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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE. *

Vol. LII.

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LONDON, ONTARIO, MAY 17, 1917

No. 1286



"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."

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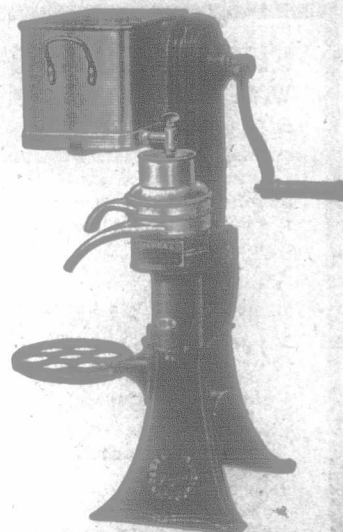
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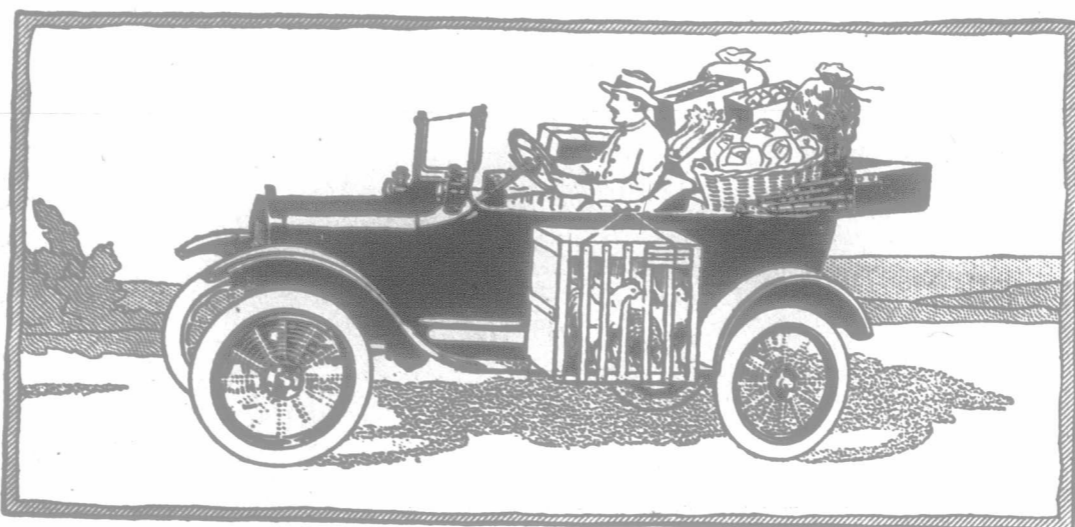


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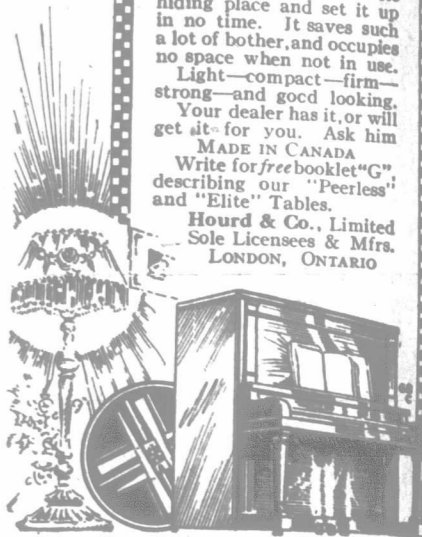
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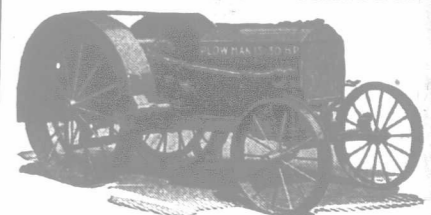
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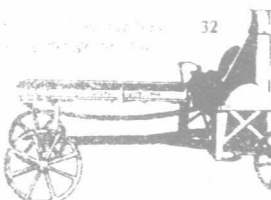
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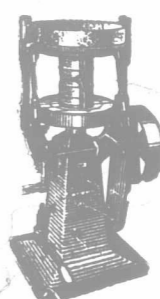
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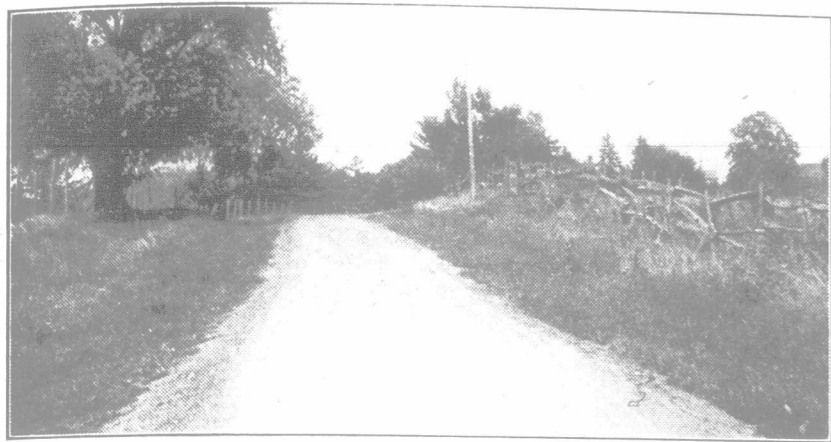
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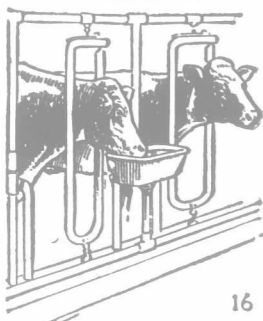
Experience proves that on main highways Tarvia roads are the most economical ones to build in the Dominion. Other types are so susceptible to frost-damage as well as to automobile traffic, that they run a big bill every year for maintenance and repairs: thus money that ought to go into extension of the highway system has to be spent in keeping up the old roads.

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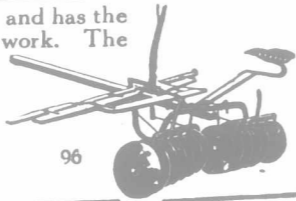
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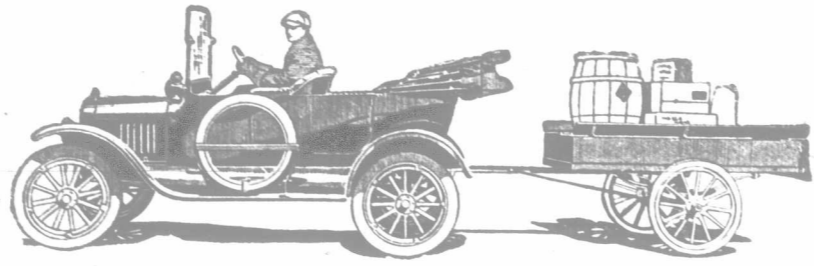
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gives life time service. Is made of the best Open Hearth steel fence wire, all impurities burned out, all the strength and toughness left in. Makes the fence elastic and springy. Will not snap or break under sudden shocks or quick atmospheric changes. Galvanized to prevent rust and the coating will not flake, peel or chip off. Can be erected over the most hilly and uneven ground, without buckling, snapping or kinking. Every joint is locked together with the well-known "Peerless Lock." The heavy stay wires we use prevent sagging and require only about half as many posts as other fences. Send for catalog. It also describes our farm gates, poultry fencing and ornamental fencing. Agents nearly everywhere. Agents wanted in unassigned territory.



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It carries any load up to 1,800 pounds in a smooth, even manner, without jolting or bumping, and at very trifling extra expense for gasoline.



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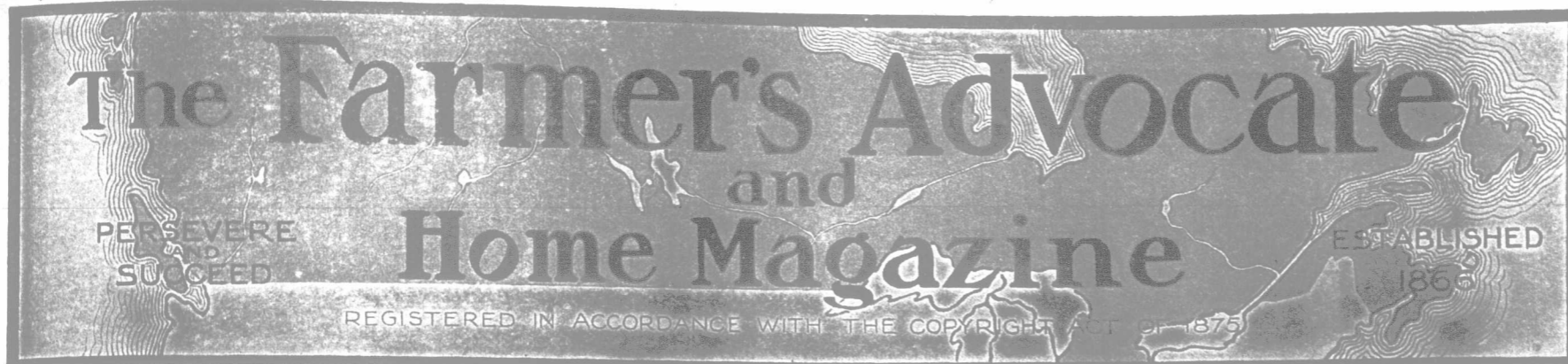
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THE GREAT-WEST LIFE ASSURANCE CO.,
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EDITORIAL.

A late season does not necessarily mean a light harvest.

There are gaps to close on the farm and gaps to be filled at the front.

Increasing production is just as patriotic work as is telling someone else to do it.

The Canadian people should at least own and operate the railways they have paid for.

There are those who think that agriculture is getting too many "assistants" and not enough assistance—real help.

Selfishness cannot exist in an individual or class where the proper ideals of citizenship are held and lived up to.

The farm-born boys in the cities are now urged to return to the farms. But, when you think of it, why did they leave the farms?

That surplus of potatoes spoken of a little over two months ago must have been pitted in a bomb-proof dug-out. It hasn't emerged yet at any rate.

The crows are now calling: "Corn!" "Corn!" Next winter the cattle will be bawling: "Corn!" "Corn!" Put in more corn and plan to keep off the crows.

Change work with neighbor Smith and neighbor Jones. This class of help will prove satisfactory, will not be so particular as to hours, and will aid in getting over the bad spots.

Those in charge of the campaign to increase production got everybody started before the weatherman realized that sunshine and warmth were necessary with an occasional shower.

Those evolving credit schemes to get reasonable money for the farmer must remember that the farmer who has money can borrow more, but the man without capital, though honest, is deserving of their best effort.

Von Hindenburg's new manoeuvres didn't release enough men for an advance on Calais after all. He kept busy in an effort to save his battalions from going in that direction, not as victors but as prisoners of war.

It doesn't speak very well for the conditions under which farming has been carried on in this country when those interested in greater production find farmers handicapped for lack of funds to put in seed. If the money shortage is as acute as painted, something has been wrong with Canadian economics.

Some who do little work think farmers should labor seven days per week. Most men require at least one day's rest per week. Many city occupations are deserted by those who work at them, for a half holiday each week besides Sunday, and yet some of those who so take recreation at the lakeside or ball park, or elsewhere, think the farmer should work eighteen hours a day seven days in the week. He couldn't stand it. But there is this about the suggestion. It might be well to so arrange the law that it would not be an offence to save a crop, which might otherwise be lost, by working a Sunday now and again. On the whole, however, it is foolish to expect much increase from working seven days instead of six. And, moreover, the Sabbath day should be kept.

Price-Fixing and Food Control.

At this stage of the crisis through which Canada is passing, with the other nations engaged in the gigantic world conflict staged on the battlefields of Europe, we hear a great deal about price control of food products and other commodities. Fixing prices is a big task for the government of any nation to assume, and it is wise to move cautiously and only after full consideration has been given to all details. Fixing food prices is a problem with far-reaching ramifications. Labor enters into production; so does machinery; so does feed; so do many other things. A fixing which might seem fair to one class or one commodity might not be at all equitable when another class or another commodity is considered. A case in point is that of price fixing in the Old Land where the producer of whole milk for immediate consumption had a comparatively low price placed on his product, while no restrictions were placed on the price of feed he was compelled to buy. We cite this simply to illustrate the difficulty of equitable price setting. In Britain the results of the attempts made to control prices have led our Scottish correspondent to state in a recent letter: "The effect of much of the control work that is going on is bewildering, and it is doubtful whether the nation is benefiting to any great extent from interference with the free play of commerce." We mention these facts that those in authority in Canada may weigh carefully the import of any action they may take.

Two reasons have been given for price-control by our Government. We may give them as they have been stated in the United States:

"1. To prevent consumers being forced to pay oppressive prices because of manipulation, speculation, and inadequate or disorganized transportation.

"2. To meet any emergency that might arise from local or national overproduction or by manipulation or uneconomic speculation in order that producers may not suffer loss on account of the extraordinary efforts they are being urged to make."

Food-price regulation is recommended that the farmer may be assured of high prices, and that the consumer may expect lower prices. It looks paradoxical doesn't it? Some believe that setting a minimum price would be a big factor toward greater production. Others think that setting a maximum price would give them cheaper food. Suppose the Government sets both—what would happen? The minimum would doubtless be the highest price anyone would pay, and what Government would care to set a high minimum price for consumers? If a maximum price were set it would not be very encouraging to capital. Regulating commerce by government orders is not the easiest task in the world. Most plans born of the price-boycott mobs are unworkable and have not the least semblance of economic justification. Many are not sure but that price-control increases rather than remedies the evil that it is intended to eliminate. The New York Sun says: "It stimulates consumption and makes scarcity of supply permanent." There might be more good to follow a regulation of consumption than a regulation of prices.

The object of a minimum price to producers is to stimulate production of staple food products by assuring farmers that they will not sell below a certain level, high enough to give them a reasonable return in any event. The only object of maximum prices would be to govern distribution of products. These would not be set to producers, but would be used to control any unnecessary manipulation or speculation carried on between the producer and the consumer. The only justification for establishing maximum prices is to put a stop to gambling by speculators in food products. A fixing of maximum prices for foodstuffs on a large scale would limit rather than increase production.

Those who have watched the trend of events point out that no one was anxious to establish minimum

prices to protect the producer when prices were exceedingly low. Governments and all others must remember that the man who produces the food by which the nation lives would have no reason to ask for minimum prices or any control if he were always assured of an open, competitive market, unhampered by the speculator and the various manipulations through which farm products pass before they reach the ultimate consumer. Under such conditions the consumer could have no reasonable grounds for complaint. If he thinks farming a profitable business he could go farming. Farmers have no corner or monopoly on land or food stuffs.

It would be well, also, for all to remember that the farmer is human as well as the consumer. The only one not coming in this class, if such there be, is the speculator who takes advantage of abnormal conditions to make money at the expense of both of the foregoing classes. A Chicago paper suggests that "food supply shouters" have a conference with the weather man, and in reference to the cry for cheaper food says: "Unfortunately much of the current agitation for food reduction cost is carried on by people not acquainted with facts and indifferent on that score. The movement has degenerated into a noise—mere hue and cry, assuming that the farmer is the delinquent, whereas he has been handicapped by drouth, frost and other vicissitudes." The farmer sows, but the weather is a big factor in what he reaps. The farmer works harder than ninety per cent. of those who complain that he does not do enough. He is in two shifts of eight hours each day, and gets no half holidays at the park or lake. It is a mistake to blame the farmer for conditions over which he has no control. It costs him more to produce than it ever did. Meat, milk and eggs, for instance, have not advanced in price in anything like the same ratio as have the feeds which are required to produce them. The price of labor has advanced on the farms and in the cities. The average farmer cannot afford to pay wages on a par with those offered in certain city business, and especially in certain abnormal business incident to the war. Here is what a Massachusetts farmer thinks of it: "If our farmers and poultrymen were paid for their labor at the same rates that are now paid to carpenters, plumbers, garage mechanics and their helpers, the citizens of Boston would have to pay 30 cents a quart for milk, \$1.75 per dozen for eggs, and \$1.50 per pound for poultry meat." A similar situation obtains in rural and urban Canada.

These figures are worth looking over and considering. When feed and labor get beyond the profitable mark to the producer, unusual numbers of breeding stock and poultry go to the market, and efforts are made to produce other foodstuffs.

Then there are those who would prohibit the sale of calves and let them all grow up to mature animals for slaughter. More hysteria! Many calves would consume more food fit for human consumption, let alone roughage, than their skinny carcasses would be worth at three years of age. The person who doesn't know that some calves will pay to feed to maturity, while others are only profitable from the standpoint of the nation as well as the feeder sold as veal, better not advise. The place for culls and hundreds of dairy-bred calves is veal. Even meatless days do not conserve food. If not meat, people eat something else. In Britain they tried to save the calves by legislation, now they kill the culls to save human food. If it is unprofitable for the farmer to feed a poor-doing calf, it is bad business for the country.

The attitude which any government should take toward price fixing in times like these should be based largely upon the needs and the people. If speculators or others manipulate things for their own selfish interests, then it may be necessary for Jack Canuck to take a hand, but if speculation in foodstuffs were put

The Farmer's Advocate AND HOME MAGAZINE.

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DOMINION.

Published weekly by
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JOHN WELD, Manager.

Agents for "The Farmer's Advocate and Home Journal,"
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down, there should be no need in a producing and exporting country like Canada for very much price fixing and its attendant difficulties. An open market and a world shortage, according to those in charge of the increased production campaign, and we believe they are right, ensure high prices for this and next year. Canada's patriotic farmers also feel that they are doing their part by producing all they can, and they feel reasonably sure of good prices besides. They have no more use for the food speculator than has the consumer. A minimum price could scarcely increase acreage for this year, and it is doubtful whether it could be set high enough to even interest the farmer. (Remember the British Government offer of \$1.30 per bushel for No. 1 Northern wheat.) Maximum prices as set by governments have always failed. If the worst comes to the worst there is only one way to deal with the whole situation, and that is control consumption of food on the ticket or some other basis as in Britain and Germany, but such is scarcely likely in a producing country like Canada. We have more faith, in an unhampered, fair-flowing commerce to pull this country through than in any scheme of governmental control of food-stuffs. In the meantime it is well to think over the situation and become acquainted with the facts. There is nothing saved by leaving eggs out of a cake and putting in something more expensive than eggs. We still have faith in the Canadian farmer and in the Canadian consumer. Both are good and necessary classes of people, and out of it all they should eventually reach a better understanding of one another.

If the few farmers who have not done their part toward enlistment, or production, or patriotic effort could be shaken up in a large sack with the few narrow-minded little shrimps who still accuse farmers of being slackers, we do not know which would get out first. It would be well if neither escaped. All but a few men on the land have done their duty as they saw it, and it is equally noteworthy that the vast majority of city residents have made sacrifices without number toward the cause of liberty. It is manifestly unfair to measure the good deeds of the rural people by calling attention to the shortcomings of a handful of misfits. It would be just as wide of the mark to measure all city people by the silly utterances of a few mis-informed, talkative individuals. The masses of thinking people, whether they live in country or city, are earnestly endeavoring to

do their best to help solve the problems of the day, and should not be subjected to any slurs from any source.

The Railway Problem.

The Royal Commission, consisting of Sir Henry Drayton, W. M. Acworth and A. H. Smith, appointed last July to make an investigation into the transportation problem in Canada, recently brought down their report, or reports, for a majority and minority report resulted. The majority report subscribed to by the two first named Commissioners contained recommendations which will interest all Canadians, in that nationalization of the Grand Trunk, Grand Trunk Pacific and Canadian Northern roads into one great system was thought advisable. The minority report, bearing the name of Mr. Smith, a practical railwayman of the United States and President of the New York Central lines, favored restricting the Canadian Northern to Western Canada, where it would operate all roads other than the C. P. R., and confine the G. T. R. to Eastern Canada where it would operate all C. N. R. eastern lines. The connecting links between East and West were to be leased to either the C. N. R. or the G. T. R. for a term of years.

It is well that the Commission's reports were made so promptly. Obviously something must be done to better Canada's railway transportation facilities. In the West the best and most prompt service in the way of moving grain is not always possible on the lines as they now exist. The report states that in the East the Grand Trunk requires at least 200 more locomotives and at least 10,000 freight cars. The equipment is getting older month by month and year by year. Shortage of help and necessary curtailment of expenditure are not conducive to keeping roadbeds and equipment in the best possible condition. Deferred expenditures must be made sooner or later.

The people of Canada have invested about one billion dollars in the chief railway corporations of this country. The C. N. R. has had assistance to the extent of 300 millions of dollars. The company had a deficit of five millions last year. The Grand Trunk, through its G. T. P. liabilities, has to raise over seven million dollars per year. The Canadian Parliament—the people—will have to pay. This means over twelve million dollars annually, whereas the Commission estimates that a little over twelve million dollars per annum would represent the annual liability of the Government to meet unearned interest charges for the first few years under commission control.

There was another good point in the report, viz., the recommendation that all future outlay on the Hudson's Bay Railway be reduced to the lowest possible point.

The folly of too many roads paralleling one another is plain. Whether hauls are short or long the roads cannot endure without State aid. This should be remembered in future construction, be it of electric or steam roads. The people must build and maintain the roads. Therefore, they should, in so far as possible, tap new country where they will do most good.

Nationalize railways? Yes, in so far as practicable. The Commission found the C. P. R. to be on a sound basis, and recommended that it remain a private enterprise. The other big roads they recommended to go into a second great system, including the C. N. R., the G. T. R., the G. T. P., and the I. C. R., and these to be placed under a board of five trustees. This is to avoid the danger of political intrigue. Under no consideration should politics be allowed to enter into the management of the system if the idea is finally worked out. Politics would ruin any commercial enterprise. Political control would be far more costly and far less satisfactory than private control. Properly appointed and judiciously selected trustees should form an efficient means of state control without politics. Are the people ready for the trial? They have paid for the roads and the right of their control. The Canadian people have paid over \$30,000 per mile toward the building of the country's railways, taking the entire mileage into consideration. Is it not about time something was done toward control? To a large extent the prosperity and success of the country depend on railroads. They must not be allowed to deteriorate or what will happen industry and credit? Unnecessary duplication must be avoided, or operating expenses will be unwarranted as compared with returns. Un-tapped districts must be opened up. The problem is the people's. They foot the bill, win or lose, and it seems no more than right that they should control. The railways are in Canada; let their control be here too.

Nature's Diary.

A. B. KLUGH, M. A.

The Marsh Hawk, (*Circus hudsonius*), is fairly common from the Atlantic to the Pacific and as far north as Hudson's Bay, Great Bear Lake, and Alaska. Over most of this region it is a summer resident only, but winters regularly in Southern British Columbia and occasional individuals are seen in winter in Southern Ontario. In Ontario it arrives early in April and leaves in October. Its winter range is from Southern New York, Northern Illinois, Northern Kansas, and Southern British Columbia, south to Central America.

As may be seen from Figure 3 the outline of the Marsh Hawk, as seen directly overhead, shows long wings and a long tail, with several narrow bars on the tail. This is, however, one of the few Hawks which is more often seen close to the ground than high in the air, and at such times it shows its very characteristic identification mark—the band of white across the rump. It is a large Hawk, being from nineteen to twenty-two inches in length. This species varies a great deal in plumage, the adult male being slaty blue above and white with rusty spots below, while the female and young are brownish-black, mixed with rusty, above, and rusty, with black streaks, below.



Fig. 3.—Marsh Hawk.

