last spring we sold them all down to 31. Now we've only 28, as three got killed or died and hence the incubator, for we thought we had no hens to set and must have chickens. Those hens are laying splendidly now, having started in January after a short rest. We have no ducks this year, for they make so much work and consume so much compared to chicks. Last year we had over eighty. Poultry-raising is a very pleasant side-line for work, although at times very discouraging. Success to all who are trying to raise poultry to help in these hard times!

Northumberland Co., Ont. A POULTRY LOVER.

## HORTICULTURE.

### To Prevent Apple Trees Splitting Down.

EDITOR "THE FARMER'S ADVOCATE":

Can anything be done to prevent apple trees from splitting down the trunk? Would a steel band be injurious to the tree? J. S.

Ans.—This query suggests an operation that should be attended to in all orchards of bearing age. Several trees usually show symptoms of weak crotches while others often give way under a heavy load of fruit. Even a weak crotch, if it does not split down entirely, should not go unsupported, for it will eventually separate enough to admit water and then a decayed trunk results.

There are several ways of remedying these weaknesses but the steel band which our correspondent mentions is impracticable. Any band of this character which encircles the growing tree is sure to interfere with growth and the movement of sap. One practice that can be recommended is to put screw eyes into the limbs above the crotch and bring them together, as far as possible, with strong wire. One objection to this method is, that the wire always remains and is liable to be in the way when pruning or gathering fruit. For a large full-grown tree, however, it might be found most serviceable in spite of the disadvantages it presents. Young or medium-sized trees can be bolted together very easily. The bolt of course, must be run through a couple of branches, directly opposite each other, slightly above the crotch. Often it is necessary to have a bolt spliced for the purpose. It is well to use a washer on both ends of the bolt to keep the nut and head of the bolt from sinking too readily into the wood. In some

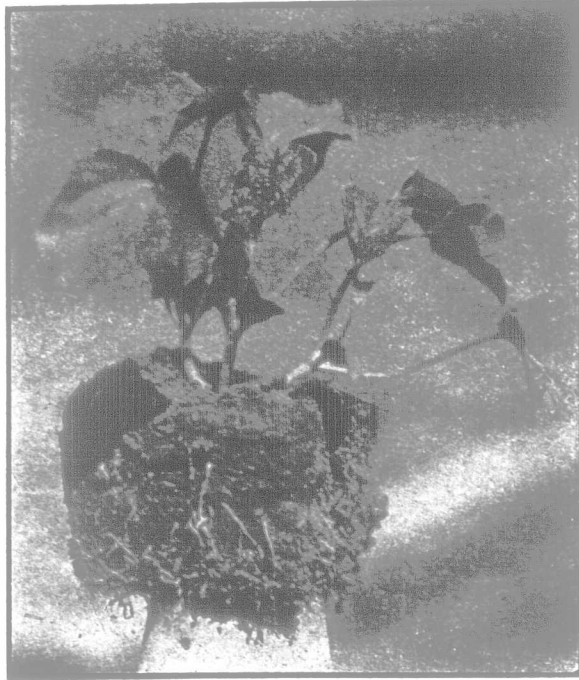
cases it is necessary to use a chain drawing the limbs together in order that the nut may be started. The limbs, where the chain is attached, should first be well wrapped with old bags, or similar protecting material to prevent injury. The bolt should fit the auger hole and the ends of the bolts as well as the crotch should be sealed with grafting wax. This method is the most satisfactory for young or medium-sized trees, as the bolt is seldom in the way, and it never injures the tree.

### A Plea For The Melon Patch.

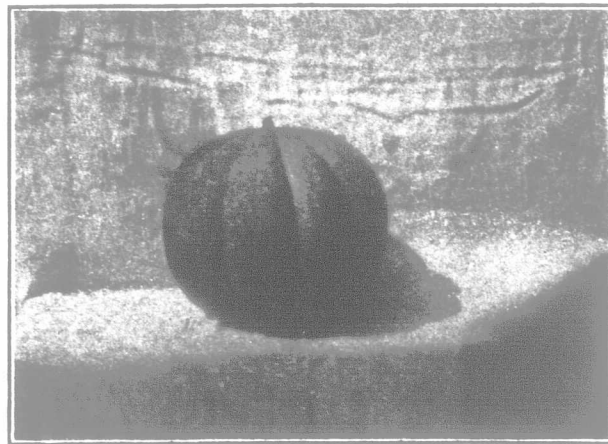
The very fact that melon patches are often hidden away in the centre of a potato field when being grown near towns and villages, where boys with natural appetites are found in any number, goes to prove that they



A Bed of "Surprise" Melons.



Melon Plants Started in a Sod Basket.



A Prize Melon.

are delicious to the normal taste. There is no reason why the farm garden should not produce melons in abundance. In elite hotels, as much as one dollar for one serving is paid, and to think that this delicacy can be produced in plenty on the average farm would appear incredible to the uninitiated. The musk melons produced on Montreal Island are accredited the most delicious that can be grown anywhere in America, but with average soil and a moderately favorable season the domestic farm garden can be made to produce something that will tempt even the most devout, if one should happen upon a bed of them in the dusk of the evening and no one in sight.

An earlier product can be obtained by planting

seed first in the greenhouse or hot bed, about five weeks before it is time to set the plants in the open, which in this country is about the first of June, after the danger of frost is past. Musk melons do not take kindly to transplanting and one must be extremely careful in this operation. To obviate the danger incurred in transplanting melons, growers to some extent have adopted the method of planting the seed in an inverted piece of sod, about four or five inches thick, with sides of the same dimensions. When the proper time comes, this can be moved intact to its place in the field without any danger of disturbing the soil about the roots of the young plants. Later the sod decomposes and provides food for the growing melon. It is now too late to consider this practice for the current season, but a few plants might be purchased from growers who have an extra supply on hand: otherwise it is not too late to plant the seed.

Melons thrive best on sandy loam or sandy land into which has been worked quantities of manure. However, loams and moderately heavy clay-loam can be made to produce crops of melons of first-class flavor. The seed should be planted in hills four by six feet, or, better still, six by six feet apart. The growth must be continuous and unchecked, and to ensure this it is well to work two to three forkfuls of well-rotted manure into the soil where the seeds are to be planted. Six or seven seeds should be dropped in each hill at first and allowed to grow for a time, or until the danger from the striped cucumber beetle is past. Then thin out to the three healthiest and most vigorous plants. By hills we do not necessarily mean beds or mounds of earth. Perhaps it would be preferable to plant on the level, for in this way more moisture is maintained in the soil. A little commercial fertilizer in each hill will help to force the young plants along, but very little is necessary if a liberal quantity of manure has been used. When the vines begin to run freely it is a good practice to nip off the terminal buds of the main vine, when they reach four or five feet in length, to induce the formation of laterals upon which the fruit is mostly produced. Melons require the same clean and thorough cultivation as all other garden crops. If frosts occur early in the fall, it would be worth while covering the different beds for in this way a longer growing season would be obtained. Cracking about the stem on some of the types of melons indicates that ripening is in progress and that the fruit will part readily from the vine. Considerable experience is required to decide just when each melon is ready to pick, and quality will be sacrificed if they are harvested too early.

The Paul Rose, Osage, and Burrell's Gem are three varieties of muskmelons recommended for this climate. The Paul Rose is a cross between Osage and Netted Gem. The fruit is small, spherical and ribbed, while the flesh is yellow and sweet. The Osage is a mid-season variety; the fruit is medium in size and the flesh deep and yellow. Burrell's Gem is a comparatively new variety the flesh is orange color and of high quality.

The term "cantaloupe" strictly speaking applies only to a type of rough, warty, scabby melons grown in Europe. In America the name is used to designate practically all types of musk melons.

### Watermelons.

A sandy or sandy loam soil is likewise best for the watermelon, although a clay soil will produce a good article. The seed is sown in hills six to eight feet apart, seven or eight being planted, and the growth from these later thinned to three healthy plants. Practically the same cultural methods are applicable to the production of watermelons as have just been mentioned in connection with musk melons. The sound emitted when the melons are "thumped" is the most reliable means of determining the proper degree of maturity. The old negro "mammy" in a certain ballad, when she berated her grandson for stealing a green melon said: "Be shore when you thumps 'em, dey allus sou' 'plunk'." The green melon will emit a sharp and metallic ring when snapped with the finger. As the melon matures and becomes less solid it gives forth a somewhat hollow and muffled ring. Cole's Early and Peerless are two good varieties of watermelon.

## THE APIARY.

### Final Spring Report on Ontario Beekeeping.

EDITOR "THE FARMER'S ADVOCATE":

Forms on which to report winter losses, spring conditions and prospects for the season's honey crop, were mailed to members of the Ontario Beekeepers' Association on April 5th. The number of reports received has not been large, but coming from representative beekeepers throughout the province they give a fair estimate of existing conditions in Ontario.

As forms were sent only to members of the Ontario Beekeepers' Association fewer reports are on hand than in former years, but practically as many colonies have



been reported as in 1916. This change, which confines reports to members only, appears to be a decided improvement, as it takes into consideration the evidence of none but our most progressive beekeepers and gives a fairer idea of the success of commercial beekeeping. In all, 421 beekeepers reported 27,159 colonies put away last fall, and 24,425 colonies in good condition this spring being an average of 58 colonies each, with a winter loss of 10 per cent.

The heaviest winter losses were reported from the southern counties, and the cause has been attributed to the severe winter weather. In this section of the province bees are not usually given sufficient protection against extreme conditions of temperature, and consequently those left exposed suffered from the intense cold. Starvation was another cause of loss and has been general throughout the province, but especially in the northern parts where the long winter and backward spring have been very trying. The high price of sugar has doubtless had something to do with the lack of stores. Poor queens are reported as having caused considerable loss, and a number of reports show that spring dwindling has been caused by the cold, wet April weather. On the whole, the bees in the northern counties have wintered best, as they were better prepared to face the cold.

Early reports predicted favorable honey prospects, but the clover has suffered from spring killing, and present indications are that the 1917 crop will not be as heavy as usual. This, with the great shortage of foods and scarcity of honey at the present time, leaves us to believe that the 1917 crop will command a good price. Buyers are already out contracting for the season's crop at advanced prices. Never before has the market outlook been brighter.

MORLEY PETTIT, Provincial Apiarist.

A Paper Container for Honey.

EDITOR "THE FARMER'S ADVOCATE":

Last summer a good many bee-keepers were unable to get a sufficient supply of the then high-priced tin honey containers in time. This year the price has advanced further, and to meet a possible shortage experiments have been conducted during the past four months at the Experimental Farm, Ottawa, with paper containers for granulated honey. The result has been the designing of an attractive container which has satisfied the requirements on a laboratory scale and is now to be given a more extended trial.

The container holds exactly 2 lbs. of honey (though any size may be made), and consists of white bond paper, waterproofed with paraffin wax, made into a plain, flat bag 9 inches deep and 5 3/8 inches wide, which is opened out "square" on a wooden block, and then inserted into a folding box of stout cardboard opening at top and bottom, measuring inside, 5 3/8 inches high, 3 inches wide, and 2 1/2 inches from front to back. The container thus prepared is filled with honey when it is commencing to granulate. Nearly all Canadian honeys, including the best and most plentiful—clover and fireweed, granulate sufficiently hard to be handled in this paper and card container.

The folding boxes, made of tinted cardboard, neatly printed in one color, are being supplied by an Ottawa firm at \$8.00 per thousand. The bags have been quoted at \$3.60 per thousand, which is about what they would cost when made in quantities. These figures make the cost of the complete container less than two-thirds of a cent per pound of honey it contains. The cost of five-pound lithographed tin pails is now \$9.00 per hundred, or two cents per pound of honey they contain. The freight on paper containers is less than that on tin pails, on account of their smaller weight and bulk.

This paper package resembles the paper packages of fancy cereal and other products now sold in all high-class grocery stores, and it can be made equally attractive.

Further points in favor of such a package are that it provides so small a quantity of honey as two pounds in an economical package; that this is net weight (only about 4 1/2 lbs. of honey are contained in a 5-lb. tin pail); that the wax paper is transparent enough to show the color of the honey, and that the container may be burned when the honey is consumed, which does away with the danger of spreading foul brood from empty honey pails and jars thrown out. Most of these advantages are for the consumer, but it is important for the future of the bee-keeping industry that the recent gain made by honey in the public estimation should be maintained and strengthened. Paper bags for honey are not new, but insufficient attention seems to have been paid to making them attractive.—F. W. L. SLADEN, Apiarist, Dominion Experimental Farms.

FARM BULLETIN.

Bean Production.

EDITOR "THE FARMER'S ADVOCATE":

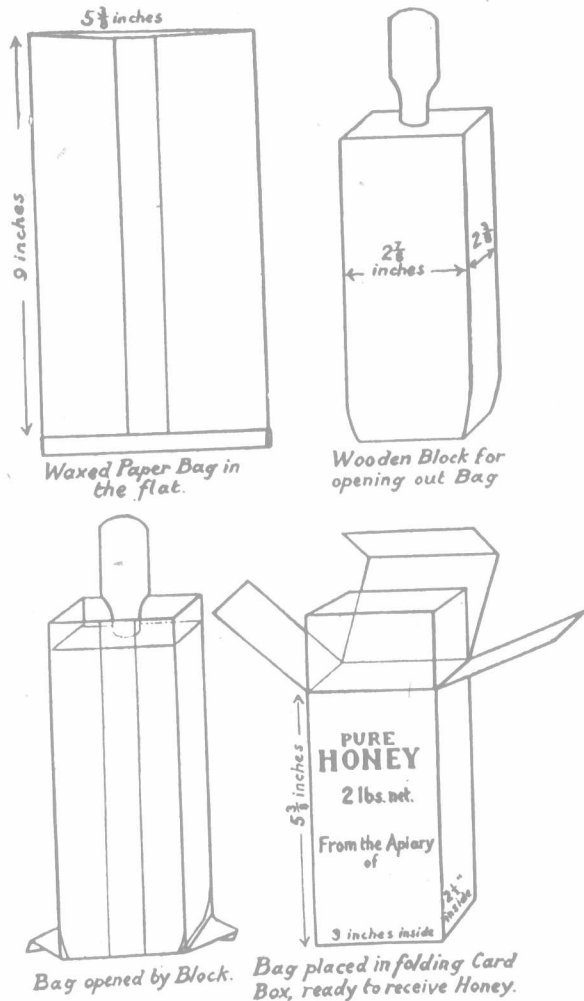
Beans are the most important food for which time for planting still remains, with the possible exception of potatoes. Immense quantities of beans are urgently needed for the army supplies and they constitute one of the most concentrated and valuable food productions for general consumption. The present food situation demands that the largest possible area be devoted to beans this year.

According to the reports of the Census Branch the area devoted to beans in 1915 was 43,310 acres and in 1916, 32,500 acres. This shows a decrease of 6 per cent.

in the area planted in 1915 compared with 1910 and a decrease of 25 per cent. in 1916 compared with the previous season. Not only was the acreage greatly reduced last year, but owing to unfavorable weather and damage to crop by disease, the yield was reduced to 14 1/2 bushels per acre, giving a total production of beans in Canada of 412,600 bushels compared with 861,327 bushels grown in 1900. Unfavorable conditions for production also prevailed in the United States last season, with the result that there is at present a very serious shortage of beans with extremely high prices.

In order to increase the supply of beans for seed an appeal was made to the principal Canadian canning companies asking them to make available to the trade such stock as they might have suitable for seed. The canning companies readily responded and are now supplying Ontario and Michigan grown, small white pea beans at cost price to the seed trade. It should now be possible for farmers to secure seed beans through the ordinary channels of the seed trade, and although the price is high it is hoped that a special effort will be made to plant the largest possible area. Next year's supply cannot be predicted with certainty but it is likely that quotations will continue high. The canners are now contracting with farmers for their requirements from this year's crop at five dollars per bushel. The production of beans this year will be of real national service and will likely prove one of the most profitable branches of farming.

MARTIN BURRELL, Minister of Agriculture



Is There Danger of Over-Production?

EDITOR "THE FARMER'S ADVOCATE":

Since the launching of the national propaganda for more production there seems to be a feeling among the farming community, that our legislators should go a step further and guarantee a minimum price to the grower in case of over-production. It is doubtful, however, if such a course will be necessary. Economic conditions, now existing and which are likely to continue for some time to come should, at this time, be carefully considered as to their probable bearing upon the matter.

The most conservative reports agree that the present stock of food materials, the world over, is so nearly depleted that the utmost frugality must be observed if the supply is to last until the 1917 crop is harvested, milled and distributed to the consumer. In normal years, large quantities of non-perishable foodstuffs are held over from one season to another and marketed at the owners' convenience. But with the abnormal demand have come high prices which have inspired man to go into every nook and corner of the world and gather in whatever is useful for human food. Take beans for example. Ordinarily, comparatively heavy stocks are carried over from one marketing season to another. This year, not only has the available domestic supply been literally cleaned up, but buyers have gone into every bean producing country, and even far away Manchuria, Korea, Japan and China have no surplus, as usual, with which to supply the trade.

Practically the same may be said of wheat. So urgent has been the European need that England has been forced to buy from the Argentine 200,000 tons of grain and 20,000,000 pounds of flour out of supplies which that country had reserved for home consumption pledging herself to forward a similar amount of wheat from Canada this fall in case it is needed in the South American country. One can better comprehend the world shortage in wheat when it is pointed out that the Southern Hemisphere's contribution is but a little over one-half of what it was for 1915-16. The total yield for the year was 226,269,121 bushels compared with 359,584,957 bushels for the previous year. Consider in this connection that the outlook for the United States crop has been estimated at 62.4 per cent. of a normal crop and that of Canada about the same. This is far below the actual ten-year average of both countries and is certainly significant.

Should the war continue for some time, as seems probable, other usual factors will obtain to augment the food situation. War necessitates the storing of large supplies ready for movement on short notice. The present submarine campaign is destroying thousands of tons in transit, which must be replaced. At the various battle fronts, armies are often compelled to destroy large depots of supplies to prevent them falling into the hands of the enemy. These, and other conditions will assist in creating a demand much larger than normal for the products of our farms.

All must admit that the foregoing are imperative arguments for greater production, but what influence would the signing of a peace treaty have upon prices? Would the farmer who has expended large sums on high-priced seed and labor be exposed to the possibility of heavy losses through a combination of over-production and low prices?

The present outlook and the lessons of history would seem to indicate that the existing high prices of farm products will maintain for a time and gradually assume normal as conditions become adjusted. The report of hunger strikes with which the central powers are having to contend makes it appear that the food situation in these countries is worse than in other lands. Following a declaration of peace their empty larders will have to be filled and they will be in the market for every description of foodstuffs. Naturally this replenishing will draw heavily on the supplies of the world. Then too, peace will find the productive capacity of the belligerent nations greatly impaired. Millions will have been killed or permanently incapacitated for work while much attention will be required in reorganizing the various industrial lines that have suffered a set back while the conflict was on. This deflection of labor and capital will have a tendency to keep down the supply of farm products and at the same time maintain or even increase the demand.

That history is likely to repeat itself under similar circumstances it is fair to assume. In this connection we have an object lesson at our door by going back to the period immediately succeeding the civil war. After the harvest of 1865 had been gathered, Hon. J. R. Dodge, United States Statistician, concluded his report on the agricultural conditions of the country as follows: "A review of the agricultural progress of the year warrants the exhibition on the part of the farmer, of the utmost cheerfulness in the present and hopefulness of the future. Improvement has been rife, and skilled industry has secured its appropriate reward. Some of the crops were never, at any previous period, so large, and never were so high prices received, with one single exception.

It is interesting to note that not until December 1917 has the price of wheat equalled that received for the years of 1865-66-67. In other words, the three years' crop directly following the close of the Civil War gave the farmers a higher average price for wheat than at any other time during the last half century. The same thing applies to corn and oats, and in a greater or less degree to farm products generally. The economic influence thus produced was the result of only a national war, confined to the boundaries of one country. The present struggle is in every essential world-wide.

Elgin Co., Ont. J. HUGH MCKENNEY.

A Scarcity of Implements

EDITOR "THE FARMER'S ADVOCATE":

The Canadian Bank of Commerce issues a Monthly Commercial Letter, dealing with financial, mercantile and agricultural matters, in which much valuable information is given. The May number contains this statement:

"The difficulty in meeting the demand for agricultural implements in the Western Provinces is largely due to the scarcity of the raw materials required by the manufacturers, and is reflected in the empty condition of the warehouses from which the western farmer usually draws his supplies. The shortage is felt most keenly by the new settlers from the United States, who not only are desirous of making the best of the present season, but have ambitious plans for next year."

A scarcity of agricultural implements, and the country threatened with a food famine is a sad reflection on the whole Parliament. Implements are scarce because of the excessive and unjust taxation on them. During the ten months ending January 31st, the farmers of Canada imported, mostly from the United States, agricultural implements and machinery, to the value of four and a half million dollars, on which they paid duty and war tax to the amount of one and a quarter million dollars.

The taxation which the protected combines exacted from the farmers on implements and machinery made at home was probably three times as much, making a total of five million dollars taxation on food producing requirements. Of the five million the country got one-quarter and the millionaire autocrats three-quarters. Increased food production is an absolute necessity in order to win the war, but until our Parliament free themselves from the grip of the combines which now control legislation no great increase need be expected.

Lambton Co., Ont. H. J. PETTYPIECE.



# Toronto, Montreal, Buffalo, and Other Leading Markets

Week Ending May 24

## RECEIPTS AND MARKET TOPS

Dominion Department of Agriculture Live Stock Branch, Markets Intelligence Division

	CATTLE						CALVES					
	Receipts		Top Price Good Steers (1,000-1,200)				Receipts		Top Price Good Calves			
	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending	
Toronto (Union Stock Yards)	4,459	5,657	5,507	\$12.00	\$ 9.65	\$12.25	1,110	1,219	1,530	\$14.50	\$11.50	\$14.00
Montreal (Pt. St. Charles)	675	683	626	12.50	9.75	12.75	1,479	1,200	2,222	13.25	9.50	12.00
Montreal (East End)	458	498	699	12.50	9.75	12.75	1,140	1,858	1,950	13.25	9.50	12.00
Winnipeg	1,845	1,093	1,670	11.50	8.75	11.50	154	252	92	13.50	10.00	13.00
Calgary		740	890		8.00	10.00	5				8.00	9.25

	HOGS						SHEEP					
	Receipts		Top Price Selects				Receipts		Top Price Good Lambs			
	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending	
Toronto (Union Stock Yards)	8,771	8,376	8,809	\$17.50	\$10.90	\$17.50	225	595	376	\$16.75	\$13.50	\$17.00
Montreal (Pt. St. Charles)	1,535	1,459	1,421	18.15	11.75	17.75	159	257	140		12.50	15.50
Montreal (East End)	554	945	919	18.15	11.75	17.75	69	391	149		12.50	15.50
Winnipeg	4,828	4,669	4,812	16.25	10.50	16.25	27	75	2	10.50	9.00	
Calgary		4,655	2,468		10.00	15.75	300				10.00	13.50

### Market Comments.

#### Toronto (Union Stock Yards):

On account of liberal supplies of good cattle, which were available during the previous two weeks, the thirty-three hundred odd head of well finished cattle offered for sale on Monday, proved too many for trade requirements. The result was that trading was very slow and buyers took the cattle at almost their own prices, and over one thousand head remained unsold at the close of the market, including many loads of choice cattle. Lighter shipments followed during the course of the week, and while the market was very dull on Tuesday, a better feeling developed on Wednesday. On Thursday, everything was sold out early at prices slightly in advance of those prevailing earlier in the week.

Choice heavy cattle were in slow demand on Monday at prices 35 to 50 cents lower than those of the previous week, and while several sales were made at \$12.25 per hundred for small lots, the top price recorded during the week for a straight load in this class was \$12.10 with most of the sales made at from \$11.75 to \$12.00. Heavy butcher steers were also lower by 25 to 50 cents, with the bulk selling from \$11.00 to \$11.75 per hundred. Light butcher steers and heifers held up better than the other grades with 25 to 40 cents being the extent of the cut in this class. During the week, several small lots of choice baby beef sold from \$12.00 to \$13.00 per hundred, but for straight loads, \$11.75 was about the top price paid, with the bulk selling between \$10.75 and \$11.50. Bulls and cows suffered in sympathy with other classes, the top price for choice bulls being \$11.00 and for cows \$10.75 per hundred; only a few sales were made at these prices. Stockers and feeders were lower by 35 to 50 cents with very little demand prevailing during the week.

Calves sold well throughout the week with the bulk of the best veal selling from \$12.50 to \$13.50 per hundred, and toward the close a few extra choice lots brought \$14.00 and even \$15.00 per hundred.

The lamb and sheep market developed an easier feeling and prices weakened from 50 cents to \$1.00 per hundred during the course of the week, \$16.00 being the top price at the close for yearling lambs, and \$13.00 for best sheep, with clipped lots selling at \$2.00 to \$3.00 below these quotations. The shipment of spring lambs has ceased and a further decline will probably follow in this department.

Hogs sold at \$17.40 per hundred on Monday and a sharp decline of 35 to 40 cents followed on Tuesday, with the bulk of the selects selling at \$17.00 to \$17.10 per hundred for fed and watered stock. Sales were made at this level during the remainder of the week, but the demand was none too keen, and a further reduction may follow, although with hogs selling at \$17.00 per hundred in Buffalo this scarcely seems probable.

Of the sales of live stock made during the week ending May 17th Canadian packers bought 896 calves, 96 bulls, 219 heavy steers, 3,710 butcher cattle, 8,159 hogs and 223 sheep and lambs. Local butchers purchased 538 calves, 611 butcher cattle, 422 hogs, and 121 sheep and lambs. Shipments to country points were, 178 calves, 73 milch cows, 495

CLASSIFICATION	No.	TORONTO (Union Stock Yards)			MONTREAL (Pt. St. Charles)			
		Avg. Price	Price Range	Top Price	Avg. Price	Price Range	Top Price	
STEERS								
Heavy finished	276	\$11.85	\$11.60-\$12.10	\$12.25	10	\$12.35	\$12.25-\$13.00	\$13.00
STEERS								
Good	961	11.40	11.00-11.75	12.00	122	12.01	11.75-12.25	12.50
1,000-1,200 common	23	10.25	10.00-10.75	11.00	46	10.75	10.50-11.00	11.40
STEERS								
good	916	11.03	10.75-11.50	11.75	52	11.75	11.50-12.00	12.15
700-1,000 common	259	9.61	9.25-10.25	10.75	74	10.47	9.25-10.75	10.90
HEIFERS								
good	502	11.12	11.00-11.50	12.00	37	11.61	11.40-11.85	12.00
fair	188	9.99	9.75-10.25	10.50	21	10.45	10.25-10.60	10.70
common	44	9.12	8.50-9.75	10.00	21	9.57	9.25-9.75	9.90
COWS								
good	262	9.71	9.25-10.25	10.75	22	10.50	10.25-10.75	11.15
fair	501	7.87	7.50-8.50	9.00	104	9.13	8.00-9.75	9.75
BULLS								
good	84	10.01	9.50-10.50	11.00	5	11.00	10.25-12.00	12.00
common	37	8.77	8.00-9.25	10.00	68	9.00	6.25-10.00	10.00
CANNERS & CUTTERS	89	6.00	5.75-6.25	6.25	62	6.26	5.75-7.50	7.50
OXEN	4	10.15	9.50-10.75	10.75	4	10.15	9.50-10.75	10.75
CALVES	1,110	11.97	11.00-13.50	14.50	1,479	11.01	7.50-13.25	13.25
STOCKERS								
good	159	9.02	8.50-9.25	9.50				
450-800 fair	101	8.09	7.50-8.50	9.00				
FEEDERS								
good	53	10.23	9.75-10.40	10.50				
800-1,100 fair	4	9.75	9.00-10.00	10.00				
HOGS								
selects	8,234	17.13	17.00-17.50	17.50	1,292	17.96	17.75-18.10	18.15
heavies	44	17.00	17.00-17.40	17.40	32	17.67	17.50-17.75	17.75
lights	221	16.02	15.50-16.40	16.40	147	17.75	17.50-17.90	17.90
stags	11	12.11	12.00-12.40	12.40	3	14.00	12.00-15.00	15.00
sows	261	13.60	13.50-13.90	13.90	61	15.75	15.50-16.00	16.00
SHEEP								
heavy	7	10.29	9.50-11.50	12.00	27	10.7	10.50-11.00	11.00
light	106	12.19	11.00-13.50	14.00	4	12.00	11.00-12.50	12.50
common	25	7.75	6.50-8.50	9.00	79	9.75	9.50-10.00	10.00
LAMBS								
good	69	15.88	14.50-16.75	16.75				
common	18	12.83	11.00-13.50	14.00	49	7.00	6.00-8.00	8.00

stockers, 172 feeders and 178 hogs. There were no shipments made to the United States.