The Marsh Hawk nests on the ground, usually in a marsh or at the edge of a bog, but sometimes in uncultivated fields. The nest is composed of twigs and dried grass. The eggs are four or five in number, pale greenish-white in color, sometimes faintly spotted with light brown or lilac. The period of incubation is from twenty-six to twenty-eight days.

When one approaches the vicinity of the nest the parents circle excitedly about, making frequent feints at striking. Straight as an arrow they come until but a few feet from your head, then with a sudden swerve they sweep by, fanning your face with the wind of their wings. All the time they keep up a harsh, screaming, "Chee-chee-chee-chee-chee."

The main item of food of the Marsh Hawk is meadow mice, and it is these injurious little rodents which it is seeking when we see it beating to and fro over the fields. It also feeds on rabbits, squirrels, snakes, frogs and an occasional small bird. The birds taken are small, ground-haunting species, such as the Vesper, Savanna and other sparrows, and so rarely are even these birds captured that it would appear as if they were pounced upon while half hidden in the grass in mistake for a mouse.

The American Rough-legged Hawk is a common summer resident in Labrador, Ungava, and in the barrens west of Hudson's Bay, and is seen as a migrant in spring and fall in the Maritime Provinces, Quebec, Ontario and Manitoba. Sometimes remarkable migrations of this species occur, such as that in Ontario in October 1895, when an immense flight of these birds took place. Its winter range is in the middle states south to Virginia, Missouri and Central California.



Fig. 4.—American Rough-legged Hawk.

This species builds its nest either on the top of a cliff or in the fork of a tree. The nest is composed of sticks and small branches, lined with dried grass, moss, down and feathers. The eggs are from three to five in number, and are dull white in color, blotched with reddish-brown. The incubation period is 23 days.

The Rough-leg as may be seen from Figure 4, may be identified by its outline which shows ample wings and a short, broad tail, the heavy, black band immediately above the white tip of the tail, and the black patch on the lower breast and abdomen. It is about twenty-four inches in length.

Like many of the Hawks the Rough-leg varies greatly in its plumage. The upper parts vary in different individuals from light amber brown to dark chocolate, while the under parts show much difference in the amount of black present. Some individuals are entirely glossy black, except on the top of the head, forehead, throat, base of the tail and bars on the tail. In this species the legs are feathered right down to the toes, whence its name.

The staple article of diet of the Rough-legged Hawk is mice, and it never takes birds of any kind. It has been asserted that the Rough-leg preys on ducks and other water-fowl, but the stomachs of individuals taken in localities where water-fowl were extremely plentiful contained no trace of such food, but were on the other hand filled with the remains of meadow mice, so that it is probable that these assertions have been made without proper identification of the Hawk concerned. In addition to mice the Rough-leg also occasionally takes squirrels and rabbits.

This species hunts more during the hours of dawn

and twilight than at any other time, and its soft, plumage, feathered legs and somewhat flattened face give it an aspect approaching that of an owl.
(To be Continued.)

Is War a Disease or a Remedy?

BY ALLAN MCDAIRMID.

I recently overheard a farmer's wife expressing her mind in regard to the war in general, and those whom she considered responsible for it, in particular. As she had a son at the front she could hardly be blamed for having very pronounced opinions on the subject, and for a leaning towards the "peace at any price" party. She said war was the work of the devil and it was because such a large majority of mankind were on the down-grade morally, that practically the whole civilized world was in arms. This fighting business was all wrong, and nothing good could come out of it. I suppose it is natural for us, when we see a person take a very extreme view of any case, to look around and try to find the other side of the question, and as I listened to this mother expressing her feelings about the system and the individuals which were conspiring to kill her boy, I couldn't help wondering if, after all there might not be a reason sufficiently good to justify every loss of life and property that has taken place on the battle-fields of the world in the past three years, or a little less.

It isn't easy for us to see it at the first glance, but most of us will admit that it might possibly be so, because, to come down to the fine point, none of us have a very clear idea or conception of the purpose of this whole scheme of creation or of the destiny of man. We don't know where we came from, and we're not very sure where we're going when we leave here, so we are hardly competent to give a very intelligent opinion on the matter of what means should be employed to guide us from starting point to finish.

It's a fact that the majority of us are not gifted with a very good sense of proportion, because, if we were, we would be immeasurably more shocked at the degradation of the drunkard than at the death of our soldiers on the battlefield. In the civilized world a million human beings commit suicide every year, but we don't give the fact a second thought, though it means the last word in failure to each individual. Losing one's life in battle may not be any serious set-back to the person concerned. We don't know. But failure to make use of the opportunities that life hands out to us is the one great loss for which there is no compensation; and our failure to realize this is my reason for saying that we don't judge things according to their true value. So, to get back to our starting point, is it not quite likely that this war, which so many look on as an unmixed evil, may be a dose of medicine that is being administered to the world in the hope of curing her of some of the ills she has fallen heir to, or created for herself? Might it not be Nature's remedy? There seems to be a certain amount of stimulant in the dope, anyway. It has even been strong enough to waken up old John Bull, who has been more or less asleep for these many years. And I feel sure that before the German submarines are through with him he will be so thoroughly aroused that he will have put a stop to the waste of so many million bushels of grain as are at present being used in the manufacture of beer and other unnecessary drinks. John is very slow to change and rather stubborn. He reminds me of a pig I saw a farmer friend of mine trying to drive to the barn, the other day. He did it by facing the pig towards the house.

So, in something the same way the end will be achieved in the case of old England. Her moral regeneration is being accomplished through the sacrifices she is compelled to make in her fight for life. Not in a thousand years of peace would she develop an absolutely sober and moral population. This condition of things has not, of course, been yet brought about, but there is a strong tendency in that direction, and war-time measures are directly responsible. If Nature cannot lead she drives, and a good many of us have experienced a touch of her whip, and nations get it as well as individuals.

Some writers are fond of telling us that civilization is a failure and that this war has proved it. These are the men of short vision who cannot see that the good humanity has to travel leads through a hilly country, and that ups and downs are our inevitable lot. We may at present be in one of the valleys between the heights of past and future endeavors, but our progress is upward just the same. And some day we'll reach a point where we can all look back over the road we have travelled and see this for ourselves. This world is a success and human existence is not a failure, because we have at least achieved something, and are making a good fight to retain it. And past achievements are the best guarantee of similar accomplishments to come. War is in some respects comparable to the backward swing of the pendulum, but, if so, we know that the hands of the clock of time move steadily forward, not only in spite of the backward swing, but partly because of it.

And so I think we are justified in saying also, that war, while it may be a disease that man brings on himself by his ignorance and self-will, is also the remedy nature enforces, to counteract these failings. Our Old Mother is not going to let her children run very far off the "straight and narrow way" without making an effort to bring them back. And as she uses pain and sickness to attain this object in the case of the individual, so she uses war where a nation or world is concerned. This is hard doctrine, but we know that no man ever ran contrary to the laws of the Universe for any length of time, and found his road an easy one. We can't expect to sow thistles and reap wheat. A harvest is being gathered in Europe just now that proves that.

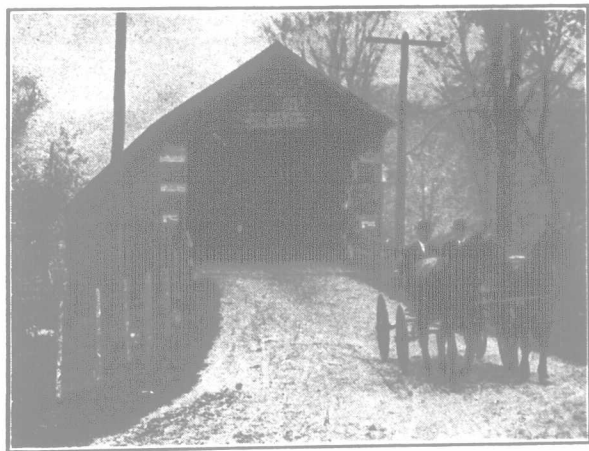
Joint-Ill in Foals.

Many theories have been advanced re the cause of joint-ill, also known as navel-ill or septic arthritis in foals. Some claim that it is simply another name for pervious urachus or leaking navel, in which more or less of the urine escapes through the navel opening. Those who have had experience, have noticed that this is not a fact. They are two distinct pathological conditions. In some cases they co-exist, but either condition is very frequently seen without being accompanied or complicated by the other; hence there is not necessarily a connection. Pervious urachus, when not complicated, can usually be successfully treated, while joint-ill, unless skillfully treated in the very early stages, usually proves fatal. Some claim that joint-ill is a disease of weakly foals; others that it is a disease of foals that get too much milk; others, that it is due to some undetermined alteration in the dam's milk; others, that it is due to exposure to cold and dampness; and still others that it is due to the nature of the dam's food. Some claim that it is due to failure of the foal to receive the first milk of the dam, called colostrum. Again, others claim that the disease is congenital, being contracted in an undetermined manner during foetal life. Upon the latter assumption, some enterprising people have put upon the market and advertised a specific preventive treatment to be administered to the dam for some considerable time before parturition. None of these theories have been proven correct. It has been proven beyond reasonable doubt that the disease is due to a specific germ or virus that gains entrance to the blood, but just how this is accomplished may be open to debate.

Bacteriologists claim to be able to isolate the germ in the exudate caused by the discharge in all cases. It is generally conceded that the germ gains the circulation through a raw surface, generally, if not always, the navel opening. It multiplies rapidly, has an affinity for the joints, lodges in them, continues to multiply, causes severe irritation, heat, swelling and often suppuration. Hence the name "Joint-ill." The view that the germ gains entrance during foetal life, is not supported by evidence, and not generally accepted. The germ exists in the soil, in dust on stable floors, and doubtless in some cases, on the hair of pregnant mares that are

into the system. This can be done (where the germ exists) only by cleanliness and antiseptic measures. All dust, cobwebs, etc., should be swept out of the stable, and the stall should be regularly and thoroughly cleaned, and it is good practice to scatter slacked lime on the floor each morning before providing fresh bedding. It is good practice to give the stall a thorough coat of hot lime-wash containing about 5 per cent. carbolic acid or one of the coal-tar antiseptics. It is also good practice to wash the external genital organs, tail and hind quarters of the mare occasionally with an antiseptic or germicide as a 5 per cent. solution of carbolic acid or one of the above-mentioned antiseptics. When the mare is to foal on grass, of course all these precautions cannot be taken, but there is little danger (possibly none) of the germ being present on grass, but may exist in clay or sand void of grass. The most essential preventive measure that can be observed in all cases, is local attention to the navel as soon as possible after birth, and several times daily afterwards until it dries up and is thoroughly healed. Cases of pervious urachus favor the appearance of joint-ill, as it prevents healing of the navel opening, hence prolongs the time during which the avenue of entrance exists. The breeder should have on hand a supply of a strong antiseptic and germicide when his mare is about to foal. This may be a 10 per cent. solution of carbolic acid, formalin, or one of the coal-tar antiseptics, or a solution of corrosive sublimate. Some use tincture of iodine, full strength. The writer prefers a solution of corrosive sublimate, about 40 grains to a pint of water. This is a strong solution, but not sufficiently strong to exert a corrosive or caustic effect, and is an excellent antiseptic and germicide and practically non-irritant for external application. Whatever is used should be freely applied as soon as possible after birth, and four or five times daily afterwards, until the navel opening is entirely healed, which is usually the second or third day. When these precautions are properly observed there seldom appears a case of joint-ill, but it may occur under the most careful preventive treatment, and we are not justified in assuming that the theory and practice are at fault because they occasionally fail.

Curative Treatment is often ineffective, even when given early. The use of serums and anti-toxins manufactured especially for the purpose, and which can be properly administered only by a veterinarian, have been reasonably successful, both for prevention and cure, hence it is wise for a breeder to employ a veterinarian as soon as possible after the first symptoms are noticed. Even amateur treatment may occasionally be successful. It consists in bathing the affected joints long and often with hot water, and after bathing, rubbing well with a camphorated liniment, as one made of 1/2 oz. tincture of iodine, 2 drams gum camphor, 4 oz. extract of witch hazel and alcohol to make a pint. The foal should be given 5 to 10 grains (according to breed and size) of iodide of potassium in a little of the dam's milk, three times daily, and it should be helped to nurse frequently, at least every two hours, if it be not able to nurse without assistance. The mare should be well fed on milk-producing food, as good hay, bran, rolled oats, raw roots or grass, and should be given 1 to 1 1/2 drams iodide of potassium three times daily; such treatment may be successful in arresting the ravages of the germ and in destroying them. When the disease has reached the stage where abscesses are formed, they should be lanced, and the cavities then flushed out well three times daily with a good antiseptic as a 5 per cent. solution of carbolic acid. When the articular cartilages are destroyed and the bones can be heard or felt grating against each other, the animal should be destroyed, as, even though careful nursing may preserve life, the patient will always be a cripple. WHIP.



One of the Few Remaining Covered Bridges.

stabled or grazed in quarters where it exists. The last fact accounts for the occasional very early symptoms of the disease that are sometimes noticed in foals, the germ having entered the foal during parturition. The trouble is much more frequently seen in foals that are born in the stable than in those born in the field. In some seasons the disease is much more prevalent than in others, and more common in some localities than in others. Owing to these facts we are convinced that certain climatic and certain geographical conditions favor the presence of the germ, but just what these conditions are has not been determined.

The Symptoms evidently may become apparent soon after the infection enters the system. From a few hours to a few days, and, in rare cases, a few weeks after birth, the foal is noticed to be somewhat dull, lies a great deal, and shows lameness or stiffness in one or more legs. An examination reveals a swelling, heat and tenderness of one or more joints, often, but not always, the hocks or knees, but may be the hip, stifle, shoulder, elbow, fetlock or pastern. Any joint or joints may be affected. The trouble is often thought to have been caused by the dam treading on the foal, or by other injuries. The symptoms increase in intensity, sometimes quickly, at others, slowly. The swellings increase in size and soreness, the patient becomes weaker, less able to move, and lies most of the time. If helped to its feet it goes lame and sore, but in some cases will nurse fairly well and soon lie down again. As the symptoms increase in intensity the general debility also increases, and the desire for or ability to take nourishment diminishes. The joint or joints involved become puffy and, if they burst or are lanced, a muddy colored liquid escapes. In many cases the articular cartilages of the joint become destroyed. In these cases manipulation of the joint reveals a grating sound, caused by the bones rubbing against each other. When this stage is reached, it is a humane act to destroy the patient, as, though it is possible in some cases, to preserve life by careful nursing and attention, the animal will always be a cripple.

Preventive Treatment is the most important. If we admit the theory advanced, we can readily see that this consists in preventing the entrance of the germ

The Horse and His Summer Work.

Horses can be maintained profitably on the farm only if producing cheap motive power or producing marketable foals. The cheapness of horse labor must be measured by the work done in proportion to money invested and feed consumed.

As a producer of power the horse competes with farm engines of all kinds, and should be rated accordingly. As with the engine so with the horse, the main requisites of cheap power production are: sufficient weight and strength to perform the regular work easily and, when necessary, carry a fair overload for a short time, quality of construction ensuring durability and a capacity to consume sufficient fuel (feed) to generate all the power that is possible. As also with the engine, the thorough fitting of the horse for work will ensure the production of more power at less cost.

The power developed by a horse of the right type is made up entirely of the energy contained in his daily feed plus the reserve energy (stored fat and muscle) of the body. The storage of energy in the horse in this way is, therefore, advisable as preparing him for that time when most work is required. The possible available energy in the way of horse-power from a pound of oats is 425 units of power, and from a pound of timothy hay is 150 units of power, while one pound of wheat straw contains no available power, since the energy contained is less than the amount used by the horse to digest it. It is clear, therefore, that the energy must be contained in the feed, and it must be in a readily available form.

For the average 1,500-pound horse at hard, steady work, a ration of 20 pounds of oats and 15 pounds of good hay produces about 11,000 units of power, which is about the work such a horse is capable of performing.

As the labor becomes heavier, so in the same proportion the food digested is diminished. Very severe

work prevents digestion of food from 7 to 25 per cent. Hence, either more feed must be consumed by the horse or the reserve power of the body must be drawn upon to meet this extra demand. As an example of how extraordinary strain may interfere with digestion, it has been proven that the trotting of heavy horses even with a light load requires from one-half to four-fifths more feed per mile covered than when walking.

The heavy horse produces the most power for feed consumed when drawing a load at the rate of two and one-half miles per hour.

More horses, heavier horses, horses better prepared for work and fed for work will go far toward increasing and cheapening production per acre or per ton of crop. With the shortage of farm help at the present time, more and better horses will enable fewer men, when using larger and better farm implements, to maintain or even increase production at a decreased cost.

At heavy work the horse should receive from 1 to 1 1/4 pounds of grain per 100 pounds of live weight. For example, a 1,500-pound horse should at that time receive from 15 to 19 pounds of grain and 15 pounds of hay daily. The best method of feeding is as follows: 5 a.m., 6 pounds grain mixture, 5 pounds hay; 12 a.m. 6 pounds grain mixture, 3 pounds hay; 6 p.m., 4 pounds grain mixture, 8 pounds hay.

When the horses are idle for a day or so only, reduce the grain one-half.

Regularity in feeding and uniformity of feeds, both as to quantity and quality, are essential. Grain mixtures, such as oats 5 parts, bran 1 part; or oats 3 parts and barley 1 part will be found satisfactory.

One or more feeds of warm mashes per week are essential to prepare or maintain a working horse. A bran mash replacing the Saturday night grain is excellent. This might be replaced by boiled barley or other grains mixed with bran, and fed warm. If desired, saltpetre may be added as a blood tonic, and molasses as an extra laxative and appetizer.

Salt in the rock form should be in the horse manger at all times.

Water should always be given freely, provided it is given frequently. Experience has proven that horses should be at liberty to drink both before and after feeding, but the larger supply should be previous to feeding.

All changes in feed and work must be made gradually. If not, there is danger of colic, lymphangitis, and similar derangements. Gradual changes not only build up the muscles and energy of the horse but gradually strengthen the digestion in preparation for the heavy strain on these organs during the heavy work.—From Special Circular No. 5, Dominion Department of Agriculture, by E. S. Archibald.

LIVE STOCK.

On the afternoon of April 24 the Missouri Aberdeen-Angus Breeders' Association sold 59 bulls by auction in the St. Joseph sale pavilion; the offering averaged \$178. There was a surplus of bulls around 12 months of age for which the buyers were not plenty.

An outstanding sale of Hereford cattle was held at Whiting, Ia., on April 26, when E. M. Cassady & Son disposed of 60 head at an average price of \$700. The 20 bulls averaged \$479, and the 40 females \$811. Anxiety breeding was much in evidence at this sale, and it gave a good account of itself. The top for the bulls was \$2,000, which sum bought Bright Prince. Golda 2nd topped the females at \$4,250 to O. Harris & Sons.

The retirement of Cyrus A. Tow, Norway, Ia., from the ranks of Hereford breeders was marked by a wonderfully successful dispersion sale on April 25, when 154 head of cattle were sold for \$134,930; the average price was \$876. The 28 bulls averaged \$1,200, and the 126 females \$804. Disturber Jr., sold for \$9,100, and the purchase was considered a bargain; \$3,600 and \$3,000 respectively were paid for Incomparable and Standard. The top-priced female was Maple Lass 55th, which sold for \$3,200.

Owing to the dry autumn of 1916 and the consequent shortage of feed when the rams were turned with the ewes last fall, a large percentage of single lambs have resulted. While one good single lamb is better than two weaklings, shepherds usually look for an average of one and one-half lambs per ewe. It would be well to prepare for this emergency and have a field of rape or second-growth clover on which to flush the ewes this fall. When the flock is gaining in flesh at time of conception a larger crop of lambs may be expected.

In districts where corn can be grown successfully stockmen should not underestimate the value of a ton of silage. It was considered worth at least \$3 per ton in the silo when wheat was selling for \$1 per bushel and less, and when corn and millfeeds were purchased at normal prices. If a larger quantity of the 1917 wheat harvest is exported than is ordinarily the case, millfeeds will continue very high. Silage or shelled corn is splendid feed and the yield per acre runs high. Here is one department of the farm cropping system that may yet receive consideration, and it affords an opportunity to produce a very desirable class of stores for next winter's feeding.

The stock farmers of the United Kingdom are now laboring under a proclamation enjoining them to put live stock on restricted rations. The Order prohibiting

the slaughter of calves has been withdrawn, and it is suggested that heaves should not be fed prime fat. Horses are to receive no more grain than is absolutely necessary to keep them in good health and to enable them to do their daily work. Even dairy cows must not be fed "cake" while on grass. Similar requests are made in respect to sheep, pigs and poultry. The

acute problem is to make the shortened supply, that is in sight, last during the next three months, and the people are enjoined to be very moderate in the use of the necessities and to observe total abstinence in regard to everything else; or as The Scottish Farmer puts it, to remember the great Divine injunction: "Gather up the fragments that nothing be lost."

Crippling or Rheumatism in Swine.

EDITOR "THE FARMER'S ADVOCATE":

In northern latitudes an increasingly common affection of swine is what is often known as crippling. This condition is usually a forerunner of rheumatism in the acute or chronic form. Swine of practically all ages are subject to attacks and the condition, in general, is easy of diagnosis.

Symptoms.

At first, stiffness or lameness of one or more legs, with frequent swelling of the joints, will be noticed, usually the hind quarters being affected first. This lameness increases, the animal lying buried in straw, if possible, all of the time, until finally, locomotion is practically impossible. When compelled to move, the pig squeals with pain. The appetite gradually disappears until finally from weakness and the decomposing effect upon the muscles of continuous lying, the animal dies or is put out of misery by the attendant. Occasionally the affection remains localized in some one of the joints, inflammation and pain being evinced. From the fact that the foregoing symptoms will generally show themselves in one individual after another in the same pen or building, the disease is frequently thought by the feeder, to be contagious. Such is not the case. Where several animals are housed under similar predisposing conditions it is but logical to expect a similar reaction in each case.

Causes.

Some authorities claim that there is no well-founded or proven cause for rheumatism, claiming that the condition may show in swine, under all systems of management, good and bad. While this may be to a certain extent true, the presence of crippling in a herd, in the management of which certain well-indicated methods have been followed, is so rare as to become the exception.

In brief,—rheumatism (and kindred complaints in swine) is caused by poorly insulated and therefore damp buildings; poor ventilation causing impure, clammy, damp air and damp surroundings; drafts; overheating and sudden chilling; too much food; too rich food; too little exercise; filthy, damp floors; etc. While one of the above predisposing factors might not be sufficiently powerful to cause trouble, anyone familiar with common winter swine-feeding conditions will know that in many cases several of the causes enumerated may be found combined. A combination of damp quarters and heavy feeding of a rich meal ration may almost invariably be looked upon with suspicion. Damp quarters, alone, to swine in particular, form a condition leading sooner or later to serious loss.

Preventive Treatment.

Diseases affecting swine should be treated, where at all possible, by the prophylactic or preventive method. The sick hog is truly a discouraged and discouraging animal, offering his would-be physician less moral and mechanical aid than even the proverbial sick dog.

Adult Breeding Stock.

While crippling may appear under the best of conditions with the heavily fed, closely confined, fattening hog, there is no justification for more than an occasional case in a large herd, where proper emphasis is laid upon the following health essentials with breeding stock—fresh air, dry quarters and exercise. With these should be included moderate feeding of a light meal ration and the constant use of roughages. Applied practically this would mean the use of a cheap portable shelter or cabin for winter and summer use, for both boar and sows, housing four or five of the latter in each cabin, and supplying bedding liberally. Aside from the time spent in a warm stall during farrowing, for a week or so previous, and for a certain length of time afterwards, depending upon the season,—the sow lives practically out-of-doors the year round. Somewhat similarly, many sows are wintered with a straw stack for shelter. While this would appear much more comfortable for the sow, crippling and rheumatism may appear. The sows burrow deep into the straw, frequently become overheated, with the ensuing danger of chills, predisposing further trouble. The single-board cabin is even in temperature, dry, and being open, requires no ventilating arrangement. It should be placed in a protected site and may further be covered over with straw.