The total receipts at the Union Stock Yards from January 1st to May 17th inclusive were: 86,431 cattle, 20,787 calves, 11,912 sheep, 201,114 hogs, compared with 95,601 cattle, 18,372 calves, 12,205 sheep, 189,417 hogs, received during the corresponding period of 1916.

#### Montreal,

Cattle of all grades met with a good demand all week at prices slightly above last week's quotations. The supply of well-finished butcher cattle throughout Eastern Ontario and Quebec, seems to be well cleaned up and receipts of these are very light. 156 cattle from Winnipeg were disposed of at East End market and 110 head from West Toronto, at the Pt. Charles market during the week. These receipts constituted the bulk of the better grades on these markets; consequently, it looks as if prices for finished cattle during the next month or two will depend even more than usual on the prices ruling on the other markets in the Dominion. Most loads of good heavy butcher cattle sold at from \$11.75 to \$12.50 per hundred pounds. One steer of 1,410 lbs. weight brought \$13.00 per hundred and several loads of Western cattle sold from \$12.00 to \$12.50 per hundred. Good light weight cattle were particularly in demand and several lots

averaging from 900 to 1,000 lbs. brought from \$11.75 to \$12.00, but they were well finished. Butcher cows have sold well all week, ranging from \$7.75 to \$11.15 per hundred with good cows bringing up to \$10.50 and a few choice oxen up to \$11.15. Butcher bulls sold all the way from \$8.00 to \$12.00 per hundred.

Receipts of calves dropped off nearly 1,500 head and prices were strong as a consequence. The best stock sold up to \$13.25 per hundred with the bulk selling from \$10.50 to \$12.00.

Sheep and lambs continue to be scarce. Prices for sheep were slightly stronger during the week, but light spring lambs were not in demand, these selling from \$6.00 to \$8.00 each, with a few heavier ones up to \$10.00 each.

The hog market opened strong, with selects selling up to \$18.40 per hundred, off cars, and \$18.15, fed and watered. On Tuesday a decided shortage developed at the East End market and a few butchers were reported to have paid \$19.00 per hundred for a few head to supply immediate needs. However, this was only a local condition and may not occur again. An easier feeling developed later in the week, the bulk selling at from \$18.00 to \$18.25 per hundred off cars, and \$17.75 to \$18.00 fed and watered, with sows \$2.00 less than these prices.

Pt. St. Charles.—Of the disposition from the Pt. St. Charles yards for the

week ending May 17th, Canadian packing houses and local butchers purchased as follows: calves 1941, canners and cutters 95, bulls 35, heavy steers 19, butcher cattle 426, hogs 1421, sheep 106, lambs 34, Canadian shipments consisted of 50 milch cows, while shipments to United States' points were 281 calves.

The total receipts of live stock at the yards from January 1st to May 17th inclusive were: 13,891 cattle, 26,298 calves, 5,000 sheep, and 25,831 hogs, compared with 15,179 cattle, 13,567 calves, 4,734 sheep, and 44,993 swine, for the corresponding period of 1916.

EAST END.—Of the disposition of live stock from the East End market for the week ending May 17th, Canadian packers and butchers (local) purchased, 1,809 calves, 655 butcher cattle, 919 hogs, and 149 sheep. Shipments to outside points were: 2 calves, and 44 butcher cattle, while shipments to United States' points consisted of 139 calves.

The receipts at the yards from January 1st to May 17th inclusive were: 13,219 cattle, 20,908 calves, 5,180 sheep, and 17,016 hogs, compared with 11,578 cattle, 17,998 calves, 5,130 sheep, and 22,564 hogs, for the corresponding period of 1916.

#### Winnipeg.

Quotations on all classes of butcher cattle held steady throughout the week, with sales amounting to about nineteen hundred head. Medium quality butcher

steers were closed in finished previous while but strength, both class Choice co The ho sales of which pri nesday wi The to Union St January 37,014 ca 106,788 cattle, 2 141,376 period of

Cattle a quarter between among r for the v and heife vance, w had on fa sold abo classes v springer while a l in the st was str cattle, prices o stock an very ba the gro steers s quite a \$13.50, r ranged lings br on up t cows sol being q are sell cows an each. ing ther week, a measur week to head fo head fo Quota Shipm tives, \$ to \$12 coarse best h fair to and pla Butc to \$11 best h good, \$ \$9.25 to \$12 Cow \$11 to \$10 to \$8.25 to \$8; best h butch fair, \$ \$7.25; Bul butch Stoc \$8.50 \$8.25; to god Mil in sm \$75 to Hog Buffa tinue broug weigh the p but c day v trans than as to stead from \$15, recei with and ago. Sh show were gran 17.65



steers were strong during the period and closed in that condition on Thursday. Finished steers remained steady with the previous week at a top price of \$11.50, while butcher heifers showed considerable strength, as also did medium butcher cows both classes closing unchanged in tone. Choice cows held steady all week.

The hog market opened weak with sales of selects at \$16.25 per hundred, which price was maintained until Wednesday when packers bid \$15.85.

The total live stock receipts at the Union Stock yards, St. Boniface, from January 1st, to May 17th inclusive were: 37,014 cattle, 2,004 calves, 583 sheep, 106,788 hogs, compared with 18,932 cattle, 2,595 calves, 989 sheep, and 141,376 hogs, for the corresponding period of 1916.

**Buffalo.**

Cattle.—Shipping steers sold a dime to a quarter higher at Buffalo last week, with between forty-five and fifty loads offered among receipts which were rather liberal for the week. Choice butchering steers and heifers showed an equally strong advance, while a good strong market was had on fat cows, excepting canners, which sold about a quarter lower. Bulls of all classes were firm sale, milk cows and springers continued to show a higher level, while a bad market was had on anything in the stocker and feeder line. Demand was strong for all classes of good, fat cattle, and sellers predicted stronger prices on these. The weak market on stock and feeding cattle was caused by the very backward weather, which delays the growth of grass. Best shipping steers sold up to \$13.25 to \$13.50, quite a few loads running from \$13 to \$13.50, while best handy butchering steers ranged from \$11.75 to \$12.25, with yearlings bringing from \$11, for a fairish kind on up to \$12.25 for choice grades. Fat cows sold up to \$10.75, with fancy heifers being quoted above eleven cents. Bulls are selling up to eleven cents and milk cows and springers up to \$125 to \$150 each. Market was active, notwithstanding there are several Jewish holidays next week, and this reduces the demand in a measure on kosher beef. Receipts for the week totaled 4,225 head, as against 4,100 head for the preceding week, and 4,325 head for the corresponding week last year.

Quotations: Shipping Steers.—Choice to prime natives, \$13 to \$13.50; fair to good, \$12.25 to \$12.75; plain, \$11 to \$11.75; very coarse and common, \$10.25 to \$10.75; best heavy Canadians, \$12 to \$12.50; fair to good, \$11.25 to \$11.75; common and plain, \$10 to \$10.50.

Butchering Steers.—Choice heavy, \$11 to \$11.75; fair to good, \$10 to \$10.50; best handy, \$11.50 to \$12.25; fair to good, \$10.25 to \$10.50; light and common, \$9.25 to \$9.50; yearlings, prime, \$11.50 to \$12; fair to good, \$10.25 to \$11.

Cows and Heifers.—Best heavy heifers, \$11 to \$11.50; best butchering heifers, \$10 to \$10.50; fair butchering heifers, \$8.25 to \$9.75; light and common, \$7.50 to \$8; very fancy fat cows, \$10.25 to \$11; best heavy fat cows, \$9.50 to \$9.75; good butchering cows, \$8.50 to \$9; medium to fair, \$7.75 to \$8.25; cutters, \$6.75 to \$7.25; canners, \$6 to \$6.50.

Bulls.—Best heavy, \$10.25 to \$11; good butchering, \$9.50 to \$10. Stockers and Feeders.—Best feeders, \$8.50 to \$9.25; common to fair, \$7.75 to \$8.25; best stockers, \$8 to \$8.75; common to good, \$6 to \$7.75.

Milchers and Springers.—Good to best, in small lots, \$90 to \$115; in carloads, \$75 to \$85. Hogs.—Prices held to a high level at Buffalo again last week. Good hogs continue to run scarce, and a few here brought a big premium over the lighter weight grades. On four different days of the past week good hogs sold up to \$17, but only a few scattering sales on each day were made above \$16.75, and other transactions on hogs that weighed better than 150 pounds ranged on down to \$16.60 as to weight and quality. Pigs sold steady all week, the good ones bringing from \$14.50 to \$14.75, roughs sold up to \$15, and stags \$13.50 down. Last week receipts were 16,000 head, as compared with 19,482 head for the week before, and 30,000 head for the same week a year ago.

Sheep and Lambs.—While receipts showed a falling off last week, offerings were larger than generally expected, grand total being 10,500 head, as against 17,655 head for the week before, and

23,800 head for the same week a year ago. As a result of the decrease in the supply prices struck the highest level in the history of the local yards. On Monday a load of wool lambs that lacked some finish at that sold up to \$20 per cwt.; shorn lambs sold up to \$16.75, and buyers paid as high as \$15.50 for shorn culls. A load of Mexican yearling wethers reached the \$16 mark, a load of fancy wether sheep scored \$14.50, and ewes went from \$13 down.

Calves.—The high day for calves last week was on Monday, when bulk sold at \$15.50, and culls brought as high as \$13.50. After Monday prices were on the decline, and before the week was out, or on Friday, buyers got the bulk of the top veals down to \$14.25. Culls the latter part of the week sold from \$13 down. For the entire week receipts were 4,700 head, being against 4,671 head for the week previous, and 4,350 head for the same week a year ago.

**Toronto Produce.**

Receipts of live stock at the Union Stock Yards, West Toronto, Monday, May 28, were 102 cars, 1,807 cattle, 80 calves, 1,029 hogs, and 102 sheep and lambs. Strong, active market; cattle 25 to 35c. higher. Sheep and lambs steady. Calves 50c. higher. Hogs \$17 dollars fed. Packers quoted hogs 50c. lower balance of week.

**Breadstuffs.**

Wheat.—Ontario, according to freights, No. 2 winter, per car lot, \$2.75 to \$2.80; No. 3 winter, per lot, \$2.73 to \$2.78; Manitoba wheat (track, bay ports)—No. official quotations.

Oats.—Manitoba, (track, bay ports), no official quotations. Ontario oats, according to freights outside, No. 2, white, 75c. to 77c., nominal; No. 3, 74c. to 76c., nominal.

Peas, according to freights outside, No. 2, nominal. Barley, according to freights outside, nominal.

Rye, according to freights outside, No. 2, \$2 to \$2.05, nominal.

American corn (track, Toronto), No. 3 yellow, \$1.72½, nominal, subject to embargo.

Flour.—Ontario, winter, \$12.25 to \$12.35, in bags, track, Toronto. Manitoba flour, first patents, in jute bags, \$14.50; second patents, \$14; strong bakers', \$13.60.

**Hay and Millfeed.**

Hay, extra No. 2, per ton, \$12.50 to \$13.50; mixed, per ton, \$9 to \$11.50. Straw.—Car lots, per ton, \$9.

Bran.—Per ton, \$42; shorts, \$45; middlings, per ton, \$48; feed flour, per bag, \$3 to \$3.10.

**Hides and Skins.**

City hides, flat, 22c.; country hides, cured, 22c.; country hides, part cured, 18c.; country hides, green, 17½c.; calf skins, 32c.; kip skins, 27c.; sheep skins, city, \$2.50 to \$3.50; sheep skins, country, \$1.50 to \$3; lamb skins, spring, per lb., 30c. to 60c. Horse hair, per lb., 42c.; 30c. to 60c. Horse hair, per lb., 42c.; 30c. to 60c. Wool, washed, 45c. to 50c. per lb.; wool, rejections, 35c. to 38c. per lb.; wool, unwashed, 37c. to 40c. per lb. Tallow, No. 1 cake, per lb., 11c. to 12c.; tallow, solids, 9c. to 10c. per lb.

**Country Produce.**

Butter.—Butter remained stationary in price on the wholesales during the past week. Creamery, fresh-made pound squares, selling at 43c. to 45c. per lb.; creamery, solid, 40c. to 41c. per lb.; separator dairy, 33c. to 37c. per lb.; separator dairy, 40c. to 42c. per lb.

Eggs.—Eggs again advanced in price on the wholesales during the past week, selling at 43c. to 44c. per dozen.

Beans.—The dried bean market is extremely high, prime whites now selling at \$8.75 per bushel, while hand-picked at \$9.50 per bushel. Lima beans bring \$9.50 per bushel. Lima beans having advanced to 17c. and 18c. per lb.

Poultry.—Live-weight prices: spring chickens, 45c. per lb.; last year's chickens, 42c. per lb.; fowl under 4 lbs., 18c.; fowl 4 to 5 lbs., 22c. per lb.; fowl 5 lbs. and over, 25c. per lb.; squabs, dressed, \$3.50 to \$4 per dozen.

Cheese.—June, per lb., 28c.; twins, 28½c. per lb.; new, per lb., 27c.

Honey.—Six-lb. tins selling at 12c. per lb.; glass jars, \$1 to \$2 per dozen; combs, \$2.50 to \$3 per dozen.

**Wholesale Fruits and Vegetables.**

California cherries continued to arrive

in small lots, selling at \$3.50 per box (about 8 lbs.).

Grapefruit shipments are declining; the price remaining about stationary; Floridas selling at \$4.50 to \$5.50 per case, and Cuban at \$4 per case.

Lemon shipments have been very light; Palermos selling at \$3.75 per box.

Oranges firmed slightly in price; Navels selling at \$3 to \$3.50 per case.

Pineapples.—Owing to labor trouble in Cuba, shipments from there have materially declined, causing the price to firm, and they are now selling at \$3 to \$3.25 per case; the Porto Ricos selling at \$3.50 per case.

Rhubarb was almost unsalable during the week; the outdoor variety selling at 30c. to 40c. per dozen bunches, while the hot-house brought 50c. per dozen.

Strawberries arrived freely and were generally of good to choice quality, declining to 18c. to 20c. per box.

Tomatoes kept quite firm in price. The Florida outside grown selling at \$3.75 to \$4.50 per six-basket crate; while home-grown, hot-house brought 30c. per lb. for No. 1 grade, and 22c. per lb. for No. 2 grade.

Three cars of watermelons arrived during the week. This is the first time in the history of the fruit trade here that watermelons have come in before the 24th of May. The quality was quite good and they sold at 75c. to \$1 each.

Asparagus was shipped in quite heavily and greatly exceeded the demand; the price dropping to \$1 to \$1.50 per 11-qt. basket.

New beets of splendid quality were received; selling at \$2.25 per hamper.

Beans.—The dried variety still command high prices, selling at \$8.75 to \$9.50 per bushel; Limas at 17c. to 18c. per lb., while the new green and wax varieties are coming in more freely and selling at \$3.50, \$3.75 and \$4 per hamper.

New carrots were of much better quality, selling at \$2 to \$2.25 per hamper.

Florida celery came back again and sold at \$3 to \$3.25 per crate (green variety).

Cucumbers firmed slightly, the Leamington hot-house selling at \$1.25 to \$1.50 and \$1.75 to \$2 per 11-qt. basket; while the imported, outside-grown sold at \$3 to \$3.25 per hamper.

Onions.—Texas Bermudas were the only ones offered, remaining stationary in price at \$3 to \$3.50 per crate.

The potato market has been quite firm with lighter receipts and a good demand. The New Brunswick Delawares selling at \$4.75 per bag; Ontarios at \$4.25 to \$4.50 per bag; Westerns at \$4.25 per bag.

New potatoes remained unchanged in price at \$3.25 to \$3.50 per hamper.

Spinach shipments also increased, selling at \$1.25 to \$1.50 per case, and \$4.75 to \$5.50 per bbl.

**Montreal Produce.**

Poultry.—Prices were nominally as follows:—turkeys 26c. to 30c. per lb.; chickens 19c. to 25c.; fowl and geese 18c. to 23c. per lb.

Dressed Hogs.—The market for dressed hogs was stronger than ever last week and prices were at new high records. Fresh-killed, abattoir-dressed stock sold at 24½c. to 25c. per lb.

Potatoes.—The market for potatoes held quite firm and prices were fractionally higher, if anything. Quite a lot of potatoes are being planted but it is suspected that considerable quantities among suburbanites will never be harvested. Quebec white stock held at \$4 per bag of 80 lbs., ex-store, while reds are \$3.75 to \$3.85.

Maple Syrup and Honey.—The market for maple syrup was quite firm and very choice stock was quoted as high as \$2 per gallon of 13 lbs. From this, the price ranged down to \$1.60 for good syrup, with lower grades at slightly less. Sugar was 15c. per lb. Honey was unchanged at 15c. for white comb; 12c. for white extracted and brown comb; 11c. for brown extracted and 10c. for buckwheat honey.

Eggs.—The market was very firm and it is understood that there is a fair demand for export account, particularly to England, although the difficulty of obtaining freights will naturally militate against this business. Fresh gathered eggs were quoted at 44c. to 45c. per doz., being the same as the previous week.

Butter.—Winter made butter was practically out of the market. New milk creamery was firmly held and the quality was improved so that prices were rather higher than the previous week. For finest new milk creamery the quota-

Every farmer who desires to do business with **The Molsons Bank** is always assured of a courteous reception by local managers. And their object is to assist the farmer, in a legitimate way, to make his land and stock more productive.

tion was 41¼c. to 42c., fine quality being ¼c. to ½c. less. Dairies ranged from 34c. to 37c., with Manitoba dairy at 31c. to 32c. Even at these prices demand was fair.

Cheese.—Receipts were on the light side, the season being evidently not so favorable. Prices were very firm and were quoted higher than the previous week. Sales took place at 24c. to 24½c. per lb.

Grain.—The market for wheat continued to fluctuate widely but the price was not far from that of the previous week, although Manitoba feed wheat sold at \$1.50 per bushel, ex-track. No. 3 American yellow corn sold at \$1.76 per bushel, and Manitoba No. 4 barley was quoted at \$1.36. Oats sold at 88½c. for No. 2 Canadian Western; 85½c. for No. 3 and extra No. 1 feed; 84½c. for No. 1 feed and 83½c. for No. 2 feed, per bushel, ex-store.

Flour.—Prices were steady as compared with a week ago. Manitoba spring wheat first patent flour was quoted at \$14.60 per barrel, in bags, seconds being \$14.10 and strong bakers' \$13.90. Ontario winter wheat 90 per cent. patent flour was lower than a week ago, being now down to \$15 to \$15.50 per barrel, in wood and \$7.25 to \$7.40 per bag.

Millfeed.—No change took place in this market during the week. There is a good demand for everything available. Quotations on bran were \$40 per ton; shorts being \$46; middlings \$48 to \$52; moultrie \$52 to \$53 and pure grain moultrie \$55 to \$57 per ton, in bags.

Hay.—The market for hay has been practically unchanged for the past six months and was still unaltered, being quoted at \$13 to \$13.50 per ton, for baled hay in car lots, ex-track No. 2 hay; \$11.50 to \$12 for No. 3 hay; \$10.50 to \$11 for clover mixture.

**Chicago.**

Cattle.—Beeves, \$9.40 to \$13.60; stockers and feeders, \$7.40 to \$10.30; cows and heifers, \$6.50 to \$11.40; calves, \$10.50 to \$15.

Hogs.—Light, \$14.65 to \$15.85; mixed, \$15.38 to \$16; heavy, \$15.15 to \$16.10 rough, \$15.25 to \$15.40; pigs, \$10.50 to \$14.50.

Sheep.—Lambs, native, \$13 to \$17.25.

**Cheese Markets.**

St. Hyacinthe, Que., 22c.; London, bid 21c.—no sales; Belleville, 20½c.; Danville, Que., no bids; Montreal, finest westerners, 23c. to 23½c.; finest easterns, 22c. to 22½c.; New York, specials, 25c.; average run, 24½c. to 24¾c.

An error in connection with the age of two Shorthorn bulls advertised in recent issues by J. T. Gibson, Denfield, Ontario, has been corrected in this number. The bulls in mention were calved in June and July, from which fact any interested party will be able to compute their respective ages. See the advertisement in this issue.

**Sale Dates.**

June 14.—New England Ayrshire Club Consignment Sale, Springfield, Mass.; Ayrshires.

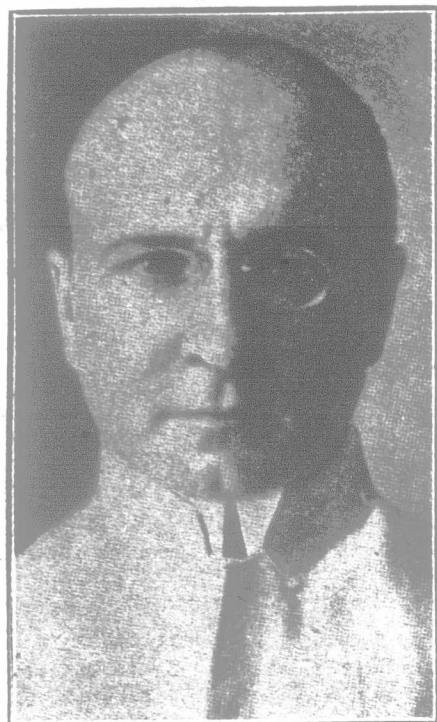
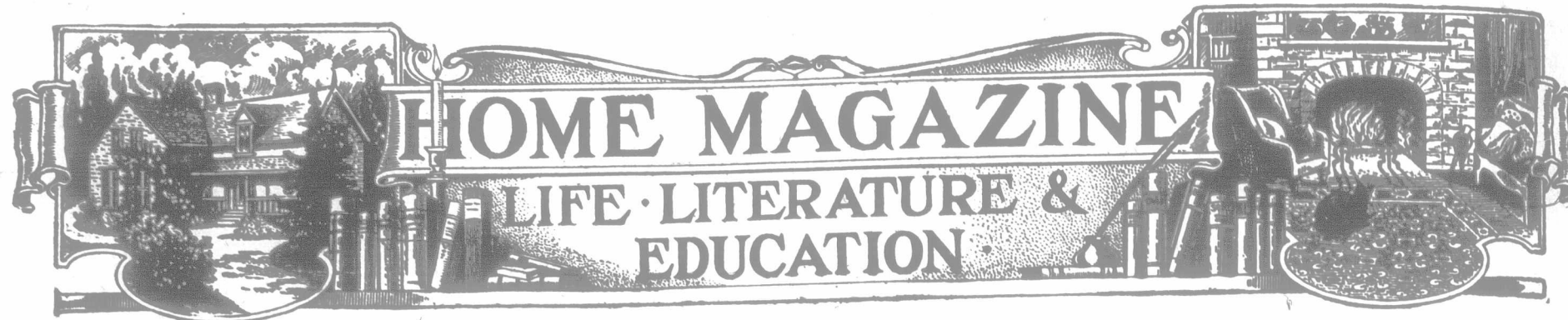
June 14.—W. A. McElroy, Chester-ville, Ont.; Holsteins.

June 21.—John Thornton & Co., Wrest Park, Ampthill, Bedfordshire, England; Shorthorns.

June 28.—J. M. Gardhouse and J. A. Watt, Elora, Ont.; Shorthorns.

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Dr. Alexis Carrel.

### Any Mother to Any Son.

So, lay him down to rest,  
His hard fight won;  
Nothing can harm him now,  
Earth's course is run.

For when he reached his bourne,  
Drew his last breath,  
Life claimed him, so that he  
Never knew Death.

God stretched His mighty arm  
Out of His heaven,  
Took this tried child of His,  
Raised him up, shriven;

Plunged him in Lethe's stream,  
Purging away  
War's bitter memories  
In the cool spray.

Stripped off earth's swaddling bands,  
Setting him free,  
So that he might fulfill  
His destiny.

How dare I then repine?  
Calm and dry eyed  
Through my allotted span  
Shall I abide.

Till on my waiting ear  
Sweetly shall fall,  
Piercing Death's blurring mists,  
Life's trumpet call.  
Constance Green, in London Chronicle.

### A Saver of Human Lives.

There are two outstanding savers of human lives in the world at the present time. One is Guglielmo Marconi, inventor of wireless telegraphy, whose invention has been the means of snatching so many from a watery grave; and the other is Dr. Alexis Carrel, of whom much is being heard of late.

Dr. Carrel first won fame in research work in the Rockefeller Institute, New York. After the war broke out he entered the French service, and ever since, in a hospital behind the lines, has been saving countless lives by his invention for the antiseptic treatment of wounds. In this conquest, however, he has to share honors with Dr. H. D. Dakin, of England, for it is a solution compounded by the latter that is used in the machine, which is so devised that it carries the solution to every part of the wound, no matter how deep or ramifying.

It is well known that most deaths of the past because of wounds were due to septic poisoning. Wherever the Carrel-

Dakin treatment is used the results are said to be truly marvellous, particularly when begun as soon as possible, the cure being rapid and the scar comparatively inconspicuous.

## Among the Books

### "My Lady of The Chinese Courtyard."

The following extract has been taken from a beautifully illustrated volume, "My Lady of the Chinese Courtyard," by Elizabeth Cooper, a book written in the form of a series of letters showing China as she is to-day, in a state of transition. The book is published by the Frederick A. Stokes Co., New York. The first letter is supposed to be from the pen of Kwei-li, a Chinese woman who has gone down to Nankin.]

My Dear Mother:

I have had a most interesting day, and I hasten to tell thee all about it. I have just returned from opening a home for motherless children, given by a mission of a foreign land. It is a beautiful thought, and a kindly one, to give a home to these poor waifs of an alien land, all in the name of their Saviour of the world. I saw for the first time a picture of this Christ, with little children around Him. The message I read within His eyes seemed to be: "I will be father and mother and playmate to all little children." The words of the Japanese poet describe Him: "He was caressing them kindly, folding His shining robes round them; lifting the smallest and frailest into His bosom, and holding His staff for the tumblers to clutch. To His long gown clung the infants, smiling in response to His smile, glad in His beautiful compassion."



Chinese Architecture.

Part of the old Empress's summer palace on the hill of "Ten Thousand Ages."

I looked at the picture and at the people around me on the platform, and wondered why in all the Christian world that claims this loving Master there should be such exceeding bitterness between His followers. How can they expect us to believe in this great Teacher when they themselves are doubtful of His message?

If their teaching has not as yet made many converts, the effect has been great in the spread of higher ideals of education, and much of the credit for the progress of our modern life must be given to the mission schools, which, directly or indirectly, have opened new pathways in the field of education for our country, and caused the youth of China to demand

a higher learning throughout the land. This aggressive religion from the West, coupled with the education that seems to go hand in hand with it, is bound to raise the religious plane of China by forcing our dying faiths to reassume higher and higher forms in order to survive.

But I believe that these teachers from the foreign lands should understand better the religions they are so anxious to displace, and instead of always looking for the point of difference or weakness in our faith, should search more anxiously for the common ground, the spark of the true light that may still be blown to flame, finding the altar that may be dedicated afresh to the true God.

Every religion, however imperfect, has something that ought to be held sacred, for there is in all religions a secret yearning after the unknown God. This thought of God "is an elixir made to destroy death in the world, an unending treasure to relieve the poverty of mankind, a balm to allay his sickness, a tree under which may rest all creatures wearied with wanderings over life's pathways. It is a bridge for passing over hard ways, open to all wayfarers, a moon of thought arising to cool the fever of the world's sin, and whatever name the followers may call Him, He is the one True God of all mankind."

Whether we see the Coolie bowing his head before the image of the Lord of Light, the Buddha, or the peasant woman with her paper money alight in the brazier at the feet of Kwan-yin, we ought to feel that the place where he who worships stands, is holy ground. We hear it said that he is worshipping an image, an idol, a thing of stone or wood or clay. It is not so; he is thinking far beyond the statue, he is seeing God. He looks upwards towards the sky and asks what supports that cup of blue. He hears the winds and asks them whence they come and where they go. He rises for his toil at break of day and sees the morning

and from out the pointed towers might have pealed the deep-toned bells caught by every wandering breeze to tell the world that here spoke the Truth of the One Great God. But, instead, what have they done? The followers have each built separately over that portion which was the work of their own Master. The stories have grown narrower and narrower with the years; each bell rings out with its own peculiar tone, and there is no accord or harmony.

We of the East "have sounded depth on depth only to find still deeper depths, unfathomed and profound," and we have learned to say that no sect or religion can claim to be in possession of all the Truth. Let the teacher from other countries learn of our doctrines. Let them learn of Buddha. To one who reads his pure teaching, nothing more beautiful, nothing more high, has been heard in all the world. We admit that, little by little, changes have come, simplicity has been lost, and with every addition something departed from its purity and it became stained. Yet I believe that much of the kindness, much of the gentleness now so marked in Chinese nature, may be traced to the teaching of this great apostle of peace and quietude.

That other great religion, the religion of the Way, has become steeped in superstition and has been made a reproach in all our land. Yet Lao Tze had noble sentiments and lofty thoughts that have helped generations of mankind in many struggles.

Confucius, it is said, presented high ideals without the breath of spirit; his system was for the head and did not feed the heart; yet he taught that, from the highest in the land to the lowest worker in the field, personal virtue, cleanness of heart and hands, is to be held the thing of greatest value. Men are urged to cherish all that is of good in them, to avoid evil living, to cultivate right feeling, and to be true and faithful to their tasks.

We should not value the teaching of our religion "as a miser values his pearls and jade, thinking their value lessened if pearls and jade are found in other parts of the world." But the searcher after the Truth will welcome any true doctrine.

We all are searchers for the Way. Whence do I come; where do I go? In this passage from the unknown to the unknown, this pilgrimage of life, which is the straight path, which the true road—if indeed there be a Way? Such are the questions that all the world is asking. What is the true answer; where may we find it? Whose holy book holds the key that will open wide the door?

All have a hunger of the soul for something beside life's meat and drink; all want a remedy for the sorrow of the world. The Buddhists believe that it can be found in the destruction of desire, by renouncing the world and following the noble path of peace until death shall open the portals of the unknowable, everlasting stillness from which there is no return. The Confucianists say the remedy is found within the world by fulfilling all its duties and leaving to a greater Justice the future and its rewards. The Christians give a whispered message of hope to the lonely soul beating against the bars of the world about him, and say that a life of love and joy and peace is the gift of their great Messenger, and when the years have passed that He stands within an archway to welcome those, His chosen, to a land of bliss where we shall meet all who have loved us and whom we have loved in life, and gaze upon His face.

Which is the Way, which path to God is broad enough for all the world?

KWEI-LI.

In the succeeding chapter Kwei-li tells that she has accepted the Christian religion because it brought to her the deepest satisfaction and peace.



**A Women's Institute Step.**

St. Mary's, May 21, 1917.  
 EDITOR "THE FARMER'S ADVOCATE":  
 At the May meeting of the Women's Institute the following resolution, to be forwarded to Dr. Steele, member for South Perth, was passed unanimously:  
 "We, the members of the St. Mary's branch of the Women's Institute, having declared ourselves willing to do all in our power to increase the food supply of our country, respectfully urge the Government of Canada to immediately prohibit the waste of all grains and other food-stuffs in the manufacture of alcoholic beverages; and further that the Government regulate and determine the price of all food supplies. This we ask as an imperative war measure, the same to remain in force until after the war or until such time as the food crisis is past."  
 It is hoped that every Women's Institute and all other women's organizations will take this matter up and urge it upon the Government. The women feel that they have a right to speak upon this subject as upon them will fall, largely, the task of "making ends meet," and apart from a patriotic and economic standpoint it is only a matter of simple justice to all upon whom will fall the burden of increased production.

M. R. McALPINE, Sec'y.

Setting prices and controlling food is a difficult task for any government in any country, and particularly so in a producing and exporting country like Canada. Price fixing has not been an entire success even in the Old Land where control of consumption has been found to work better. Any governmental control of prices must take into consideration not only farm crops and produce but all things which go into the production of these, including labor, implements, machinery, etc. Moreover, there are so many other things to consider. What about tea, sugar and other products? It would be manifestly unfair to set a fairly low price for wheat and forget to set the price for millfeeds. Yet such was the case in Britain. We must remember always that Canada is a producing country; that Canada produces much more than her people consume. A great deal of the high prices here are due to speculation. Canadian farmers sold 80 per cent. of the country's wheat last fall at around \$1.40 per bushel. Canadian farmers bought their millfeeds at prices set according to the advanced price of wheat, viz., \$2 to \$3 per bushel. It does seem that stopping speculation and dealing in futures would be effectual in this country. Those who are interested further may refer to editorial page issues of May 17 and May 24, also "Things Worth While," page 862. These give "The Farmer's Advocate" views on the subject.

**May.**

Frosty at eight (fires feel good in the springtime),  
 Torrid at twelve, with the sun high on his way,  
 Colder at five, birds all but hushed at sing-time—  
 That is May!

Dappled at dawn, skies overnight were whirling  
 Menace of storm to the murk thick on the bay,  
 Dazzling at noon, clouds over the blue are uncurling—  
 And that is May!

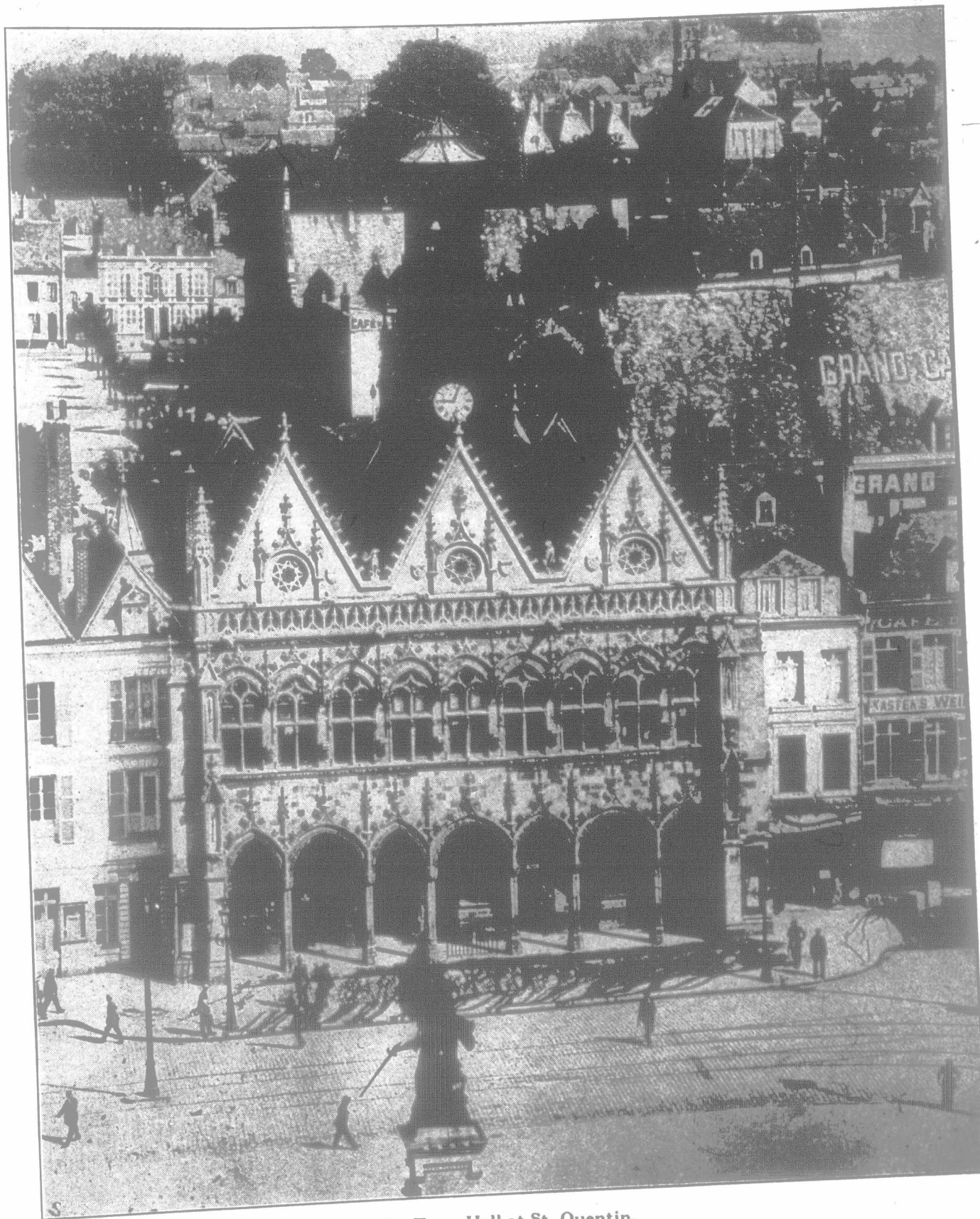
Blossom of plum, crab and apple and cherry  
 Twisted up tight from the wind cold on the spray,  
 Flurries of hail, sun like a silver berry—  
 That is May!

Twilight so long, mothers are near forgetting  
 Bedtime is past, with the children still at play—  
 Nobody minds—where is the sense of fretting?  
 And that is May!

Lovers at dusk arm in arm are repeating  
 Passionate vows each has taught the other to say,  
 Never a thought—Love, like Life, may be fleeting—  
 That is May

Hearts wrung sore, though the earth be bathed in beauty,  
 Tears held back lest brave their hearts woes betray.  
 Smiles through the tears, while sun and rain do their duty—  
 And that is May!

And that is May!  
 SERANUS in the Globe.



The Town Hall at St. Quentin.

About which fighting has raged for the past month.

**Hope's Quiet Hour**

**The Master's Message.**

What I tell you in darkness, that speak ye in light; and what ye hear in the ear, that preach ye upon the housetops. And fear not them which kill the body. S. Matt. 10:27, 28.

"Have you and I to-day stood silent as with Christ, apart from joy or fray if life, to see His face; To look, if but a moment, in its grace, And grow, by brief companionship, mory true,

More nerved to lead, to dare, to do For Him at any cost? Have we to-day Found time, in thought, our hand to lay In His, and thus compare His will with ours, and wear The impress of His wish? Be sure Such contact will endure Throughout the day: will help us walk erect

Through storm and flood; detect Within the hidden life sin's dross, its strain; Revive a thought of love for Him again; Steady the steps which waver; help us see The footpath meant for you and me."

Do you notice the connection of ideas in our text? Those who meet Christ in

secret, and not only pray but listen to His message, can face death fearlessly. It was said of one modern "mystic" that he could not only go to God, but also that God would, and did "come to him, guiding him in all his actions and in his every word and thought and desire. So that this world came to be one with the world to come, with death as a door between, a passing from one room of life to another."

So a young soldier wrote to his mother—one of our readers—"I never go into danger but I pray continually for myself and my companions, and God always seems to go one step ahead of me. If everyone would do this would we not be a mighty host?"

It was the practice of the presence of God that filled prophets and apostles with courage and hope. Elijah's confident words to an angry king explain the position of many: "As the Lord God of Israel liveth, before whom I stand! God goes "one step ahead," as He led His people by a way that they knew not, through a great and terrible wilderness into the Promised Land.

As this awful conflict goes on we may lose our faith and hope and peace, if we look only at the things that are seen. We read the newspapers until life seems to be only a mad and hopeless tragedy. Or, perhaps, we try to preserve our own peace by selfishly turning our backs on the strife—as far as that is possible—and going on with our own private business and petty interests as if we

cared nothing for the agony of our fellows.

Our Lord, in the passage before us, had warned His disciples that they should be hated and persecuted of all men, and many should even be put to death by their own nearest relations. Yet He called them to hope on, in spite of everything; and invited them to meet Him in the darkness that He might whisper to them secret messages of power. Then they could go out fearlessly and proclaim His message to others, like the prophets whose great refrain was: "Thus saith the Lord."

"How can you be sure that the unseen Master hears you when you speak? How can you be sure that He speaks to you?"

That is the question dolefully asked by many people. They are not sure of the Living God, and therefore they hastily declare that no one else can be sure of His Presence.

Can anyone find out the secrets of science in that half-hearted, desponding fashion? "I don't know anything about the stars, therefore I think astronomers are only guessing at their conclusions." we are not foolish enough to say that, are we? If we want to learn any science we must devote time, attention and heart to it. If we want to know Christ as our Companion, Friend and Master we must speak to Him and listen to Him. Pilate asked Christ the great question: "What is truth?" and then he turned his back on the Truth and went out to speak to men. He did not wait for an answer—and he did not get one.



We are so busy! We rush through days and weeks and years, not always because we are forced to live at high pressure, but because others are doing it. So we add our bit to the great compelling force of public opinion, and encourage others to rush madly through life in a meaningless way, never looking at the Example set before us, never listening to the still small Voice.

When John the Baptist was murdered his sorrowing disciples went and told Jesus. The way is open still. We don't have to travel many miles to reach Him, as they did. Do we always talk over our troubles with our Friend?

We are privileged to carry some message to the world. We don't know what opportunity may stand in our path to-day. How can we be ready for it unless we have received the orders for the day?

Two weeks ago I sowed some seeds in the garden. While men slept that seed woke up, and now there are rows of young plants as a result of my sowing. I put a few seeds in the ground and God worked His mysterious yearly miracle. So men go through life sowing spiritual seeds quite unconsciously—helping to build up God's kingdom or blocking its progress. The unconscious influence of a life usually effects people more than the words spoken with the intention of influencing others. Thoughts are contagious.

But, if we want to be Christ's witnesses, telling out His messages, we must seek Him often and have many secret conferences with Him.

You say your prayers every day—do you really speak to God and ask Him to teach you His will?

You go to Church regularly—is the service only one of the lips, while the heart and mind are in the home, or the farm or in the office?

You are very busy doing church-work—are you, like Martha, too cumbered with serving to have time to really know the Master you serve?

Perhaps you may be troubled about religion. You talk over your doubts with other friends, you read religious books—do you talk directly to God about your difficulties?

People who write helpful books about religion are simply carrying out the command of our text. What the Master has spoken directly to their own hearts they are telling out to other hungry souls. But the religious book may be a half-way house, and the reader may settle down contentedly to take his religion second-hand. Then it will do harm rather than good. Christ's messengers tell us something of His loveliness, but why should we rest satisfied with their portrait of our King when we may—if we will—see the vision of His Face with the eyes of the soul?

St. Paul said that the Law was a school-master to bring us to Christ. So are the Gospels and the Epistles. So are sermons and books. When St. John the Baptist was told that his disciples were leaving him to follow Jesus, he was filled with joy. What did it matter whether they spoke to him and listened to his teaching if they were listening to his loved Master? His own joy—the joy of the Bridegroom's friend—was to hear the voice of his Lord and to direct others to Him.

Week after week I write this Quiet Hour, praying that those who read it may turn from the printed page to listen to the Master Himself. St. Philip's confident appeal to his friend, Nathanael, as he told him of his great discovery, was "Come and see!"

Those who cultivate the offered friendship of Him, Who is pre-eminently the Son of Man, declare with one voice that He is "Chiefest among ten thousand and altogether lovely." Like any other fellowship this is a growing joy, vital with infinite possibilities.

If you are far from an earthly friend, and neither write to him nor think about him, you will drift apart. If you are satisfied to speak about Christ, and seldom have a real confidential talk with Him, your love for Him will be crowded out by the commonplace of everyday life.

If you want to carry a message from Him that will be refreshing as living water to thirsty souls, you must ask Him to give you that message. Livingstone's life and words were an inspiration to the world. Why? His secret well-spring, which made him fearless in the heart of savage Africa, was revealed when he was found dead beside the

bedside in his hut. "Kneeling at the bedside, with his head buried in his hands upon the pillow, his last words on earth were spoken, not to man but to God."

The ruling passion is said to be strong in death—and by the habits of years we cultivate that ruling passion. When we meet our Master whose fault will it be if we meet as strangers? He is beside us now.

"I come in the little things,  
Saieth the Lord:  
My starry wings  
I do forsake,  
Love's highway of humility to take:  
Meekly I fit my stature to your need.  
In beggar's part  
About your gates I shall not cease to plead—  
As man, to speak with man—  
Till by such art  
I shall achieve My Immemorial Plan,  
Pass the low lintel of the human heart."  
DORA FARNCOMB.

#### For the Needy.

I acknowledge with thanks a gift for the needy from Mrs. J. W. F. This has already gone out to cheer a sick and discouraged woman.

HOPE.



The Notorious Rasputin

Gregory Rasputin, the famous Russian monk, who is said to have been the real power behind the Russian throne, surrounded by a group of admirers at the Imperial Palace at Tsarsko-Selo, where the Czar and Czarina are now imprisoned. Rasputin is said to have possessed peculiar hypnotic power, especially over women. Last winter he was murdered, it is believed by men of high degree in Russia, or through their influence, and probably the murder was the first blood shed in the Russian Revolution. His body was brought to the Imperial Palace, and the Czar and Czarina both attended the funeral, the Czarina clad in heavy mourning. Before the revolution the publication of this photograph in Russia would have meant exile to Siberia—Underwood and Underwood.

### The Ingle Nook.

[Rules for correspondence in this and other Departments: (1) Kindly write on one side of paper only. (2) Always send name and address with communications. If pen name is also given, the real name will not be published. (3) When enclosing a letter to be forwarded to anyone, place it in a stamped envelope ready to be sent on. (4) Allow one month in this Department for answers to questions to appear.]

A few nights ago several hundred people in this city sat in a great hall to see the degrees of B.A., and M.D. conferred upon the graduating classes of 1917. It was a pretty sight—the Faculty in the robes of their various *alma maters*, the students coming up one by one to kneel and arise invested with the insignia of a new dignity,—but perhaps interest centered in the address for the evening which was given by Ven. Archdeacon Cody, of Toronto.

What a pity it is that people can never remember *all* of a speech or lecture, and yet, as our old Psychology lecturer at "Normal" used to tell us for our comfort, *impressions* remain, and so things are by no means lost.

The chief impression which remains with me this morning from Archdeacon Cody's speech, is the idea of "service."

Now there's nothing new about that. One finds it continually and increasingly in the pages of the magazines. It has been the leading thought of the various preachers whom I have heard—and you, too, probably—during the last three years; it has even become the outstanding watchword in the speeches of some of the leading politicians, and when this last takes place there is hope for any

country. I know that there is little faith in politicians generally,—the word politician has almost become a by-word—but this should not be so. I repeat, when politicians begin to talk about service there is hope for the country. Men cannot talk utterly against their convictions. The fact that they have even begun to dwell on this thing shows that a leaven has begun to work, a leaven which will one day make the word itself "service,"—once a sign-manual of degradation—the most glorious word in all the world,—the word that shall stand for the foundation which shall drive from the world forever war and oppression in every form.—For when men everywhere have learned to look upon being of use to others as the greatest thing in all the earth and heavens, to be of service to the Cosmos through being of use to the men and women and children about the one thing worth while in life,—when this conception comes, how can there be still self-seeking, grasping, manipulation of markets and men for private ends, dissensions at home, and abroad,—war?

No: Archdeacon Cody struck no new note when he said that in the days that are to come, and partly through the lessons taught by the war, "service must take the place of self-seeking, persons must come before property, the good of the

Government?—Why, yes, it is just about the greatest thing in the world. Why should it be a thing upon which good men should turn their backs, holding their noses? And how shall it ever improve, unless good, straight men take hold of it and make it go right, "for the greatest good of the greatest number of people"? Talk as we may, Government is the motor which runs the whole machinery of a country. Let it go wrong and the whole country suffers, even the little homes away out in the country, where the lights twinkle far apart of summer nights.—And there is no making it right except by placing fine, unselfish men on every seat in the Houses of Parliament.

I often think of the men who went up to the first Parliament in Canada, a log house somewhere near the Niagara River. Shouldering their muskets to keep off the wolves they trudged through the forests, going up seriously, practically without pay, to do the work of the country. When the business was done they trudged home again, a weary journey, sleeping, perhaps, by the way, when night fell, with a bonfire near by to keep off the wild animals, and an ear tense, even while sleeping, to catch the tread of an approaching enemy. . . . It seems to me that there was more real dignity far, in that going to Parliament, and in that Parliament, than in the blare and fanfare of the present, with outriders and processions, and a House glittering with uniforms and the jewels of ladies in low-necked evening dress. For those men trudging through the forest really served. They did not think of themselves at all; they thought of the country. There was no glitter to distract them. The business of the country was what it should be—serious.

—Oh yes, one knows that abuses creep in, and very soon. One knows about "clergy reserves," and "crown land" abuses, and the "Family Compact," and all that. But one knows, too, that these abuses were foisted upon the land by people from overseas who came with the weaknesses that seem, somehow, to parasitize themselves on advancing civilization (why should they?).—And one knows, too, that there was a Rebellion in 1837, and that, eventually, those particular abuses had to go.

It all comes to this: that we all have to study Government more in the future—we women, too, especially now that we are to have a little say in such things, and that doesn't mean that we must become howling stump orators either; it just means that we shall find it wise to think much as we go about our work, and to read things of Government in part of the time formerly devoted to light stories and fashion articles. I don't think we shall lose; do you? It seems to me that women must even be better mothers and better trainers of children, with the wider vision that must come to them through deeper thinking.

For it is only through seeing that service for the world is the great thing in life, that mothers can bring the children up with unselfish ideals; and when they do this, what hope may there not be for this old world?

And now I want to close with a paragraph from a little book that I read not long ago. It shows, I think, the thought of the thinking boys in the trenches today, the vision that is just beginning to dawn upon the stay-at-home world, and the hope that may make the world of tomorrow a different world from that of today. The paragraph is this:

"After many centuries of material strife, with the object of satisfying the demands of human life, the conviction is forcing itself upon people in all walks of life, that *wealth, ambition, power and possessions do not give us the answer to the eternal, unescapable and insistent question of the way to happiness.*"

We can all help in getting away from false ideas of happiness and building up better, for, as someone has well said: "The world moves along, not only by the gigantic shoves of its hero workers, but by the aggregate tiny pushes of every honest worker."

JUNIA.

#### A Question About H. G. Wells.

Dear Junia.—I am always a very interested reader of the Advocate. I think the editorials, Peter McArthur and Junia are just perfect. I am only a plain country woman, and I want to tell you that most of us have thoughts of our own that we feel we haven't the education to

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# Advance Announcement of New 1917 Bread-Making Contests

## at Rural School Fairs in Ontario



MISS ELSIE BIRD  
First Prize Winner

NORVAL STATION, Ontario.  
Dec. 18th, 1916.  
The Campbell Flour Mills Co., Ltd.,  
Toronto, Ontario.

Dear Sirs,—I received your letter some time ago, and I hope you will pardon me for not writing sooner. I have used many brands of flour made from No. 1 Western Hard Wheat, and I can say with all sincerity that I have used none better than "Cream of the West."

I may say that my daughter made the loaf herself from the setting of the bread to the shaping of the loaf, and I highly recommend "Cream of the West" flour to all who wish to make a No. 1 loaf of bread.

Yours truly,  
(Signed) MRS. THOMAS BIRD.

"We can make lighter and purer bread now than we could before we used this flour."—VIOLET W. KING, Oakville.

"Cream of the West makes lovely, wholesome bread. It is no trouble to get good bread with your flour."—MRS. LEAKE, Cresswell.

"I can bake more bread out of one hundred of Campbell's flour than out of any other flour."—MRS. JOE C. WEATHERY.

The splendid success of the Bread-making Contests held at the Rural School Fairs last year has inspired the Campbell Flour Mills Company to hold a similar contest this fall, when many valuable prizes will be offered for the best loaves of bread baked with

### Cream of the West Flour

the hard wheat flour guaranteed for bread

As a result of the 1916 Bread-making Contest, hundreds of young girls were inspired to do their very utmost to win the prizes, thus learning how to bake bread in the best and most economical way. From hundreds of those taking part in the contest we have received letters of appreciation, showing that the contest was a success and should be repeated.



MISS RENA C. LUNAN  
Second Prize Winner

UNIONVILLE, Ontario.  
Dec. 6th, 1916.  
The Campbell Flour Mills Co., Ltd.,  
Toronto, Ontario.

Dear Sirs,—I had never used your flour until my daughter tried it for the prize offered at the Rural School Fair. She won the first at the school fair and second provincial prize. We just bought a small bag at the time, as we had a supply of bread flour on hand. After the school fair I used the remainder of the flour myself. And I can say I never used any flour I liked as well. It made such bulky loaves; it made lovely white, tasty bread. As soon as my bread flour is done that I have on hand, I am going to try and get some more of it.

Yours truly,  
(Signed) MRS. ARCHIE LUNAN.