Growing Breeding Stock.

For the sow under one year, ideal winter conditions have been found to consist of a well-ventilated shed or box-stall open continually to a small yard. Inside should be built of rough boards, a small, low sleeping-berth. Place a few boards over the top and cover with straw. Tack an old sack over the door and a comfortable, well-ventilated, dry bed will be the result. Such a housing arrangement will be found much better for the developing animal than the more rigorous treatment successfully accorded to mature sows.

FEEDING.—To prevent crippling and rheumatism with the aged breeding stock during winter the following methods of feeding are suggested: Use a light meal mixture, say bran 2 parts and shorts 1 part, making the proportion equal parts, with the sow nearing farrowing. Ground oats or ground barley might replace either. Roots are excellent; raw, pulped sugar beets or mangels or cooked potatoes or turnips, 5 to 10 pounds daily. Supply in racks at all times during the winter, well-cured alfalfa or clover hay. It is surprising how much the sow will consume. Also allow constant access to earth in some form, ashes, charcoal, etc., and watch continually for signs of over-fatness.

The boar may be fed much similarly. For him skim-milk, if available, is excellent, with a slightly richer meal mixture than the sows, if his condition warrants it.

In general, while over-feeding of breeding stock, housed as described, is not so likely to predispose crippling as where no exercise was possible, over-feeding or over-



A Mixed but Happy Bunch of Pigs.

fatness has a most undesirable effect on the coming litter.

Young sows require a good growing ration during the first winter. Oats, and bran or shorts, equal parts, with possibly a quarter of the ration of ground corn should be excellent. Feed lightly and discontinue the corn at first sign of over-fatness. Make use of skim-milk if possible and supply roots and clover hay as with the mature sow. The self feeder may be employed to advantage with the growing, breeding sow. Use the meal mixtures suggested, and revert to trough or periodic feeding as soon as the sows show signs of becoming too fat.

FEEDING FATTENING HOGS.—One almost sure way to avoid crippling with the heavily-fed, fattening pig is to feed him under semi-out-door conditions. This, however, will cost 25% more than indoor feeding. Frequently, however, the quality so obtained will more than pay for the increased cost of production.

For indoor feeding too much stress cannot be laid upon points already mentioned. Failing to supply dry quarters and a constant circulation of fresh air, the feeder would be infinitely wiser to place his hogs outside, in quarters, somewhat as already described. Under such conditions, even at a higher cost, he should obtain healthy, high-quality hogs. Fed under unsatisfactory indoor conditions, poor quality and more or less actual loss may ensue.

Referring to suitable grain rations for indoor feeding any well-balanced mixture properly fed under the right conditions should give satisfactory results. Avoid feeding heavily one grain alone, such as corn or barley. A mixture of corn or barley, shorts and oats, equal parts, is excellent. One part of distiller's grains also might profitably be added, as, aside from its actual feeding value, this addition will have the effect of lightening and making more easily digestible the heavier meals. The feeding of roots at least a couple of times weekly would be beneficial. First, last and always, however, avoid over-feeding, which with dampness constitutes the main cause of crippling.

With further reference to over-feeding, it would appear that a hog allowed to feed himself at will, would, with proverbial hogghishness, eat far too much and much too often. Such is not the case. Indeed it is certain that the hog knows infinitely more than his master, in many cases, not only with regard to how much and how often he should eat, but also how his ration should be balanced should he be allowed to select the ingredients of the latter. Self-fed hogs fed in quarters such as described for the young sow, have shown excellent gains and quality, at the Central Experimental Farm, during the past winter. While the cost of production was relatively 20% higher than with hogs fed indoors,—the health, vigor and quality of the self-fed, more or less out-of-doors hogs was the outstanding feature of the work. Where occasional cases of crippling occurred in a large number of hogs fed, in some cases, very highly nitrogenous rations indoors, not one individual trough or self-fed showed anything but the best of health under the outdoor conditions.

To sum up—if healthy—and therefore high-quality pigs—may be grown in a cold, dry house open to a yard—the same should apply to indoor feeding, where the essential conditions of the outside are approximated. A dry, light, well-insulated, and well-ventilated pen should supply conditions favorable to health. The warmer atmosphere of such a building should further lessen the cost of winter production.

SUMMER FEEDING.—Rheumatic complaints with swine are rare in summer where a pen or paddock is used and exercise available. Housing pigs in a filthy, wet, fly-infested sty and heavily feeding them a meal ration with no green feed will supply the predisposing conditions.

Curative Treatment.

Much space has been devoted to preventive methods of feeding and management. While prevention is infinitely preferable to cure, the latter is not impossible. Where the pig becomes so crippled as to be helpless, where the appetite is gone and the muscles atrophied more or less, there is no cure.

Remove the affected animal to dry, well-bedded quarters. Withhold feed for twelve hours and give from 2 to 6 ounces of Epsom salts dissolved in 1/2 pint of water. Repeat in 24 hours. Feed light, easily-digested, laxative foods,—milk, bran, shorts, green-feed, or roots in winter. Give 1 to 2 tablespoonfuls daily of a mixture of equal parts sulphur, Epsom salts and charcoal. Exercise is necessary and must be forced in more advanced cases.

Another recommended treatment is the use of salicylate of soda, twenty to thirty grains in the feed or as a drench, three times a day. Acute cases may require larger doses for short intervals. Quinine or the use of a good bitter tonic are both advised.

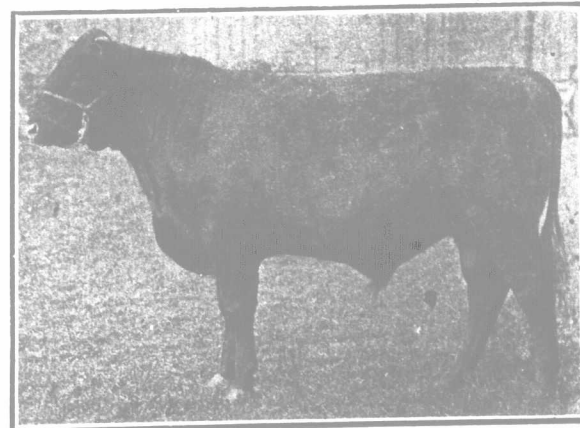
Where the trouble is purely local and inflammatory, showing itself in swelling and extreme pain at the joints, continued rubbing with a good liniment or ointment is beneficial. Even a good blistering, with one of the several blistering ointments may give the required result. As a blister, cantharides, 1 part; lard 4 parts, is recommended.

It is useless to waste time and feed with advanced or pronounced cases, except where an attempt is made to save a valuable breeding animal. With fattening stock, however, except in mild cases, it is best to dispose of affected animals before their condition becomes such as to render them quite useless.

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Some Everyday Views on Contagious Abortion.

If a farmer or breeder of pure-bred stock has contagious abortion in his herd of cattle, he seldom advertises the fact and he is particularly careful to keep it as a secret from his neighbors. On account of this reticence in regard to contagious diseases there may be present in our very midst a virulent form of some infection and, unknowingly, healthy animals are exposed to it through the exchange of live stock, through the use of a male which a neighbor holds for service in the community, through running animals in a custom pasture or being careless about visiting other stables and allowing clothes or shoes to act as a medium by which disease germs are transported from place to place. There are so many ways contagion may be spread that a stockman must be ever on the alert or the trouble will come home to his stable. Again, the silence maintained in regard to insidious diseases not only increases the chance for their dissemination but renders it difficult to arrive at any conclusions in respect to effective or reliable treatment. A breeder whose herd has been scourged by contagious abortion is no more likely to announce the efficiency of some drug in the treatment of the disease under his administration than he is to make public the fact that his cattle are affected, for either statement would injure the loyalty of his customers and place a ban on his offerings for years, even after all traces of the malady had been blotted out. We have no complaint to lay against this custom of secrecy so long as the breeder whose herd is infected does not unduly expose his neighbor's stock to the infection, and so long as he does not commit the crime of selling into other herds, animals that are known aborters and carriers of disease. It would be better by far if more publicity were given to these contagious diseases. For instance, the card fastened on the door of the home where small pox, typhoid, or diphtheria exists is a warning which seldom goes unheeded. It would be better for the live-stock industry if a similar system could be inaugurated, but until some method based on equity and justice is put into vogue regarding contagious live-stock diseases of this kind we shall keep our feet on the ground and close our eyes to individual cases while we again declare in a general way that contagious abortion is prevalent throughout the herds of this country to an extent much beyond



Baron Castor.
A winning yearling Shorthorn bull at Dublin, which sold for 900 guineas.

the comprehension of most, and not as much is being said about it as there is in respect to lice on chickens.

On account of the rigid censorship maintained by farmers generally in connection with troubles of this kind it behooves any owner of cattle to acquaint himself with the nature of this disease and means of prevention. Treatment is still in the experimental stage. Even after a quarter century of conflicting opinions and advice proffered by the Veterinary Profession, they have absolutely failed to agree on any specific cure, and the only thing left for us to do is to correlate their widely divergent views and resort to the methods of prevention and sanitation which they recommend, and which, it must be said, are in most cases practical and effective. Let us for the present study some of the symptoms of the disease and means of combatting it; also some theories expounded by professional men as well as practical breeders and in the meantime wait for the Veterinary Profession in conjunction with the live-stock departments of agricultural institutions (where plenty of material may be found on which to experiment) to put their ideas into practice and arrive at some conclusions in relation to a scourge that is causing very substantial losses to the live-stock industry.

Nature of the Disease.

As the name implies, contagious abortion is a disease which spreads through the herd giving rise to abortions and the premature birth of young. Furthermore, it may be the cause of retained placentas and sterility. Anyone acquainted with live stock will understand the disappointments accompanying such a malady, but only those who have had to deal with the disease in a herd of pure-bred or high-class cattle fully realize the losses of pure-bred or high-class cattle which it entails. Occasionally it gains and hard-ships which it entails. Occasionally it gains entrance to some herds, but never becomes virulent, so only a few abortions are noticed and no suspicions are aroused with regard to its contagious character. On the other hand, abortions may occur at intervals and not elicit much attention at first, but eventually the losses increase and the herdsman becomes aware that

something more than accidents or ordinary mishaps, of which all except a few, are responsible for the premature births, retained afterbirths, failures to breed, and all-round unsatisfactory performance of the herd. Then it is that one does not fail to comprehend that something is radically wrong and a disease of some infectious nature is getting in its deadly work.

As to how the contagious abortion germs gain entrance to the animal system, we are obliged to resort to technical data emanating from the Veterinary Fraternity. McFadyean and Stockman expound the theory that the organisms may invade the uterus at any epoch of pregnancy or before conception, that the chief avenue of infection is the alimentary canal, that infection is in well nigh every herd, and that the milk, vaginal discharges and faeces of diseased animals must contaminate the feed of almost all cattle. This doctrine renders the outlook for satisfactory control discouraging in the extreme, but Bang originally held to the view that the cervical canal was the usual avenue of invasion of the uterus, while Dr. W. L. Williams, Professor of Surgery in the Veterinary Department of Cornell University, published a bulletin in 1915 in which he claimed that the cervical canal was essentially the sole avenue and that the invasion must always occur prior to the sealing of the uterus, which normally takes place about thirty days after conception. These scientific views are mentioned here only to throw light on methods of prevention which shall be enumerated later on.

Dr. Williams further declares that a herd, or individuals of a herd, will not enjoy any immunity from the disease simply by having aborted or by having been infected. The immunity ordinarily noticed is not similar to that following some forms of acute contagious diseases, but is termed "age immunity" for the reason that a cow, which aborted as a heifer may resist the contagion in her mature form, through her increased age. Whether this be true or not we should not like to say, for the experiences of cattle men, who have endeavored to eradicate the trouble, go to prove that commonly the ailment will be virulent for one, two or three seasons and then heifers in the herd as well as the aged cows will carry the foetus the full time and suffer no complications, such as retained placenta, or other symptoms of the disease, at time of parturition what the outcome would be or the action of the disease where no medical or sanitary treatment were administered, we cannot say, but judging from a number of cases it appears that treatment will limit the period of its virulence in a herd to a couple of seasons ever when no drug is known to veterinarians that can be recommended as a reliable and thoroughly satisfactory remedy. In the face of this fact it would appear that ordinarily the disease will run its course if sanitary precautions are taken, and eventually a degree of immunity will be established which may be age immunity but which resembles very much the type of freedom from the scourge generally implied by the name in its general use. Perhaps some light is thrown on this matter by Dr. Williams' statement in respect to immunity, he says: "If our data are correct, the power to control abortion by this means is predicated upon an ability to induce an artificial immunity in a chronic disease incapable itself of producing natural immunity."

Treatment.

There has been considerable quackery practiced in the treatment of contagious abortion. As stated previously, no definite conclusions have been arrived at in respect to drugs, but carbolic acid and Methylene Blue have been used with widely varying results. Officials of the Health of Animals Branch, at Ottawa, claim that satisfactorily efficient results cannot be obtained through the administration of such medicines for all the germs will not be destroyed and the organisms which survive, being naturally resistant and virulent, will set up a more serious form of the disease than the original one. However, there are herdsmen who have much faith in the carbolic-acid treatment. One leading Ontario cattle breeder, whose herd was infected, resorted to carbolic acid, feeding as much as six drams per day (equivalent to about six teaspoonfuls) for two or three weeks at a time. One cow, about six months gone in pregnancy, showed symptoms of aborting; she was treated in this way and carried her calf the full time. The drug was fed with bran in summer and on the hay in winter. This breeder's opinion was that it required at least two or three teaspoonfuls to do any good. While full credit for the eradication of the malady was not given to carbolic acid, the disease was stamped out which in itself was sufficient to establish considerable faith in the efficiency of such treatment. In another instance a herdsman who has had experience with contagious abortion feeds the acid continuously in the salt box, to which the cattle resort, and symptoms of the disease have not been evident. In this case it has been used as a preventive measure only.

In still another large pure-bred herd, scourged by this disease in 1914, the Methylene Blue was used. The trouble persisted in 1915 in a slightly modified form, while in 1916 there were no abortions but some cows showed symptoms of the malady in retained afterbirths. Two females which aborted have since been sterile; two were farrow for one year and then conceived, and one heifer which freshened normally last year has since failed to get in calf. While these troubles, which follow in the wake of contagious abortion as an aftermath, still exist, there is no evidence that the malady is now exerting any active influence. How the immunity or freedom from disease was established the breeder does not know, but it is believed that the sanitary precautions taken during the time of greatest trouble and which have been exercised more or less ever since, were as effective as

the medical treatment itself and, working in conjunction with it, brought about improved health and virility in the herd. This leads us to comment on that exceedingly important factor in the treatment of any disease, namely, sanitation and preventive measures.

Sanitation and Prevention.

Some authorities look upon carbolic acid as practically worthless in the treatment of contagious abortion. Methylene Blue is now so valuable in other lines that the price is prohibitive to the stockman, even if he should receive any encouragement to use it. We have no doubt that the precautions taken by herdsmen (inadequate perhaps from a technical viewpoint), when administering drugs, were, nevertheless, responsible for a large percentage of the favorable results obtained. It seems reasonable to expect that a man who would doctor his cattle carefully in one respect would also be particular to observe rules in regard to the spread of infection. There is no doubt about the curative and preventive value of cleanliness, the isolation of animals at certain times, the destruction of fetuses and afterbirths, and other precautions that a practical man would take. While awaiting the outcome of investigations now being carried on with the object of ascertaining further and more definite information, we cannot afford to cease exercising those measures of caution and prevention which we are led to believe are good. Regardless of the efficacy or worthlessness of drugs fed into the stomachs of cattle, the cleanliness of surroundings, the disinfection of stalls as well as the disease-carrying organs of the animals, and an all round sanitary quarantine, of one's own proclamation, should be carried out.

If we accept Dr. Williams' conclusion that infection enters the uterine cavity through the cervical canal prior to or very soon after conception, douching the vagina of the female and the organs of the bull is reasonable treatment. His advice reads: "It is recommended to use for this purpose warm, feebly disinfecting solutions, such as 0.5 per cent. bacterol, lysol, cresol compound, or any other soapy, coal-tar disinfectant. The soapy character tends better to dissolve the mucus in the vagina and cleanse the membrane more efficiently. More recently we have been using 0.25 or 0.5 per cent. Lugol's solution with apparently most excellent results. The solution should be introduced into the vagina at about the normal body temperature, 100 to 105 degrees F. The vagina should be filled, in order that it may be fully dilated, the folds of mucosa obliterated, and the solution brought into contact with every part. It is best introduced by means of a gravity apparatus in the form of a 5-gallon vessel for medium or large herds, armed with a stopcock at the bottom, to which is attached a pure gum horse stomach tube. The vessel should then be suspended upon a manure or food track, or upon a special wire track by means of a pulley, so that it may be easily moved along behind the row of cows.

"The horse stomach tube is introduced through the vulva into the vagina, and the fluid is allowed to enter the vagina by gravity.

"The bull is to be handled in the same manner. The solution should be applied before and after each service by a similar, though smaller, gravity apparatus with a pure gum horse catheter for introduction into the sheath. While the fluid is passing into the sheath, the operator should prevent its escape by pressure upon the outlet until every part is well dilated and all mucous folds obliterated, so that the solution comes into contact with every portion of the mucous membrane.

"Immediately after cows have calved or aborted if there be retained placenta or uterine discharge, the uterine cavity should be at once carefully disinfected and the disinfection repeated once or twice daily so long as the cervical canal is freely open, in order to overcome the infection present, and thereby do all possible to prevent sterility and to avoid abortion during the next pregnancy.

"It is even more important that the vagina of heifers, whether virgin or previously bred, and cows shall be systematically disinfected for a period before and after breeding, until conception is assured."

It would be a waste of time to recount experiences where carbolic acid and Methylene Blue have been beneficial or valueless. It has been proven, however, that white scours in calves, calf pneumonia, sterility and retained afterbirths can be considered symptoms of contagious abortion. Every afterbirth should be regarded as a possible source of infection and should be destroyed as one would destroy a dead animal, the victim of some highly contagious disease. Maternity stalls should be thoroughly disinfected prior and subsequent to each occupation. A cow which has aborted should be isolated for a time from other breeding animals and not allowed to disseminate infection or, by switching and rubbing, besmear the healthy cattle about her.

THE FARM.

Why I Farm.

BY W. D. ALBRIGHT.

"Tell me, why did you do it? If you wanted to show the true man in you by giving your life to the calling which demands the greatest sacrifices and returns the fewest rewards, why in thunder didn't you go to farming in civilization? Did you want to get back to the life of the pioneers?"

Abridged from a personal letter are these questions penned by a Bluenose friend, a B.A. of exceptional ability who chose, as his friends have it, to bury (?) his talents in a fruit farm in the Annapolis Valley. From

which it will appear that he is no common pessimist seeing in farming scope for nothing but hard work. While recognizing that it demands denial and offers small proportionate financial compensation he sees in it much that appeals. Still he wonders why I came to the Peace River country to farm.

The question as to why I prefer farming to other occupations I endeavored to answer in the concluding paragraphs of an article in the Christmas Number of "The Farmer's Advocate". Those words were not written for effect. I meant every one of them. If they do not carry conviction I am afraid nothing can. Still a few personal reminiscences may throw a sidelight on my choice.

From the time I was knee-high to a grasshopper my one great central idea of a life work was to farm. To be sure, other dreams were sometimes sandwiched in. For instance in the barefoot stage of metamorphosis I once let fancy run until from a raft on the unnamed creek at the back of the farm I had evolved to the ownership of a fleet of ocean liners larger and faster than had been, and embodying many features of my own invention. Those boyhood visions are never marred by any lack of faith in our ability. But between such soaring flights of imaginative enterprise my main conception of a life purpose turned ever and ever backward to the farm, unwavering as the needle seeks the pole. I wanted to farm and to farm well. It was an inherited instinct fostered especially by a mother's influence.

Mother was by nature progressive in her tendencies. She read as much as leisure would permit and was always enthusiastic for the better way of doing things. She sought to lead us out, too. Often after a meal she would remark with an aggressive but good-natured earnestness that could not be resisted, "There's an article here in the — I want to read to you. It sounds just about right". Often as not it would be an article about some up-to-date idea in tillage or breeding or poultry keeping or hygiene or anything practical. With amused smiles and an affectation of tolerance we would all sit back and listen. But, beneath a superficial badinage we listened attentively; and the seed bore fruit.

Other influences helped. An uncle who bred blooded stock persuaded father to subscribe to "The Farmer's Advocate". It was not fully appreciated at first. We boys were too young to read it then, and by father it was regarded more or less as a stockman's paper, rather above the plane of everyday farm work. But those old papers with their yellow covers and wood engravings were stacked up in the garret, and one day I commenced browsing among the Chats by "Uncle Tom and Cousin Dorothy." From the Magazine I gradually delved into that early profound controversy concerning the dual-purpose cow, and from controversy interest led on to instruction and I became so engrossed that I persuaded father to renew the subscription which had lapsed.

Another influence was the example of a cousin who braved local ridicule by taking a course at Guelph in the days of the Mills-Shaw regime.

These personal recollections are recalled as illustrating the depth and range of the undertow of influences which spread the leaven of agricultural progress hither and thither through channels and agencies unguessed. Through ten years of agricultural journalism I never lost the hanker for the land. The cherished ambition steadily gained strength with years, and after having acquired an educative experience and enough capital for a modest beginning on my own account, what more natural than the change I made?

And if what has been given were not enough, there were yet other reasons. I like creative effort rather than abstractive. The shrewd, self-seeking acumen which exploits a country's resources or nation's necessities for personal profit or which aims to rise by crowding others down is frankly repugnant to my nature. I like to farm because I feel my success will not be spelling some competitor's failure—because I can earn a living by producing something instead of acquiring it from those who do. The ethics of farming appeal, though not to an extent which would make me indifferent toward the struggle for economic justice.

But still the question, why so far? "Why didn't you go to farming in civilization?"

I am in civilization. Half a mile away is a good school where a competent female teacher is paid eight hundred a year. At the same place is a post office receiving semi-weekly mail, a telegraph office, a first-class restaurant and an excellent general store. Churches are well distributed over the Prairie. Law and order prevail.

It will test the credulity of my Nova Scotia friend, but it is a fact nevertheless, that not even in the ideal and cultured community where he lives—a community which I know and for which I entertain the highest respect—not even there could be found a finer class of neighbors than surround me in the neighborhood where this is written. Since coming to the Peace River Country I have yet to meet the first person who could not speak English freely. I have yet to meet an illiterate and it is seldom we meet a boor. The other evening I attended a local farmers' meeting ten miles away, and in the representative audience was not one person uncouthly attired, not one but was a gentleman or a lady. There were several with high schooling or university training. Bachelors of Art or Science or Agriculture are located within a radius of a few miles. Script holders many of them are—men of some means, with character and calibre far above the average citizen. It is a neighborhood to be proud of.

Pioneer conditions of work and living we experience of course. But evolution is rapid. Progress already

achieved astonishes travellers, remembering that steel reached the Prairie but a short year ago.