### Winners in 1916 Contest

Some time ago we announced the list of provincial winners in the 1916 Bread-making Contest. For the benefit of those who may not have seen the announcement we repeat it here, the names being given in order of merit:—

IN ORDER OF MERIT	PRIZE	NAME
1.	Domestic Science Course	ELsie BIRD, Norval.
2.	Domestic Science Course	RENA C. LUNAN, Unionville R.R. No. 1.
3.	Course in Poultry Raising	LEXIE JAMES, Woodville.
4.	Course in Poultry Raising	RUBY WALKER, Kinburn.

IN ORDER OF MERIT	PRIZE, BOSTON COOKING SCHOOL COOK BOOK	NAME
5.		MARJORIE I. ENNIS, Balderson R.R. No. 1.
6.		LILLIAN O'BRIEN, Indian River R.R. No. 2.
7.		GRACE HILLIKER, Burgessville R.R. No. 1.
8.		ELSIE YRCK, Tavistock.
9.		MERVAL McARTHUR, Kirkfield.
10.		SUSIE JULIAN, Woodbridge R.R. No. 2.
11.		MILDRED P. BROOK, Millbrook R.R. No. 3.
12.		CLARE I. McLEAN, Cresswell.
13.		GRACE KITCHEN, Havelock R.R. No. 2.
14.		PAULINE WOODWARD, Bright R.R. No. 1.
15.		LORETTA MULWALL, Cedarville R.R. No. 1.
16.		BESSIE G. LANE, Gannanque R.R. No. 4.
17.		EDNA V. SMITH, Perth R.R. No. 4.
18.		EDNA McCORQUODALE, Embro R.R. No. 3.
19.		HELEN HAMILTON, Port Elgin.
20.		GLADYS McCAULEY, Cainsville, R.R. No. 2.
21.		JESSIE LETHANGUE, Pontypool.
22.		GLADYS BOBIE, London Junction R.R. No. 1.
23.		ALICE EDMONDSON, Brantford R.R. No. 5.
24.		KATHLEEN McINTYRE, Simcoe R.R. No. 2.
25.		SARAH McLEOD, Tarentorus.
26.		JESSIE ANNABLE, Freeman.
27.		BESSIE M. MERCER, Markdale R.R. No. 4.
28.		HATTIE CAMPBELL, South Mountain R.R. No. 1.
29.		HAZEL LEATHERDALE, Orillia.

NOTE.—The First Prize loaves at the local fairs were sent to the Ontario Agricultural College at Guelph, and were judged by Miss M. A. Purdy, of the Department of Flour Testing and Bread-making. From these loaves the winners of the Provincial Prizes were chosen.

## The 1917 Contest will be a Splendid Event

Every girl may compete in the coming Bread-making Contest at the School Fair in her district, whether or not she attends school, providing that her 12th birthday occurs before November 1st, 1917, or her 19th birthday does not occur before November 1st, 1917.

### Use Cream of the West Flour

Every loaf entered in the Contest at the Rural School Fairs next fall must be baked with Cream of the West Flour. No other flour will do, so now is the time to become familiar with this splendid hard wheat flour guaranteed for bread. The sooner you start, the better will be your chances of winning prizes.

Cream of the West is a strong flour that makes splendid big loaves that rise away up out of the pan, when properly baked—the most wholesome, lightest, whitest bread that is possible with good flour.

We make no high claims for Cream of the West Flour that are not abundantly confirmed and endorsed by those

who actually use it. Hundreds of letters have been received by us in praise of Cream of the West Flour.

### About the Prizes

We regret that, in this advance announcement, we cannot tell you more about the prizes than this: It is our intention to make them even more attractive than before. Last year the largest prizes were Free Courses at Macdonald Institute, Guelph (value \$75.00). This time the Provincial prizes, for which winners at the Fairs will compete, will be something of which any girl may well be proud—something that will adorn the home and give pleasure to everyone for many years—well worth starting right now to try for!

The prizes at your local Rural School Fair will also be of great interest.

**The Campbell Flour Mills Co., Limited**  
(West) Toronto, Ontario

CUT OUT AND MAIL THIS COUPON:

CAMPBELL FLOUR MILLS CO., LTD.  
Please send me name and address of nearest dealer who sells Cream of the West Flour, as our regular dealer does not handle it.

Our dealer's name is .....

His Address .....

My name is .....

Address .....

put them in print. I have been following your writings of Mr. Britling and find I "can't keep the lid on" any longer. Now, can you tell us what is meant by this: "If all the common people all the world over were to determine there should

be no war, there would be no war"? The way I see it is that "all the world over," the common people are too busy not too indolent earning the bread to put in their children's mouths to spend much time looking after state affairs when there are

already men in office who are supposed to see to the affairs of the nation, and I can't refrain from saying they do seem to be making a pretty poor job of it.

SCOTCH CANADIAN.  
Mr. Wells means that if the common

people in every country in the world would take interest enough and trouble enough to elect as members of their parliaments only those men who will work for the greatest good to the greatest number of people, there could be no war.







half of this over the sugar and molasses, and beat in the rest alternately with the flour, adding the raisins last. Put the mixture into a greased baking pan and let rise for 1/2 hour before putting into the oven.

**Sour Cream Cake.**—Break 2 eggs in a cup and fill the cup with sour cream. Add 1 cup sugar, 1 saltspoon salt, 1 teaspoon lemon or vanilla extract. Beat all together for 5 minutes. Stir in 2 cups flour and 1/2 teaspoon soda dissolved in 1 teaspoon water. Bake in a loaf or in layers.

**Sour Cream Sauce for Puddings.**—Beat sour cream with an egg-beater until foaming; add sugar, lemon and nutmeg for flavoring.

**Maple Syrup Cake.**—Beat 1/2 cup butter to a cream; beat in 1/2 cup sugar, 2 well-beaten eggs and 1 cup maple syrup. Sift together 2 1/2 cups sifted flour, 2 level teaspoons baking powder, 1/2 teaspoon yellow ginger, 3/4 teaspoon soda. Add this to the first mixture alternately with 1/2 cup hot water. Bake in 2 layers or in a single sheet and cover with caramel icing and walnut meats.

**Watercress Salad.**—Arrange radishes sliced thin, also slices of hard-boiled egg on a bed of watercress and pour salad dressing over.

**Stewed Watercress.**—Boil in salted water until tender. Drain and press as dry as possible. Put a piece of butter in a pan, add the cress, sprinkle with a tablespoonful of flour and stir carefully over the fire for a few moments. Add 1 cup hot water, and season with salt and pepper. Cook 10 minutes longer and serve at once with fried bread and sliced eggs.

**Rhubarb Wine.**—Three and one-half lbs. rhubarb cut fine to 1 gal. boiling water. Let stand for 10 days, stirring each day, then strain, and to each gallon of liquid allow 3 lbs. granulated sugar. Let stand 3 days, add a cake of yeast, and let stand 7 days longer, skimming off the scum. When it stops fermenting add 5 cents' worth isinglass, strain and bottle.

**English Crumpets.**—Soften a yeast cake in 1/2 cup lukewarm water. Add this to a cup of scalded and cooled milk in which 2 tablespoons butter has been melted. Add also 1/2 teaspoon salt and 1 1/2 cups sifted flour. Beat until very smooth, then cover and set to rise. When the sponge is light beat into it about 1 1/2 cups flour or enough to make a thick batter. When the mixture is again light lift it with a spoon into buttered muffin rings set on a hot griddle. When browned on one side turn ring and all (with a spatula or pancake turner) to brown the other side. Serve with butter and jam or syrup.

**The Scrap Bag.**

**Cleaning Granite Ware.**

Enameled or granite ware that has become discolored may be cleaned with a paste of coarse salt and vinegar.

**Powder for Perspiring Feet.**

Many people suffer from perspiring feet in warm weather. Dusting the feet with the following every morning before putting on the stockings will help. Mix together: Burnt alum 5 grams, salicylic acid 2 1/2 grams, starch 15 grams, talcum powder 50 grams.

**Keeping Shirtwaists Nice.**

Shirtwaists kept on hangers such as you can buy at any of the 5-cent stores, keep their shape and are much less wrinkled than those put in a box. Two or three waists may be put on one hanger.

**Cleaning Windows.**

Cleaning windows is a frequent task in summer-time. Use Bon Ami, or hot water to which a little kerosene has been added. Apply the latter with a sponge wrung very dry, and polish finally with plenty of clean cloths.

**Keeping Cheese in Summer.**

Coat cheese with melted paraffin and it will neither dry nor mould.

**To Retain the Color of Vegetables.**

To retain the natural green color of spinach, green peas, asparagus, etc., do not cover the kettle. Also put a pinch of sugar as well as salt into the water.

**To Protect Tomato Plants.**

To protect tomato and cabbage plants against cut-worm cut strips of paper an inch wide and 3 inches long and wind about the stalks so that the paper protects the plant just at the surface of the soil, the part which the worm attacks. Press the soil firmly about the roots.

**Washing Wool Sweaters.**

Shake out the dust, and drop the sweater in slightly warm water. Stir around a bit, then press out and place in clean, warm soapy water, with a teaspoon of borax in it. Souse up and down gently, and when clean rinse in three clear warm waters, adding a few drops of blue to the final water. Press the water out, drain in a pillow case, then spread on a sheet in the sun to dry.

**Increasing Meringue.**

When meringue is wanted for the top of a pudding or pie, try the following: Beat the whites of 3 eggs to a stiff froth, add 3 tablespoons sugar, and drop the mixture into a basin of boiling water. It will rise to the top in a moment, when it can be lifted off and put on the pudding. This method increases the meringue by about one-third.

**A Chopping Hint.**

When putting raisins, dates or figs through a food-chopper, add a few drops of lemon juice, and the fruit will not clog the chopper.

**Using One's "Head."**

"Don't wait until you can build a new kitchen or make over the old one, but get the most out of what you have. A little re-adjustment, the installing of such simple devices as dish-dryers and drainers, and so on, will help things along mightily. There is a difference between accepting things as they are and putting what you have to the best uses; one is unintelligent resignation, the other may be real efficiency. All the patent devices on the market will not make yours a livable and workable kitchen if you do not use your brains in their disposition."—Pictorial Review.

**Reason of Coarse Grained Bread.**

Coarse-grained bread is usually the result of flour of poor quality, or that has become poor through careless storing. Flour should be stored in an airy place in a receptacle that does not rest on the floor but on a support which permits a current of air to pass beneath it. Sometimes when the dough becomes too warm the bread is coarse-grained.

**My Dog.**

BY MAGDALENE MERRITT.

Sublime are they—the mighty minds  
Whose thoughts will down the ages roll:  
A lofty prean, perfect, whole;  
My dog has but a simple soul.

So guileless that each waking day  
Comes unto him as glad surprise;  
Such questions leap his lambent eyes  
I wonder if he, too, is wise.

Great seers and singers they have been  
Who delved into the infinite  
In search of Truth's eternal light;  
But may not he as well be right?

He knows the purling woodland brooks;  
He knows the scent of hare and hound;  
So near to nature dumbly bound,  
He knows where perfect faith is found.

Submissively, thus day by day,  
He lives as joyous blithe a thing  
As ever bird upon the wing,  
Yet constant as the buds of spring.

Their source—the buds, the bird in air,  
Each beast and insect in its place;  
The seer's rich fount—I all can trace  
Within my dog's dear upturned face.  
Our Dumb Animals.

"Now," said the doctor to the young married man, "if you will take this medicine, you will sleep like a baby."  
The patient surveyed the prescription doubtfully.

"Well, doctor," he answered, "if you mean like our baby, I guess I won't take it."

**The Cedar and the Storm**



**A BARN IS AS GOOD AS ITS ROOF**

Watch the cedar in the storm—its toughness and re-iliency resist all shocks. Nature's products can best withstand nature's forces. The roof of your home and barn have to stand all the stress of the storm. They call for a covering that will stay down, that can defy wind and water and the disintegrating forces of time. All these qualities, and more, are to be found in

**BEAVER BRAND WHITE CEDAR SHINGLES**

Beaver Brand Shingles are made from the best of the New Brunswick White Cedar. They hold down their job. They need no paint, are easily laid, and the very occasional repairs are simple, the only tool required being a hammer.

**Ask Your Dealer**

**"THE SHINGLE ROOF THAT'S STORM PROOF."**



**BATHURST LUMBER CO. LIMITED**  
BATHURST N.B.

**BUTTER**  
cost cut in half

by using more

**CROWN BRAND CORN SYRUP**

At present prices it pays to eat less butter and more Crown Syrup.

In 2, 5, 10 and 20 pound tins, also "Perfect Seal" Quart Jars.  
Write for free Cook Book.

**THE CANADA STARCH CO. LIMITED,**  
MONTREAL.





## Economy in Buying Home Furnishings

If you intend buying furniture or other home things and wish to make the most of your money, write for our large photo-illustrated

### Catalogue No. 7

Hundreds of illustrations of the newest and best selected things. The splendid upholstered rocker here is an example. All priced freight free to any station in Ontario, Quebec or Eastern Provinces.



**ADAMS Furniture Co., Ltd. TORONTO**

## "Empire" Corrugated Iron

The original brand with a 30-year reputation behind it. Every sheet true and uniform and heavily galvanized. A post card will bring you particulars  
**Metallic Roofing Co., Limited, Manufacturers, Toronto**

## BUTTER AND EGGS

### Are in Great Demand

Get our prices. We furnish crates on application, and pay express charges.  
There are a few tons of high-grade Cotton Seed Meal offering at present.  
Give us a trial order for groceries, root seeds, buggies, wagons, implements, oats, and all mill feeds. Prices given on application.  
As anticipated, there is a great scarcity of certain brands of flour, and prices have advanced rapidly during the last week.

**United Farmers' Co-operative Co. Limited**  
Cor. King and Francis Sts., Toronto

## "GROCERIES WHOLESALE"

Club Your Neighbors Together and Save Money  
We buy high-grade eggs from large producers. State how many you can ship tri-weekly, by express. Write for Price List, stating what lines you are interested in.  
**CANADA GROCERY CO.,**  
32 Front Street W., Toronto, Ontario

## DON'T DIG POST HOLES

Use Standard Steel Tube Fence Posts and Free Fence Hooks. Save money. Write for prices.  
**Standard Steel Tube & Fence Co., Limited**  
Woodstock, Ont.

You'll be proud to own and exhibit to your friends the handsome, beautifully-toned well-made

## SHERLOCK-MANNING

20th Century Piano—known as "Canada's Biggest Piano Value"  
Write Dept. 18 for free catalog "T".  
**THE SHERLOCK-MANNING PIANO CO.**  
London, (No street address necessary) Canada.



Plays any style or make of disc record with an absence of scratching and clicking. Its life-like reproduction is clear and sweet. Priced from \$15 to \$250. Write to-day for catalogue, and name of local dealer. Agents wanted.  
**The Pollock Mfg. Co., Ltd., Kitchener, Ont.**

## STALLIONS WANTED

Clydesdales, 2 or 3 years old in 1917, upstanding, (not leggy) with thick, smooth, well-coupled tops, good feet, must stand true and go well in walk and trot. Describe and give price in first letter. Box O, Farmer's Advocate, London, Ont.

## Current Events.

The minimum age, in the selective conscription proposals for Canada, has been placed at 20, youths from 18 to 20 being taken for home defence.

Rt. Hon. A. J. Balfour, British Foreign Secretary, was given an enthusiastic welcome in Toronto and Ottawa.

The first patients to occupy the new Military Orthopedic Hospital in Toronto, 19 in number, arrived in that city on May 25. They came in a special hospital car, and were taken at once to the hospital in ambulances.

Germany has increased the war tax in occupied Belgium.

Steps have been taken in Great Britain to eliminate unnecessary middlemen and stop speculation in foodstuffs.

Premier Lloyd-George stated publicly that the submarine menace is now well in hand, and that there is no danger of starvation in the British Isles.

A Swedish relief ship, carrying provisions to the Belgians, was sunk by the Germans.

Brazil, incensed by the sinking of two of her ships, is now practically at war with Germany.

A number of radical Socialists are to be tried in Germany for high treason.

By the sinking of the British transport "Transylvania," carrying troops, in the Mediterranean on May 4th, 413 lives were lost. The Transylvania was torpedoed.

Japanese vessels have reached the Mediterranean and are now assisting the Allies in their campaign against submarines.

Opposition to the assistance of China in the war against Germany, has been done away with by the President, who removed the Premier and appointed in his place Wu Ting Fang. A declaration of war against the Teutons may follow.

Sixteen Zeppelins raided London on May 25th, and 76 people were killed.

Chairman Lever of the United States House Agriculture Committee, on May 22nd introduced a Bill for Food Dictatorship, with power also to regulate or prohibit the use of foodstuffs in the manufacture of alcoholic beverages.

There are now on the French front 40,000 men from the United States, chiefly undergraduates of American Universities, engaged in motor transport service.

At time of going to press the fighting on the Western Front is chiefly confined to artillery and aerial activity, although during the week some closer fighting has taken place, in which the French were engaged in the Aisne region, the British and Australians at Bullecourt, and St. Quentin, and the Canadians in the vicinity of Lens. The Italians have been meeting with great success on their new drive on the Carso Plateau, having taken 10,000 Austrian prisoners and a great amount of war material during the first two days' fighting.

## The Dollar Chain

A fund maintained by readers of "The Farmer's Advocate and Home Magazine" for the soldiers and all who are suffering because of the war.

Contributions from May 18 to May 25: Pupils S. S. No. 17, Ashfield and Wawanosh, Huron Co., Ont., \$15; A Sympathizer, \$1; "Per 25-cent collections," Queenston, Ont., \$6. J. H. C., Forest, Ont., \$5.

For Byron Military Hospital: K. T. M., Lambeth, Ont., 25 cents; K. L. D., Owen Sound, Ont., \$1; (No name given), \$1; Mrs. G. Crutchfield, Huntingdon, Que., \$3; T. B. Thamesford, Ont., \$2; A Subscriber, King's Co., N.B., \$1; "Helpers," Oil Springs, Ont., \$16.

The amount received for Byron Hospital for Tubercular Soldiers is now \$417.85, leaving \$82.15 still to be made up.

Total amount previously acknowledged.....\$4,549.90

Total to May 25.....\$4,601.15

Kindly address contributions to "The Farmer's Advocate and Home Magazine," London, Ont.

## The Windrow

Twenty-five Chinese in Toronto have obtained land for gardening. As the Chinese are noted for their great skill in intensive cultivation their experiment will be watched with interest.

The Women's Patriotic League of Solingen, Rhenish Prussia, Germany, is making a collection of women's hair from which to weave belting for use in munition works.

The Ontario Government has established a Moving-Picture Bureau, with Mr. S. C. Johnson, B. S. A., as Director, for the purpose of giving instruction in all branches of agriculture, fruit-growing, etc. Mr. Johnson is a graduate of the Agricultural College at Guelph.

Captain Georges Guyemer of the French Aviation Corps probably holds the world's record for air fighting. So far he has brought down or captured 37 German aeroplanes.

Henry Ford has waived the patent rights on his tractor in order to permit the British Government to use the tractors in harvesting the crops of England and France. The machines may be run by alcohol, gasoline or kerosene.

At San Francisco a large mass meeting of Japanese residents pledged their support to the American Government and promised to work in any capacity in which their services might prove useful.

The Ways and Means Committee of the United States House has estimated that if the war lasts until July 1, 1918 it will cost the United States \$3,800,000,000. The amount is to be raised by the great Liberty Loan and by new taxations, chiefly on luxuries.

President Wilson has appointed Mr. Henry P. Davison, vice-President of the J. P. Morgan Co., as chairman of the new Red Cross War Council. Its first work is to be relief and reconstruction in the districts of Northern France left devastated by the German retreat.

There is to be no press censorship in the United States.

Rodzianko, having retired modestly into the background, his work as a leader in the Revolution done, Lvoff, the leader of the Cabinet, the Prime Minister and Minister of the Interior, is the real leader of Russia. As President of the Union of Zemstvos he made a remarkable record, and is respected by all factions in Russia.

On May 21st, with the inauguration of the regime of two meatless days a week, beef went to \$1.00 a pound in Paris, and vegetables and fish followed.

Hundreds of the deaf and dumb are making munitions in France, and are engaged in the construction of automobiles and airplanes for the army.

The King of Spain, although a neutral, has drawn about himself one shining chapter of the war. He has set afoot a system for tracing missing soldiers, and so successful has the work been that already 200,000 cases have been traced, besides 30,000 civilians in Belgium and Northern France. Five thousand seriously wounded men have been brought back to their own countries through the King's intercession, and 44 pardons have been granted, most of them to women under death sentence as spies.

## The Beaver Circle

### The Princess and the Page

BY MARGARET JOHNSON.

This little story I'm to tell is of a little girl, An only child—a princess, too—her father's pride and pearl. She lived in Greece,—that classic land with seas about it coiled,— And she was sweet and she was fair, but oh, she was so spoiled! She'd set that palace by the ears, and just as lief as not, If what she wanted wasn't brought right to her on the spot. She'd cry and scream and stamp her feet upon the marble floor, And tear that little chiton thing—so pretty—that she wore! It's sad to think that any child so cross and spoiled could be, But then, you must remember, 'twas the year sixteen, B. C.!

The Prince, her father, humored her in every single whim; It didn't matter what it cost—that never bothered him And as for business matters why, he always kept down-stairs, A lot of learned councilors, to manage his affairs; He much preferred to loll at ease, and feed his favorite bee— They were so fond of honey in the year sixteen, B. C.!

Now as it chanced, of something in her book the Princess read, That put the most preposterous whim one day into her head; And to the Prince she ran, who dropped his book, his cup and spoon And cried, "Of course, my pet!" (He would, if she had begged the moon!) And to the Council straight he went, obliging as could be, And did not stop to eat his egg or finish up his tea. "My lords," he said,—"the Princess wants"—and blandly on them smiled,

"She wants a nice volcano, you know the darling child! Pray let her have one right away— Vesuvius will do, Or Etna, or—" The councilors were slowly turning blue. Then off he went, and hummed a tune (a little off the key)— They were so fond of music in the year sixteen, B. C.!

Then wildly rushed those councilors and scanned the distant view; They hunted up their atlases and read them through and through; Rang up the Delphic Oracle—No, no, I don't mean that! There was no telephone, of course, when that convention sat. At last they gave their thinking up —it wasn't worth a cent!— And gathered up their classic robes and to the nursery went,

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And there the Prince was sitting with the Princess on his knee—  
For so they held their little girls in the year sixteen, 'B. C.!

"Your Highness", thus the wisest said,  
"We've done the best we could;  
We've looked and looked across the sea and b-beyond the wood,  
And not a mountain can be seen that's bigger than a bun,  
And as for fetching one, we swear it c-c-can't be done!  
And so—" No farther could he get,  
for wakened from her dream,  
Just here the Princess gave a jump and started in to scream.  
The councilors, all in a heap, went rolling down the stair;  
The nurses ran about the room with wildly streaming hair;  
They flew to get the smelling-salts and bottles of cologne,  
Called up—Now there I am again! there was no telephone!

The Prince, distracted, paced the floor, with anguish in his eye,  
And ordered dinner sent away, untouched—'twas peacock pie!  
Then if something hadn't happened—but, it did, and deary me,  
If it hadn't she'd be screaming yet, as far as I can see!  
All shook their heads—they turned away—the very butler wept!  
When from a corner all at once a little lad there stepped,  
The little Buttons—no, of course, that wasn't what he wore!  
The little page who always stood beside the big front door,  
"Your Highness!" piped his merry voice,—he doubled up with glee,  
"She wants to see a mountain smoke, so that's what she must see!  
And if it can't be brought to her,"—they thought his sides would split,—  
"Why not do this,—Your Highness dear, why not take her to it?"

That's all—now let us think of this, their rapture and surprise,  
And how the Princess had her wish, the Prince his peacock pies,  
And how they gave that little page the thing he wanted most,  
(I wish it might have been a sled—he never learned to coast!)  
Now think how lucky for them all, how providential quite,  
That since the Princess was so spoiled, the page he was so bright,  
And if the children were like that, how thankful we should be  
We do not live—you, dears, and I—in the year sixteen, 'B. C.!

**Little Bits of Fun.**

Sadie was eleven, and Alice was seven.  
At lunch Sadie said: "I wonder what part of an animal a chop is. Is it a leg?"  
"Of course not," replied Alice; "it is the jawbone. Haven't you ever heard of animals licking their chops?"

Student: "There must be some mistake in my examination marking. I don't think I deserve an absolute zero."  
Inspector: "Neither do I, but it is the lowest mark I am allowed to give."

**The Thoughts of the Lonely Guard.**

BY "AN OLD BEAVER."

The night was cold and dark and dreary,  
The guard his route did pace so weary,  
He thought of home, and loved ones dear,  
Gathered around the fireside bright with cheer.

And as he thought of those days gone by,  
Something stole from his sleepy eye  
And dropped into the sand so hot,  
Where many a gallant hero had fought.

He thought of his friends of school-boy days,  
How many had fallen in former frays,  
He seemed to see them all once more,  
Playing together as in days of yore.

He saw his mother in the lamp-light dim,  
Plying her needle making socks for him;  
He saw those fingers so worn and thin,  
Which had toiled full many a day for him.

Suddenly his eyes grew big and bright,  
And his face gleamed with a radiant light;



"The Canadian farmer hands his money to the Canadian manufacturer, who in turn, pays wages to his employees. The money is then turned over to the Canadian merchant for produce bought from the Canadian farmer. Therefore money paid out by the Canadian farmer for Canadian-made machinery comes back to him in actual cash, and in the form of better markets for his produce. Money paid for foreign-made machines is immediately sent out of the country, perhaps never to return."

Every cent you invest in the Standard helps to maintain Canada's own resources and to build up her strength. But the Standard relies not upon your patriotism alone.

The Standard saves one-half pound of valuable cream per cow per week over other machines. By its unequalled close skimming it gets all but one-tenth pound of butter-fat from 1,000 pounds of milk skimmed, while other separators lose one-half to a whole pound.

This saving may seem small until you realize what it means to you. With say, eight cows, it amounts up to four

pounds of extra butter-fat every week. At 30c. a pound butter-fat price, you make an extra profit of \$1.20 per week, or in 40 weeks of milking, \$48. We will accept this amount as first payment on your new Standard. With eight cows your Standard pays for itself out of savings! Will it not pay you handsomely to replace your old machine and get a Made-in-Canada Standard?

The Standard's close skimming is proven by Government Dairy Schools tests. We are always glad to have the Standard tested beside any other separator, wherever made. Send for interesting literature, also describing the Standard's self-oiling system, low supply can, interchangeable capacity, etc., etc.—features that are creating big demand for this made-in-Canada machine all over Canada, in the United States and other countries. Write to-day.

**Practical Patriotism!**

In these times of national stress, the country implores the people to conserve every resource. Keeping your money investments confined to Canada is splendid patriotism, and good, sound business, too. Besides, you can easily prove to yourself that it is profitable patriotism for you to invest in the

*Standard*

—the machine that is entirely made and designed in Canada by Canadians.

Made in Canada

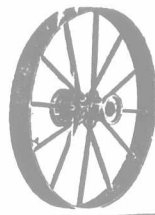


**The Renfrew Machinery Company, Limited**  
Head Office and Works: RENFREW, ONT.  
Eastern Branch: Sussex, N.B.  
AGENCIES ALMOST EVERYWHERE IN CANADA

There's the FLAVOR of the World's finest wheat in the bread and pastry made from

**PURITY FLOUR**

Also makes  
More Bread and Better Bread



**DO YOU WANT TO SAVE ONE-QUARTER ON THE COST OF A SET OF STEEL WHEELS?**

If so, send at once for our Illustrated Circular, Price List and Order Blank. Our Prices will advance in three weeks' time. Our wheels are made to fit any axle or skein. We quote price FREIGHT PREPAID TO YOUR NEAREST STATION. A set of "COOKE" wheels will give your old wagon a new lease of life! The cost is small! Chart showing how to take required measurements sent free. Write to-day.

THE COOKE METAL WHEEL CO., 19 West Street, Orillia, Ontario

It was for her he was treading his weary way,  
That she had home, in comfort could stay.

And now his heart felt free from care,  
And he felt as though he were walking on air;  
And as he walked on in that cold dark night,  
He wished for the morrow, that he might fight.

**Senior Beavers' Letter Box.**

Dear Puck and Beavers.—It is a long time since I have written to you. Although I have not written for some time I have

been reading your interesting letters. I go to school every day, and am in the Junior Fourth Class. Our teacher's name is Miss Campbell and we all like her fine, and think it is only a pleasure to go. I missed a week this winter on account of having the chicken pox but I am all better now. I have one sister and three brothers. The baby is ten months old and we call him John Frederick, after our two soldier uncles in the war. We have a library in our school and I have read quite a number of books, some of which are: Glengarry School Days, Elsie Dinsmore, Robinson Crusoe, An Old Fashioned Girl, Driven From Home, etc.

We have great fun playing ball at school and we enjoy it very much. We have not very far to go to school as it is about one hundred yards away. Well as my letter is growing long I guess I had better close, hoping the waste-paper basket is asleep.

GRACE S. SOBEY, age 12.  
Wilmot Valley, P. E. I.  
P. S.—I would like to correspond with a girl my own age if she will write first.

Dear Puck and Beavers.—I have never written to your circle before so thought I would write to-night. I go to school every day, and am in the Junior Fourth Class. Our teacher's name is Miss Campbell and we all like her fine, and enjoy going to school very much. I have four sisters and two brothers.

I have read quite a lot of books, some of which are: Polly the New-Fashioned Girl, Driven from Home, Paul the Peddler, Phil the Fiddler, and some others.  
A lot around her have the chicken pox.



**POULTRY AND EGGS**

Condensed advertisements will be inserted under this heading at three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisements inserted for less than 50 cents.

**A FEW HUNDRED BABY CHICKS FOR SALE** from heaviest winter-laying S.-C. White Leghorns \$15 per hundred, or in smaller lots. Eggs, \$1 per setting. W. Darlison, Brantford, Ont.

**BLACK SPANISH, WHITE LEGHORNS** Barred Rocks, Light Brahmas, Hamburgs, Indian Runner Ducks. Eggs only. Free mating list. Fox terrier puppies. John Annesser, Tilbury, Ontario.

**BLACK MINORCAS—ROSE AND SINGLE-COMB, one dollar per setting.** Prompt delivery. Fred Reikle, Camperdown, Ont.

**BRED-TO-LAY SINGLE-COMB WHITE LEGHORNS**—Pullets have laid continuously since five months of age. Eggs, \$1.00 per 15; \$2.00 per 40; \$4.50 per 100. Addison H. Baird, R.R. 1, New Hamburg, Ontario.

**CANADA'S BEST S.-C. BLACK MINORCA** eggs \$2.00 per 15; won at Guelph 1915, 1st, 2nd, 4th and 6th prizes in class of 162, also one pen of Light Brahmas prize winners, \$2.00 per 15. A chance to get prize birds easy. Chas. Gould, R. 1 Glencoe, Ont.

**CHOICE S.-C. BROWN LEGHORNS (BECKER strain)**—Eggs \$1.00 per 15. William Bunn, Denfield, Ont.

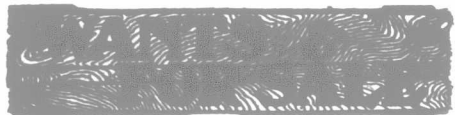
**EGGS FOR HATCHING—SINGLE-COMB** Brown Leghorns from imported stock, mated with vigorous cockerels; very persistent layers, getting 160 eggs daily from 220 hens. Price, \$1 per 13; \$2.25 per 40, or \$5 per 100. W. C. Shearer, Bright P. O., Ont.

**FAWN AND WHITE INDIAN RUNNERS,** select matings; wonderful winter layers. Also Rouens. Fertile eggs, \$1.00 per 12. Ernest Howell, St. George, Ont.

**MUSCOVY DUCKS, AND EGGS FOR HATCHING.** Apply J. A. Tancock, R.R. 1, Hyde Park, Ontario.

**"SNOWFLAKE" S.-C. WHITE LEGHORNS;** quality; quantity. Eggs, \$2.00 fifteen; \$6 per hundred. E. W. Burt, Paris, Ont.

**2,000 BABY CHICKS FOR JUNE AND EARLY** July delivery; single-comb White Leghorns \$7.00 per 50, \$13.50 per 100; from choice bred-to-lay stock. Booked complete on Rocks and Wvandottes this season; safe arrival guaranteed. Smithdale Stock Farm, C. E. Smith, Scotland, Ont.



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted and Pet Stock.

**TERMS**—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

**FARM MANAGER (MARRIED) REQUIRES** position on an up-to-date farm, thorough knowledge of all farm work and machinery and experienced in handling dairy cows. Must be near English school. State salary offered and full particulars in first letter. Apply Box H, Farmer's Advocate, London.

**WANTED—FARM HELP TO WORK AND** take shares on a farm in the West, age about sixteen. A good home found. Apply Box 4, Farmer's Advocate, London, Ont.

**"1900" Gravity Washer**

Sent free for one month's trial. Write for particulars. "1900" WASHER COMPANY 357 YONGE ST., TORONTO, ONT. (Factory, 79-81 Portland St., Toronto)



**BIG MONEY IN EGGS**

Get more eggs by using **Pratt's POULTRY REGULATOR** Tones up the egg-producing organs, prevents disease and keeps the birds healthy. Write for Free Book "Poultry Wrinkles." Pratt Food Co. of Canada, Limited 1211-1213 Gladstone St., Toronto. P-3

**GOOD LAGER BEER**

Make it in your own home with **HOP MALT EXTRACT** Made only of pure hops and malt. Real beer with the good old flavor conforming to the Temperance Act. Small Tins \$1.00; Large \$1.50 Prepaid. Full directions with each tin. Agents Wanted. DEPT. A Hop Malt Co., Beamsville, Ont.

I did not have it yet. I am fourteen years old and am five feet 2 inches tall and have light hair and blue eyes. This is certainly a terrible war, everything is so expensive. I live about a mile and a quarter from our school; it is just a nice walk in the morning.

Well, as my letter is getting long and news is short I will close with a riddle. "What is the oldest piece of furniture in the world?"

Ans.—"The multiplication table." LUELLA G. WAITE, Wilmot Valley, P. E. I., P. S.—I would like to correspond with any girl my own age if she would write first.

Dear Puck and Beavers.—This is my first letter to your charming Circle. My father has taken the "Farmer's Advocate" as long as I can remember, and we can hardly wait to see it.

I live on a farm of 100 acres. I have a sister called Ella and a brother called Archie. I go to school every day I can, and my teacher's name is Miss McGill. We have started to play baseball since the snow has gone away, and we have great times, there are about fifteen going to our school. Isn't this a terrible war? I haven't any relations fighting and am good and glad I haven't. We got a letter from a fellow in the trenches and he says he thinks it will be over in about two months and I certainly won't be sorry.

Well as my letter is getting long I will close, hoping the w. p. b. has been wounded.

ALICE MILLOY, (age 11), Sr. III Class, R. R. No. 1, Erin. Honor Roll: Kenneth Rath, Lorne Moody, Merle Fox.

**Riddles.**

"What is round on both ends and high in the middle?"

Ans.—Ohio. Sent by Donald Jackson, R. 2, Omennee, Ont.

Why is a pig in the parlor like a house on fire?

Ans.—Because the sooner it's put out the better.

Why is a book like a king?

Ans.—Because it has many pages.

The flour of Canada, The fruit of Spain, All mixed up in a shower of rain; put in a bag and tied with a string riddle me this and I'll give you a ring.

Ans.—A plum pudding. Sent by Victor Bell, R. R. 1, Beeton, Ont.

Why do black sheep eat less than white ones?

Ans.—Because there are less of them.

Why ought a greedy man wear a plaid waistcoat?

Ans.—To keep a check on his stomach.

Why isn't it safe to have your lover in the room where corn is?

Ans.—Because it has ears.

Why do old maids go to church early?

Ans.—To be there when the hymns (hymns) are given out.

What is the difference between a turnip and a package of oatmeal?

Ans.—You don't know? Well, I should never want to send you to the store to buy me a turnip then.

Sent by Ellen Hallman, New Dundee, Ontario. R. R. No. 1.

What is it you have and I use more than you do?

Ans.—Your name.

Sent by Fred Hamilton, R. R. 1, Orton, Ont.

**Junior Beavers' Letter Box.**

Dear Puck and Beavers.—This is my first letter to your charming circle. My father has taken the "Farmer's Advocate" for some time, and I enjoy reading the letters very much. I am eleven years old, in the junior third class. I live a mile and a half from school. My teacher's name is Mr. Percy P. McCullan. We like him fine. We play baseball, basket ball and many other

games. As my letter is getting long I will close with some riddles:

Twelve boots were hanging high, twelve men came passing by. Each took a pair and left eleven hanging there.

Ans.—One man's name was Each. I will close wishing you all good luck. Amherstburg, Ont. GRACE KIMBALL. P. S.—Will some of the Beavers please write to me.

Dear Puck and Beavers.—My father has taken the "Advocate" for some time, and so I thought I would pick up courage enough to write to your charming Circle. I have one mile to go to school, but I generally enjoy the walk. My teacher's name is Miss Ethel Kitchen and I like her fine. I go to school nearly every day. Through the very coldest of winter I walked that mile and thought it fun. I have three pet cats who go by the names of Tommy, a yellow kitten, Peter, a black and white cat, and Nanny, a greyish-blue cat. Well I guess I will close with a riddle.

Why is the letter "O" like the equator? Ans.—Because it is a circle dividing the "gl-o-be" into two equal parts. Hoping the w. p. b. is busy when this arrives.

ELLA FRANCES NUNN, (age 10), Jr. III, R. R. No. 2, Port Dover, Ont.

Dear Puck and Beavers.—As I have never written to this Circle, I thought I would write now. My brother has taken the Advocate for a long time, and I always read the letters and jokes. We keep a flock of Shropshire sheep and we have thirteen little lambs now. I go to school and I am in the Junior Third Class. I have five sisters, one of whom is a nurse, and I have four brothers, and one is training for a doctor.

Well I hope my letter will be in print. I will close. MOLLIE FISHER, (age 10), Glenworth, Ont.

Dear Puck and Beavers.—This is my first letter to your Circle. I am getting along fine at school. We are having our Easter holidays now. Last year at Easter holidays my sister and brother and I had the measles and my sister had them pretty bad. The snow is nearly all gone here and our tulips are beginning to come up above the ground. I guess spring is here now. We have a lot of little lambs. A lot of people around here are making maple syrup, but papa says he has not time this year. Well I guess I will close.

MARY E. TAYLOR, (age 8), Sr. II, R. R. 4, Chatsworth, Ont.

Dear Puck and Beavers.—This is my first letter to your Circle. My father has taken the Advocate for four years and we all like it fine. I read the "Beavers' Letter Box" in every paper and like it very much. I have some pet rabbits and two cats. My brother and I go to school every day, and it is a long walk of two miles, but it will soon be good walking now. We like our teacher very much. I have read some books: "Lion, the Mastiff"; "Black Beauty"; "Two Secrets"; and "Cats and Dogs". As my letter is getting long I will close with a riddle: "Why is an engineer like a teacher?" "Because the engineer minds the train and the teacher trains the mind." Hoping the Circle and Advocate will be ever successful, I will close wishing some of the Circle to write to me, and with two "smiles".

"Look here," said Hiram to Pat, when are you going to pay me that eight dollars for pasturin' your heifer? I've had her now about ten weeks." "Why Hiram, that critter ain't worth more than ten dollars." "Well, suppose I keep her for what you owe me," said Hiram. "Not by a jugful, I tell you what I'll do, you keep her two weeks more and you can have her," said Pat.

"John" demanded the wife of her intoxicated husband, "how did you get that gash on your forehead?"

"Guess I must 'a' bit myself".

Bit yourself! "How could you bite yourself way up there?"

Guess I must a stood on a chair. BERT ADAMS, (age 10), Sebright, Ont.

**The White Comrade.**

BY ROBERT HAVEN SCHAUFFLER in The Outlook.

Under our curtain of fire,  
Over the clotted clouds,  
We charged, to be withered, to reel  
And despairingly wheel  
When the bugles bade us retire  
From the terrible odds.

As we ebbed with the battle-tide,  
Fingers of red-hot steel  
Suddenly closed on my side.  
I fell, and began to pray,  
I crawled on my hands and lay  
Where a shallow crater yawned wide;  
Then,—I swooned.

When I woke, it was yet day.  
Fierce was the pain of my wound,  
But I saw it was death to stir,  
For fifty paces away  
Their trenches were.  
In torture I prayed for the dark  
And the stealthy step of my friend  
Who, stanch to the very end,  
Would creep to the danger zone  
And offer his life as a mark  
To save my own.

Night-fell. I heard his tread,  
Not stealthy, but firm and serene,  
As if my comrade's head  
Were lifted far from that scene  
Of passion and pain and dread;  
As if my comrade's heart  
In carnage took no part;  
As if my comrade's feet  
Were set on some radiant street  
Such as no darkness might haunt;  
As if my comrade's eyes,  
No deluge of flame could surprise,  
No death and destruction daunt,  
No red-beaked bird dismay,  
Nor sight of decay.

Then in the bursting shells' dim light  
I saw he was clad in white.  
For a moment I thought that I saw the  
smock  
Of a shepherd in search of his flock.  
Alert were the enemy, too,  
And their bullets flew  
Straight at a mark no bullet could fail:  
For the seeker was tall and his robe was  
bright:

But he did not flee nor quail.  
Instead, with unhurrying stride  
He came,  
And gathering my tall frame,  
Like a child, in his arms.

Again I swooned,  
And awoke  
From a blissful dream  
In a cave by a stream.  
My silent comrade had bound my side,  
No pain now was mine, but a wish that I  
spoke,—

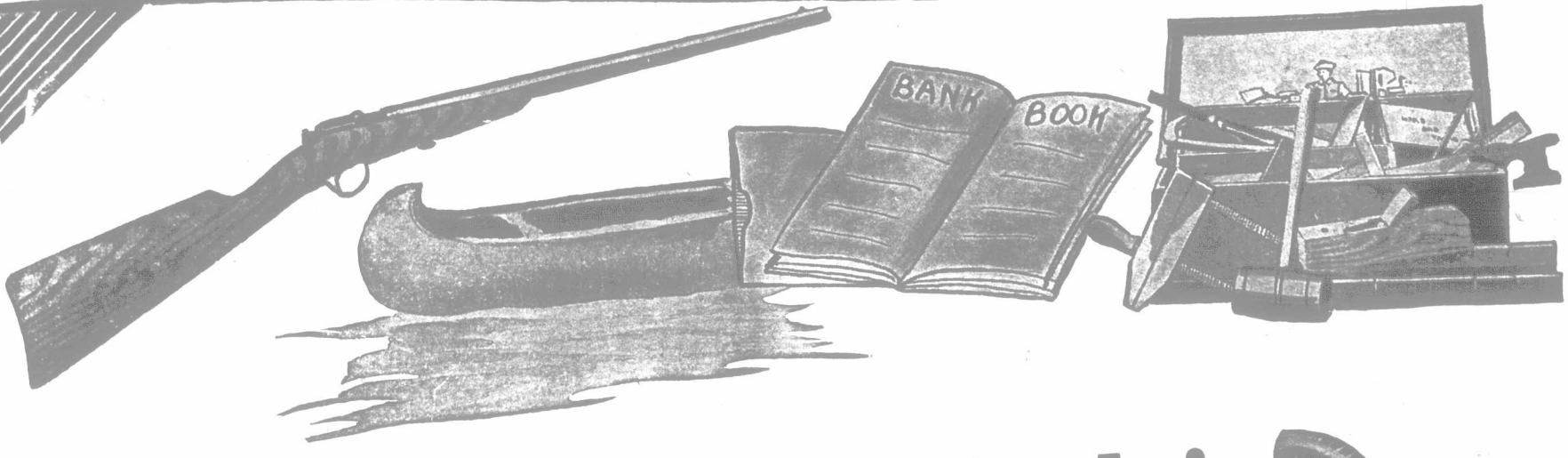
A mastering wish to serve this man  
Who had ventured through hell my doom  
to revoke,  
As only the truest of comrades can.  
I begged him to tell me how best I might  
aid him,  
And urgently prayed him  
Never to leave me, whatever betide;  
When I saw he was hurt—  
Shot through the hands that were  
clasped in prayer!

Then, as the dark drops gathered there  
And fell in the dirt,  
The wounds of my friend  
Seemed to me such as no man might bear.  
Those bullet-holes in the patient hands  
Seemed to transcend  
All horrors that ever these war-drenched  
lands

Had known or would know till the mad  
world's end.  
Then suddenly I was aware  
That his feet had been wounded, too;  
And, dimming the white of his side,  
A dull stain grew.  
"You are hurt, White Comrade!" I cried.  
His words I already foreknew:  
"These are old wounds," said he,  
"But of late they have troubled me."

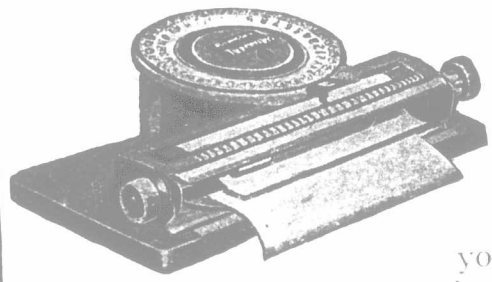
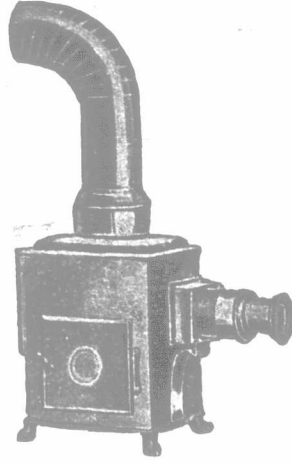
An epoch-making Ayrshire sale will be held in Springfield, Mass., June 14, 1917 in the Coliseum where the 1916 National Dairy Show was staged. Scotland, United States and Canada will be represented in the offering by selections from the best herds of those countries. Anyone desiring to purchase Ayrshire aristocracy will find it at Springfield on June 14. See the advertisement in this issue and correspond with Arthur H. Sagendorph, Box 2, Spencer, Mass., Chairman Sale Committee.





# Boys and Girls!

Be the agent for The Farmer's Advocate and Home Magazine in your district



THESE are some of the things our young agents buy for themselves out of the money they earn getting NEW subscribers for our journal.

**Note Carefully :** We do not give these away to agents for getting new subscribers. We just picture the things here, so that you may see some of the things you will be able to buy with your earnings, if you go right after new subscriptions. We allow you a cash commission on each subscription, and when you have sent in ten NEW subscriptions, we send you a further cash prize.



By keeping your profits together, instead of spending the money as you go along, you will soon have a good many dollars of your own, and then you can buy what you most desire, and buy it where you please.

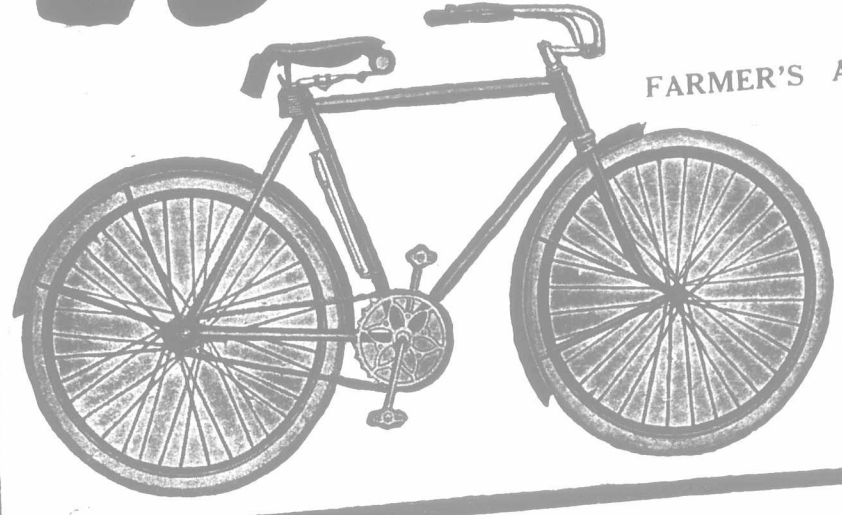
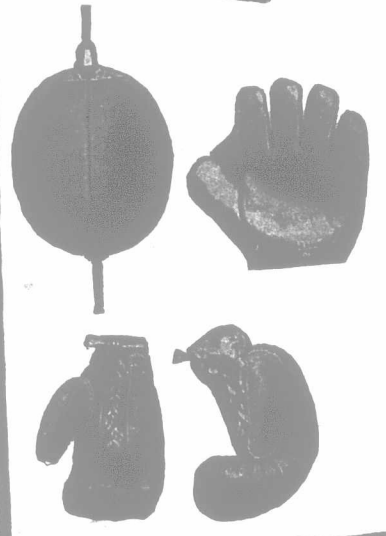
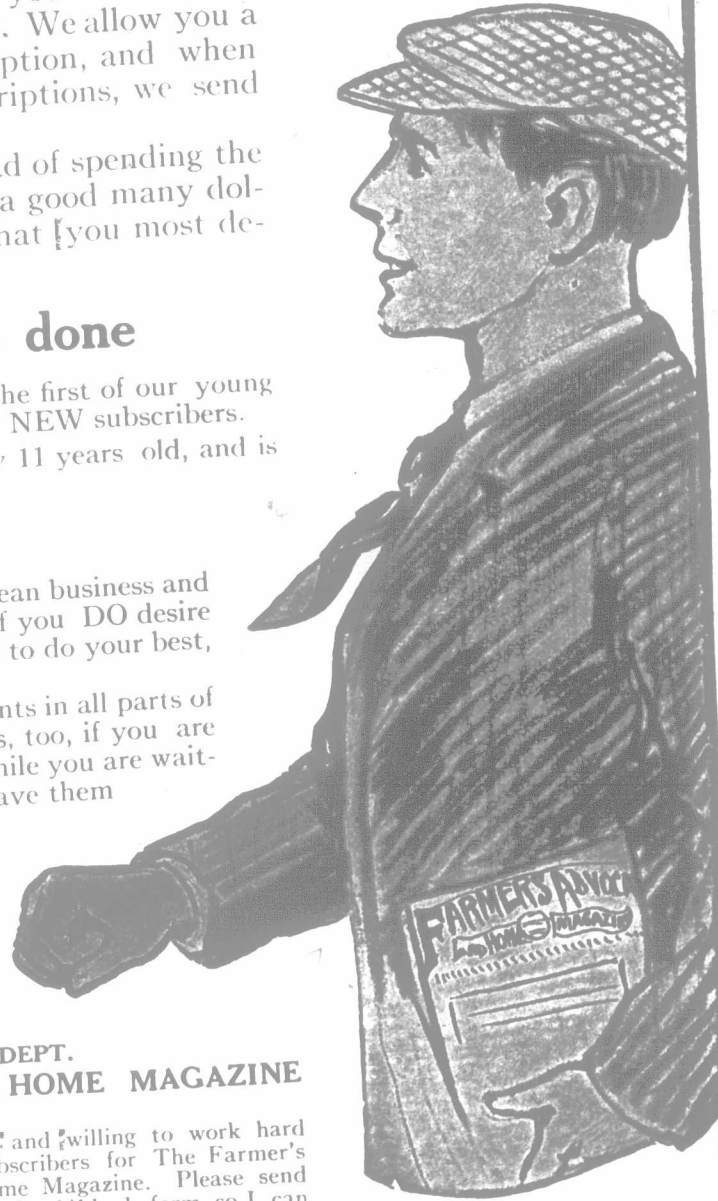
## See what others have done

Little Norman Wilson, only 9 years old, was the first of our young agents to win the special cash prize for getting ten NEW subscribers. Vera Costello has earned \$17.00. She is only 11 years old, and is still going after more.

James McGrogan made \$15.00 to date. Leonard Annett made \$8.75.

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We have over three hundred boy and girl agents in all parts of the country. There is room for you, and rewards, too, if you are ready to work faithfully around your district. While you are waiting for a reply, pick up a few subscriptions and have them ready to send in as soon as you hear from us. \$1.50 a year in advance is the price, for fifty-two issues a year, including the beautiful special Christmas number without extra charge.



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 CIRCULATION DEPT.  
 FARMER'S ADVOCATE & HOME MAGAZINE

I am ready and willing to work hard getting new subscribers for The Farmer's Advocate & Home Magazine. Please send me sample copies and blank form, so I can get started.

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 Do your people subscribe? \_\_\_\_\_ How old are you? \_\_\_\_\_  
 State "Yes" or "No." State age.

3



## SEED CORN "That Will Grow"

We can supply rack-cured corn, on the cob or shelled, from the following varieties:  
Improved Leaming, Wisconsin No. 7, Early Bailey, White Cap Yellow Dent.

This corn was grown and cured by specialists in seed corn, and is, therefore, of a very superior grade of seed.

Let us quote you on all kinds of garden and field seeds, including Mangel, Sugar Beet, Turnips, Carrots, Butter Beans, White Beans, Seed Potatoes, Buckwheat, and field grasses.

Cotton Seed Meal, Oil Cake Meal, Gluten Meal, Bran, Shorts, Feed Oats, Whole Oats, Pure Linseed Meal, Good Luck Brand Calf Meal, and a complete line of Good Luck Brand Poultry Feeds. Write, please, or wire for prices.

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Urgently request that every reader of this publication write at once to

**WHITES Limited**  
COLLINGWOOD, ONTARIO

for full particulars as to our line of Washing Machines. They have in stock the

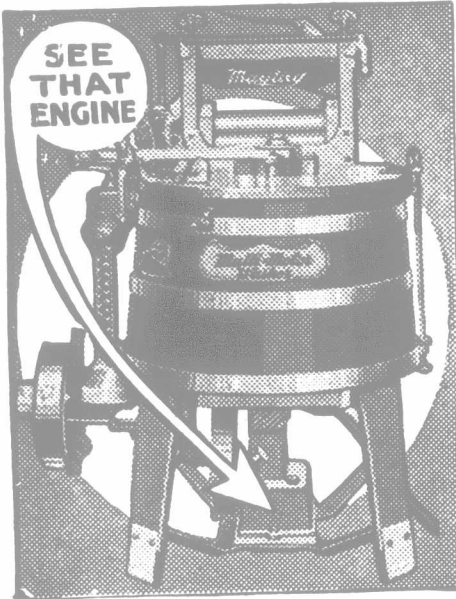
Maytag Hand Washer

Maytag Power Washer

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Maytag Multi-Motor Washer

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SEE THAT ENGINE  
Maytag Multi-Motor Washer

BETTER STILL

Show this advertisement to the dealer you trade with and ask him to write them.