And we are on the threshold of a future which, I verily believe, will quite eclipse that of the lower plains. Winter climate is superior and resources more varied. A vision of the nascent is written on the horizon of the pioneer. Courage and energy and resourcefulness are challenged by difficulties—challenged and even in the meantime well repaid. Pathfinding and Empire building on the frontier, laying deep the foundations of agricultural progress and sane satisfying rural life is a work indeed for men. And it is an acid-test of stamina which guarantees virility in the Posterity of the Peace River Country.

As Service wrote of the Yukon, so I feel of the great Frontier:

"This is the law of the Yukon, and ever she makes it plain:

Send not your foolish and feeble; send me your strong and your sane. . . .

Send me the best of your breeding, lend me your chosen ones, Them will I take to my bosom, them will I call my sons."

Random Thoughts And Notes.

EDITOR "THE FARMER'S ADVOCATE":

"A real spring evening", said my sister as we stood on the doorstep.

"Yes," I answered, "it makes a fellow feel that, after all, life is worth living—but I must be off".

"O, what's your hurry", she protested laughingly, "it's thirty minutes to train time, and it won't take you that long to reach the station".

"No matter," I answered, "I like plenty of time Good-bye."

As I walk leisurely along I note many things that plainly tell me, spring has come to stay. To my left I look upon a stretch of brown fields and dark woods, dotted here and there with remnants of winter snows and pools of water. At my right is a village nestling among bare-boughed apple orchards above which rises the smoke of numerous home fires. From a tall elm tree a robin pipes a cheery note for me; a frog from some oozy spot essays a timid note or two, while, far up in the glorious evening sky a few ducks wheel and circle preparatory to swooping down to some hidden lake, to which, probably, is flowing the noisy stream I see in the hollow.

Arrived at the station I find I have fifteen minutes to wait. Except for the station agent, who, I see, is comfortably employed in smoking a cigar and reading a newspaper, I have the place to myself.

The sight of the newspaper turns my thoughts to war-stricken Europe, and as I pace back and forth my mind is filled with ever-increasing wonder that men should quarrel and fight, and kill, and burn, and destroy—for what? God alone knows! In this quiet spot, in this soft spring twilight my mind refuses to grapple with the question, or to realize even ever so remotely the stupendous horribleness that science and twisted minds have made possible. I look upwards and wonder how the Creator of that star up there can look down on countless, weeping mothers, and not intervene to stay the untold misery, if it be not for some great purpose; misery that, so we are told, may be prolonged long after the great guns have ceased to boom by a terrible sequence.

In all newspapers the words of prominent men are quoted by the yard to the effect that out there, only a little way from us, the spectre of famine is grinning and gibbering in anticipation of a grim harvest. On all sides is thundered—"We must have more foodstuffs. Produce! Produce! Produce!!!" And yet, God forgive our governors, the tillers of the soil were never so handicapped, and at no time was there so much useful land lying idle in the hands of speculators. Why these evils, if there be such dire need? Probably it was something of a shock to our city brethren to learn that the future supplies for their stomachs depended on ordinary farmers, but why make such a row about it all at once? Why shower so much superfluous advice on the farmers who are doing their best? Why hatch so many devices that show only an amazing ignorance of farming conditions? In one sense it is a good thing that our city friends are beginning to have a glimmering realization that the farmer's path is not all roses, and that he cannot sow and garner increased crops unless someone helps him, but that is no reason why some of them should cry: "Send your wives to the fields, they'll help you, and we will supply you with a nice lady to do the housework". Jove, what a scheme! Probably one might find, here and there, a farmer who looks upon his wife as: "something better than his dog, a little dearer than his horse," but its not usual. And you, Mr. Cityman, would you sit in your little two-by-four office with a nice electric fan to keep you cool, while out in the fields under a roasting sun a woman toils, that you may eat?—But here comes the train, for which some production campaigner may be thankful, for my thoughts have worked me up to that degree where the contemplation of murder seems no sin.

I spring aboard and am in a different world, where are displayed various brands of practical civilization—no place for dreamers. I surrender my ticket to a liveried mountain of flesh, fit representative of a bloated corporation. I am pestered by a vendor to buy "cigars, cigarettes, chocolates," and am subjected to a withering look of scorn when I refuse. A fat negro cook, or mayhap it's a waiter, waddles by, and instantly my mind connects his kind with sundry good, wholesome breadcrusts I had tramped underfoot only that evening as I walked

Boys Appreciate Recognition.

EDITOR "THE FARMER'S ADVOCATE":

Keeping the boys on the farm is a difficult problem to solve. One of the chief reasons given for leaving is to better their conditions in life, but if it comes down to the fine thing I believe that most of those who leave would rather stay on the farm. It is usually the father's ways and methods which drive them to the city. I read a piece of poetry in a paper the other day which was written by a boy who left the farm. It was as follows:

"I left my Dad, his farm, his plow,
Because my calf became his cow,
I left my Dad—'twas wrong of course,
Because my colt became his horse.
I left my Dad to sow and reap,
Because my lamb became his sheep.
I dropped my hoe and stuck my fork,
Because my pig became his pork.
The garden truck that I made grow,
'Twas his to sell and mine to hoe.
It's not the smoke in the atmosphere,
Nor the taste for life that brought me here.
No fear of toil or love of dress,
Is driving off the farmer lads,
But just the methods of those dads."

I think this about sums up the whole situation. It is not the love of a good time or fine clothes that takes them to the city; it is to have money of their own to spend as they like. The greatest exodus of boys is from farms where there is lack of labor-saving machinery and very little for the boys to take an interest in. It is a good plan for every father to take his boys into partnership. I know young fellows who have excellent ideas of their own, but when they broach the subject to their fathers they receive the answer: "They may be all right, but what is good enough for father should be good enough for you." This makes the boys discontented. There are many labor-saving devices on the market which might be utilized to advantage on many farms that are now without them, and the laborers are obliged to drudge along under old-time methods. Rather than work against such odds, the boys go to the city to earn their own living. The father thinks the boys have not done right by him, but who can blame some boys for leaving home? In the city the boy has his weekly pay check to himself and does not have to ask anyone for spending money. The lad who works out is oftentimes better off than he who works on his father's farm and takes what his father gives him, which sometimes is not very much.

There is nothing a boy will take more interest in than a good horse or cow or plot of ground of his own. Entertainment, good magazines, books and farm papers should be available in every farm home. The boy who has a little money to call his own appreciates what his parents do for him, works better, is more contented and takes a greater interest in the farm work. What was customary fifty years ago won't do now. We are living in a faster age, and it is necessary to change with the times if the boys are to be kept on the farm.

Ontario Co., Ont.

A FARMER-TO-BE.

Mixed Farming a Safe Proposition.

EDITOR "THE FARMER'S ADVOCATE":

I will endeavor to give a short outline of how I would manage a farm. If I were looking for a farm, one of the first considerations would be the size, and I would not buy a large farm unless I was sure I could handle it. Many of our farmers are trying to till too many acres. Some are finding that they can't do it and are letting their land go to pasture. The shortage of labor is undoubtedly the cause in part, but there is far too much of our good land not producing maximum crops. One hundred acres is too much for one man; fifty acres might receive all of one man's time and then not be overworked. More clear profit will be made from the smaller than the larger, if there is not enough help to do the work properly. On a large farm a great deal of the work would have to be rushed over or left undone. There is nothing to be gained on a farm by doing things in a slipshod manner. Therefore, I think that fifty acres to the man would be a good rule to go by.

The next consideration would be the soil. No man can say exactly which would suit the best. Every man looking for a farm generally has had some experience, and the soil that he has become accustomed to will be the better one for him to choose. Some men are good farmers on clay, and others on sand, while if the man accustomed to the clay undertook to farm on sand he would likely make a poor job of it. Stick to the soil you have become acquainted with and do not wish to change just because some other man has done better. For myself, I consider that a clay loam with a small mixture of sand to make it friable would suit me the best. Every man must choose for himself.

The different branches of farming are many and varied, so that no one who cares for the work at all can fail to find something to suit him. As a general rule, the class of farming is governed by the district in which the farm is located. Some districts are suited to fruit growing, others to grain growing, but in almost all parts of Ontario a farmer may have a mixed farm which will be the safest, as all eggs will not be in one basket. Oats, barley, wheat and corn are our most staple grain crops. For hay we have our choice of alfalfa, red clover and timothy. I would try to have an acreage sown to oats, barley, corn, and wheat if I had the land suitable for it, but I find that wheat is rather a

hard crop to grow, and I would not attempt it unless I had land especially suitable. Red clover is my choice for hay. It may be seeded with any of the cereals, and produces in this locality a good crop of hay and sometimes a good crop of seed from the second cutting. The three-year rotation, viz., hoed crop, grain and hay, works in very nicely with these, and I consider it the best plan to follow. Besides, one should always grow his own vegetables, with probably half an acre or so of potatoes for sale. A small orchard of apples, with a few of the other fruit trees and smaller bushes, will complete the list. But, unless a man intends to go into the business he should be careful not to attempt too many of the smaller things, lest too much time be taken from the more important work.

In Ontario, especially the older parts, grain growing alone is not practical. We must have some way to retain the fertility of our soil. Raising stock and feeding the grain on the place is the only answer to that question. Commercial fertilizers are all right in their place, but nothing will take the place of that produced on the farm itself. It is my firm belief that practically all grains should be fed on the place.

Feeding cattle would be my choice. In a few localities, especially those situated close to good markets, dairy cattle would be the line, but farmers who are not entirely certain of their market will do well not to attempt dairying. Beef cattle present a very promising field of work at the present, and without doubt will continue so in the future. Raising your own stock is the better and safer policy, but many buy young cattle and finish them for the market. Considerable sound judgment is required to follow this practice successfully. It is not possible to estimate the benefit to the farm of keeping stock, but every man will concede that it is considerable.

Lambton Co., Ont.

K. S. OKE.

A System of Cropping The Farm Garden.

EDITOR "THE FARMER'S ADVOCATE":

Our garden truck is grown on black soil with a clay subsoil that is well underdrained. It is located near the buildings so as to be handy for hoeing and gathering the crop. The garden is 200 feet square, and we have about half of that in clover each year, so that we follow a two-year rotation and find that we have no difficulty in controlling the weeds and keeping the soil in good condition. About 2,000 square feet near the vegetable garden is devoted to small fruits, as gooseberries, white, red and black currants and raspberries. The soil is put in good tilth in the spring and is sown in rows so that we can use the horse cultivator. This saves a lot of hand hoeing. A hot-bed is sometimes used for starting the plants, but more often small seeds are sown in boxes and then transplanted. We aim at cultivating once a week. Early potatoes are planted at one side of the garden and cucumbers next to them. The potatoes are harvested early and the cucumbers then have plenty of room to grow. The remainder of the garden is planted to the various common garden crops. Peas, beans and radishes are planted at different times so as to supply the table throughout the entire summer. It is difficult to say just what cash value the vegetables have. We have all we want to use, but if we had to buy them we, no doubt, would consume a much smaller quantity than what we do when they can be gathered fresh from our own garden.

Prescott Co., Ont.

J. C. N.

THE DAIRY.

Don't Neglect the Herd Sire.

Many bulls are disposed of just at the time they should be of most value at the head of the herd, owing to lack of fertility and vigor. These defects are generally the result of improper feeding or care, overworking, lack of exercise, etc. It is possible that lack of vigor may be inherited, but this is not probable. It is more generally due to the treatment the bull receives from calldown to maturity. Difficulty in handling is a common reason given for disposing of the bull at the time his value as a transmitter of high-producing qualities is becoming known, but this, too, is oftentimes caused by improper handling. The vitality of the calf depends to a large extent on the amount of exercise given. It is advisable to give him the run of a clean, roomy box-stall and a paddock, and to feed so as to produce growth rather than too much flesh, although a certain amount of the latter is desirable even with the dairy breeds.

In order to save labor the young bull is sometimes allowed to run with the herd. This may result in lack of vigor later on. Too much exercise is almost as detrimental as too little. A good paddock, leading off the bull pen if possible, is the ideal summer run for the sire. He can exercise at will and has his pen for shelter. High condition and overfeeding on bulky roughage are frequently responsible for sluggishness and lack of activity. Good quality roughage should be fed at all times and oats and bran are good concentrates for a bull.

Don't neglect to examine the feet of the herd sire at regular intervals. When confined to the stable the feet grow long and become deformed which will cause crippling, thus making him unfit for use. Trim the feet periodically. Some prefer throwing the animal and using a blacksmith's paring knife and rasp to put the feet in shape. Others use a sharp narrow chisel and cut back the hoof while the animal is standing. The former

method will no doubt make the better job, but the main-point is to get it done. The sire cannot be expected to give satisfactory service unless given proper attention.

The Milking Machine as a Labor Saver.

EDITOR "THE FARMER'S ADVOCATE":

The present scarcity of labor on the farm is drawing the attention of the progressive farmer to all kinds of labor saving devices whereby he can reduce the cost of production of his products. Particularly does this hold true in the case of the dairy farmer. The high prices for dairy products have been offset by the high prices of feeds and the high cost of, and in some cases the absolute impossibility of getting labor for the dairy farm. At the same time the farmer realizes the fact that he has in his dairy herd, if it has been properly built up, an almost invaluable investment, and also that there is a bright future for the dairy industry if he can but tide over the present emergency. This bright future lies not only in the sale of milk products, but in the sales of breeding stock as well. The market for the latter has never been better than it is at present. For proof of this last statement witness the results of recent pure-bred cattle sales. In view of these facts the farmer should be slow to dispose of his herd or even reduce it in numbers if he can find some means of disposing of the labor question.

The largest single item of labor in a well-equipped dairy barn, and the one which makes labor hard to get is that of milking the cows. We have at our disposal, however, agencies to reduce this item in the many makes of milking machines now on the market. Of late years these have been perfected to such an extent that they are now practically all considered to be capable of doing the work they were made to do as well as will the ordinary run of farm laborers employed for hand-milking. Up to the present time, it was not considered profitable to install a milking machine for herds of less than from twenty to twenty-five cows on account of the high cost of installation. Not any of the machines have been reduced materially if at all in price, but, other things being equal, recent changes in the labor situation now warrant the installation of a milking machine for herds of from ten to fifteen cows. With a herd of this size one man with machines to milk four cows at once, which is one of the best combinations, should be able to prepare the machines, milk the cows and wash the machines in one hour provided no mishap occurs. This would in some cases save one man's time, for often if the extra man could be dispensed with at milking time he could be dispensed with altogether. The time saved by the milking machine increases with the increase in the size of the herd.

Success with any particular type of milking machine depends as much upon the operator as it does upon the make of machine. This statement is readily endorsed by a great many users of milking machines. He must be of considerable mechanical ability and be prepared to give the machine the detailed attention which any machine of such a fine nature requires. He must also be observant and quick to see and attend to the idiosyncrasies of each individual cow, for by proper handling at the right time the machines will milk more quickly and more thoroughly. It is too much to ask the machine to do both, but it will supply the mechanical power if the operator supplies the intelligence.

The results in milk yield from the cows, when milked by a well and properly handled machine, differ very little either way from those obtained by average hand milking. True one or two cows in a herd may not respond to the machine very well but there will be others that may do better so that the average remains about the same. It is noticeable however, that young cows which are broken in to milk with the machine respond to it much better than do cows that have formerly been used to hand milking. With some types of machine short-teated cows are much more easily milked than by hand and the same can be said of hard milking cows. As is to be expected the best results are obtained when the cows are in the heaviest flow of milk. As the amount of milk given decreases the percentage of strippings increases, therefore, in herds where the cows nearly all become dry at the one time it is often advisable to discontinue the use of the machine and start again when enough cows have freshened to enable you to use the machine economically. Stripping by hand is advised with any make of machine because it is quicker to get the strippings by hand than by machine, the operator is certain that all the milk has been drawn, and then it affords opportunity for examining the condition of the udder. If the machines are properly handled there should be no more trouble from sore teats, garget or other udder troubles than is met with under ordinary hand-milking conditions.

The quality or bacterial content of the milk produced by machine milking depends upon the ability of the operator to handle the machine properly, together with thoroughness with which the parts coming into contact with the milk are washed. Theoretically the milk produced by a machine should be found much more free from bacteria than that produced by hand milking, because with most machines it is kept from coming into contact with the barn air and it never comes in contact with the operator's hands. Practical experience has shown that it takes exceptionally careful washing and good handling on the part of the operator to produce milk as low in bacterial content as that produced by good hand milking. To produce certified

milk it would be necessary to spend much time and energy in the sterilization of the machine and such a practice would only be practical under special conditions as regards facilities and markets.

The power necessary to run a milking machine is easily obtainable and in fact is often already present on the farm. From a 1 1/2 to a 3 horse-power engine or motor is all that is required for the ordinary sized herd when it is being used for that purpose only. Often, however, a larger engine may be installed and used for other work such as pumping water grinding grains and other operations in which a stationary engine can be used. With some machines no shafting whatever is required, the pump and engine being connected directly, while others require a counter shaft. The more simple the installation in this and other respects the better are the results to be derived from the same. It may be said that on the farm which receives the major part of its income from dairy products any marked saving of labor effected must be made in the production and handling of milk, therefore, the milking machine, perfected as it is to-day, should become quite a factor in the organization of the dairy farm.

GEO. W. MUIR, Asst. Dom.-Animal Husbandman.

Proportionate Increase in Production as Heifer Matures.

If a two-year-old heifer produces 4,000 pounds of milk and 140 pounds of fat, how much is she likely to produce as a three-year-old or as a mature cow? This problem frequently confronts dairymen. A heifer,

which, according to her breeding, should give a good flow of a little more than an average testing milk fails to come up to the expectation of her owner the first lactation period. If there is no probability of her doing any better the following and succeeding years, she will prove an unprofitable member of the herd. There is no definite way of telling what a heifer will do as a mature animal, it depends on her breeding, the feed, the condition she is in at the time of freshening and the care and attention given at all times. A heifer or cow may milk well one year but fail to do as well the next. However, it is generally considered that production of milk and fat will increase each lactation until the cow is five years old, and after that it remains nearly constant until the cow passes the ten- or eleven-year mark, provided she is given proper feed and care and suffers no physical or constitutional ailment. The cow is in her prime when from four to eight years old and some continue to be profitable producers up to sixteen or eighteen years, although such are the exceptions rather than the rule.

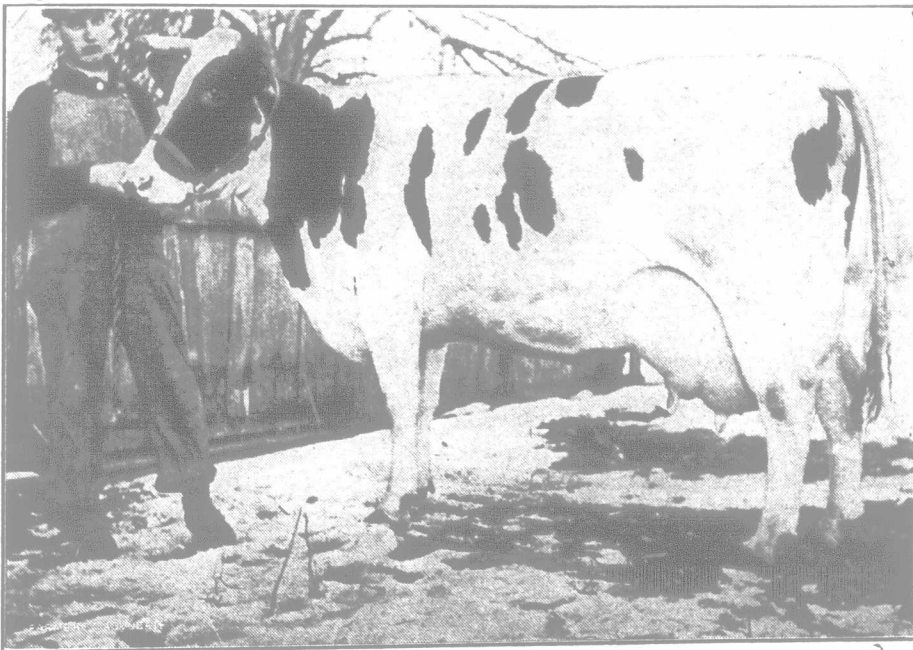
A two-year-old heifer will give about seventy per cent. as much milk as she will when mature; a three-year-old eighty per cent., and a four-year-old about ninety per cent. Of course, a heifer may be slow in developing, owing to shortage of feed, or lack of care. Under such conditions she may only produce about half as well as a two-year-old as she will later on. This is but a guide to what a heifer may be expected to do as she matures.

It is generally noticed that there is very little variation in the test due to age. As a rule it remains fairly constant until the cow gets up in years when it may commence to decline a little. While the breeding has a lot to do with a cow's powers of production, the value of proper feed and care must not be minimized. A good many heifers make a poor showing their first lactation because they were stunted as calves and yearlings. Many cows are unable to do their best owing to the fact that their systems

had no opportunity to be built up previous to freshening. The milk secreting and producing part of the cow is a delicate piece of mechanism and must be given reasonable care and attention. It is generally understood that all classes of engines and power machinery require rest and overhauling. If this is the case with lifeless material, how much more does the living animal body require a yearly period of recuperation. It is only reasonable to expect that a stunted calf will not make as good a heifer as a thrifty calf, and a cow milked up to within a week or two of freshening will not give as much milk during the following lactation as one given a couple of months' rest with good feed. Skimming the feed allowance for a dry cow may result in a slight saving in the feed bill, but, what is saved now is lost many times over in decreased flow of milk, owing to the short-sighted policy of not treating the calf or cow properly. In the calf, heifer or cow is of the right quality she will pay for the extra attention.

Southern Ontario Consignment Sale of Holsteins.

Tuesday, May 8, was decidedly a bargain day for purchasers at the Southern Ontario Consignment Sale Company's sixth annual sale of pure-bred Holsteins, held on the fair grounds at Tillsonburg, Ontario. The offering put up by the Club was quite equal to that of any brought out this year, but the buyers were not present. The fine weather, no doubt was chiefly responsible for keeping a large number away, as a day away from the land row means considerable to a farmer



Daisy DeKol Hengerveld 14516
Seven-day record: milk, 613.6 lbs; butter, 31.34 lbs. Thirty-day record: milk, 2,428.3 lbs.; butter, 123.32 lbs. Average test for both periods 4%.



Het Loo Pietertje.
Two years and three months old. Seven-day record: 575 lbs. milk; 31.28 lbs. butter. Owned by Roycroft Farm, Newmarket, Ont. W. L. Shaw, Proprietor.

who as yet hasn't his seed in the ground. Every animal catalogued, however, found a buyer, and Auctioneer Montgomery finally obtained the very good average of \$153.90 for the forty-seven head sold. Eight bulls, including the two aged sires, Baron Colantha Fayne and Korndyke Veeman Pontiac, consigned by T. W. McQueen and R. J. Kelly, respectively, brought \$1,250, an average of \$156.25. Thirty-nine females including heifers and calves, averaged \$153.45. A list of all the

animals selling for over \$100 follows, together with the buyers of same, as well as the prices paid.