Every machine warranted for three years

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are sole distributors for the Province of Ontario, Quebec, Nova Scotia, New Brunswick, P. E. Island.

Write them now--to-day

Advocate Ads. Pay

## Questions and Answers. Miscellaneous.

### Cement Mixture.

How is a homemade cement mixer constructed?

Ans.—We are unable to give an illustration of a homemade cement mixer. An ordinary 40-gallon barrel and a strong frame to hold it are necessary. Castings are securely fastened to the heads of the barrel to support it on the frame. On one of the castings a handle is fastened to turn the barrel. A hole is cut in the side for putting in the water, gravel and cement, and it is necessary to have a lid over this that will fit tightly. It may be set in and held in place by buttons, or it may be on a hinge and be fastened with a catch. It may be difficult to turn the barrel when partially filled when the handle is fastened directly to the casting supporting the barrel. By use of a series of cog wheels the barrel may be turned easier than if power is applied direct.

### Power for Filling Silo—Silo Drain.

1. On account of the scarcity of help I am thinking of purchasing an outfit for filling my silo. The corn will not have to be blown more than 10 feet if the cutting-box is set on the barn floor. What kind and size of cutting-box would be suitable for this, and what power gasoline engine would be necessary?

2. Could the same gasoline engine be used to run a mechanical milker?

3. Can the cutting-box be run satisfactorily from the power off a motor car?

4. There is about 2 feet in the bottom of the silo which does not soak away, although there is a 3-inch tile around the silo and below the level of the bottom. Could I run a tile through the bottom of the silo to get rid of the water? Would this cause silage to spoil?

5. What is the best way to rid a barn and poultry house of weasels? I cannot trap them.

6. I sent an order to a company for grass seed. The seed did not arrive in time for seeding and I had to purchase elsewhere. I wrote them to return the money but they have not done so; what is the next step?

Ans.—1. It is rather difficult to say just what size of cutting-box and engine would be necessary. It depends a good deal on how fast you intend feeding the machine. If the corn is cut with the binder and made into large sized sheaves, which are fed into the cutting-box without cutting the bands and dividing the sheaf, it will require a large cutting-box and an 18 or 20-horse-power gasoline engine. If satisfied to feed the machine with only a few stalks of corn at a time, one of the smaller sized cutting-boxes that is equipped with a blower, would do the work, and a 10 or 12-horse-power gasoline engine might prove satisfactory. Carriers will not require the same amount of power as will a blower, and where the elevation is only 10 feet they might be used satisfactorily. For filling silos it is necessary to secure a fairly high-power engine. If an engine is run to its full capacity continually, it is harder on it than when there is a little reserve power to be used in a case of emergency.

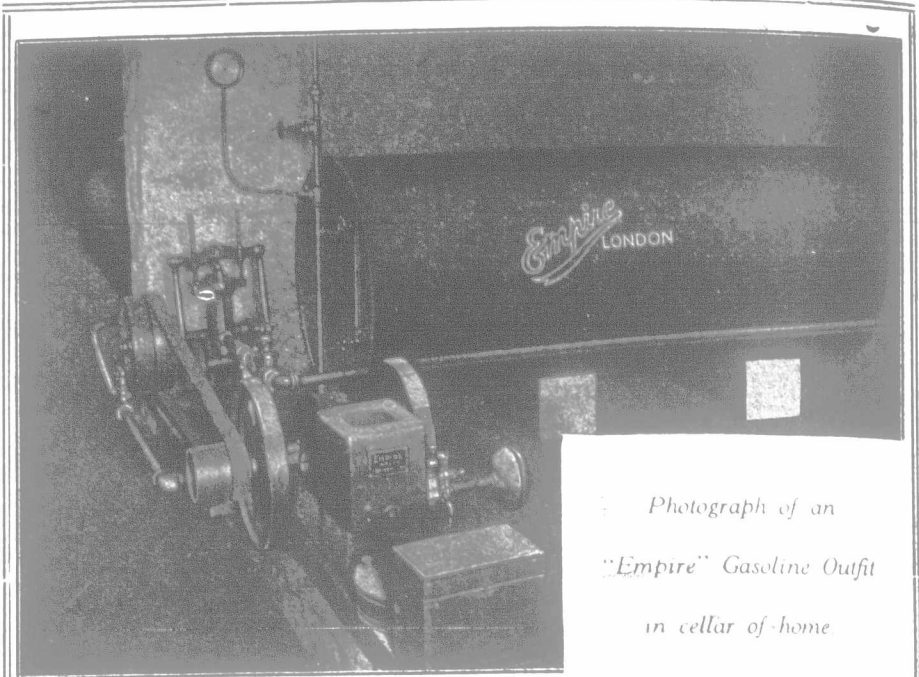
2. The heavy gasoline engine can be used to run the vacuum of the mechanical milker.

3. Power from a motor car might be used to run a small cutting-box but we doubt the advisability of utilizing the car motor in this way.

4. Many put a tile in the bottom of the silo and there is very little danger of causing injury to the silage. Before filling the silo lay a sack over the open tile to prevent corn from clogging the drain.

5. Weasels are very wary animals which are difficult to catch. Poisoned bait, trapping or shooting is about the only means. It would be necessary to conceal the trap very carefully. We believe that trapping is the most efficient means.

6. You do not state whether or not you had a specific agreement to have the seed delivered at a certain date, nor do you state whether or not the seed firm shipped the seed, and that failure of delivery was due to the railroads. The seed firm may not be entirely to blame. If you consider that they have not lived up to their agreement, after having given them sufficient notice, you might lay information against them in order to recover redress.



Photograph of an  
"Empire" Gasoline Outfit  
in cellar of home

## HAVE RUNNING WATER IN YOUR HOUSE AND BARN

Enjoy the comforts of a modern bathroom. Have hot and cold water—hard and soft—in the kitchen. Have water under pressure in the barn, yard, and for fire protection. How? By putting in your home an

## Empire WATER SUPPLY System

Read what Mr. N. Sangster, of Ormstown, Quebec, Vice-President of the Holstein-Friesian Association of Canada, says regarding the Empire System illustrated above:

Gentlemen,—The Hydro Pneumatic System I purchased from you a year ago is giving excellent satisfaction. We use one tank for soft water and one for hard water. I find that the engine uses very little gasoline, and is very easy to operate. Ten pounds pressure on the tank will force the water to any part of the house.  
Yours truly,  
N. SANGSTER.

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White enamel bathtub, closet with tank, lavatory with fittings, hot water boiler for kitchen range, kitchen sink, engine and pump, pneumatic pressure storage tank and piping.

We have supplied many homes throughout Canada with similar systems. Send for our Information Blank and Catalogue to-day. Fill in the "Blank," and we will suggest a system suited to your needs, and estimate its cost without charge or obligation.

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## LIFT YOUR CORNS OFF WITH FINGERS

Tells How to Loosen a Tender Corn or Callus So It Lifts Off Without Pain.

A noted Cincinnati chemist discovered a new ether compound and called it Freezone, and it now can be had in tiny bottles as here shown for a few cents from any drug store.

You simply apply a few drops of Freezone upon a tender corn or painful callus and instantly the soreness disappears, then shortly you will find the corn or callus so loose that you can just lift it off with the fingers.

No pain, not a bit of soreness, either when applying Freezone or afterwards, and it doesn't even irritate the skin.

Hard corns, soft corns, or corns between the toes, also toughened calluses, just shrivel up and lift off so easy. It is wonderful! Seems magical. It works like a charm. Your druggist has Freezone. Ask him!



## WOOL and HIDES

FARMERS—Why not get the highest prices for your wool and hides by shipping direct to us? You can make the middleman's profits yourself. We send cash the same day goods are received. We are now paying the following prices:

Wool (washed).....	58c. to 63c. lb.
Wool (unwashed).....	41c. to 46c. lb.
Sheepskins.....	\$2.50 to \$4.50 each
Beefskins (cured).....	20c. to 24c. lb.
Calfskins (cured).....	30c. to 35c. lb.
Tallow (rendered).....	12c. to 16c. lb.
Horsehides.....	\$7.50 to \$8.50 each
Horsehair (combed).....	37c. to 41c. lb.

SHIP TO-DAY  
No shipment is too small or too large.

**John Hallam**  
Limited  
111 Front St. East, Toronto

## Rose-Comb Rhode Island Reds

Eggs for hatching, \$1.25 per fifteen. Good winter layers and good color.  
Alex. McKinney R. R. 1, Erin, Ontario

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The only herd in America that has two stock bulls that the dam of each has milked over 116 lbs. a day and their average butter records are over 35 lbs. a week. We have 50 heifers and young bulls to offer, by these sires, and out of dams just as well bred. We invite personal inspection.

D. C. FLATT & SON,

R. R. 2, Hamilton, Ont.

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GOMBAULT'S  
**Caustic Balsam**  
A Safe, Speedy, and Positive Cure



The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUSTIC OR FIKING. Impossible to produce scar or blemish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. The Lawrence-Williams Co., Toronto Ont.

**Be Safe!**

Don't take too many chances with sprain, spint, cut, ringbone, bony growths, swellings and lameness. Use the old reliable remedy.

**KENDALL'S Spavin Cure**

In the hands of horse-men, veterinarians and farmers for 33 years it has proved its worth in hundreds of thousands of cases.

St. Feriole, Dec. 4th, 1915.  
Will you please mail to my address a copy of your *Treatise on the Horse*. I have been using your valuable remedies for some time, and found them safe and reliable.

JOSEPH L. BATZINGER.  
\$1 a bottle—6 for \$5, at druggists—or write for copy of our book "Treatise on the Horse" free.

**Dr. B. J. KENDALL COMPANY**  
Enosburg Falls, Vermont, U.S.A. 118

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Use any injector, but Cutter's is simplest and strongest. The superiority of Cutter products is due to over 15 years of specializing in VACCINES AND SERUMS ONLY. INSIST ON CUTTER'S. If unobtainable, order direct.

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**Maxwell**

Line of WASHERS, CHURNS, BUTTER-WORKERS, FOOD CUTTERS, GAS ENGINES, etc. Write for Catalogue.

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If your teams are equipped with

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These pads prevent Sore Shoulders and cure Gail Sore. Your dealer will supply you, or write BURLINGTON BLANKET CO., Ltd., 793 King Street West, Toronto, Canada.

MESSRS A. J. HICKMAN & CO., (LATE HICKMAN & SCRUBY), COURT LODGE, EGERTON, KENT, ENGLAND, exporters of

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of all descriptions. Specialty made of draft horses, beef and dairy breeds of cattle, show and field sheep. Illustrated catalogues and testimonials on application. All enquiries answered with pleasure. Now is the time to import. Prospects were never better, and insurance against all war risks can be covered by payment of an extra 1% only.

**UNKO 2.11 1/2**

The noted trotting stallion, sire of Vanko, 2.06 3/4, and twelve others, is now owned by

**P. J. KEARNS,**  
Lot 7, Con. 2, Aldborough, Wardsville P. O., R. R. 1.

**DR. BELL'S Veterinary Medical WONDER.**  
10,000 \$1.00 bottles FREE to horsemen who give the Wonder a trial. Guaranteed for Colic, Inflammation of Lungs, Bowels, Kidneys, Fevers, and Distempers, etc. Send 25 cents for mailing, packing, etc. Agents wanted. Write address plainly. **DR. BELL, V. S., KINGSTON, ONT.**

**Questions and Answers.**  
Miscellaneous.

**Raising an Orphan Colt.**

What is the best method of raising an orphan colt? It is about a week old and we have been feeding it on cow's milk with a little water and sugar added. Would it be advisable to give it an egg every day? Should it be fed castor oil? How old should it be before it is turned on grass or given oats and hay? R. K.

Ans.—A colt may be raised on cow's milk but it will necessitate considerable care the first few weeks. A fresh cow's milk should be used and preferably milk that is not too high in fat. To a tablespoonful of sugar add enough water to dissolve it, then three to five tablespoonfuls of lime water, which tends to correct digestive troubles. Make up to a pint with fresh milk. For the first few days about one-quarter of a pint should be fed every hour, always warming to blood heat. When the colt is a week old six feedings a day will suffice, and later four will be enough. After the first month the use of sugar may be discontinued but it is advisable to continue the use of lime water. At six weeks skim-milk may be gradually substituted for whole milk and when the colt is three months old it may safely be given all the skim-milk it will drink three times a day. In case of scour give two or three tablespoonfuls of a mixture of sweet oil and castor oil in milk. Cease feeding milk for two or three meals, giving sweetened warm water with lime water added instead. Eggs will do the colt no harm, but we doubt the necessity of feeding them. Get the colt to eat solid food, such as crushed oats, bran, clover hay or grass, just as soon as you can. The colt needs exercise and should have the run of a grass lot.

**Exterminating Ants—Blight on Trees.**

What is the best method to exterminate ants which infest the strawberry patch. They are a very small, brown species and apparently live in a network of small burrows. They emerge and destroy the strawberries when about half ripened.

1. A large crab apple tree blossoms well in the spring but during the summer it takes on some sort of a blight and leaves and fruit fall.

2. An English cherry tree is fully grown and blooms very well, but it only bears a few dozen cherries. What is the cause?  
W. McK.


Ans.—1. Ants are sometimes troublesome pests to deal with. As a rule they erect small mounds which serve as their home. The pouring of boiling water on these mounds is sometimes effective; carbon-bisulphide may be used; soak a rag in the material, lay it on the mound and cover with a sack. The gas produced is heavier than air and settles. Care must be taken in handling this material as it is poisonous and inflammable. However, it is effective in exterminating underground life.

2. There are a number of blights and diseases which affect trees. Without seeing a specimen of the blight we are unable to say definitely what particular blight was affecting this tree. However, spraying with lime-sulphur or Bordeaux mixture before the buds open and again immediately after the blossoms fall will go a long way in controlling the various blights.

3. Only a few cherries forming would indicate that there is incomplete fertilization of the blossoms. It might also result from the bud moth or some other insect destroying the buds and preventing fruit setting. If spraying has not been done, it is advisable to use either of the sprays above mentioned, at the time mentioned. Two and one-half to three pounds of arsenate of lead should be added to every 40 gallons of the spray mixture in order to combat any biting insect which might be attacking the bud.

**"Lest We Forget."**

The most important house in this country is the farm home. The most important inmate is the farmer's wife. Her most important room is the farm kitchen. The most important asset for the equipment of that kitchen is an unlimited supply of dry fuel and pure water. Now, gentlemen, you know how to touch the most important things in life with your own hands.—Rural New Yorker.



**McCormick's**  
JERSEY CREAM Sodas in different sized packages

NO housewife could be more critical than we in her selection of baking materials. Highest grade flour, pure shortening, sweet whole milk and June creamery butter—these are the things that account for the purity and wholesomeness of

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Two Canadian-bred stallions, rising 3 year old, sired by imported horses, one from an imported dam other's dam is Dolly Murray, the Canadian-bred champion mare at Toronto, 1913. Come and see them. They are priced to sell. We are offering some choice young bulls and a few females.  
LAURIE BROS., AGINCOURT, ONT.

**OUR LATEST IMPORTATION OF CLYDESDALES**

arrived at our barns late in November. A number of them since have been prominent winners at both Guelph and Ottawa. But we have others (both stallions and mares) that were never out, the majority of the stallions weigh around the ton, and better quality and breeding were never in the stables. Come and see them. We like to show them.  
SMITH & RICHARDSON, Columbus, Ontario

**Clontarf Farm** MANNING W. DOHERTY Established 1870  
**Clydesdale Horses-Holstein Cattle-Yorkshire Hogs**  
We always have some choice young breeding stock to offer.  
Post Office—Malton Nearest Station—Cooksville, C.P.R.

**HILLSDALE FARM** Farm, 3 1/4 miles east of Ottawa  
**B. ROTHWELL**  
BREEDER OF HIGH-CLASS CLYDESDALES  
R. R. No. 1, OTTAWA, ONT.

Write me for prices on champion mares.

**Shorthorns, Shrop., Clydesdales** If you want a good young bull, a promising stallion colt, or a young cow or heifer of Scotch breeding and beef type, having dams eligible or good enough for R.O.P., come, see, and satisfy yourself and please the owner. Prices reasonable, that they may be sold. Visitors welcome.

**Wm. D. Dyer, R. No. 3, Oshawa, Ont.**  
Brooklin, G. T. R. and C. N. R.; Myrtle, C. P. R.

**PARKHILL SHORTHORNS**

Herd comprising over 70 head, representing noted Scotch families. A few heifers, well in calf, will be sold sight. Visitors always welcome to this herd of long-established reputation.  
Parkhill, R. No. 2, Ontario  
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**Welland District Shorthorn Breeders' Club**

are still offering young bulls of serviceable age, and a few breeding females.  
Chas. Galner, Secretary, Box 607, Welland, Ontario. A. E. Howell, President, Fenwick, Ont

**The Hawthorne Shorthorns and Clydesdales**

Present offering, 1 red Shorthorn bull, calved in July, 1916, by a good-milking cow; also heifers and cows with and without calves, all ages. Choice Fox Terrier pups—male, \$5; females, \$3; ready for delivery.  
ALLAN B. MANN, "The Hawthornes," R. 4, Peterboro, Ont.

**THE MANOR STOCK FARM---SHORTHORNS**

Two young red bulls (June and July), a Wimple and a Julia. Would buy a few females of good families.  
DENFIELD, ONT.  
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**SPRING VALLEY SHORTHORNS**

Herd headed by the two great breeding bulls, Newton Ringleader (imp.) 73783, and Nonpareil Ramsden 83422. Can supply a few of either sex.  
Drumbo, Ont. Phone and telegraph via Ayr  
KYLE BROS.,

**Shorthorns and Shropshires—T. L. Mercer, Markdale, Ontario**

Present offering in Shorthorns:—Ten really choice young bulls, sired by Broadhooks Golden Fame = 50018 = (imp.), and out of such noted families as Campbell-bred Clarets, Nonpareils, Marr Missies, Stamfords, Crimson Flowers, Village Girls and Charming Gems, ranging from 9 to 16 months old. All are good reds and roans.

**BRANT COUNTY SHORTHORN CLUB**

offers several young bulls of best breeding and fit for service. Also the Beauty-bred bull, Roan Duke 101320, a proven sire, whose dam is a heavy milker. For prices and particulars address:  
THE SECRETARY, GEO. L. TELFER, R. R. 2, PARIS, ONTARIO

**Pleasant Valley Farms** We have for sale (at prices that will move them in the next 30 days) the following exceptionally good bulls: 1 ROAN LADY, 1 BROADHOOKS, 1 ROSEWOOD, 1 WIMPLE, 1 STAMFORD, 1 MERRY LASS, 2 DUCHESS OF GLOSTERS and several others. Also equally well bred cows and heifers bred to (imp.) ROYAL SCOTT, and BEAU-MONT BEAU. Inspection invited. Our cattle will interest you. 90 head to select from.  
GEO. AMOS & SONS Farm 11 miles east of Guelph, C. P. R. MOFFAT, ONTARIO

**Glengow Shorthorns, Cotswolds**

For the present, we have sold all the Cotswolds we wish to spare, but we have a choice offering in young bulls fit for service. They are all of pure Scotch breeding, and are thick, mellow fellows, bred in the purple. **WM. SMITH, Columbus, Ont.; Myrtle, C.P.R.; Brooklin, G.T.R.; Oshawa, C.N.R.**



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THE UNION DAILY  
GREAT CANADIAN SUCCESS  
Bob Long's splendid Industry

**BOB LONG**  
UNION MADE  
GLOVES & OVERALLS

Known from Coast to Coast  
**R.G. LONG & CO. LIMITED**  
TORONTO ONTARIO

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Cream Separators  
of Quality

A VIKING CREAM SEPARATOR can be had from \$20.70 up to \$86.15. But whether it is a one-cow separator or a fifteen-cow separator, you can depend upon it that the Viking will give you a better service for less than you would pay elsewhere. You save not only on the first cost but also on repairs. You get a larger capacity with fewer parts to wash, and fewer parts to wear out.

Write for interesting descriptive booklet, or ask your dealer, Dept. A

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**GREATER RETURNS**

"MAPLE LEAF" OIL CAKE MEAL contains over 35% protein and 33% carbohydrates; purifies the blood, cleans the skin, opens the bowels, and keeps all live stock healthy.

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TORONTO AND MONTREAL

**LIVINGSTON BRAND**  
The purest and best.

**OIL CAKE MEAL**  
THE DOMINION LINSEED OIL CO., Ltd.  
Manufacturers, Baden, Ont.

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Angus—Southdowns—Collies

SPECIAL this month:  
**CHOICE BULLS**  
ROBT. McEWEN, R.R. 4, London, Ont.

**BROWN SWISS**  
Learn the merits of the Brown Swiss. Get acquainted and become a breeder of these cattle. For information, write to

**RALPH H. LIBBY,**  
Sec. of Canadian Brown Swiss Association  
Stanstead, Quebec

**BALMEDIÉ ABERDEEN-ANGUS**  
Get high-class Angus bull and breed the champion steers. I have show ring quality bulls from 10 to 24 months of age; also choice 1 and 3-yr. old heifers.

**E. B. BROADFOOT, FERGUS, ONT.**

**Poultry Disease Investigator.**

EDITOR "THE FARMER'S ADVOCATE":  
It will be of interest to poultry keepers throughout Canada to know that there is now an expert who devotes all his time investigating the diseases of poultry. Dr. A. B. Wickware, Assistant Pathologist to the Health of Animals' Branch has been assigned to that work by Dr. Torrance, Veterinary Director General.

Dr. Wickware is by no means a novice in poultry diseases. For several years, under Dr. Higgins, Dominion Pathologist, he has devoted some of his time to the diseases affecting poultry and has given special attention to Black Head. Realizing the importance of investigations in poultry diseases, J. H. Grisdale, Director of Experimental Farms and Dr. Torrance arranged for Dr. Wickware to take up this question exclusively. He is therefore now co-operating with the Poultry Division, Central Experimental Farm, where, since last fall, he has been conducting experiments along this much needed and very important line of work.

Continued attention is being given to Black Head in turkeys and many new investigations are being started. These relate to chick diseases as well as to general diseases of poultry, including parasites of all kinds.

The annual losses that occur from poultry diseases and parasites are tremendous. No person knows what the amount is but it is well into the millions of dollars each year. Dr. Wickware's work will no doubt, do something to eliminate part of this, but the co-operation of all poultrymen who have any disease in their flock will be appreciated.

As usual, communications to the Experimental Farm re diseases of poultry will be welcome and with Dr. Wickware now giving all his time to this matter, even more information will be available. Specimens of sick birds should be sent when practicable and may be expressed collect if addressed to Biological Laboratory, Experimental Farm, Ottawa.—Experimental Farms Note.

**Shortage of Swede Turnip Seed.**

EDITOR "THE FARMER'S ADVOCATE":  
Swede turnip growers are urged this spring to endeavour to secure and transplant a few sound roots to produce seed for themselves and their neighbors. Owing to the abnormal conditions now prevailing there will likely be very little Swede seed for planting in the spring of 1918, unless our Canadian Swede turnip growers make provision for their own supplies by growing the seed themselves. Canadian supplies of Swede and most other field root and garden seeds formerly came from Europe, but this source is now practically cut off. The prospects for home-grown seed have been reduced by the present price of Swede turnips for food purposes, as it would now take nearly two hundred dollars' worth of full-grown Swede turnips to transplant an acre for seed purposes. This factor has had the unfortunate effect of reducing the area in the Eastern Provinces that would otherwise have been planted for the production of Swede seeds.

Seed Branch, Ottawa.

The Professor's Banner.—A professor at Princeton who has taken much interest in the woman-suffrage movement was persuaded to carry a banner in a parade held in Washington.

His wife observed him marching with a dejected air and carrying his banner so that it hung limply on its standard, and later she reproved him for not making a better appearance.

"Why didn't you march like somebody, and let the people see your banner?" she asked.

"Dearie," sighed the professor, "did you see what was on that banner? It read, 'Any man can vote. Why can't I?'"

Sergeant—"Ey there! Where are you going?"

The Absent-minded Beggar (who had climbed out of the trench)—"Ol Jiminy! When that bloomin' shell w'stled over 'ead Hi thot it was twelve o'clock."

**Every dollar you put into an IDEAL now will bring you big returns next Winter**

Winter is the time when dairy products bring their highest prices.

But it is also the time when your cows ordinarily give the least milk. Even feeding them on expensive grain doesn't mean a very big increase in the milk yield.

You can get 20% to 25% more milk next winter at 15% to 20% less expense, by putting up an



**IDEAL GREEN FEED SILO**

now and filling it with juicy, milk-producing silage next fall.

Green, succulent feed is nature's feed. You know how much more milk you get in early summer when pastures are flush. Feeding your cows on silage is just like turning them out to pasture.

Put up an Ideal Silo and watch your profits grow. An Ideal will pay its entire cost the first year and last from twenty to thirty years.

Write today for our large illustrated silo catalogue, which shows you every detail of the IDEAL and explains just why you get more for your money in it than in any other silo.

**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 Churns and Buttermakers. Catalogues of any of our lines mailed upon request.

MONTREAL PETERBORO WINNIPEG VANCOUVER  
50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER

**HINMAN BUY Hired Help**

Hundreds of Hinman operators make extra profits each month, saving unnecessary costs of hired men to milk.

Canada's Shrewdest Dairymen Buy the Canadian-Made Machine. The HINMAN is a Simple and Safe Machine.

Write for Catalogue "H" and See Who Use HINMAN'S.  
**H. F. BAILEY & SON, GALT, ONTARIO**  
Manufacturers under HINMAN Patents.

**ESCANA FARM SHORTHORNS**

Sires in use: NEWTON GRAND CHAMPION (IMP.), a Marr Clara, recently imported, and RIGHT SORT (IMP.). His get has won numerous first and special prizes at Toronto.

FOR SALE—Seven bulls, choice individuals at reasonable prices. Also a dozen cows and heifers, some of them bred to our herd sires. Herd numbers 100.

**MITCHELL BROS.** BURLINGTON P.O., ONT.  
Jos. McCrudden, Manager Farm, ¼ mile from Burlington Jct.

**OAKLAND--50 SHORTHORNS**

A herd of breeders, feeders, and milkers that give satisfaction wherever they go. One bull for sale, 12 months, white, extra milk strain. Also females any age. Priced so you can buy. One of the finest bulls in Ontario heads this herd.

**JNO. ELDER & SONS, Hensall, Ontario.**

Imported Shorthorns Cows and heifers in calf, or with calf at foot. Yearling bulls and bull calves. One of the best importations of the year. You will be surprised when you see them.

**Will A. Dryden, Maple Shade Brooklin, Ont. Farm.**

**BLAIRGOWRIE SHORTHORN OFFERING**

Imported and Canadian-bred. More bulls to select from than any herd in Ontario, all of serviceable age; also a large number of females, which are bred right and priced right. All the stock for sale.

**JOHN MILLER, Ashburn, Ont. Myrtle Station, C.P.R. and G.T.R.**

**Spruce Glen Shorthorns**

of such popular strains as Minas, Fames, Miss Ramsdens, Florences, Emlys, etc. Have still a few young bulls—thick, mellow fellows, fit for service.

**James McPherson & Sons, Dundalk, Ont.**

A Choice Offering of Shorthorn Bulls—We have several good, thick, low-set bulls that are now just ready for service, all reds and roans, and mostly of Booth breeding. We would like to have you see these. They are priced to sell.

**GEO. E. MORDEN & SONS, Halton Co. Bell Phone OAKVILLE, ONT.**

**Meadow Lawn Shorthorns F. W. EWING, ELORA, ONT.**

In order to make room for the crop of calves coming on, attractive prices are being made on the offering of bulls ready for the trade. They are of extra quality and choice breeding, by that great sire, Escana Ringleader, by Right Sort (imp.). Few bulls their equal are to be had.



Questions and Answers. Miscellaneous.

Heaves.

I have a nine-year-old heavy horse that is troubled with a cough. It attacked him about a month ago and the symptoms indicate heaves. What treatment do you advise? Should he be allowed on grass or fed dry feed?

S. H. L.

Ans.—Heaves cannot be cured but the symptoms can be alleviated by reducing the quantities of bulky feed and feeding grain in proportion to the work performed. Food should be dampened with lime water and it is a mistake to drive the horse soon after a heavy meal. At all times, only a limited quantity of first-class hay should be fed. A feed of grass is quite satisfactory, but care should be taken that the horse does not gorge himself, especially if the grass is wet.

Bull on Pasture.

A pastures pure-bred heifers on B's farm at a certain rate per day and emphasizes to B that the heifers are pure-bred and no chances are to be taken to allow the heifers being bred. B's share of the fence between him and C was in poor condition and the heifers got into C's pasture where a grade bull was running with the cows. C admits that the heifers were in his pasture several times. Has A any redress against B or C? H. L. F.

Ans.—There was negligence on B's part if he knew his fence was out of repair and made no effort to fix it. C is liable to any damage caused by his bull running at large. A would have to prove the extent of loss by the registered heifers being bred by a grade bull. As to whom A would have to look for redress would depend partly on the wording of the agreement. It almost looks as if A would have to claim redress from B who in turn would come unto C for damages. Of course the fact that B knew his fence was not cattle proof would be considered, but that would not relieve C from liability as bulls are not supposed to be at large.

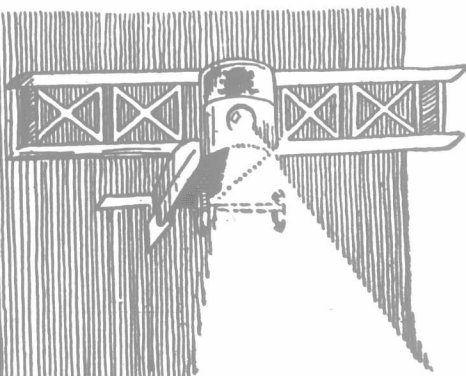
Size of Pen for a Flock of Sheep.

I wish to build a sheep pen to accommodate 50 breeding ewes, I desire to have a loft above. Could you describe or give illustrations of such a pen showing the position of feed rack so that the feeding may be done from the loft above. D. D. G.

Ans.—There should be at least 12 square feet per head for breeding stock, and for large ewes some shepherds recommend more space. This would necessitate at least 600 square feet, which may be secured in a pen 30 feet by 20. The requirements of the sheep barn are good ventilation without drafts, sunlight, a tight roof, well-drained floor, convenience for feeding and capacity for storing hay, grain or roots. It is not necessary that an elaborate building be erected provided the above requirements are met. It is advisable to have wide doors to the pen. The walls should be about 8 feet high, then a gable roof may be put on which will give room for the storage of hay. A root cellar could be built at one end, although unless covered with earth there would be danger of the roots freezing. The feed racks could be placed across the center of the pen, thus dividing the pen into two parts with a feed passage in the center. The bottom of the rack should be about 16 or 18 inches wide and slats could be put in the front 2 or 2 1/2 feet high. Above this could be solid to the ceiling which would prevent chaff getting on the backs or necks of the sheep. The feed rack should be perpendicular rather than slanting towards the pen. With a rack of this style the hay can be fed from the loft. When building a permanent sheep pen it is advisable to make it larger than the present stock requires so as to permit of increase. Arrangements should be made for lamb pens. If the main pen is large enough, hurdles 4 or 5 feet long and 3 feet high can be used to make these pens. As they are movable this room can be given to the main flock during fall and winter.

Teacher.—"Tommy, what is the difference between angling and fishing?" Tommy.—"Well, the rich man angles and the poor man fishes."

You'll find the traffic on the good pavement every time



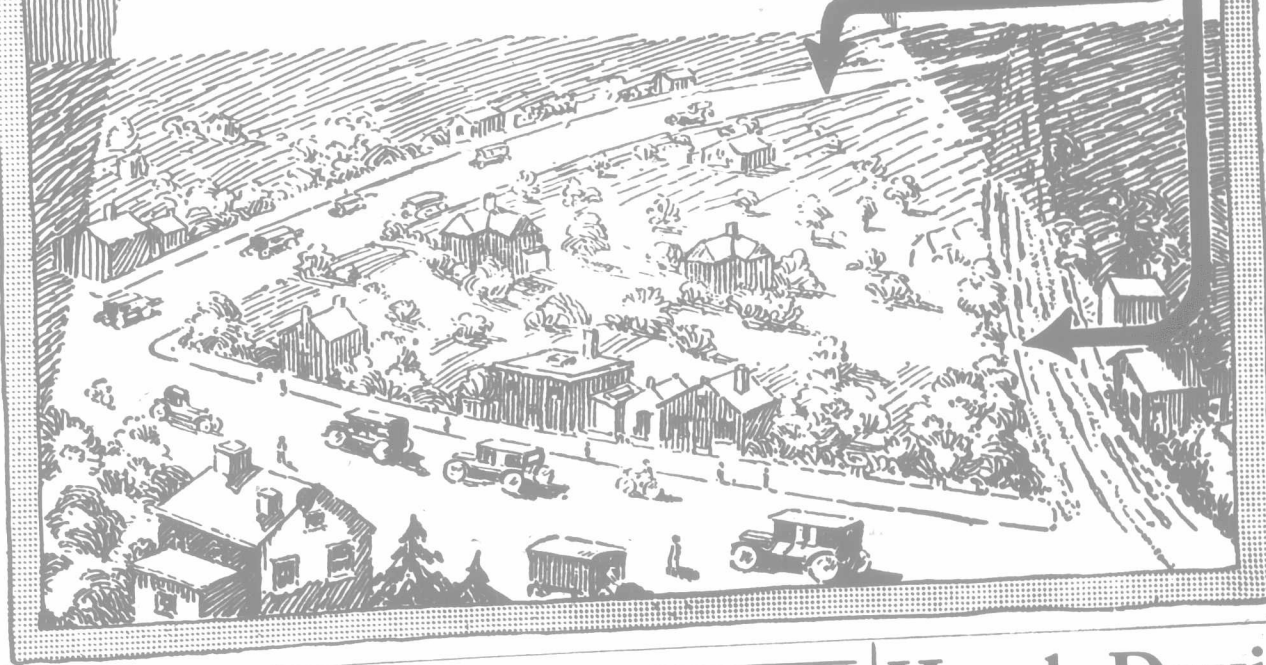
If you could fly over the country in an aeroplane and see all the roads of the country-side, you would be impressed by the fact that traffic does not follow the most direct line. It follows the best roads, even though it has to take a roundabout way to pass over them. A two-mile trip over a good road is shorter, in time of travel, than one mile over a bad Road. Heavier loads can be hauled; better speed can be made, and there is less "wear and tear" upon horses and vehicles.

CONCRETE PAVEMENTS

provide highways over which traffic of all kinds can pass safely and rapidly at all seasons. Its cost, over a period of say, twenty years, is less than that of building and maintaining old-fashioned roads. Every farmer, every motorist, every business man,—in fact every taxpaying citizen—is directly interested in the character of the roads to be built in Canada.

We have published an interesting booklet—"Concrete Roads." Write for copy, and post yourself upon the facts.

Canada Cement Company, Limited 30 Herald Building, Montreal



There are men that have good SHORTHORN HERDS that need good bulls to head them. There are men that have herds that are kept to breed thick, easy-feeding cattle, and big cows that are good milkers. There are men that are trying hard to start improvement in their own herds and in their neighborhoods. I have a suitable bull for each at a moderate price, and I PAY THE FREIGHT. Business established 81 years Robert Miller, Stouffville, Ont. One hour from Toronto

SALEM SHORTHORNS Nothing for sale at present. Annual sale June 28th. Tel. 101, Elora, Ont

J. A. WATT. IMPORTED SHORTHORNS 11 imported cows have calved since arriving at farm; others due soon. Now is your opportunity to get something worth while to add to your herd at reasonable cost. Imported bulls of serviceable age. OAKVILLE, ONTARIO A. G. FARROW.

IMPORTED SHORTHORNS 35 imported cows and heifers, forward in calf to service in Scotland, also five imported bulls. Or 1916 importations are all choicely bred. Have also home-bred bulls and females. Farm half mile from Burlington Junction. Write or call and see us. J. A. & H. M. PETTIT, Freeman, Ont.

Evergreen Stock Farm Registered Holsteins Just now we are offering a very choice young bull, five months old, whose five nearest dams average over 30 lbs. of butter in seven days and 100 lbs. of milk in one day. Also another bull calf whose dam was the top-price cow in the Woodstock Sale. Bell phone. NORWICH, ONTARIO A. E. HULET.

Harab-Davies Fertilizers Yield Big Results Write for booklet. THE ONTARIO FERTILIZERS, LTD. WEST TORONTO

Mardella Shorthorns Bulls, females, sires, quality; breeding dual-purpose cattle over 40 years. The Duke—dam gave 18,000 lbs. milk, 474 lbs. butter fat—at the head. Thomas Graham, Port Perry, Ont., R.R. No. 3

Glenfoyle Shorthorns Present offering—3 bulls from 10 to 12 months. Nice, straight, smooth fellows. Prices easy. Stewart M. Graham Lindsay, Ontario

Plaster Hill Herd Dual-Shorthorns Just one bull left, 12 months old—a choice one, good milking strain. Can spare a few cows and heifers. F. Martindale & Son, Caledonia, R. R. No. 3, Ont. Long-Distance Telephone.

Brownlee Shorthorns Offers a choice lot of young bulls, ranging in ages up to nine months and sired by the Nonpareil bull, Royal Saxon. See these before buying elsewhere. Could also spare a few females. Douglas Brown, Bright, Ont., R. R. 3, Ayr Station, C. P. R.



## Heaves

**AND HOW TO CURE**  
—A Standard treatment with years of success back of it to guarantee results in

**Fleming's Tonic Heave Remedy**  
Use it on any case—No matter what else has been tried—and if three boxes fail to relieve, we will refund full amount paid. Further details in

**Fleming's Vest Pocket Veterinary Adviser**  
Write us for a Free Copy

**BEST EVER USED**  
Dear Sirs:—Enclosed find \$1.00 for 1 package of Tonic Heave Remedy. I used a package last year and completely cured a case of Heaves of some 3 years' standing.  
H. B. BIRKHOFFER, Lillooet, B.C.  
Per Box, \$1.00; 3 for \$2.50

**FLEMING BROS., Chemists**  
75 Church St. Toronto



## WANTED—CREAM

We pay highest market prices for churning cream of good quality. We

Remit promptly.  
Test accurately.  
Supply you with cans.  
Give you a square deal.

Enough said. Write for fuller particulars to

**ROSEDALE CREAMERY CO.**  
Kitchener, Ontario

## CREAM WANTED

Ship your cream to us. We pay all express charges. We supply cans. We remit daily. We guarantee highest market price.

**Ontario Creameries, Limited**  
London, Ontario

## CREAM

We are open to buy cream both for churning and table use.

**ASK ANY SHIPPER**  
about our service and prompt returns.

Ask for prices.  
The figures of yesterday may be TOO LOW for to-morrow. We furnish cans.

**The Toronto Creamery Co., Limited**  
Church Street, Toronto

## Cream Wanted

We pay highest price for cream at all seasons of the year. We furnish cans and pay express charges. Write for particulars.

**WESTERN DAIRY, LIMITED**  
St. Thomas, Ontario

## 18 HOLSTEIN BULLS FOR SALE

14 months and under; also 1 cow; 8 heifers, freshening from March till September, from tested and untested dams.

**R.M. Holby, Port Perry, Ont., R.4**

**RIDGEDALE HOLSTEINS** offers three young bulls ready for service at one-third price. One by Pontiac, one by King Segis, and the others by King Segis, Pontiac, and Dam. Can also apply to Wm. Walker, R. W. Walker & Son, Port Perry, R. 4, 1, Manchester, Ont., R. 3, 1, P. R.

**Willowlea Holsteins** offers a full set of 18 Holstein bulls, 14 months and under, 1 cow, 2 heifers, freshening from March till September, from tested and untested dams. Write for particulars to Wm. Walker, R. W. Walker & Son, Port Perry, R. 4, 1, Manchester, Ont., R. 3, 1, P. R.

### Questions and Answers. Miscellaneous

**Eczema.**  
I have a young mare that has a lot of little pimples all over her back and part way down her side. What could I give her to get rid of them?  
S. C.

Ans.—These pimples indicate a form of eczema, although it is possible that they have been caused by the blood becoming overheated. If not in foal purge with 7 drams aloes and 2 drams ginger; follow up with one ounce Fowler's solution of arsenic twice daily for a week. Dress the parts daily with a warm, five-per-cent. solution of one of the coal-tar antiseptics. Keep the mare comfortable after each dressing.

**O. P. V. Silage.**  
What is your opinion of the O. P. V. silage? What time should it be planted to be ready for filling the silo the same time as corn? Would hairy vetch be preferable to the common variety?  
J. E. C.

Ans.—O. P. V. mixture is considered to be next in value to corn for silage purposes. It has been used successfully in the Maritime Provinces and in parts of New Ontario. It should be sown early in the spring, as soon as the land is in condition, in order to get a heavy yield. However, this would not bring it in the same time as corn. If planted to have ready for cutting at the same time as corn, there is danger that weather conditions will not be favorable to a maximum yield. In our issue of April 19, under the heading "Silage from Crops other than Corn," O. P. V. silage is discussed. It is the common or spring vetch which is used.

**Estimating Grain in a Bin.**  
1. What is the correct method of estimating the amount of grain in a bin?  
2. I have an eight-year-old horse that has not been doing well for over a year. His hair looks dead and he bites and rubs himself considerably. He has a ravenous appetite, but the feed he eats does not seem to do him much good. What treatment do you advise?  
W. H.

Ans.—1. To estimate the amount of grain in a bin or wagon-box, find the cubical contents in feet, then multiply by 8 and divide by 10. There is practically eight-tenths of a bushel in a cubic foot.  
2. The biting and rubbing indicates lice or a mild form of eczema. The unthrifty condition may be due to defective teeth. Have them examined. It is a mistake to allow a horse all the rough feed he will consume. Give him what good hay he will clean up in an hour and a half, three times a day. When working feed liberally on oats and give an occasional feed of boiled oats to which a little flaxseed has been added. The following is treatment for eczema: Purge with 7 drams aloes and 2 drams ginger. Follow up with one ounce Fowler's solution of arsenic twice daily for a week. Dress the parts twice daily with a warm five-per-cent. solution of one of the coal-tar antiseptics. Keep the horse warm and dry after each dressing. Insect powder sifted into the hair destroys lice. Four parts cement and one part kerosene dusted into the hair is also recommended for the destruction of lice.

The son of the well-to-do family had recently joined up as a private, and was spending his Christmas leave at home.

Returning from a walk, his mother espied a figure in the kitchen with the housemaid.

"Clarence," she called to her son, "Mary's got someone in the kitchen. She knows perfectly well that I don't allow followers, I wish you'd go and tell the man to leave the house at once."

Clarence duly departed to the kitchen, but returned in about half a minute.

"Serry, mother, but I can't turn him out."

"Can't turn him out? Why on earth not?"

"He's my sergeant!"

British Tommy (somewhere in France) — "Speak English, Moosoo?"

French Shopkeeper — "But — yes — a beetle, M'sieu."

British Tommy — "Righto, then give us ten pounds of spiders, an ounce o' barley, a packet o' fags, and a box o' lights, an' be jippy."

# MANOR FARM

Senior Herd Sire is

## KING SEGIS PONTIAC POSCH

Sire, King Segis Pontiac Alcartra (the \$50,000 bull)  
Dam, Fairmont Netherland Posch  
7-DAY RECORD, 4 YEARS, 29 DAYS

Butter.....	32.54
Milk.....	511.50
% fat.....	5.09

Junior Herd Sire is

## KING KORNDYKE SADIE KEYES

Sire, Sir Sadie Korndyke Segis  
Dam, Lulu Keyes  
7-DAY RECORD

Butter.....	36.05
Milk.....	785.40
Highest day's milk	122.80

What better combination can be had? I have no sons from my junior sire yet; there are just a few left from King, from good A. R. O. dams, and priced right to sell.

**Gordon S. Gooderham**  
Manor Farm Clarkson, Ont.

### Mr. Holstein Breeder—

It is customary in selecting a herd sire to choose one backed by 'great records. Do not forget the individual. We breed to a standard for individuality and production, therefore choose your next sire from either Lakeview Dutchland Hengerveld 2nd, Grand Champion at the Canadian National Ex. and Western Fair, 1916, with a Can. Champ. 3-year-old sister with 34.66 lbs. butter in 7 days; or from Pieterje Ormsby Beauty, with 3 generations of over 30-lb. cows, or by King Sylvia Keyes, whose 20 nearest relatives average for 7 days, 29.97 lbs. butter and whose dam and 5 sisters average 112.5 lbs. milk in 7 days.

All faultless individuals. Prices, extended pedigrees and photos on request. Correspondence solicited.

**W. G. BAILEY, Oak Park Stock Farm R. R. No. 4, PARIS, ONT., CANADA**

## Sunnybrook Farm Holsteins

**YEARLINGS:**—Male and female for sale, from high-record dams testing from 14 to 30 lbs. butter in 7 days, giving from 7,000 to 12,000 lbs. of milk; sired by Sunnybrook Mercedes Natoye, whose dam has a seven-day record of 29.34 lbs. butter, and Count Faforit Sylvia Segis, highly strained in the blood of the world's only 50-lb. cow.

**Joseph Kilgour, Phone, Toronto, Adelaide 3900, Belmont, 184 Eglinton, Ont.**

## Hospital for Insane--Hamilton, Ont.

Our only offering at present is a bull born February 10th, 1917, a grandson of Dutchland Colantha Sir Mona, and the great cow Lakeview Lestrangle, 28.34 lbs. butter in 7 days. His dam is a high-producer and tester, and carries the blood of King of the Pontiacs, and King Segis.

**Apply to Superintendent**

## ROYCROFT FARM HOLSTEINS

FORMERLY THE HET LOO HERD

We have a few exceptionally nice, straight, 9, 10 and 12-month heifers, principally all from high-record cows we have purchased in both Ontario and United States. They are all from good-record sires, but as our stabling is limited we are offering these at prices away below their value, so we may keep only those of our own breeding. They will not remain with us long. Write quick if you want them.

WE ARE AT PRESENT OFFERING THE SERVICES OF KING SEGIS ALCARTRA SPOFFORD TO A LIMITED NUMBER OF APPROVED COWS. WRITE FOR PARTICULARS.

**W. L. SHAW, PROPRIETOR, Gordon S. Manhard, Superintendent, Newmarket, Ontario.**

## KING SEGIS WALKER'S

Oldest daughter with first calf made 456 lbs. milk and 24 lbs. butter; with her second calf, 560 lbs. milk and 29 3/4 lbs. butter. His first granddaughter, through his son, at 2 yrs. 2 months, made 440 lbs. milk and 23 1/2 lbs. butter. Young stock for sale.

**A. A. FAREWELL, OSHAWA, ONTARIO**

Riverside Holsteins Herd headed by "King Johanna Pontiac Korndyke," a brother of Pontiac Lady Korndyke, 38.02 lbs. butter in 7 days, 136.92 in 30 days—world's record when made. His ten nearest relatives have official records that average 34.94 lbs. butter in 7 days. His daughters have made good in official test. The present R. of P. cow of Canada was bred here. Choice young bulls for sale.

**J. W. RICHARDSON, R. R. No. 2, CALEDONIA, ONT.**

## CLOVERLEA HOLSTEINS

Our entire lot of bulls, fit for service, as advertised, are sold. We still have a number coming on, eight months and under, which will be priced right for immediate sale. Write quick, for they will go fast—

**GRIESBACH BROS., COLLINGWOOD, ONT.**

## DUMFRIES FARM HOLSTEINS

175 head to choose from. Special offering: bulls from one month to one year old. Grandsons of Prince Aaggie Mechtulde. Visitors always welcome.

**S. G. & ERLE KITCHEN, ST. GEORGE, ONT.**

## Silver Stream Holsteins

Herd headed by King Lyons Hengerveld, whose five nearest dams average 31.31 lbs. butter in 7 days and by King Lyons Colantha, 6 nearest dams average 30 lbs. butter in 7 days. Bull fit for service, also bull calves from above sires and out of R. O. P. dams for sale.

**J. MOGG & SON, R. R. No. 1, Tavistock, Ont.**



The New England Ayrshire Club  
Announces a Sale of  
**High-Class Ayrshire Cattle**

to be held at  
**SPRINGFIELD, MASS., JUNE 14, 1917**  
In the Coliseum, where the 1916 National Dairy Show was staged



This is going to be the  
**Greatest, Busiest and Best  
Consignment Sale of  
AYRSHIRE CATTLE**  
ever held in America

**SCOTLAND**

will furnish the most attractive lot  
ever to leave the "Old Country".

**UNITED STATES**

will be represented by consignments  
from many of the most noted herds.

**CANADA**

will send choice selections from the  
leading breeders.

A Breeder who desires to add to his herd, or a Beginner who wants  
to start right will find in the list **Show and Breeding Specimens**  
that combine to make this an offering that should appeal directly to  
every prospective buyer.

There are animals with **Milk Records and Championship Honors** to their  
credit. Many of them are the get of the most celebrated bulls of the breed and  
others are bred to the best of sires. You will find the **Type that Appeals to You**  
in this sale. For catalogue, mailed **only on request**, address—  
Arthur H. Sagendorph, Box 2, Spencer, Mass. Chairman, Sale Committee.

**Questions and Answers.**  
Miscellaneous.

**Finger Nail Comes Off.**

Can anything be done to prevent a  
finger nail from coming off after it has  
been hit with a hammer or jammed.

J. L. S.

Ans.—This will depend on the violence  
of the blow, or the severity of the jam,  
but in any case it would be well to consult  
a physician regarding injuries of this  
kind. Complications, not recognized  
by laymen, often result seriously in  
accidents of this character.

**Buckwheat as a Nurse Crop.**

Would it be advisable to sow buck-  
wheat as a nurse crop for alfalfa? What  
quantity would you sow per acre? J. A. D.

Ans.—Buckwheat is more or less of a  
smothering crop and many noxious weeds  
are choked out by it. Therefore, it could  
not be advisable to use it as a nurse  
crop for alfalfa or any of the small seeds.  
Three-quarters of a bushel to the acre  
is the quantity frequently used when  
sowing buckwheat for seed. We have  
read, however, of its being used at about  
½ bushel or less per acre with red clover.

**Lump on Colt's Leg.**

1. I have a young colt which has two  
lumps on the inside of the leg, near the  
body. The colt is smart and does not  
appear to be inconvenienced by the  
lump. The veterinarian advises leaving  
it alone for a time. What treatment  
would you recommend?

2. One of our pure-bred sows had  
two litters in which some of the pigs  
had deformed mouth-parts; the lower jaw  
was missing. What is the cause?

S. B.

Ans.—1. Without further information  
regarding the lumps, it is difficult for us  
to suggest treatment. If your veteri-  
narian has examined the lumps and be-  
lieves it advisable to leave them alone  
for a time, it is well to follow his advice.

2. Such things may happen without  
any apparent cause. As it has happened  
twice in succession it is not advisable to  
breed the sow again. It looks as if it  
was due to some congenital weakness in  
the sow.

**Bean Growing—Stencil**

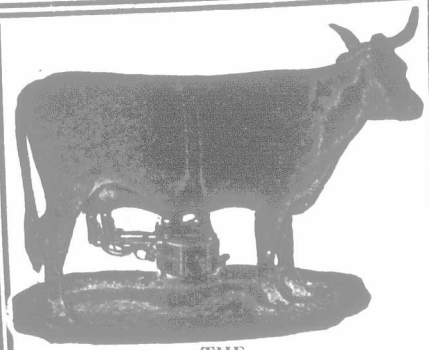
1. I would like some information on  
the growing of beans, especially the small  
white beans, which are used when ripe,  
and the Lima beans. We have trouble  
with beans rusting. Can you tell me  
anything to prevent them rusting?

2. How is a stencil made to paint a  
border on a plastered wall, or can they  
be bought, and where?

H. J. N.

Ans.—1. Beans require a soil that is  
fairly well underdrained. Sandy or  
gravelly-loam soils are preferred to heavy  
clay, although if properly drained good  
crops are raised on the latter type of soil.  
The soil should be thoroughly prepared  
before the beans are planted. It is  
usual to plant in rows about 28 inches  
apart and the amount to sow per acre  
varies from three to five pecks, depending  
on the size of the beans. Seeding takes  
place about the last week in May or first  
week in June. It is important to plant  
so that beans will get a quick start and  
make rapid, continuous growth. Cultiva-  
tion through the early part of the summer  
to destroy weeds and conserve moisture  
is essential. Do not cultivate, however,  
when the beans are wet, nor after the  
blossoming period has started. Anthrac-  
nose, bean blight, and rust are enemies of  
the plant. Mildew also frequently at-  
tacks the plant and causes imperfect de-  
velopment. The rust usually develops  
late in the season and, therefore, is  
not so destructive as the other diseases.  
Little can be done to prevent the rust.  
Anthracnose causes a spot to appear on  
the pod and also on the seed. Diseased  
seed is responsible for spreading trouble,  
therefore, the method of prevention is to  
plant clean seed. Treatment of the  
growing plant to prevent or check the  
disease is not practicable.

2. It might be possible to mark the  
desired design on a thin sheet of brass or  
metal and then cut it out. However,  
without the proper machinery it is rather  
difficult to do. Consult your dealer in  
paints, or the painter in the nearby  
town, regarding stencils for painting a  
border on a wall.



**THE  
OMEGA MILKING  
MACHINE**

has these advantages over other machines:  
Transparent celluloid milking tubes instead  
of rubber ones which harbor germs and are  
difficult to clean. Pail and teat cups are  
suspended from the back of the animal.  
The udder has no weight to carry. The pail  
cannot be knocked over and the teat-cups  
cannot fall on the stable floor and suck up  
straw or filth. The OMEGA milks fast  
and milks clean.