Korndyke Veeman Pontiac, Neil McGugan, Shedden.....	\$235
Baron Colantha Fayne, I. N. Howe, Mossley.....	285
Lilly Ormsby De Dol, J. B. Lipsit, Straffordville.....	205
Kathleen DeKol Segis, T. E. Bedggood, Thorndale.....	145
Lady Pontiac Calamity, J. R. Kent, Tillsonburg.....	175
Genista's Inka Beauty, J. B. Lipsit.....	150
Bull Calf, Pennington Bros., Hawtrey.....	140
Bessie Spinks Abbekerk, Geo. Walsh, Tillsonburg.....	160
Bessie Colantha, E. C. Chambers, Hatchley.....	165
Forest Ridge Segis Bessie, E. C. Chambers.....	225
Forest Ridge Segis Orpha, C. A. Walsh, Straffordville.....	170
Finderne Fayne Segis, Jas. Scott, Tillsonburg.....	200
Forest Ridge Fayne Elite, S. McCallum, Belmont.....	180
Forest Ridge Fayne Gladys, S. McCallum.....	145
Lady Rose Mauleen, M. H. Hollingshead, Culloden	155
Fayne Mauleen, S. McCallum.....	205
Queen Lily Faustina, Pennington Bros.....	130
Sprucedale Susie, C. O. Mahoney, Jarvis.....	125
Ivy Lodge Mercena, Neil McGugan.....	155
Princess Norma, R. G. Boxall, Mossley.....	165
Colanthus Canary Posch, I. N. Howe.....	200
Ivy Lodge Nellie, M. H. Hollingshead.....	115
Ivy Lodge Mildred, I. N. Howe.....	180
Mercedes Johanna Coucha, Pennington Bros.....	155
Belle Calamity Hartog, G. B. Ryan, Tillsonburg.....	195
Lewis Prilly Hartog Mercena, A. E. Betzner, West Flamboro.....	125
Calamity DeKol Abbekerk.....	160
Maye Abbekerk Hartog, Albert Mittlefehldt, Wellandport.....	170
Countess Mercena Wayne, G. T. Markham, West Lorne.....	255
Mary Ann Hartog Colantha, I. N. Howe.....	190
Pauline Hartog Colantha, Thos. Phillips, Marshville.....	210
Daisy Colanthus, Wm. Prouse, Mt. Elgin.....	150
Ella May O. A. C., T. E. Bedggood.....	150
Ella O. A. C. Colantha, G. B. Tupper, Tillsonburg.....	105
Princess Posch Pride, G. B. Tupper.....	145
Pride Colantha Posch, G. T. Markham.....	150
Princess Rouble Hartog, T. E. Bedggood.....	140
Pauline Calamity Posch, W. Dufty, Union.....	145
Lindley Beauty Hengerveld, S. McCallum.....	150
Calamity Brookbank Hengerveld, W. Dufty.....	150

POULTRY.

Housing For the Young Flock.

On towards the end of May a good many chicks are hatched on the farm and it is sometimes a problem how to house them to best advantage. Crows and hawks do their best to diminish the young flock and it is often necessary to provide some means of protecting the young chicks. A chicken coop can be made out of a barrel or old box; in fact, there is a multiplicity of styles of chicken coops in use. However, some of them are dark, poorly ventilated and cannot be moved from place to place. Under such conditions the chicks cannot be expected to do well. An elaborate structure is not necessary, but the coop should be well lighted and made comfortable. Instead of depending on makeshifts from year to year it is advisable to make a strong, substantial coop that will last for several seasons. Figure 1 gives the front view of a very satisfactory coop for hen and chicks. It is two feet high in front, fifteen inches high at the back, two feet wide and three feet long. The top portion is of wire which will supply abundance of air and allow the sun to shine to the back of the coop. The bottom part is of slats which will keep the hen in but allow the chicks to run. A board can be cut to fit over this at night to keep out any animals which might be enemies of the poultry yard. An enclosure covered with wire can be made to extend out from this coop to protect the chicks from the crows. An enclosure can be made by tacking chicken wire on to a frame. If four or five feet in length, three or four feet wide and eighteen inches high it will give ample room for a dozen or fifteen chicks to exercise in and secure green feed. It is not advisable to leave the coop in one place continually. It should be moved around every few days. One of the size mentioned, together with the run-way, can be quite easily moved. In this way the chicks will secure the advantage of free range and yet be protected. This coop will be large enough for them until they are five or six weeks old, when they can be transferred from the small coop to the colony house if necessary. By building the coop a little larger, the chicks may use it for their home until full grown. A pen about six feet long, two and one-half feet wide, two and one-half feet high in front and eighteen inches at the back will house eighteen or twenty chicks through the entire summer. The front can be practically all chicken wire and roosts can be put in as the chicks grow. A couple of men can move a pen of this size from place to place in the orchard when the chicks are young, and it can be taken to the corn field if desired later in the season.

The mistake is often made of raising the chicks on the same ground year after year. This practice is often responsible for disease getting into the flock and for a high mortality. The advantage of the coops described is that they are portable, substantial, sanitary and comfortable.

A colony house can be put to a number of uses by the poultryman. It makes a good laying pen for ten or a dozen hens. It can be used for a brooder for a

hundred or more chicks. The lamp is usually attached outside and the heat is conveyed to the hover through a small pipe. This eliminates danger of fire and gives the young chicks a roomy, light, airy place for scratching. When the birds are several weeks old and no longer require artificial heat, the colony house may be drawn to the orchard or corn field and will shelter the birds through the growing season. Figure 2 illustrates a very satisfactory type of colony house. It is built 8 feet long, 6 feet deep, about 5 feet 10 inches high in front and 4 feet at the back. Cotton and glass, besides the door, are placed in the front of the pen. If desirable, either cotton or glass may be placed in one end. The structure is built on runners and can easily be drawn from place to place by the use of a team of horses. Some poultrymen use a number of these houses for rearing the chicks and then draw them up to the buildings for the winter where they are used for fattening cockerels or for the laying stock. Instead of saving eggs for hatching from the entire flock, a few choice hens can be selected and kept in one of these pens during the breeding season. In bulletin 217, issued by the Ontario Department of Agriculture, Prof. W. R. Graham gives the following bill of material for a colony house of the dimensions mentioned. Two pieces, 4 by 4 inches by 10 feet for runners; three pieces, 2 by 4 inches by 7 feet 10 inches for plates and centre runner; two pieces, 2 by 4 inches by 5 feet 10 inches for end sills; two pieces, 2 by 2 inches by 5 feet 10 inches for roost supports; 50 feet one-inch matched flooring; 50 feet one-inch roof boards; 100 running feet 1/2 by 2 inch battens for ends and sides; 140 feet 1 x 10 inch lumber for outside boarding; one-half square shingles; one sash; six panes 10 by 12 glass; one cotton screen 2 feet 11 inches by 16 1/2 inches; one door, 2 feet 6 inches by 5 feet 6 inches. It is well to have both a wire and a solid door when the pen is used both summer and winter. Any handy man can build one of these houses, and one or more would be found very useful for housing poultry on the average farm. When chickens have the run of the orchard or corn field they make more satisfactory growth than if kept around the farm buildings. They secure a large portion of their living from material that would otherwise be wasted. Of course the birds will require some grain, and it is advisable to keep grain in a hopper so that they can help themselves. Water is also essential and provision should be made for a continuous supply. With the high price of grain, conditions should be made as nearly perfect as possible for rapid development. If raising chicks it will pay to raise them well.

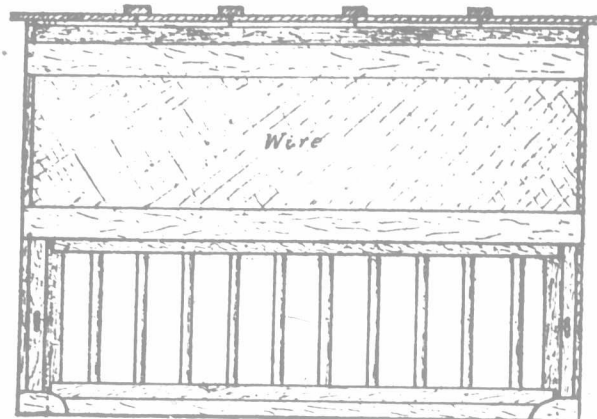


Fig. 1—Front View of a Convenient Chicken Coop.

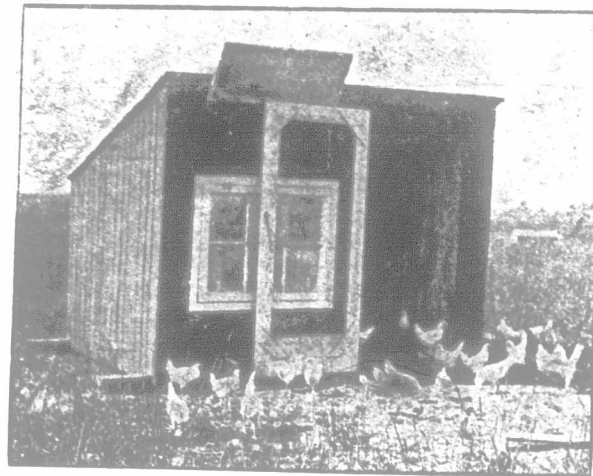


Fig. 2—A Colony House.

ing with kerosene emulsion, diluted to fifteen parts, is a satisfactory means of controlling the aphid on growing plants. The first application should be made before the infestation becomes general. It is important that the material be applied to the under side of the leaves as well as to the upper surface.

Everyone knows the destructive little cabbage worm. The best remedy perhaps on growing plants is a mixture of arsenate of lead and water or paris green and flour, but after the plants begin to head, pyrethrum powder, which is not poisonous to humans, can be applied with good results.

HORTICULTURE.

Dont Neglect to Grow a Few Cabbages.

A shortage in foodstuffs will bring us back again to the point where we shall appreciate those good substantial dishes upon which we used to thrive so well. The accompanying illustration suggests a steaming dish of pork and cabbage or corned beef and cabbage. If it appeals at all, set some strong cabbage plants right away and look after them diligently.

Cabbage can be grown on a great variety of soils for the industry has been developed on light sand to heavy clays. Good drainage is essential but constant moisture is the factor which determines very largely success or failure. An abundant food supply is another factor that should not be overlooked. Clay loam, well enriched by manure, will probably give the best results, but reclaimed swampy lands when properly drained give excellent yields of cabbage.

In the majority of cases for the farmer's garden the best plan is to purchase the plants already grown and hardened off. Then, for transplanting select a moist soil and damp, cloudy weather. Remove as much soil as possible with the roots when taking the plants from the flats. If the plants have been well hardened they will stand some frost after being planted in the field. As soon as the plants are sufficiently erect, after setting, tillage should begin, and it ought to be repeated at frequent intervals.

A proper selection of varieties will distribute the supply throughout the season; for early, the Jersey Wakefield and Copenhagen Market are good. For the main crop, Short Stem Ball Head and Glory of Enkhuizen are suitable. The Savoy group of varieties are cabbages that thrive best during the cool weather of the fall months and are seldom grown as an early or intermediate crop. The flavor of this group of cabbages is considered more delicate than that of any other kind when grown under proper conditions. The demand for them, however, is limited yet a few should be grown for home consumption. The Chester Savoy and Green Globe Savoy are two suitable varieties. Often a red variety of cabbage is desired for special purposes. In this group the Red Drum Head is a standard variety, but the Mammoth Rock Red heads larger than the one just previously mentioned. Varieties of this group should not be grown extensively by anyone unfamiliar with market conditions. A few, however, are very nice for home consumption.

The three most serious insect pests are the cabbage maggot, the cabbage aphid and the imported cabbage worm. The tar-paper disc about the plants is fairly effective in controlling the cabbage maggot, but of course it entails considerable extra labor. Where the maggot, however, is known to exist plentifully it would pay the farmer-gardener to use it as a means of prevention rather than resort to applications of chemical mixtures with which he is usually unacquainted. Spray-



A Few Good Cabbages and Cauliflowers.

FARM BULLETIN.

York County Holsteins Sell Well.

On Wednesday, May 9, the York County Breeders' Club held their first annual sale of Holsteins, at the Fair Grounds, Richmond Hill, Ontario, disposing of some sixty-five head selected from many of the best herds in the County, for the very good figure of \$10,750, an average of \$165.40 each. Notwithstanding the fact that there were quite a large number of cows well along in years, they made an average of \$181.60 for the forty head sold, while the twenty-one yearling and two-year-old heifers averaged \$149.50, and three young bulls along with one small calf brought \$315. Gipsy Wayne, a 26-lb. cow just fresh, and consigned by Frank Boyle, Hagerman, Ont., sold to D. A. Dunlap, of Toronto, at \$390, which was the top price for the day, and a three-year-old daughter of Count Paul 2nd, with a 16.47-lb.

two-year-old record, and from W. F. Elliott's consignment, came next, going to the same buyer for \$335. A 1916 June heifer by May Echo Champion, from the consignment of R. F. Hicks, also went to Mr. Dunlap at \$295. R. W. E. Burnaby, Jefferson, Ont., acted as sales manager, with Auctioneer T. Merritt Moore on the stand. A list of all animals selling for \$100 or over follows, the names and addresses given are those of the buyers in each case:

Tryntje Schuiling 2nd, G. Paterson, Elmira	\$190
DeVries Sylvia 2nd, D. A. Dunlap, Toronto	335
Clear View Cornucopia Clothilde, F. H. Anson, Iroquois Falls	205
Iris Schuiling Mercena, G. Paterson	145
Princess Fayne Posch, A. J. Camplin, Unionville	175
Fern Wayne Fayne, W. E. Watson, Pine Grov	200
Beauty Pauline Ruby, D. A. Dunlap	200
Clear View Sylvia Korndyke, C. Tapscott, Milliken	215
Minnie Butter Girl De Kol, J. Quinlan, Pickering	240
Florence Posch, G. Tran, Claremont	150
Canary Mag, W. Manclark, Woodbridge	205
Female, H. F. Boake, Downsview	130
Female, C. Moynahan, York Mills	170
Renee Wayne, T. C. Lowry, Unionville	115
Highland Echo Segis, D. A. Dunlap	140
Elmdale Changeling Maid, G. Walsh, Straffordville	205
Daisy Segis, G. S. Henry, Todmorden	180
Tensen Hengerveld Segis, G. Paterson, Agincourt	240
Idaline Ladoga Beauty P., J. Quinlan	195
Highland Starlight Korndyke, J. Quinlan	110
Silverton Pontiac Minnie, Fred Smith, Queensville	150
Rose Seg's Lyons, C. R. James, Thornhill	200
Inka Countess, J. A. Wallace, Simcoe	250
Butter Boy's Princess, C. R. Wales, Port Perry	140
Princess Netherland Posch, T. Harding, Milliken	100
Jennie Canary Bell, J. Quinlan	245
Audry Pet Canary, F. H. Anson	190
Princess Lillian of Harlaam, T. Harding	100
Princess Betta of Harlaam, W. F. Keffer, Sherwood	180
Sunnybrook J. M. De Kol, F. H. Anson	150
King Tidy Artis Sylvia, W. J. Turner, Claremont	125
Colantha Fayne Jewel, A. Risebrough, Hagerman's Corners	160
Jemima Maid De Kol, J. Quinlan	130
Fairmont Netherland De Kol, C. R. Wales	150
Gipsy Wayne, D. A. Dunlap	390
Pauline Faforit, C. R. Wales	210
Mona Bell Calamity, F. Ormeston, Burketon	150
Ellore Korndyke, N. McLean, Rockwood	165
Pontiac Korndyke Sir Clyde, G. Paterson	130
Queen De Kol Acme, Brownlea Bros., Woodbridge	200
Marjorie Gem, Jas. Todd, Agincourt	145
Pietertje Sylvia, W. F. Elliott	105
Galatia Sylvia, G. T. Castator, Weston	125
Anna May DeKol, W. F. Elliott	150
Lady Canary Posch, J. A. Wallace, Simcoe	225
Molly Faforit, J. S. Honey, Milliken	160
Echo Champion Maida, D. A. Dunlap	295
Faforit Imperial Maid, C. Grimsby, Eglinton	165
Aggie Faforit Hengerveld, H. F. Boake	140
Idune Stamboul, L. C. Snowden, Bowmanville	125
Princess Maud Korndyke, F. H. Anson	190
Locut Hill Polianthus, W. C. Woolvett, Arkona	165
Pontiac Maggie Roosevelt, C. R. James, Richmond Hill	175
Cassy Hengerveld Segis, I. N. Morton, Lefroy	225
Star Mag, D. A. Dunlap	190
Daisy Bryonia, H. P. Smith, Gormley	185
Bessie Hengerveld Faforit, T. H. Legge, Temperanceville	175
Sunalta Pontiac Segis Baron, J. Robson, Woodbridge	105
Evergreen Tensen, J. W. Stephenson, Aurora	105

Speed the Plough—Not.

EDITOR "THE FARMER'S ADVOCATE":

The plough is often spoken of as being emblematic of agriculture, or the work of food production. The report of the Dominion Department of Trade and Commerce for the ten months, ending January 31, 1917, which was issued last week, contains some interesting information on the "Plough."

During those ten months the farmers of Canada imported \$955,000 worth of ploughs, on which they paid the sum of \$191,000 in customs duties and \$75,000 in customs war tax, a total of over a quarter million dollars.

During the same time they have paid probably three times that amount in the tariff profits added to the ploughs which they purchased at home, bringing the total taxation on ploughs up to the round million. And, during the same time the plough manufacturers of Canada imported \$418,000 worth of mould boards, land sides and other parts of the plough, duty free. This is how food production is (not) being stimulated by legislation which has been in force for thirty years or more. While Germany was preparing for war, we were preparing for the now threatened famine. Of course, our manufacturers claim they cannot make ploughs in competition with outside manufacturers, but the government report shows that in the ten months referred to they exported to other countries \$482,000 worth of Canadian-made ploughs. This information, which must be deeply interesting to farmers, is taken from the official reports.

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

May Control Food.

There are indications at the time of writing that point to the Governments of United States and Canada taking a hand in the control of foodstuffs in the near future.

Beef, Bacon or Booze.

EDITOR "THE FARMER'S ADVOCATE":

If, in the present tremendous crisis and turning point of human history, the Canadian farmer should miss what old church fathers used to call his "providential way," it will not be for lack of advisers. Counsel is good. A working or fighting ally is better. We, of the farm, know the value of the candor of "The Farmer's Advocate" from a half century's experience, but can you wonder if we be chary at the erratic moves of political whipper-snappers who shine in spending our money and telling us what to do? Parliaments and administrations speed up when they are forced to by voters throwing off these political leading strings and

asserting themselves as Western farmers have done. The consensus of sound opinion expressed through your columns advises an advance in live stock raising and, except in case of hogs, it is not easy to speed up quickly. Foundation stock for sheep is just now difficult to secure and flocks must face the competition of the dairy cow that displaced them on Ontario farms long ago. Beef production has the same competitor, and this season many feeders have had so narrow margins left after deducting cost of labor and feeds like corn, that corresponding returns in their business would give captains of town industries a pain. Like sheep, hogs multiply rapidly, and with commensurate stability in prices, as pointed out in your editorial of May 3rd, the opportunity for a substantial increase is favorable. The enterprise is, however, seriously hampered by the cost of production. Millfeeds are out of sight. I saw a farmer sweat the other day handing over a new \$5 bill

for two bags of shorts. Long ago ruin was predicted for farmers in some sections, over the loss of the American barley market, but they began to save their farms and do better by feeding hogs and cattle. Greater supplies of feeds for stock is one of the most serious needs of the farm, and has been for years. For bacon hogs, barley is about the best of feeds. And yet, Canada last year, according to the Minister of Trade and Commerce, tolerated the use of nearly 100,000,000 pounds of this splendid food by maltsters, besides, nearly 90,000,000 pounds of grain by distillers for the production of what as beverages has deservedly come under the ban alike of science and business sense. Here is a chance for the administration to speed up and do something for hungry humanity and the feeders of cattle and hogs. Write your member of parliament to press these paramount claims for prompt action. Middlesex Co., Ont. FARMER AND FEEDER.

Toronto, Montreal, Buffalo, and Other Leading Markets.

Toronto.

Receipts of live stock at the Union Stock Yards, West Toronto, on Monday, May 14 comprised 180 cars, 3,460 cattle, 416 calves, 861 hogs, and 141 sheep and lambs. Slow, draggy market. Prices on cattle about steady with previous Monday. Sheep, lambs and calves steady. Hogs, \$17.00 fed and watered.

The total receipts of live stock at the City and Union Stock Yards, for the past week were:

Table with 4 columns: Union Yards, Civic Yards, Total, and Car type (Cattle, Calves, Hogs, Sheep).

The total receipts of live stock at the two yards for the corresponding week of 1916 were:

Table with 4 columns: Union Yards, Civic Yards, Total, and Car type (Cattle, Calves, Hogs, Sheep).

The combined receipts at the two markets for the past week show an increase of 32 cars, 80 hogs, and a decrease of 25 cattle, 636 calves, and 171 sheep.

There was a generous supply of all grades of cattle for the opening market of the week 3,109 being on sale and the principal buyers showed a strong inclination to purchase them at prices much lower than the previous week. In this they were only partially successful. Choice handy weight butcher steers and heifers brought prices steady with the previous week, but all other grades sold at from steady to 20c. lower. The percentage of good to choice cattle was larger than for months past. One or two loads being the equal to the best sold at Christmas. Seventeen choice steers, average weight 1,425 lbs., sold at \$12.65 per cwt.; 10 steers, 1,420 lbs. each, at \$12.50; 5 steers, 1,252 lbs. each, at \$12.35; 7 steers, average weight, 1,250 lbs., at \$12.25; 25 steers and heifers, 920 lbs., at \$12.10, and 16 steers and heifers, 990 lbs., sold at \$12.00. The above sales represent the highest priced cattle on the market. For the balance of the week supplies were light, and to-day the market is fully as strong, if not stronger, than any time this season. Three choice steers, 720 lbs., sold at \$13.00; 5 steers, 1,070 lbs., at \$12.70, while quite a number brought from \$12 to \$12.25.

Cows.—For butcher cows prices reached a new high record. Choice selling at from \$10.25 to \$10.75, with a few selling as follows: 5, 990 lbs. each, at \$11.50; 2, 1,040 lbs. each, at \$11.25; 1, 1,440 lbs. at \$11.10, and 7, 1,200 to 1,300 lbs. each, at \$11. Good cows sold at \$9.25 to \$9.75, and common to medium, at from \$7 to \$9 per cwt. Bulls were firm all week. Choice selling at \$10.50 to \$11, with a few very choice at 15c. to 40c. more. On Thursday, 1 bull, 1,400 lbs. sold at \$11.70. A new high record for this market. Stockers and feeders.—There was a fair demand for good to choice animals and prices were high. Twenty-six short-keep feeder steers, average weight, 1,050 lbs., sold at \$11.30 to \$11.50; 25 grass steers, 1,134 lbs. each, at \$11.50; 30 steers, 800 lbs., at \$9.40 to \$9.65; 61 steers and

heifers, 550 to 650 lbs., at \$6.50 to \$7.50. Grass cows were in demand at \$7.25 to \$8.30 per cwt. Milkers and Springers.—Choice cows met a ready sale at good prices, and a few extra good cows sold very high. One pure-bred Holstein sold at \$175; 3 grade Holsteins at \$150 each; 2 at \$140 each, and 2 at \$130 each. Choice cows sold at from \$100 to \$120 each.

Sheep and lambs continued in light supply and prices for all classes very high. Spring lambs sold at \$7 to \$15 each; yearling lambs at 14c. to 17c. per lb. for choice; light sheep at 12c. to 14 1/2c. per lb. There are a few clipped sheep coming on the market and are selling around \$3.00 per cwt. lower than those with the wool on.

Calves.—There was a light run, and all classes sold stronger than last week. Choice veal selling at 12c. to 13 1/2c. per lb., and a few at 14c. per lb.

Hogs.—Monday's market was steady with the week previous, but on Tuesday they were weak and from 15c. to 20c. lower. They firmed on Wednesday, and on Thursday were strong. Fed and watered selling at \$16.85 to \$17.10. The bulk at \$17; and weighed off cars at \$17.25.

Live Stock Quotations.—Heavy steers, choice, \$12.25 to \$12.50; good, \$11.75 to \$12. Butcher steers and heifers.—Choice, \$11.75 to \$12; good, \$11 to \$11.50; medium, \$10.50 to \$10.75; common, \$9.50 to \$10.25. Cows.—Choice, \$10.25 to \$10.75; good, \$9.25 to \$9.75; medium, \$8.25 to \$9; common, \$7 to \$8. Canners and cutters.—\$5.75 to \$6.50. Bulls, Choice, \$10.50 to \$11; good, \$9.75 to \$10.25; medium, \$8.75 to \$9.25; common, \$7.50 to \$8.50. Stockers and feeders.—Best, \$9.50 to \$10.50; medium, \$8.25 to \$9; grass cows, \$7.25 to \$8.30. Milkers and springers.—Best, \$100 to \$120; medium, \$80 to \$90; common, \$60 to \$70.

Lambs.—Spring lambs, \$7 to \$15 each; yearling lambs, choice, 14c. to 17c. per lb.; culls, 9c. to 12c. per lb. Sheep.—Light, 12c. to 14 1/2c. per lb.; heavy, 10c. to 11 1/2c. per lb. Calves.—Choice, 12 1/2c. to 13 1/2c. per lb.; medium, 9c. to 11c. per lb.; common, 6c. to 8c. per lb.; heavy fat, 7c. to 9 1/2c. per lb. Hogs.—Fed and watered, \$16.85 to \$17.10 weighed off cars, \$17.25. Less \$2 to \$2.50 off sows, \$4 to \$6 off stags, \$1 off light hogs and \$2 off thin feeder pigs, and half of one per cent. government condemnation loss.

Breadstuffs.

Wheat.—Ontario, according to freights, No. 2 winter, per car lot, \$2.98 to \$3; No. 3 winter, per lot, \$2.96 to \$2.98; Manitoba wheat (track, bay ports)—No official quotations.

Oats.—Manitoba, all rail, delivered. No official quotations. Ontario oats, according to freights outside, No. 2, white, 76c. to 78c., nominal; No. 3, 75c. to 77c., nominal.

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

Barley, according to freights outside, malting, \$1.40 to \$1.42.

Rye, according to freights outside, No. 2, \$1.93 to \$1.95.

American corn (track, Toronto), No. 3 yellow, \$1.71, nominal, subject to embargo.

Flour.—Ontario, winter, \$12.50 to \$12.60, in bags, track Toronto. Manitoba flour, first patents, in jute bags, \$15; second patents, \$14.50; strong bakers, \$14.10.

Hay and Millfeed.

Hay, extra No. 2, per ton \$12 to \$13; mixed, per ton, \$9 to \$11.50. Straw.—Car lots, per ton, \$8.50 to \$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, 20c.; country hides, part cured, 18c.; country hides, green, 17 1/2c.; 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.; horse hides, No. 1, \$6 to \$7; No. 2, \$5 to \$6. 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.; 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 40c. to 42c. per dozen.

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

Poultry.—Live-weight prices: spring chickens, 45c. per lb.; las year's chickens, 22c. per lb.; fowl under 4 lbs., 18c.; fowl 4 to 5 lbs., 22c. per lb.; fowl 6 lbs. and over, 25c. per lb.; squabs, dressed, \$3.50 to \$4 per dozen.

Cheese.—June, per lb., 28c.; twins, 28 1/2c. 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.

New vegetables have been arriving more freely during the past week, and are gradually becoming cheaper. Beets are now selling at \$2 to \$2.50 per hamper. Green beans at \$2.50 to \$3 per hamper. Carrots at \$2 to \$2.25 per hamper. Florida celery at \$3.50 and \$3.75 per crate.

The first home-grown asparagus for this season came in during the week and sold at \$3 per 11-qt. basket and \$1.50 6-qt. basket.

Cabbage was one exception to the lower prices as it is still exceptionally high priced, selling at \$10 per crate of 140 to 145 lbs.

Cucumbers were a very slow sale as the supply exceeded the demand. The Leamington hot-house variety at \$1 to \$1.25 per 11-qt. basket and imported at \$2 to \$2.50 per hamper.

Lettuce sold at 20c. to 40c. per dozen for the leaf variety; the Boston head at \$2.75 to \$3 and \$3.75 per hamper; some Canadian head at 50c. to \$1.25 per dozen.

Onions.—Texas Bermuda onions arrived in large quantities and declined in price, selling at \$3, \$3.25 and \$3.50 per crate of 50 lbs.

Potatoes kept firm—New Brunswick Delawares selling at \$4.50 per bag; Westerns at \$4 to \$4.25 per bag; Ontarios at \$4.25 per bag.

New Potatoes began to come in in larger quantities, selling at \$3 to \$3.75 per hamper.

Spinach.—Canadian, \$1 to \$1.75 per case; 50c. per 11-qt. basket; imported, \$2 per hamper.

Turnips are just about off the market selling at 90c. to \$1.25 per bag.

Boxed apples came in more freely

again—Wine Saps and Rome Beauties selling at \$2.50 to \$3 per box.

Bananas declined selling at \$2 to \$2.50 per bunch.

Grapefruit.—The season is just about over; small quantities of Florida selling at \$4.50 to \$5.50 per case, and Cuban at \$4.25 to \$4.50 per case.

Lemons.—California Lemons were more plentiful selling at \$3.50 to \$3.75 per case. The Messinas at \$3.50 per case.

Pineapples.—The Pineapple season will soon be at its height. Prices declined—Porto Ricos selling at \$3.50 per case and Cubans at \$2.75 to \$3 per case.

Rhubarb has been of rather inferior quality. The outside grown arriving in small lots and selling at 60c. to 80c. per dozen bunches.

Strawberries arrived freely and were of splendid quality; three States being represented—Louisiana, Mississippi and Arkansas. They firmed slightly in price, selling at 24c. to 25c. per box.

Tomatoes of extra choice quality arrived and sold at \$4 to \$4.50 per six-basket crate.

Montreal.

The price of live stock shows a disposition to constantly advance. Last week, hogs sold at new high-record prices, and cattle were also very dear. Choice steers were quoted generally at 12 1/2c. to 12 3/4c. per lb., while good ranged from 11 1/2c. to 12c. per lb., and lower grades sold down to 10c. Butchers' cows sold at 9c. to 11c., and bulls at about 1c. above cows. There was a moderate supply of small meats with calves predominating. The latter were in demand for shipment to outside points and prices ranged all the way from \$5.50 for the poor grades up to \$12 each for the best. Some spring lambs sold as high as \$12 each, but the smaller ones were \$8 each. Supplies were somewhat larger. Old sheep sold at 10c. to 11c. per lb. The price of select hogs went as high as \$18, and in some cases fractionally higher and ranged down to 17 1/2c. These are high-record prices, and the tone of the market at the present time holds out small enough prospects for any decline.

Horses.—The demand continued light, but farmers took quite a few of the cheaper animals for their spring work. Prices were steady as follows: Heavy draft, weighing 1,500 to 1,700 lbs., \$200 to \$250 each; light draft horses, weighing 1,400 to 1,500 lbs., \$150 to \$200 each; small horses, \$100 to \$125 each; culls, \$50 to \$75 each; choice saddle and carriage horses, \$200 to \$225 each.

Poultry.—Nominal prices were 26c. to 30c. per lb. for turkeys; 19c. to 25c. for chickens and ducks; 18c. to 23c. for fowl and geese, this being for cold storage stock.

Dressed Hogs.—In sympathy with the strength in the market for live hogs, dressed stock brought higher prices last week. Demand was good and abattoir, fresh-killed hogs sold at 24 1/2c. per lb.

Potatoes.—As previously stated, the consumption of potatoes has been considerably curtailed by the exceedingly high prices which have prevailed for some time past. Nevertheless, the market held fairly firm with Quebec white stock quoted at \$4, and reds at \$3.75 to \$3.85 per bag of 80-lbs., ex-store, while 20c. per bag was added for smaller quantities.

Maple Sugar and Honey.—The market for maple syrup was quite firm and there was considerable difference between the

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various qualities offering. Good syrup was quoted at about \$1.55 to \$1.60 for 13-lb. tins, and from this prices ranged all the way up to probably \$2. Low grade syrup may be had as low as \$1.40. Maple sugar was 15c. per lb. Demand for honey was light and prices were steady at 15c. for white clover comb; 12c. for white extracted and brown clover comb, and 11c. for brown extracted, with buckwheat honey selling at 10c.

Eggs.—The price of eggs advanced in a somewhat alarming manner for this period of the year, and fresh stock sold at almost as high prices as prevailed during a considerable portion of last winter. Strictly fresh eggs were quoted at 44c. per dozen.

Butter.—Quality for quality, butter was much the same as the previous week. Choicest new-milk creamery sold at 42½c. per lb., while fine stock brought about 42c., and held goods, 40c. to 41c. for best, with lower grades down to 39c. Dairies ranged from 32c. to 37c. per lb. for Ontarios, and 31c. to 32c. for Manitobas.

Cheese.—At the local warehouses it was understood that the price of best Ontario makes was around 22½c. to 23c.

Grain.—It is impossible to give quotations on wheat, as the market fluctuates so much, at times, as 10c. per day and more. May wheat sold well over \$3 per bushel in both Chicago and Winnipeg. Manitoba feed wheat was quoted here at \$1.60 per bushel, ex-store; American No. 3 yellow corn, \$1.70, with some asking more. Manitoba barley brought \$1.28 for tough feed grades, and \$1.20 for rejected. Canadian Western No. 2 oats were quoted at 87c. to 88c. per bushel, but it is said that some were asking 90c. No. 3 were still quoted at 87c., and No. 1 feed at 86c.

Flour.—Record prices have again been reached. First patents Manitoba flour was \$15.10 per barrel, in bags, seconds were \$14.60; strong bakers' \$14.40. Winter wheat flour was also higher, being \$14 to \$14.30 per barrel for 90% and \$6.75 to \$6.90 per bag.

Millfeed.—Prices were firm at \$43 per ton for bran, in bags, in mixed car lots; \$46 for shorts; \$48 to \$50 for midlings; \$55 to \$57 for pure grain mouille, and \$52 to \$53 for mixed mouille.

Hay.—The market was steady at \$13 to \$13.50 per ton for No. 2 hay; \$11.50 to \$12 for No. 3, and \$10.50 to \$11 for clover mixed, ex-track.

Hay seed.—Prices were steady at \$7 to \$12 per 100 lbs. for timothy on track, Montreal; \$20 to \$25 for red clover and \$15 to \$25 for alsike.

Hides.—The market was unchanged. Beef hides 25c., 26c. and 27c. per lb.; calf skins, 38c. and 40c.; spring lambs, 30c. each; sheep skins, \$4; horse, \$7.50 each. Tallow, 3c. to 5c. per lb. for rough and 8c. to 9c. per lb. for rendered.

Chicago.

Cattle.—Beeves, \$9.40 to \$13.70; stockers and feeders, \$7.50 to \$10.35; cows and heifers, \$6.65 to \$11.50; calves, \$9.50 to \$14.25.

Hogs.—Ten cents to fifteen cents higher. Light, \$15.20 to \$16.35; mixed, \$15.75 to \$16.40; heavy, \$15.70 to \$16.40 rough, \$15.70 to \$15.90; pigs, \$10.50 to \$14.40; bulk of sales \$16 to \$15.40.

Sheep.—Lambs, native, \$14.60 to \$19.

Buffalo.

Cattle.—Cattle trade on good steers at Buffalo last week ruled steady on the medium and fair grades, and a dime to a quarter higher generally on the choice and prime lots. There were around twenty to twenty-five cars offered for the week, best running from \$12 to \$12.50 with medium and fair kinds ranging from \$11 to \$11.50. In the handy butchering line best sold from \$11 to \$11.75, and a goodish kind of yearlings sold up to \$11.75. Fat cows and heifer stuff sold strong, cows especially being very high, from \$10.50 to \$11 being paid for the fancy kinds. Bulls sold at higher prices, up to \$10.50 to \$10.75 being paid for the most desirables. Stockers and feeders remained strong, best running up to \$9.50 to \$9.75. Milk cows and springers brought stronger prices. Prospects are for a continued high trade right on through the summer months. Not enough of the stocker and feeder stuff coming to meet the demand. Receipts for the week totaled 3,725 head, as against 4,250 head for the previous week and 4,425 head for the corresponding week last year. Quotations:

Shipping Steers.—Choice to prime natives \$12.50 to \$13.00; fair to good, \$11.50 to \$12.00; plain, \$10.50 to \$11.00; very coarse and common, \$10.00 to \$10.25. Best, heavy Canadians, \$11.50 to \$12.25; fair to good, \$11.00 to \$11.25; common and plain, \$10.00 to \$10.50.

Butchering Steers.—Choice heavy, \$11 to \$11.75; fair to good, \$10.00 to \$10.50; best handy \$10.50 to \$11.00; fair to good, \$10.00 to \$10.25; light and common, \$9.25 to \$9.50; yearlings, prime, \$11.50 to \$12.00; fair to good, \$10.25 to \$11.00.

Cows and Heifers.—Best heavy heifers, \$11.00 to \$11.50; best butchering heifers, \$10.00 to \$10.50; fair butchering heifers, \$9.00 to \$9.50; light and common, \$7.50 to \$8.00; very fancy fat cows, \$10.25 to \$10.50; best heavy fat cows, \$9.00 to \$9.50; good butchering cows, \$8.00 to \$8.50; medium to fair, \$7.50 to \$7.75; cutters, \$7.25 to \$7.50; canners, \$6.00 to \$7.00.

Bulls.—Best heavy, \$10.00 to \$10.75 good butchering, \$9.25 to \$9.50.

Stockers and Feeders.—Best feeders, \$9.25 to \$9.75; common to fair, \$8.25 to \$8.75; best stockers, \$8.75 to \$9.50; common to good, \$6.50 to \$8.50.

Milchers and Springers.—Good to best, in small lots, \$90.00 to \$115.00; in car loads, \$75.00 to \$85.00; medium to fair, in small lots, \$60.00 to \$70.00; in car loads, \$55.00 to \$60.00.

Hogs.—Good weight grades were scarce again last week, and the few here brought a big premium over the lighter weight grades. Monday a \$16.35 top was scored, but the bulk of the crop ran light and over 75 per cent of the sales were made at \$16.00. After Monday the trade was a little stronger, Tuesday's top being \$16.40, Wednesday top was \$16.40, with bulk going at \$16 and \$16.10; Thursday two decks made \$16.45, with the balance selling from \$16 to \$16.40, as to weight and Friday the general range was from \$16.25 to \$16.40, with a deck or two selling up to \$16.50. Pigs weighing from 100 to 120 pounds sold from \$13.50 to \$14.25, roughs, \$14.00 to \$14.25, and stags, \$12.00 to \$13.00. Last week receipts were 23,400 head, as against 22,201 head for the week before and 28,000 head for the same week a year ago.

Sheep and Lambs.—Shorn sheep and lambs brought record prices at Buffalo last week. On the opening day top clipped lambs sold up to \$14.75, and the next two days the advance brought tops up to \$15.40. Thursday and Friday, under more liberal receipts, prices were lower, tippy kinds selling from \$15.00 to \$15.25. Cull, shorn lambs sold up to \$13.75 and heavy clipped lambs were not worth much more than the good culls. Yearling wethers were quoted up to \$12.50, wether sheep would have sold at \$12.00 if not more, and ewes went from \$11.50 down. Receipts last week were 20,100 head, being against 19,938 head for the week before and 27,800 head for the same week a year ago.

Calves.—This department showed a liberal supply last week, grand total being 5,500 head, as against 5,178 head for the week previous and 4,400 head for the same week a year ago. Demand was good and a satisfactory clearance was had from day to day. Monday tops sold mostly at \$13.50 and the next four days the bulk moved at \$13.25. Culls sold well compared with tops, these ranging from \$12 down.

Cheese Markets

St. Hyacinthe, Que., no sales; Belleville, 20c. bid, no sales; London, 19c. offered, no sales; New York, specials, 26½c.; average run, 26½c.

Questions and Answers.

1st—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.

2nd—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.

3rd—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

4th—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Miscellaneous**Acreage and Feed for a Flock of Sheep.**

I have 50 acres which I purpose seeding down for a sheep pasture. How many ewes with their lambs could I pasture on this land which is rolling but in good condition and fenced in 10-acre fields?

2. Will it be of any benefit to feed a little grain in dry time?

3. Would sweet clover make a good sheep pasture? Will it grow if sown where there was a poor catch of other grass seed?

4. What kind of seeding makes the best sheep pasture?

5. I have a barn with a shed under it, 50 by 38 feet. How many ewes could I winter in it where they have a good yard to run in?

6. What age of sheep would you buy?

B. M.

Ans.—1. It will depend a good deal on the stand of pasture and on the season. If growth is good, from 40 to 50 ewes and their lambs may be pastured on 50 acres, provided the land is all in grass and the sheep can be moved from one field to another as the pasture becomes short. There are seasons when this number could not be kept.

2. Rather than let the sheep go down in flesh, a little grain might be fed during the summer drought. Grain may also be fed to advantage to develop lambs.

3. Sweet clover will not stand particularly close cropping. If it is cut or eaten off below the lower leaves the plant dies. As sheep are close croppers we do not think sweet clover would make a satisfactory pasture crop.

4. Blue grass makes an excellent pasture. However, this grass works into many soils and if seeding down we would sow a mixture of red clover, alsike and timothy.

5. From 40 to 50 ewes could be wintered in a pen of the size mentioned, provided they had a good yard to run in. They would have to be given more room when it came near lambing time.

6. When starting a flock, we would endeavor to purchase yearling or two-year-old ewes.

Thrift in Forest Fires.

There are estimated to be 10,000 forest fires in Canada every year of all sizes and descriptions. Nine tenths are set by human hands, and the damage runs from four to ten millions of dollars, not counting damage to soil, to the value of watershed areas and many other factors.

"Thrift in forest fires" is a new movement which the Canadian Forestry Association has started amongst the guides, and campers and sportsmen of Canada with a view to cutting down the country's timber losses in 1917. As is well known, the present-day causes of forest fires are not the railways as much as the settlers, campers, hunters and fishermen. Thoughtlessness in respect to camp fires, the throwing away of lighted tobacco, matches, etc., has caused some of the worst conflagrations in history. During the months of May and June, before the fire season is well underway this year, thousands of outdoors' men are being asked by the co-operation of the newspaper publishers of Canada to make 1917 a year of thrift in the forest. Not only is Canada's exhaustible supply of timber seriously reduced in a time when it should be protected and improved by every possible means, but hundreds of miles of once excellent fishing and hunting and camping grounds are turned into blackened ruin.

No camp fire should be left this year until it is "dead out". A few extra pails of water or spades of sand will

make this point certain. No fire should be set except among rocks, or gravel, never in a bog or in leaves or needles. Throwing lighted tobacco or matches into the forest is conduct that is chargeable only to the amateur.

Preserve Field Products From Loss by Fire.

EDITOR "THE FARMER'S ADVOCATE":

The fire waste of the Province of Ontario for the first three months of 1917 as shown by reports of the Fire Marshal, amounts to \$3,321,931. In 1916 it amounted in round figures to \$12,000,000, and if the waste is not stopped, the year 1917 threatens to be as disastrous as its predecessor.

The unfortunate part of the whole matter is that the waste comes largely from the destruction of field products in barns, elevators, and warehouses, or in canning factories, cereal mills, and other places where the raw product is being turned into food for our own needs and for the armies of the Allies.

It is equally true that many fires, probably one-half of them, could be avoided by a little care and thought. Surely, as a people we should be ready and willing to take up this Empire call and preserve what we produce.

By way of example, reference is made to barn fires. Last year, in Ontario alone, over 600 barns were destroyed, involving a loss of more than one million dollars (\$1,000,000.) of which six hundred thousand dollars (\$600,000.) was on produce, implements, and live stock. If by a little care we can save one-half this loss we should be doing the equivalent of that much extra production, and who is there among us who is not prepared to do his "bit" on this line?

Three very simple suggestions are thrown out which, if adopted, will go a long way to accomplish the result:

1. Install lightning rods on barns and save fires from lightning. The Department of Agriculture, Parliament Buildings, Toronto, will furnish any one with a pamphlet showing how the rods should be made and erected. It is an absolute fact that barns properly rodged and grounded are not liable to be struck by lightning.

2. The crops should not be put in until it is certain they have been properly cured. Evidence is daily accumulating that the heavy clover crops of last year did not receive full and proper care and resulted in the firing of barns from spontaneous combustion. Many doubt this theory but recognition of the cause is growing very rapidly.

3. Ventilate the barn so that gases caused by the fermentation of imperfectly cured crops will be successfully carried off. In an unventilated barn to keep the doors and windows closed after harvest, and then admit air by the opening of the doors, windows, or other apertures during the warm fall weather is to invite the fire fiend to get in this work.

Surely if these three simple suggestions will accomplish any saving the call of the Empire's needs should be incentive enough to giving them a fair trial.

Fire is always the enemy of the human race, but, in wartime, it is a traitor in camp, a foe in the trenches. Not only is the waste of food by fire an unmitigated calamity, but any fire waste is just that much of a burden at a time when the last straw may break the camel's back.

E. P. HEATON,
Fire Marshal.

Sale Dates.

May 23.—A. C. Hallman, R. 2, Breslau, Ont.; Holsteins.

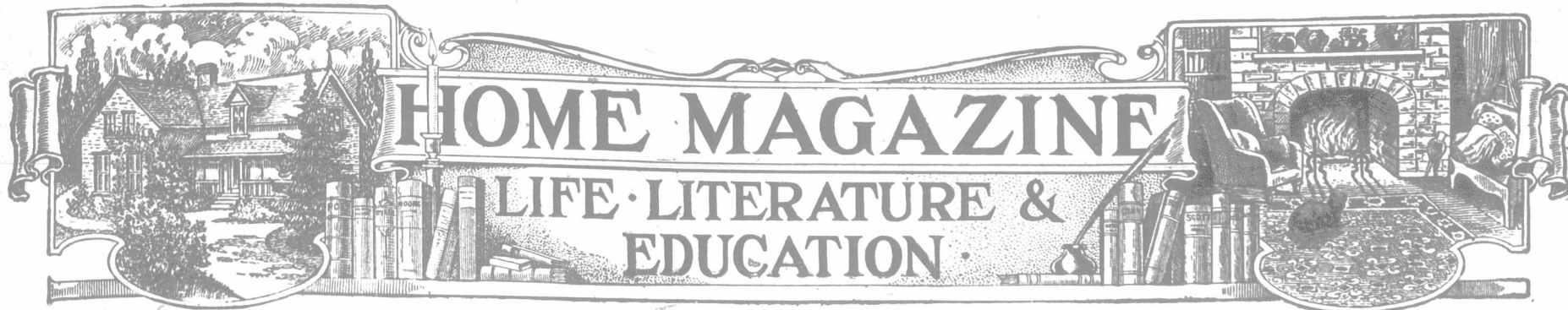
June 14.—New England Ayrshire Club Consignment Sale, Springfield, Mass.; Ayrshires.

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

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

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

Attention is directed to the advertisement of John Thornton & Co., in this issue. On June 21 they will sell the celebrated Dairy Shorthorn herd of the late Rt. Hon. Lord Lucas and they will execute commissions for anyone at a distance who desires any of the lots offered.



General Joffre, Marshal of France.

Who has been enthusiastically received in America during the past fortnight, while on his visit as head of the French Commission. When called upon to make a public speech in Washington General Joffre said, "I do not speak English, Vive l' Amerique!"