**OMEGA—The Best by Test**

The OMEGA is used and recommended  
by Mr. R. R. Ness, of Howick, Que., one  
of the largest importers and breeders of  
record Ayrshire cattle in Canada. He  
writes regarding the Omega as follows: "It  
certainly has all other machines beaten in  
point of cleanliness with those celluloid  
tubes instead of rubber, the pail hanging  
on the cow's back—never touching the  
floor, the position in which the teat-cups  
are held, insuring the most cleanly way of  
milking known to-day."

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scribing the many superior features of the  
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**If you are in need of a  
Cream Separator**

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**"Sanitary King"**

Six Sizes—135—200—280—375—600 and  
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**DETACHABLE SPINDLE, OIL SPLASH**  
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The first remedy to  
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**Fleming's Lump Jaw Cure**

and it remains to-day the standard treatment,  
with years of success back of it, known to be  
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Performance dams, imported and Canadian-bred,  
sired by Anchenbram Sea Foam (imp.) 33798,  
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**Glencairn Ayrshires** Herd established 40  
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ability from 8,600 to 11,022 lbs. If that sort of  
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and young bulls for sale. **Thos. J. McCormick**  
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One bull, twelve months, and one bull calf; also  
yearling heifers and heifer calves, sired by import  
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**CHAS. E. ROGERS, INGERSOLL, ONT.**

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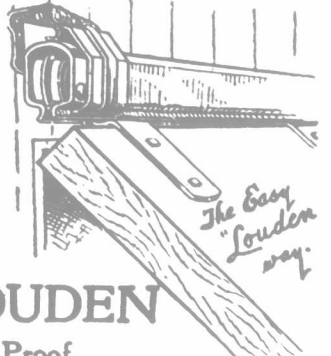
**THE WOODVIEW FARM JERSEYS**  
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Jno. Pringle, Prop. **WE WORK OUR SHOW COWS AND SHOW OUR WORK COWS**

**Young BRAMPTON JERSEYS Bulls**  
For the next fortnight we are making a special offering on young bulls, bred from the highest producing  
families ever introduced into Canada. Brampton Jerseys and their descendants hold all Jersey R.O.F.  
records, save one. Females, all ages, also for sale. **B. H. BULL & SON, Brampton, Ontario**

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OFFERS: Several young bulls, all of serviceable age, and all from R.O.P. dams. These are priced  
right. Interested parties should write or see these at once. We also have females of breeding age.  
**Tomdorden P. O., Duncan Station, C.N.O.**  
Headed by Burnside Lucky Master Swell, a com-  
bination of blood so hard to equal, being of the  
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which means quality, production and constitution  
which means quality, production and constitution  
Ninety head to select from. Special offering—20  
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**LOUDEN**  
Bird Proof  
Barn Door Hanger

and have the barn door hang and run right for all time. This is positively the finest Barn Door Hanger on the market. As its name implies birds cannot build in the track. The track is hollow with closed ends. No ice or snow in winter or trash in summer can possibly get in to clog it. Runs on two strongly braced trolley wheels always smooth and easy running. Hinged so as to make it flexible and to allow the door to swing outwards and upwards if occasion requires.

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—over 47 years of experience and practical experiments go to make Louden goods efficient and reliable. We make

“Everything for the Barn”

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Breeding Stock

Several boars fit for service.  
Fifteen young sows in pig.  
Pedigree papers supplied  
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“Surety Brand”; Protein 36%, Fat 5.50%  
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Mills conveniently located in the south, in every cotton-growing state.  
Prices on application in car lots or less.  
Fred Smith, 32 and 34 Front St. W., Toronto.

**TAMWORTHS**  
Young sows bred from April and May farrow, and a nice lot of young boars for sale. Write:  
John W. Todd R. R. No. 1, Corinth, Ont.

**AVONHURST YORKSHIRES AND COLLIES**  
Special Offering—Extra fine collie puppies, sable and white; pedigreed. Bred from imported stock that are splendid workers and fit to win in fast company. \$15 each, either sex.  
B. Armstrong & Son, Codrington, Ont.

**Meadow Brook Yorkshires**  
I am offering some good litters ready to wean, May 1st. All bred from prize-winning stock. Prices reasonable.  
G. W. Miners, R.R.3, Exeter, Ont., Huron Co.

**YORKSHIRES** Sows 170 lbs. and under, not yet bred. Boars 2 and 3 months, 60 to choose from. Bred from prize-winning stock, Eldon Duke still at the head. Tell us your wants.  
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**Cloverdale Berkshires and Shropshires**—In Berkshires I can furnish boars or sows, all ages, pairs not akin. All breeding stock imp. or from imp. stock. In Shropshires can furnish rams or ewes, any age, from imp. stock. Prices reasonable.  
C. J. LANG, R. R. No. 3, Burketon, Ont.

**Berkshire Pigs** Registered stock, choicely bred young boars, and sows in pig, all ages. Can supply pairs not akin.  
**CREDIT GRANGE FARM**  
J. B. PEARSON, Mgr., Meadowvale, Ontario.

**Champion Berkshires**—When buying, buy the best; our present offering are sons and daughters of the two great champions, Lucky Lad and Baron Compton, and out of winners, including champions. Both sexes.  
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**Springbank Chester Whites and Yorkshires** Ancestors bred from prizewinners and champions. Young sows bred for June farrow, both sexes, four months old and younger. In Yorkshires we have both sexes ready to wean.  
Wm. Stevenson & Son, R.R. 1, Science Hill, Ont.

**Questions and Answers.**  
Miscellaneous.

**Testing Cream.**

Two farmers desire to send cream to a creamery but neither has sufficient cream to ship separately. Would it be possible for them to invest in a Babcock tester and each test his cream before mixing it? Would they get the same percentage fat as would be gotten at the creamery? Does operating a tester require much skill, or does it take long to make a test?  
L. J. T.

Ans.—There are a few simple rules which must be followed in order to get an accurate test with a Babcock tester. Anyone can learn to do the work, and a test can be made in about fifteen minutes. Theoretically, the average of the two tests should be the same as that secured at the creamery. However, it might not always work out in practice and there might be a point or two variation. If each farmer carefully weighed and tested his cream, there should be little difficulty in dividing the proceeds.

**Tuberculosis in the Flock.**

A number of my hens are dying. On opening one I found the liver considerably swollen and there were spots under the skin. The head was dark blue color. What was the disease and what treatment do you advise?  
J. G.

Ans.—The swollen liver and the spots indicate that the birds suffered from tuberculosis. Other symptoms which frequently accompany this disease are lameness, and going light in weight. Tuberculosis is a disease for which there is no cure. The birds may have the disease and linger on for some time but seldom are infected birds profitable, and they are certainly a menace to the remainder of the flock. Birds which show pronounced symptoms should be killed and their bodies burned or buried deeply. Give the pens, yards and all poultry-house furnishings a thorough cleaning, then spray with a good disinfectant. If the entire flock appear unhealthy it is advisable to destroy them and start with new birds. However, it may be that only a portion of the flock is diseased and such drastic measures would not have to be resorted to.

**Sweeny—Quarter Crack.**

I desire advice regarding a crack on a horse which I have been trying to heal. I secured several bottles of liniment but they gave no results. He is rising six years old, and I would like to get this healed so that I can sell him to better advantage. The other day I was advised to put in some dry lime, so I am trying that, and also putting salts in his feed.

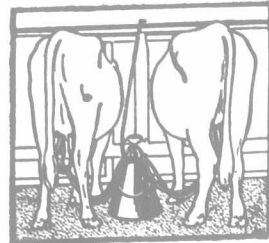
2. Is there anything that will help a sweeny of long standing? I blistered it twice and have been working him lightly of late. The shoulder has not filled out but he does not go lame.

3. Is there anything to stop the growth on the inside of the hind leg of a horse?  
T. S.

Ans.—1. It is not stated what part of the anatomy is affected by this crack. However, we presume it to be a sand crack or quarter crack. Both of these are a cracking of the hoof, due to a drying condition of the horn which renders the structure brittle and thus liable to crack. Lameness is caused by the pinching of the sensitive laminae by the crack as it opens and closes when the foot is in action. If dirt or foreign material has gotten into the crack it must be cleaned out and an endeavor made to bring the edges of the crack together and to encourage the growth of the hoof. A blister made of 2 drams each of biniodide of mercury and cantharides mixed with 2 ounces of lard or vaseline should be rubbed around the top of the hoof. Rub well with the blister once daily for two days, then apply sweet oil and turn loose in a box stall. Oil every day until the scale comes off, then blister again. Special shoeing is sometimes necessary and hoof ointment may be applied to soften up the hoof.

2. It is doubtful if anything can be done to fill out the shoulder where the falling away was caused by sweeny some time ago. Blistering might be continued with good results, and frequent brisk rubbings will also encourage the growth of the muscles.

3. The growth spoken of is natural to horses, therefore it is not advisable to apply anything that would prevent or interfere with its development.



**“With your Milking Machine I can Produce Milk of Superior Quality”**

The writer of the letter below is known throughout his district as a keen and rather critical judge of dairying methods and equipment. They say he is a “crank” on quality! Certainly the John D. Duncan Co., of Montreal, are most particular about the purity of the milk they get for their patrons.

RIVERFIELD, QUE., Jan. 25, 1917

Gentlemen:—

I have noticed some of the testimonials you are publishing and thought I would let you know how I like the Empire Milking Machine and Empire Engine which I purchased from you in the month of April, 1916. It has given entire satisfaction. I have had considerable experience with engines for many years, and am consequently in position to appreciate the merits of the Empire, and recommend same as one of the most reliable for milking machine and general farm work.

With your Milking Machine I can produce milk of superior quality, according to the statement of the John D. Duncan Co., to whom I have been shipping. I find that the machine is in no way injurious to the cows or teats, and no other trouble has been experienced. The speed at which the machine can milk is regulated by the class of cows and the quickness of the operator.

J. R. MCKELL.

**EMPIRE**  
Mechanical Milkers

produce milk of high quality, at the same time that they save time, reduce expense, increase profits, and make it possible to keep up and even increase the number of cows milked, in spite of the growing scarcity of help. They certainly are worth investigation.

Write for Booklets explaining the correct natural principle on which the Empire works, and giving the experience of prominent Dairymen who are using it. Address Dept. “C”

**THE EMPIRE CREAM SEPARATOR CO.**  
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MONTREAL TORONTO. WINNIPEG. 63



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The delicate and close fitting mechanism of a hand separator requires a quick-acting, high-grade lubricant.

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is manufactured especially for use with hand separators. It is free from all impurities, will not gum, and serves also to protect the machine from seam rust and corrosion.

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BRANCH STATIONS THROUGHOUT CANADA



**LARKIN FARMS**  
Southdowns and Shropshires

Having added to our flocks by purchasing, from J. C. Duncan, all the sheep of the Niagara Stock Farm, Lewiston, N.Y., we are able to offer an excellent selection of two-year-old and shearing rams and ram lambs; also a few show flocks of both breeds for the Summer and Fall Fairs. Address: Berkshire boars, all ages. Larkin Farm, Queenston, Ont. Twenty-minute trolley-ride from Niagara Falls.

**YORKSHIRES**

From choice stock on both sides. Several young litters. Also some young sows ready to be bred.

**WELDWOOD FARM,** Farmer's Advocate, London, - Ontario

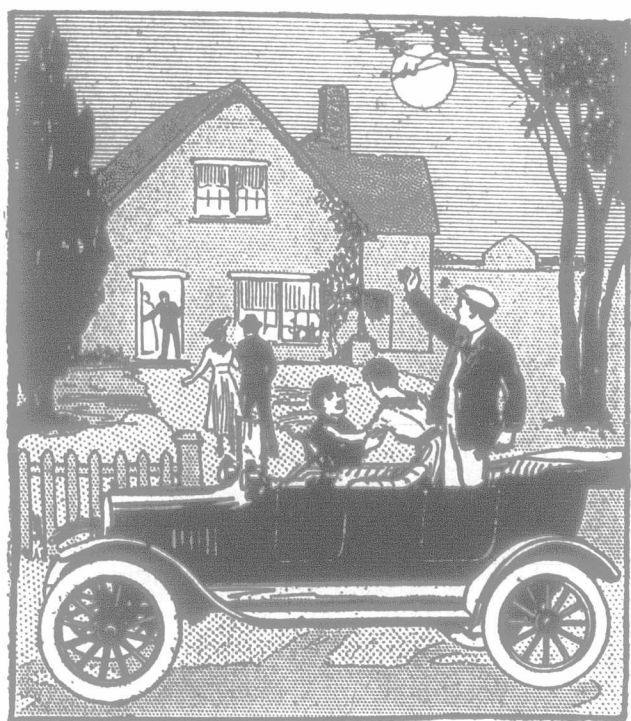
**ELMHURST LARGE ENGLISH BERKSHIRES**

From our recent importation of sows, together with the stock boar, Suddon Torredor we can supply select breeding stock, all ages. Satisfaction and safe delivery guaranteed  
H. M. VANDERLIP, Breeder and Importer, R. R. 1, Brantford, Ont. Langford Station on Brantford and Hamilton Railway.

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GEORGE G. GOULD, R.R. 4, Essex, Ont.

**MORRISTON Tamworths and Shorthorns.** Bred from the prizewinning herds of England. Tamworths, both sexes, 20 young sows, bred to farrow in June and July. Young boars from 2 to 5 months old; Shorthorns of the best milking strain.  
CHAS. CURRIE, Morriston, Ont.





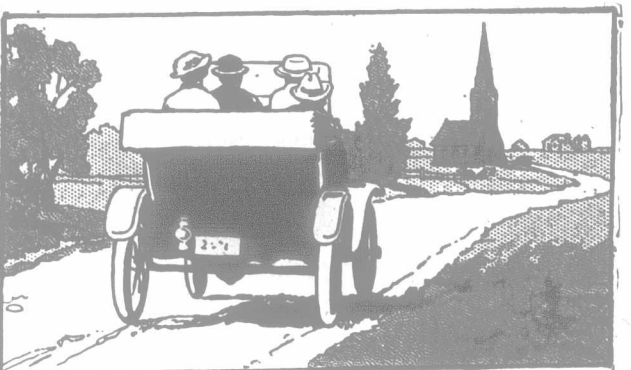
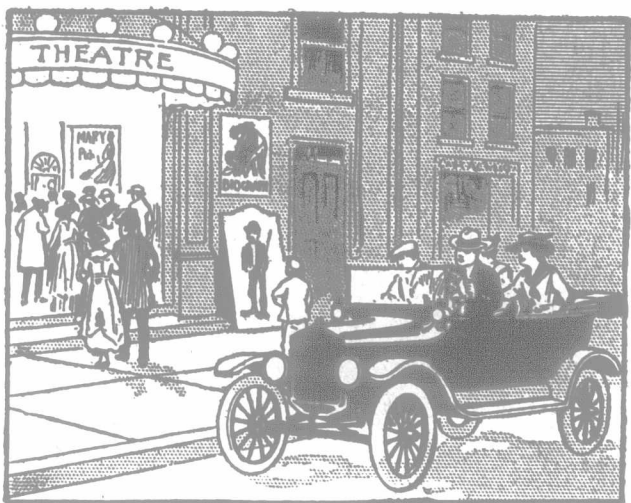
## Keeping the Boys and Girls Contented

A Ford car will give your boys and girls so much additional pleasure and enjoyment that they will be more satisfied to remain on the farm. They may then enjoy all the pleasures of city life and still live at home.

For a trip to a distant house party, a quick run to the nearest town or city theatre, or a quiet ride to church—the Ford does it all.

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Runabout - - - \$475

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**Ford Motor Company of Canada, Limited**

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The Improved Veteran Endless Canvas Drive Belts will give you better service than any other. You want the best. Order now. Sold only by  
**WINDSOR SUPPLY CO.,**  
57 Sandwich Street West, Windsor, Ont.  
Headquarters for Suction Hose and all other Thresher Supplies. Write for catalogue, "Engineers' Bargains."

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Thousands of farmers have responded to the call of this fertile country, and are being made comfortable and rich. Here, right at the door of Old Ontario, a home awaits you.

For full information as to terms, regulations and settlers' rates, write to:—

H. A. MACDONELL, Director of Colonization, Parliament Buildings, Toronto, Ont.  
Hon. G. H. Ferguson, Minister of Lands, Forests and Mines

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Write for our large photo-illustrated Catalogue No. 7—It's free to you.  
**THE ADAMS FURNITURE CO., Limited**  
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Arts Course by correspondence. Degree with one year's attendance.

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# Increase Your Profits FROM HORSES

Strengthen the economic position of the Province—breed this year, every GOOD mare of PROPER TYPE in Ontario. It will pay you.

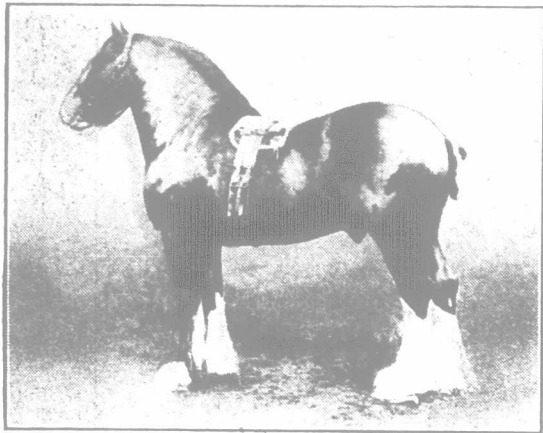
Despite the disappointments in 1913—and since—this is a fact. Those disappointments may be analyzed—there were definite reasons for them. There are reasons just as definite now for success. IT WILL PAY YOU—AND THE NATION—TO BREED EVERY GOOD MARE THIS SEASON.

### Reasons for Past Disappointment

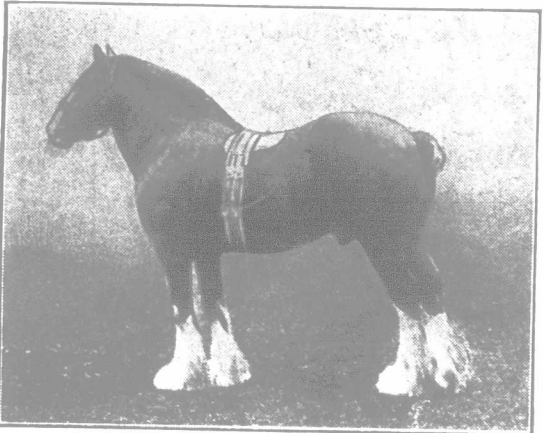
There are three of these—all related. The period of unparalleled prosperity from 1901 to 1912 created an abnormal demand for horse flesh—and inflated prices. This situation placed a premium on the scrub. Small misfits, the product of indiscriminate mating, brought from \$300 to \$400 a pair. Hence cheap sires—perhaps unsound—and equally inferior mares were too often used. It was a policy, wise perhaps for that time, but foolish for the future. Then in 1913 the financial depression checked business development, construction work slowed down and the demand for horses fell away. Teams that in 1912 brought \$700 sold for \$350. And the scrub, which abnormal prices had encouraged, had little or no market. Buyers didn't consider him, or the districts where he prevailed.

### The Demand Strengthens Now!

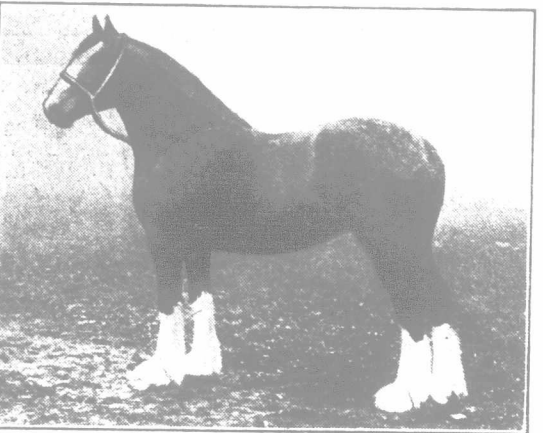
Our home demand increases—will continue to increase. We must maintain production: wider machinery and more horse-power will do it. Ontario will employ still more horse-power during the war—and after. British Army buyers are again buying: a couple of French Commissioners continue to purchase horses.



Sire of Dam (Baron's Pride)



Sire (Hiawatha)



Daughter and Granddaughter (Boquhar Lady Peggy)

These results cannot be obtained by indiscriminate breeding. The best blood consistently mated will do it—and nothing else. It has made the Clydesdale Breed what it is. It has made every other breed what it is.

Westerners are now buying our good horses. During the first four months of this year 8,434 horses were shipped to the St. Boniface Union Stock Yards. At least 60% of these were right good young breeding mares—the West has faith in the future of the horse industry.

The Eastern States offer market possibilities. Before the McKinley Tariff of 25% checked Ontario exportations the commercial market lying east of Buffalo was a valuable outlet to our surplus. That tariff is now reduced to 10%—and the United States horse population is depleted; 1,000,000 horses have gone to the war.

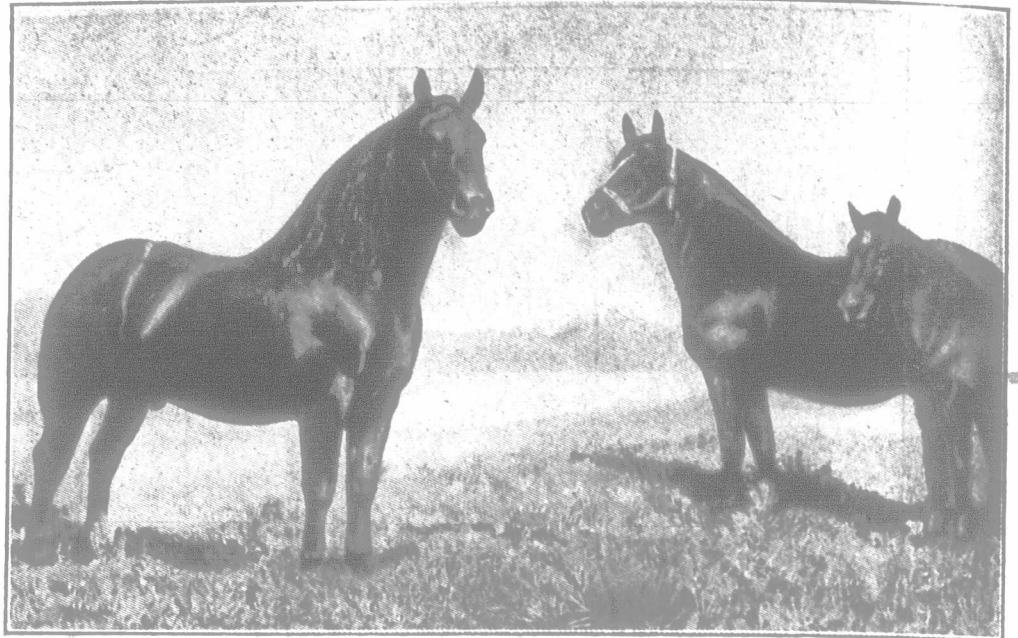
Allied countries will buy our horses after the war. Large numbers of good breeding mares of France and England have been sacrificed, while the Belgium horse industry practically has been wiped out. We must not overlook the after-war European demand.

Australia is looking to us for pure-bred foundation stock. She will be in the market after the war for good Clydesdale stock—and the distance between Canada and the Commonwealth is much shorter than that to Great Britain.

### Our Supplies are Low

Many farmers have sold their mares: a serious depletion and a sure scarcity are before us.

Buyers who are looking for the big, good ones, complain that it is almost impossible to pick up anything, even in those districts where once a year for the dray could be secured. A scarcity exists, also, of good, clean, sound agricultural breeding stock from \$1,000 to 1,500 a pair.



A PERCHERON FAMILY

There will always be a profitable market for stock of this TYPE and CONFORMATION

A surplus of horses exists, it is true, in many districts but they are not wanted by buyers—they are small misfits that have no profitable markets under any but abnormal conditions.

### Ontario Can Make Good

Because the quality of stallions is steadily improving. Because, despite the scrubs, Ontario has the reputation of being a Province which breeds the finest types of high-class horses.

Because Ontario still has a great deal of high-class foundation stock, both imported and home-bred.

Because with this stock Ontario can supply exactly what the market demands.

### The Definite Market Demand

- (1) The good draft horse, sound, of good conformation and of great weight.
- (2) The clean, well set up farm horse of from 1,400 to 1,500 pounds.
- (3) The big, square, trotting roadster, of from 1,050 to 1,250 pounds.
- (4) A limited number of good hunters and saddlers.

### How to Supply Demand

Breed only for the drafter or utility horse—the former preferred. Breed that type consistently which best agrees with the conditions of farm and community, the character of the soil and the necessities of the home work—but always have the market demand in view.

In heavy clay districts the drafter will be preferred: on lighter soil, more mixed with limestone, the utility horse will be chosen.

Community breeding always makes for keener interest, better horses, more ready sales and larger profits.

### The Stallion That Pays

Use only that stallion which is pure-bred, a proved breeder, sound, of good breeding and marked individual excellence—the best, in short, in the district.

When in doubt of breeding ask for his enrollment certificate.

Beware of the grade stallion. His offspring may look well as yearlings—but as three-year-olds they usually fail. They haven't the blood, and blood always tells—figs can't be gathered from thistles.

A saving of \$5 in the service fee usually means a loss of \$40 in the foal.

### The Mare—As Important

Every good, sound, young draft mare should be bred this season. It will pay.

Not a single mare should be bred this season that is unsound, faulty in conformation, worn out or of nondescript type and breeding. It will not pay. The good influence of the high-class sire will be minimized or obliterated when mated to such a mare.

Don't cross the breeds. If Clydesdale blood predominates in the mare, breed her to a Clydesdale Stallion; if Percheron blood, use a Percheron stallion; if Shire blood, use a Shire Stallion or failing that a Clydesdale.

Crosses are uncertain and lead to disappointment. Return her consistently to stallions of the same breed—and stick to one breed. Increased profits will be the reward.

The 1,400 or 1,500-pound mare should be bred to a draft stallion in every case where draft blood predominates in her breeding, but to a stallion of a light breed where light blood predominates.

The light mare should be bred to a stallion of the light breeds—never to a heavy draft stallion. Violent crosses bring disappointments.

Again—be consistent, stick to type, don't cross breeds recklessly; choose pure-bred stallions always—the best in the district; never breed the scrub, unsound or worn-out mare under any consideration.

### This Is Not Enough

It guarantees only the breeding of the foal. The latter may have every hereditary advantage and still be a failure. The environment—feeding, care, management determines development.

Horses of good inheritance are made or marred by the usage they receive until they reach maturity. Good feeding and management must follow careful mating to produce the outstanding profit-making horse.

For timely, practical information regarding any of the above points, or any points relating to the horse industry of Ontario, write to the office of the **Ontario Department of Agriculture** for Ontario.

**The Ontario Department of Agriculture**  
PARLIAMENT BUILDINGS, TORONTO

Sir Wm. H. Greenman,  
Minister of Agriculture

Wm. Greenman,  
Chief of Agriculture



ONTARIO