Orange and Green.

(Vers Libre.)

I walked out in the fields to-day
(It is the most delightful season of the year).

White clouds were sailing over a blue sky,
Apple and cheery trees blossomed,
Bobolinks clinked like silver bells;
The new-born leaves,
Delicately verdant,
Interspersed the dark firs
Like a translucent emerald mist,
Or some filmy, priceless tapestry.
I thought it needed but a ruined Greek temple

Of richly stained marble
Jewelling the far landscape
To make it seem like an enchanted vale
Of Tempe or Arcady or Thessaly!

Over the meadows around
The dandelions grew lush among the grass
Orange and Green! Orange and Green!
Never were two more beautiful colors—
Never were two colors that blent so gaily!
I thought the sunset skies
Could not afford such contrast.

I thought with sadness:
In a short time the gold shall go
And the green remain alone;
Why can they not agree
And flourish thus forever together?
But Nature said:
"I am an old and wise mother
And know what is good for my children.
It is well they should blossom side by side
In love and in friendship,
Then blend all together in one
Into the green of the fields,
Under the blue of the heavens."

How glorious they are!
How tender they are!
Orange and Green! Orange and Green!
J. B. DOLLARD in "The Globe."

Battle.

I.—UNDER FIRE.

We ate our breakfast lying on our backs,
Because the shells were screeching overhead.

I bet a rasher to a loaf of bread
That Hull United would beat Halifax
When Jimmy Stainthorpe played full back instead

Of Billy Bradford. Ginger raised his head
And cursed, and took the bet—and dropt
back dead.
We eat our breakfast lying on our backs,
Because the shells were screeching overhead.

II.—THE MESSAGES.

"I cannot quite remember. . . There were five
Dropt dead beside me in the trench—and three
Whispered their dying messages to me."

Back from the trenches, more dead than alive,

Stone-deaf and dazed, and with a broken knee,
He hobbled slowly, muttering vacantly:

"I cannot quite remember. . . There were five
Dropt dead beside me in the trench—and three
Whispered their dying messages to me."

"Their friends are waiting, wondering how they thrive—
Waiting a word in silence patiently
But what they said, or who their friends may be

"I cannot quite remember. . . There were five
Dropt dead beside me in the trench—and three
Whispered their dying messages to me."

WILFRID WILSON GIBSON in "Nation."

Women's Institute Work For The Summer.

On April 24th and 25th the Women's Institute lecturers for this season met in the Parliament Buildings, Toronto, to consider the work to be done during this summer. The following is a report of the meeting.

With a brief reference to the continued need for Red Cross supplies and the necessity for increased production, Mr. Putnam asked the lecturers to appeal to the members of the Institutes for continued support in patriotic effort. The Institutes had rendered a splendid service in money, material, and labor, and would, no doubt, continue to do so while the necessity existed. The speakers have the opportunity of stimulating this work in some centres. This can best be done by pointing out the great need and allowing the individuals concerned to decide as to how best to meet the requirements.

In the Home Garden Campaign, the Department has a fourfold purpose,—First, to encourage a greater production of vegetables; second, to induce our people to grow a greater variety of vegetables and give them a more important place in the menu; third, to couple with this, methods of preserving and storing which will insure a liberal supply the year round; fourth, as a means of attracting and holding the younger women and girls in the Institute. As many as 2,464 persons in 270 branches were putting in gardens according to plans furnished.

War conditions make a study of food values and combinations and methods of preserving foods of greater importance than ever.

Home Nursing and First Aid are of more general interest than before the war. It is very difficult to get nurses for private families and, therefore, the members of the Institute, especially the younger members, are all the more anxious to take these courses.

In these days of high wages for seamstresses the dressmaking course is much appreciated.

The delegates should be prepared to answer questions regarding these courses, and urge the Institutes to prepare to give their members the advantage of such instruction, if not during the war, then as soon as possible after peace has been declared.

It is not our aim to have the Women's Institutes undertake the introduction of Medical-Dental Inspection throughout the whole Province, but we are anxious that the Institutes should demonstrate here and there the great need and practicability of the work at a minimum of expense so that public opinion will be educated to ask for a general plan for the rural districts. It is to be hoped that with the few demonstrations which we are planning for, sufficient data and experience will have been secured to enable the Departments of Education, Public Health, and Agriculture to cooperate in formulating plans which will be capable of general application and not too expensive for any of the rural districts to introduce.

In the meantime, the Department is prepared to send an experienced Medical Inspector to districts where Women's Institutes or other local organizations will undertake to get the necessary consent from the School Boards concerned, and also to provide a suitable person to make records. A nurse, or one with St. John's Ambulance Training is preferred, but one with only clerical training will serve the purpose. The Institute, school-boards, etc., are to pay for transportation of Inspector and assistant, and to pay for services and board of person who keeps record. Town and country schools having a combined attendance of four or five hundred pupils should be secured before the instructor is asked for. Fuller particulars will be furnished upon application.

Copies of "War Work" and the "Red Cross Bulletin" are sent regularly to the officers of all Institutes. Urge the officers and members to keep themselves informed as to the needs from time to time. You have it in your power as delegates to greatly stimulate patriotic work during the summer series of meetings.

Dr. McCullough is placing at the disposal of the delegates copies of various publications for general distribution. The Institutes value this information which is made available to the members simply for the asking.

This Conference of workers is really an emergency war time gathering, for practically every subject under discussion is of increased importance because of conditions arising out of the war.

Home Garden Campaign.

MISS MARY YATES.

Miss Yates urged the delegates to emphasize, wherever they go, the extreme importance of increasing the country's food supply, and to show the valuable assistance which women and children can give through the growing of vegetables. In Russia there are 15,000 children in the Agricultural Schools. In Great Britain the boys and girls work three days a week at gardening. The delegates will be likely to meet some individuals who will want to know why they should be asked to grow vegetables this year. Lloyd-George has said: "The line which the British Empire is holding must not break anywhere. If it breaks at home, it breaks everywhere." There is a shortage of foodstuffs all over the world, which many people in the rural districts don't realize. Vegetables have an important place in the ration on account of their medicinal value, tending to prevent such troubles as rashes and rheumatism. Most of our acid and ballast foods belong to the vegetable class. Last year Canada spent \$10,000,000 in imported fruits; home-grown fruits and vegetables can take the place

of these. It might further be possible for many home gardens to achieve the aim of the Women's Thrift Committee in making each garden pay the price of a War Note. The surplus from the home gardens might be sent overseas. When we consider that 1 lb. potatoes and 6 oz. vegetables is served out to each soldier every day, we can form some idea of the enormous quantities required each year. Human nature being what it is, the patriotic impulse is not always enough to induce people to grow more food. The speakers will be asked if prizes should be given. Miss Yates has personally offered as a prize to the child who lays the best onions on the bench in the fall, a trip to the O. A. C. personally conducted by herself. The taking of classes to the Ontario Agricultural College she considers an excellent stimulus. Photographs of children taken on their garden plots are very popular prizes. Bringing samples of vegetables to the monthly Institute meetings kindles an interest in gardening. It is well if the question of judges comes up, to advise having an outside judge always. There should be a standard score card for judging and the vegetables grown should be judged at least once as a standing crop. Urge the use of lighter tools for women gardeners, especially for young girls and old ladies. Encourage those who have been disappointed in their efforts this year and tell them of the helpful literature which will be sent them on request from the Department. The development of the Home Garden Campaign has been most encouraging this year, 284 Institutes having entered the competition where there were only 20 last year. As a lecturing staff, Miss Yates said, "We tend to the narrowness of the specialist." This year every speaker should urge as one of the most important features of Institute work, the production of more food and the most careful conservation of what we have.

Address by Dr. Helen MacMurchy.

Dr. MacMurchy impressed on the delegates the fact that if, in their addresses, they failed to touch the big, vital problems of the times, their audiences would be disappointed in them. There is a grave danger of the people of this country failing to appreciate the significance of events crowding along just now. The delegates should make a thorough study of these events and bring them before the people in their right perspective,—the need of greater food production and the economical use of what we have; the significance of the fact that the whole Anglo-saxon world is united in a struggle for principles of liberty and right, and what this new tie between Canada and the United States may mean in the next few years; the miracle of the Revolution in Russia showing that spiritual forces are the strongest; the wonder of almost worldwide prohibition, and its far-reaching effects in our own Province; the great privilege and responsibility recently conferred upon women in granting them the franchise. The women on farms have a more practical interest in the government of the country than the majority of women in cities, as the farm home is more intimately linked up with problems of national importance. The delegates should be prepared to explain to the women the technique of voting, and can show that "we can best use the vote aright by being more womanly", also to impress the fact that from now until the end of the war our hands and hearts and pocketbooks should be at the service of the empire.

Mr. Putnam explained that it would be difficult for a government delegate to do any advising as to "how to vote" beyond explaining the technique of voting as Dr. MacMurchy had said. The delegate giving advice on any particular issue might be accused of partisanship.

These Premiums for Our Subscribers Only

WE NEVER give away a premium to any person for taking The Farmer's Advocate and Home Magazine.

It isn't necessary, and if it ever became necessary to give anything away to induce people to take our journal, we should begin to look into the worth of the paper to see what was lacking.

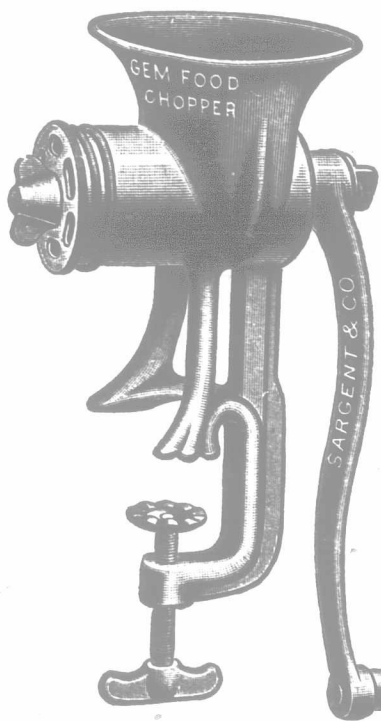
The Farmer's Advocate and Home Magazine always sells by itself--strictly on its merits as a first-class farm paper. Subscribers pay \$1.50 a year for the paper alone, and get good value for their money.

We do, however, give our regular subscribers premiums as a reward for securing other NEW subscriptions for us, and below we list the useful and valuable articles which may be earned by our regular subscribers in this way. We can recommend any of these premiums as being good sound value.

Please note that we do not give these premiums to a new subscriber, but only to regular subscribers who secure other new subscriptions for us.

Gem Food Chopper

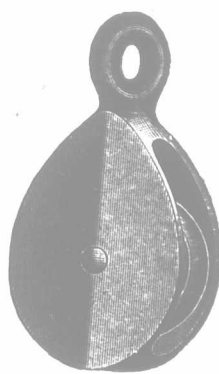
Given for Three NEW Subscriptions



Chops all kinds of meat, cooked or raw, at the rate of $2\frac{1}{2}$ lbs. a minute. Also minces bread, vegetables, fruit, nuts, etc. Splendid for utilizing left-over food. Has five cutting plates for coarse, medium, fine, and nut butter cutting. Made of iron heavily tinned. Packed in a box, with cooking helps and instructions. Every home should have one.

Clothes Line and Pulleys

Given for one NEW Subscription



Line is 50 feet long, finest quality braided white cotton, strong, durable and will not stain. Two single-wheel pulleys, $1\frac{3}{4}$ inches diameter, made of japanned iron throughout, go with the line. This is very unusual value in premiums.

These Premiums for Our Subscribers Only

Geniune Hawkeye Wrench

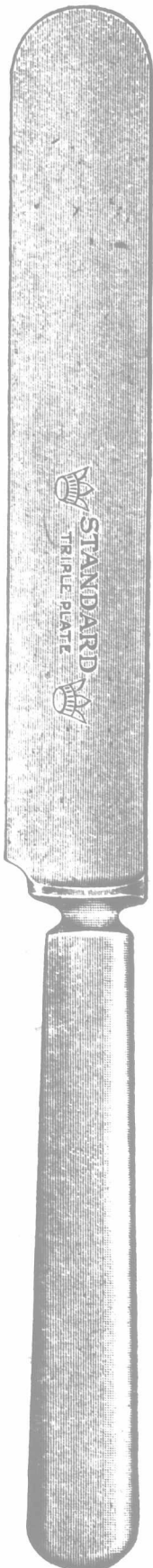
Given for one NEW Subscription

Made of a solid piece of steel—gives you five handy tools in one; nut wrench, pipe wrench and three cutting dies for threading pipe or blank bolts; 5/16-inch, 3/8-inch, and 1/2-inch. The market is very uncertain on this class of goods, so we would advise our subscribers to get one while they are still available.

Silver-Plated Knives and Forks

Half-dozen for one NEW Subscription

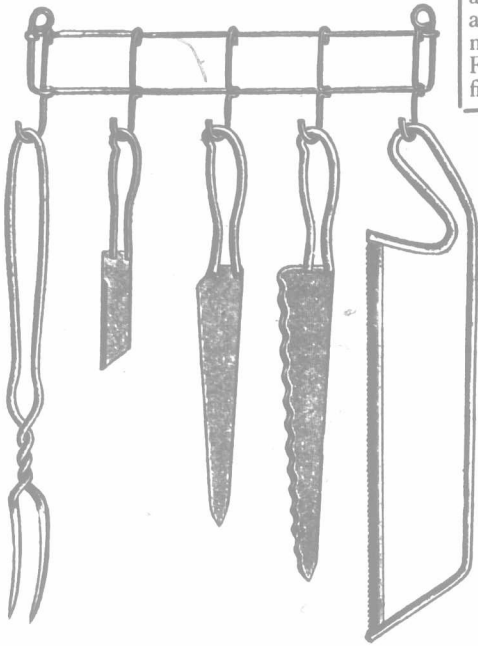
Here is one of the greatest premiums we have ever been able to offer. Six knives or six forks, with solid steel blades and handles, handsomely silver-plated and packed in a rack cardboard box. By getting six knives or six forks at a time, you can soon build up a good, serviceable silver-plated set of cutlery for your table. In ordering, be sure to state which you want sent, knives or forks. Two NEW subscriptions will bring you a half-dozen of each or a dozen knives or forks. Four NEW subscriptions will earn you the complete set of a dozen knives and a dozen forks.



Silver-Plated Tea Spoons

Half-dozen for one NEW Subscription

Another splendid value. Silver-plated on pure white metal. Will wear white throughout and give great satisfaction. By sending in two NEW subscriptions, you secure the whole dozen, complete.



Sanitary Kitchen Set

For one NEW Subscription

Consists of all-metal Roasting Fork, Paring Knife, Carving Knife, waved-edge Bread Knife and Meat Saw, with metal rack to hold them all, made to hang on the wall. A useful article in any kitchen.

When remitting, please write very plainly the names and addresses of the new subscribers, state amount enclosed and whether express order or postal note, etc. Also be careful to state exactly the premium you want. The smaller articles are sent by mail. Larger ones by express, charges collect.

China Tea Set

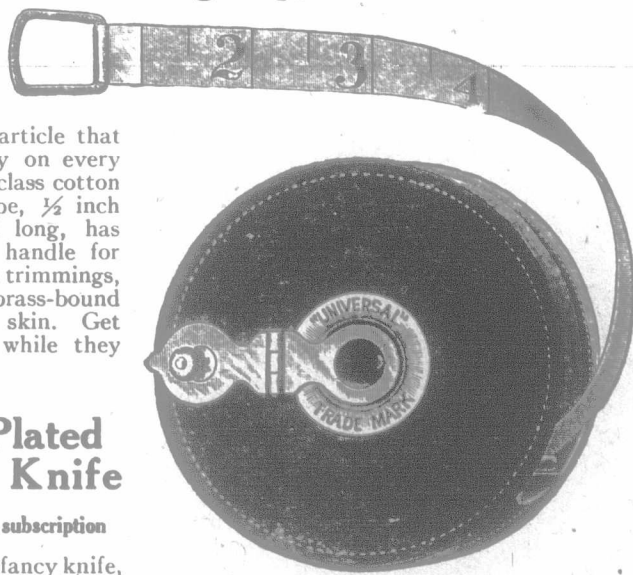
of 21 pieces
For only three NEW Subscriptions

A very dainty design, beautifully decorated in a graceful floral pattern. Six bread and butter plates, six cups, six saucers, large bread or cake plate, cream jug and sugar bowl. NOTE:—We have only a few of these sets left, and cannot secure any more owing to the war. First comers will have first chance.

Given for One NEW Subscription

Measuring Tape in Case

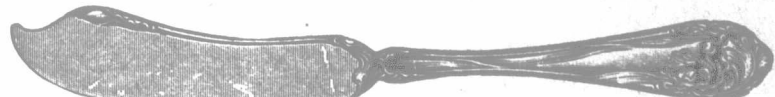
Here is an article that will be handy on every farm. A first-class cotton measuring tape, 1/2 inch wide, 66 feet long, has folding brass handle for winding, brass trimmings, complete in a brass-bound case of asses' skin. Get one of these while they are to be had.



Silver-Plated Butter Knife

For one NEW subscription

A beautiful, fancy knife, with embossed handle, finely silver plated on pure white metal. Packed in a satin-lined case. A companion to the Pickle Fork described below. Start with one piece and add others as you get new subscribers.



Silver-Plated Sugar Shell

For one NEW Subscription

A very attractive, fancy design in handsome silver-plate, highly polished. Each one packed in a satin-lined case.

Silver-Plated Pickle Fork

For one NEW Subscription

Has fancy embossed handle, and is beautifully silver-plated on pure white metal. A very pleasing design—the companion piece to the butter knife described above. Packed in a fancy, satin-lined case.

Complete Kitchen Equipment

For one NEW Subscription

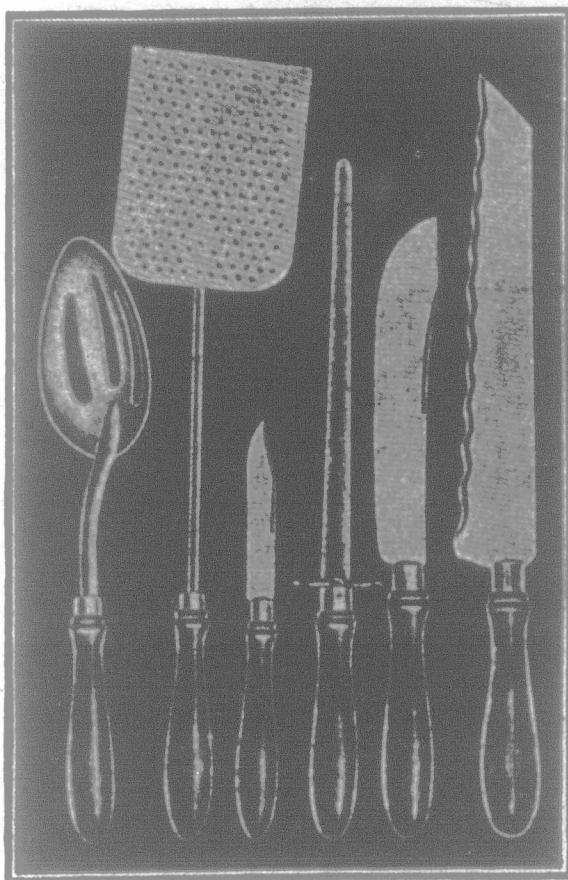
Pancake Turner, Basting Spoon, large Butcher Knife with Steel for sharpening, Paring Knife and waved-edge Bread Knife; all of best steel and fitted with rubberoid finish handles of hardwood.

Bibles

For one NEW Subscription

One style, with Old and New Testaments, beautifully bound and clearly printed, with index to names of places, persons and subjects. Has 12 full-page maps. Size, when open, 7 x 10 inches, weight 23 ounces. Would cost \$1.00 to \$1.50 in any bookstore.

Another style, same quality, with centre reference and chromatic index, size when open, 9 x 13 inches.



THE WILLIAM WELD COMPANY, LIMITED, LONDON, ONT.



FAIRY SOAP affords real refreshment in toilet and bath use. Its rich, creamy lather—its whiteness and lasting purity—are due to the skillful blending of choice materials.

The oval, floating cake fits the hand, and holds its refreshing, cleansing qualities to the last.



THE N.K. FAIRBANK COMPANY
LIMITED
MONTREAL

"Have you a little Fairy in your home?"

KEITH'S

THE FARMER'S SEEDSMAN SEEDS FIFTY-ONE YEARS SERVICE

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Address by Dr. Creelman.

Dr. Creelman impressed very forcibly the need of more genuine effort, and less waste this year than ever before. Dealing with the shortage of farm help, he believed the most practical plan in sending men from the cities to the farms would be for employers, instead of encouraging each man in their employ to go out for two weeks, to go into their warehouses and get the physically strong men who have been brought up on a farm, and who had been doing heavy manual work right along. If these men could go to farms for two or three months, their work would be of practical value to the farmer. If the employer in town wanted to make some patriotic sacrifice he could make up to the men the difference between their regular wage and the ordinary wage paid for farm work.

The latter part of the year 1917-18 will bring the closest pinch for food yet experienced in Canada and the world. Since the beginning of the war forty million men have been killed or wounded, or are on active military service. Twenty million men and women are supporting them in other war activities. This means sixty million taken from the producing class, and they have to be fed. Up to the present time, not one soldier in the empire has wanted for food, but Germany has decided that the only way to bring England to her knees is to starve her, and since February 1st, one million tons of food-carrying ships have been torpedoed. Even in America, where the people are wealthy from war-profits, and where they have kept pressing on to the productive acres of the west as the need for food increased, they are already beginning to talk of meatless days. There is urgent need of economy in Canada.

Some of the things to bring to the attention of the people are: The importance of using pure seed. In experiments in connection with the Government's Pure Seed Campaign, it was found that by putting wheat through the fanning mill until it was reduced from three to one, and planting only the large, plump seed, the crop was increased 20%. Even little children can help with this by hand picking seed at home during the winter.

2. It is important to raise all young stock born on the farm, especially calves and lambs. Even if the calves have to be weaned early and live largely on pasture it will be time enough to consider weeding them out next fall. (The males of dairy stock might not come under this rule in some cases). Discourage the use of veal and lamb.

3. If possible double the poultry output this year. Set twice as many eggs and let the chickens run out. The price of wheat may make this seem unprofitable, but there are tailings and pickings around the barn which make up a large part of the feed. There is no need of worrying over prices. Even if all the roosters and more of the pullets are sold this fall they will bring a dollar each.

4. In normal years, we have shipped a million barrels of apples to the Old Country. The British Government has put an embargo on apples so we will have a million barrels on our hands. A campaign must be started to educate people to eat apples. Drying, canning, making apple-butter and sweet cider will help to prevent waste.

Medical School Inspection—By Dr. MacKenzie-Smith.

Dr. MacKenzie-Smith showed clearly that the Medical and Dental Inspection of school children was not the least important feature of what might be considered war work. The numbers of men who came up to enlist and were rejected on account of bad eyes and bad teeth was appalling. In one school 420 children had over 500 different things wrong with them, and not 75 children were perfect. Many parents are still prejudiced against medical inspection, and educative work is needed. Some of the arguments the doctor has used in such cases are that a child with diseased tonsils or adenoids cannot study. If diseased tonsils or adenoids were exposed the parents wouldn't allow their children to have them for any length of time. The trouble is that they are out of sight. The first inspection should be done by a doctor, not by a nurse, in one case a nurse who examined the children of a school sent up a number of children which the surgeon believed did not require

an operation. Dr. MacKenzie-Smith explained how they had conducted their clinic at Gravenhurst.

Dr. Seccombe outlined what appeared to be a practical plan of Dental School Inspection for rural districts. As soon as anything definite is decided upon announcement will be made to the Institutes.

Mrs. Plumptre's Address.

Following what previous speakers had said regarding the need of conserving our food supply, Mrs. Plumptre hoped the delegates would bring before the people of Ontario the work of the Red Cross Fruit Kitchen at Hamilton. As it was difficult to ship, without loss, the home-canned fruit sent in to the Red Cross headquarters, and as some of this fruit was not of the quality required for shipping long distances, the Red Cross Society established the Fruit Kitchen where voluntary contributions of fruit sent in from the surrounding country would be canned or put up in jams and jellies and packed for shipping overseas. As even third and fourth class fruits which no commercial canner would bother with, are taken care of here, it is one of the best institutions for using up all available fruit. The work done at the Kitchen is practically all voluntary, done by women from the churches, largely, with a professional canner to do all the actual cooking of the fruit. No doubt, when the matter is brought to the attention of the Institutes in some of the fruit growing districts, they will be glad to contribute to the supply of fruit. It is possible that Fruit Kitchens may be established in other centres.

A second important problem is the impending wool famine. The Red Cross Society has already bought out two mills and proposes to buy a third. If the women of the Institutes would buy all they can even in small quantities it would be good economy. A new bulletin on the present needs of the Red Cross has just been issued. The delegates should study this carefully so they will be able to advise, also urge the women of the Institutes to keep themselves informed, as the bulletins are sent out regularly. The need of money and goods is greater now than it has ever been, as the Red Cross Society is endeavoring to help the Military Hospitals in Canada as well as those overseas, and the Hospitals in Canada are filling up rapidly as wounded soldiers are being sent home from England to make room for the new convoys from the front.

Address by Mrs. Loosemore, President of the Women's Thrift Campaign.

Mrs. Loosemore spoke of the false prosperity in Canada, and said that the country does not need money in circulation to support trade; the money is needed in war certificates to bring the war more speedily to a close. The ideal of women should be to buy nothing which is not essential to the efficiency of mind or body. Things like dresses, and re-decorating our houses should be left until the war is over. The money saved in this way will be here to pay returned soldiers for work later. Mrs. Loosemore emphasized the importance of getting boys interested in certain lines of production. In one instance a woman's organization secured some vacant lots and let them to boy Scouts for planting with white beans. The opportunity for leading boys away from crime through work like this is also worth considering.

So far as women themselves are concerned there should be no afternoon calling and walking up and down town in wartime. If women can all get interested in work, the extravagance of high white kid boots and such articles of dress will be done away with automatically. Special information should be given on food selection, and food values. Last year \$18,000 worth of pickles imported from United States were sold in Toronto. An amazing amount of money was spent in artificial flowers for millinery. Householders in town, with large grounds, should grow enough vegetables for their own use anyway.

The speaker left the following morning prayer for workers:

"Now I get me up to work"
I pray the Lord I may not shirk,
If I should die before the night,
I pray the Lord my work's done right."

Demonstration-Lecture Work.

Miss Gertrude Gray spoke of the change in the mental attitude of the classes

toward... and cook... eager to... in underl... in the es... cost of fo... meals wit... nutrition... a better... food val... better co... short Co... at the s... College s... up contes... of popula... closing ex... entertain... is brought... movement... or agric... Institutes... result of... be the fir... when the... it.
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Dr. M... gave add... partment... Infant V...
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Furthe... clusive o... lambs be... the sake... leather, ... supplies.

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toward the instruction in food values and cooking. The women seem more eager to be taught and more interested in underlying principles than they were in the earlier courses. The increasing cost of foods and the necessity of planning meals with a closer view to economy and nutrition has given the average woman a better appreciation of the study of food values. These classes promote a better community spirit especially where short Courses in Agriculture are given at the same time. Something of the College spirit is developed in working up contests in public speaking, parodies of popular songs, class yells, etc., for the closing exercise. Outsiders come to these entertainments and the whole community is brought into closer sympathy with movements for the betterment of homes or agriculture. The Junior Women's Institutes or Girls' Clubs, formed as a result of these classes will, no doubt, be the first to take up the canning work when the Department is ready to develop it.

Miss Collins told of one of her classes in dressmaking where there was only one absentee during the entire course. She believed teaching girls and women to make their own clothes, could be classed as an important line of thrift work. Personally Miss Collins is taking a sixty-dollar course in dressmaking to increase her efficiency as a teacher; compared with this she considers the one-dollar charge to the Institutes for the course very reasonable.

Dr. McCullough and Miss Powers gave addresses on the work of the Department of Public Health through its Infant Welfare Bureau.

The Girls in the Institute.
This subject was treated by Miss Chapman.

Resolutions Passed at Conference.
BE IT RESOLVED that we recommend the voluntary adoption of stated weights of staples per capita per week in SUGAR, MEAT, FLOUR.

We also ask for one meatless day each week.

We further recommend the utilization of the entire Canadian Apple Crop, by the employment of the fresh fruit by canning, drying, or in the manufacture of apple butter or sweet cider.

Further we suggest that calves (exclusive of males of dairy breeds), and lambs be not slaughtered for food for the sake of the conservation of meat, leather, and wool needed for army supplies.

Noted Women.

Sarah Bernhardt.

In the newspapers recently appeared a small paragraph which stated that Sarah Bernhardt was to undergo another operation, and readers remembered that a year or so ago she suffered the loss of a leg, but that, with indomitable courage, she continued to plan another trip to America. Perhaps, however, America has seen for the last time this very remarkable woman.

The writer of this had the privilege of seeing her act on her last appearance in Canada. She came in a special train, her own coach—an elaborate one, painted green and inscribed in gold letters with the most mystic word "Bernhardt" appearing her the inconveniences of moving to a hotel during her stay. It was said that, on her arrival at the theatre, she was carried to the very entrance to the stage, so great were the pains taken—or demanded by her—to conserve her strength. During the course of the evening she chose to give one act from each of three plays, taking the part of Joan of Arc arguing her case before her relentless judges, Camille in the death scene, and the young son of Napoleon I in Rostand's *L'Aiglon*. So vivid was her acting, even at the advanced age, that in spite of the fact that she spoke in French before an audience among whom not more than half a dozen, perhaps, could understand French, there was not the slightest difficulty in following her meaning, and the attention of the crowded theatre was held as though spellbound.

Madame Bernhardt, a strange, brilliant and almost eerie woman, was the product of a strangely mixed nationality. She was born in Paris on the 22nd of October, 1845, of mixed French and Dutch parentage, and Jewish descent, but was brought up in a convent.

Indeed, for a short time she wished to remain in the convent as nun, but, evidently, her talent for acting had



Sarah Bernhardt.

already become apparent, for the Duc de Morny said bluntly to her mother, "Take my advice and send her to the Conservatoire Nationale", and so, at the age of thirteen, to the Conservatoire she went.

So great was her success there that in 1861 she won the second prize for tragedy, and in 1862 for comedy. In that year she made her debut in a minor part in a play in the Comédie Francaise, but her first real success came shortly afterwards when she took the part of Cordelia in a French translation of *King Lear*.

From that moment fame came rapidly to her, and by 1879, during which year she had a famous season in London, she was recognized as the world's greatest actress.

She also became a sculptor of some note, and from time to time exhibited pieces of sculpture, and at one time a painting, in the Salon. The pen, too, claimed her; she published a book called "The Memoirs of a Chair", and wrote several plays.

As an actress she toured almost every country in Europe, the United States Canada and Australia. She always chose to wrap herself in an environment of mystery. "Well as she has guarded the secret of her power to thrill her audiences by her actual presence," wrote an enthusiastic biographer, "it is rather by her disappearances, her absences, by the mystery of her distant journeyings that she most astonishes our imagination and holds for us the half-hidden visage of a princess often far away." In time even legend grew up about her. It was said that her favorite pet was a tiger and that the chief article of furniture in her drawing-room was a coffin.

Needless to say, Madame Bernhardt amassed an immense fortune, nor was she chary of investing, for in 1893 she became owner of the Renaissance Theatre.

In December 1896 an elaborate fête was organized in Paris in her honor, and in February 1914 she was presented with the Cross of the Legion of Honor.

Perhaps the greatest wonder occasioned by her later appearances on the stage was her marvellous retention of youth. But the secret is less elusive when it is remembered that she "never gave up", either physically or mentally. When upwards of seventy years of age she was still an enthusiastic tennis-player, a wonderful conversationalist, and almost at the prime of her powers as an actress. At sixty, it is said, she did not look a day over forty. "I say to the years as I day over forty," she used to say to the public, "I shall conquer you." "Quand meme' I shall conquer you." And conquer them she did.

Sarah Bernhardt, unlike some other actresses, owed nothing of her fame to beauty. She was never a beautiful woman, but she was graceful, and possessed a delightful voice and a magnetic personality. Chiefly she won by sheer force of genius. She was highly intellectual. She essayed only the plays that she felt her best powers, and succeeded in *feeling* them so deeply that she passed over that feeling to her thrilled audiences. And so she became one of the greatest emotional actresses, not only of our time, but of all time.

In closing it may be said that there is reason for congratulation to the present age upon the fact that, to some extent, Bernhardt's acting can never be lost

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as was that of Rachel, Siddons and other famous actresses of the past. Some time ago she acted for the "movies," and so, when she herself has passed away, something of her genius may still be seen.

Only Cautionary.—He wondered why his wife suddenly turned cold on him and remained so for several days. For all that he had said in remonstrance was: "My dear, you'll never be able to drive that nail with a flat-iron. For heaven's sake, use your head."—Ladies' Home Journal.

Hope's Quiet Hour

Fallow Ground.

Thus saith the LORD. . . Break up your fallow ground, and sow not among thorns.—Jer. 4:3.

Sow to yourselves in righteousness, reap in mercy; break up your fallow ground: for it is time to seek the LORD.—Hosea 10:12.

In this morning's paper I saw that 3,000,000 acres of pasture land in England would at once be ploughed and prepared for seeding. How thankful we should all be if this had been done years ago! Grain can't be grown in a day, and the people may have to go hungry for want of the food which might have been grown in their own island. When I was in England the thing that surprised me most was to see such a lot of uncultivated land—so many country parks where only the deer browsed among the bracken.

The appeal of God in our text—an

appeal to Judah and Jerusalem—was a call to repentance. The people were invited to return to the Lord and put away their abominations out of His sight. It was useless for the Divine Sower to scatter seeds of truth and righteousness while they were hardening their hearts and giving no sign of repentance. The fallow ground must be broken up before the seed can take root.

We hear many words of scorn in these days about the "Christian" nations trying to kill each other. "See how these Christians hate one another!" say the professed agnostics. I think they are pleased to find—as they think they have found—that Christianity does not ennoble those who call themselves by that name.

But Christianity is following Christ. It is living for Him and prayerfully trying to live like Him. The trouble is not caused by Christianity, but by the lack of it. When God looks into the secret thoughts and actions of millions who belong to the "Christian" nations, it may be that He finds very little following of Christ there. Some are immersed in business, feeling that the great object of life is making money. Others are absorbed in self-gratification, following after pleasure with all their might. Some have strayed away from virtue and are trying to hide from God, as Adam did when he had sinned. Some, —who go to church, when it is fine enough and they have nothing else they prefer to do,—perhaps never think of God from one Sunday to another.

Now, I am a professed optimist, with an unbounded faith in human virtue. I am a believer in the oft-quoted saying that "man is naturally Christian". We feel instinctively that happiness is our rightful heritage, and there is no lasting happiness or restfulness except in fellowship with God. The "way of transgressors is hard." When the prodigal son "came to himself" he realized his folly in turning his back on the happiness of home. A life of vice leads straight into misery. It never gives happiness, because we are the children of God and cannot be happy away from our Father. As "one of the world's greatest crooks" said to a fellow-prisoner: "You pinch yourself the minute you begin this crooked game. The game itself does it. It does not fit in with this world. . . it can't be made to pay."

But a life of vice has little power to tempt those who have been brought up in decent homes. Does the command to break up our fallow ground apply to ordinary men and women, who are living respectable lives, saying their prayers every day and trying to do their duty to the country?

Think of England! She was jogging along in peace, comfort and respectability—but now she finds it necessary to break up her fallow ground. She produced much—shall she rest satisfied with that? Now she is straining every nerve to produce as much as she can.

Look at St. Paul. He called himself the least of the apostles, and yet (through the grace of God) he said: "I labored more abundantly than they all."

Was he satisfied with his attainments? Listen to his eager words: "I count not myself to have apprehended: but this one thing I do, forgetting those things which are behind, and reaching forth unto those things which are before. I press toward the mark." The mark he was trying to reach was the perfection of the Great Ideal: "the measure of the stature of the fulness of Christ."

Are we satisfied with ourselves? The Pharisee was satisfied with his progress, and that meant stagnation. We live, for the most part, in one corner of our lives, leaving untilled and unseeded much good soil.

God has permitted the awful ploughshare of War to break up the comfortable prosperity of the nations. Why does He not interfere to stop the horrors? That question is one we cannot answer; but at least we can see that unguessed glory of self-sacrificing heroism has sprung up in the deep furrows made by the terrible plough. It is only the courage of men and women with death staring them in the face—the heroism which has become so common that it excites little comment—but there is the marvelous cheerfulness shown by hopelessly injured men, and the brave endurance of anxious women at home.

"Break up your fallow ground: for it is time to seek the LORD," said the prophet Hosea. "Time to seek the Lord!" I should think it was. We have

no excuse for lessness. It is self behind. Christianity has the imitation shattered like guns, a contribution country and

If you can Christ set and carried that higher Peter's word asked: "Why answer was shall we go eternal life."

Does the ground is to Shall we wa us to pray? the Psalmist was none to the LORD.

Let us pu softening repentence guidance.

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no excuse now for indifference or carelessness. It is useless to shelter one's self behind the shallow excuse that "Christianity has proved a failure." Following Christ has not proved a failure. Though the imitation of religion has gone down, shattered like fortresses before modern guns, a Christ-like life is the greatest contribution anyone can give to his country and to the world.

If you can imagine a higher ideal than Christ set before man in His words, and carried out in His Life, then follow that higher ideal. If not, then echo St. Peter's words, when the twelve were asked: "Will ye also go away?" His answer was simple: "Lord, to whom shall we go? Thou hast the words of eternal life."

Does the farmer wait until his fallow ground is torn up and ploughed by shells? Shall we wait until terrible sorrow drives us to pray? Like the people described by the Psalmist, who "fell down, and there was none to help. Then they cried into the LORD in their trouble."

Let us put our lives at God's disposal, softening the hardened soil by real repentance and looking to Him for daily guidance. He wants to sow good seed in our hearts, but it will not take root and grow if we care only about earthly things. A farmer knows that the crops will not thrive unless he works his land. God does not give harvests ready-made. He provides the wonder-working soil and sunshine, and the living seed. The farmer has to do his part. God does not make houses or pianos or watches. He provides the raw material and men can use it or leave it in idleness.

"The forest trees—
Do they fall round us into builded homes
Without an axe or arm? The blowing
winds
Are but our servants when we hoist
a sail."

Put a seed into well-cultivated soil and even the sun will stoop down and encourage it to grow. Set yourself, with earnest and determined will, to make the best of life and God Himself will work with you and in you. He is the Great Husbandman who will not endure to let the lives of men and women lie fallow. He purges us that we may bring forth fruit—and yet more fruit. He knows the possibilities which we are slothfully permitting to remain latent within us. As a soldier wrote to his mother (one of our readers): "I am so sure God has a plan for my life, and until that is worked out I am as safe here as in my bedroom at home." Are we as ready to accept God's plan?

Few of us are frank enough to echo that famous prayer of a half-hearted, would-be disciple: "Lord make me pure! but not yet." But it may be we are acting on that principle unconsciously. We want to give our lives to God—"but not yet." We want Him to rule as King in our hearts—but one or two favorite sins hide in dark corners, unconfessed and unchanged. We want to serve our generation—but not so wholeheartedly as to interfere with our own comfort and worldly advantage. We are Christians, "but not working very hard at it." We are trying to do the impossible thing—"serve two masters"—and some day a test will come and we shall be forced to choose one or the other.

We must never be content with ourselves, but press on towards perfection. There is a story of an officer who said eagerly to his General: "We have taken a standard!" "Well, take another!" answered the General.

Whether we lived at a high or a low level yesterday it is our business to fight our way forward to-day. The Canadians who went "over the ridge at Vimy" are not folding their hands in self-satisfaction. Only our Leader could say of the work given Him to do: "It is Finished." We, who serve under Him, must keep

"Watch and ward,
Till Christ at the end relieve our guard."
DORA FARNCOMB.

For the Quiet Hour Purse.
An old friend among our readers—M. V. M.—has sent five dollars to be spent on the needy. I will gladly do my share in the pleasant work of passing on her gift.
HOPE.

The Fashions. The Ingle Nook.

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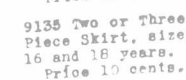
9331 Costume with Tucked Panel Front, 34 to 42 bust. Price 15 cts.



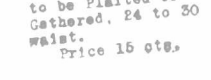
9160 Middy Blouse, sizes 16 and 18 yrs. Price 15 cts.



9405 Slip-On Blouse, 34 to 42 bust. Price 15 cts.



9135 Two or Three-Piece Skirt, sizes 16 and 18 years. Price 15 cents.



9402 Straight Skirt to be Plaited or Gathered, 24 to 30 waist. Price 15 cts.

[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 stamped envelope ready to be sent on. (4) Allow one month in this Department for answers to questions to appear.]

Chit-Chat.

Not long ago a clerk in a store said (on the side to a friend, of course) "Every new lot of goods that comes in is higher in price than the last, and of poorer quality." Almost the same day a housekeeping friend of my own remarked to me with great glee that she had discovered, in a box in the attic, three pairs of stockings belonging to one of the children, which had been put away there before the war and forgotten. "Of course they're 'too small for Myrtle now,'" she said, but they're the very thing for Margaret. And they're so much better than any you can buy now. Why this last winter the new stockings seemed to go into holes in a week."

I could sympathize, for at the beginning of the cold weather I had bought six pairs of the fifty and sixty cent cashmere species, ordinarily enough to do me for two winters, and then, with faithful darning, a while longer; for sitting in an office is not hard on hose. But those?—Well they're fit for the rag bag now, and for nothing else.

It seems, then, that we are being beset by shoddy on all sides.—And yet some firms are still turning out honest work.

In consideration of this last fact it should, after some experiment, be possible to get the remedy, more or less, into our own hands. We can note the stamp of the manufacturer, and insist on buying goods bearing the mark of manufacturers found reliable. By doing this, and recommending the firms to our friends, we can help ourselves and also the firms which are trying to give a fair deal.

Speaking to the Women's Institute lecturers in Toronto, a fortnight ago, Dr. Creelman of the Agricultural College, Guelph, advised that the propaganda for greater production and conservation of foodstuffs should be carried by the lecturers right out to the homes of Ontario. The farm women, he thought, might this year double the number of chickens raised, and so help to make up for the almost unparalleled scarcity of beef and pork. A prohibition on cakes and pastry would be a long step in economy—since bread is cheaper and much more wholesome—while the apple crop might be saved by drying the surplus or making it into cider. Vegetables, also, should be extensively canned and dried. A fuller account of this will be found elsewhere in this issue.

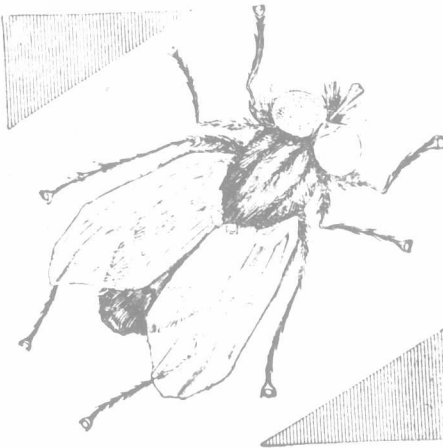
It all means that we shall have to give up a good many of the frills this year, and buckle ourselves down to the necessities, as our pioneer forefathers and foremothers (why not "foremothers"?) did.—And perhaps the experience will be good for us all.

Just here I pause to smile over the way in which the subjects for our Home Department are narrowing down. We can't talk about house-building and house-furnishing as we used to because people aren't expected to spend much money on such things in war time. Similarly we feel guilty when we say much about fashions, although, as long as people must sew they must have patterns. Fancywork is taboo, because that would mean useless stitches instead of socks and shirts for "the front"; and now it is whispered that, on the score of patriotism, it may be well to keep mute on the subject of cakes and pies.

Well, there is still gardening. And there is the War,—would that the last word on that had been said.

But it will be long before war-work can be permitted to pass away from our tongues, and our pens, and our hands. The broken-down boys are already returning by the hundred, and there will be thousands upon thousands more to come. Certainly our problems are just beginning.

The other day some printed matter from an "Overall" firm arrived at the office (an English firm), and quite a flutter was created among the female



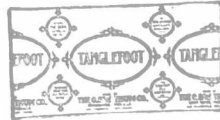
In the War On Flies

your work is only half done, unless you destroy the body.

The disease germs it carries are even more deadly on the decomposing body. No child should be allowed to touch a dead fly.

Fly poison kills more children than all other poisons combined. The only safe and sanitary way to keep your home free from flies is to catch them and embalm their germ-laden bodies with non-poisonous Tanglefoot.

TANGLEFOOT



Government Condemns Arsenic

The following is an extract from Supplement 29 to the Public Health Report, United States Public Health Service:

"Of other fly poisons mentioned, mention should be made, merely for a purpose of condemnation, of those composed of arsenic. Fatal cases of poisoning of children through the use of such compounds are far too frequent, and owing to the resemblance of arsenical poisoning to summer diarrhea and cholera infantum, it is believed that the cases reported do not, by any means, comprise the total. Arsenical fly-destroying devices must be rated as extremely dangerous, and should never be used, even if other measures are not at hand."

Made in Canada by

The O. & W. Thum Company

Walkerville, Ontario

American Address: Grand Rapids, Mich.

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Large Live Hens, Butter, Eggs, Poultry. Produce of all Kinds.

WALLER'S

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Wool and HIDES

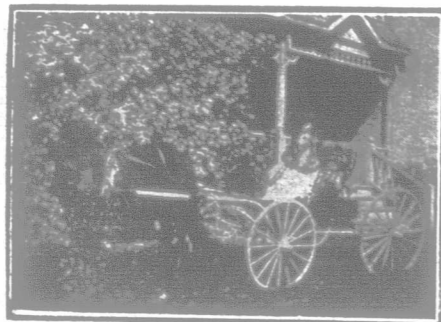
FARMERS—Why not get the highest prices for your wool and hides by shipping direct to us? No shipment is too small or too large. You can make the middleman's profit yourself. We send the cash the same day as goods are received.

We are now paying the following prices:

Wool (washed).....	55 to 60c. per lb.
Wool (unwashed).....	41 to 46c. per lb.
Sheepskins.....	\$2.50 to \$4.50 each
Calfskins (cured).....	21 to 26c. per lb.
Calfskins (raw).....	30 to 35c. per lb.
Tallow (rendered).....	12 to 14c. per lb.
Horsehides.....	\$7.50 to \$8.50 each
Horsehair combings.....	37 to 41c. per lb.

SHIP TO-DAY

JOHN HALLAM, LIMITED
111 Front St. East, Toronto



THIS BLACK
SHETLAND PONY
and stick seat buggy for sale. Extra "class".
H. V. Mann, Aylmer, Ont., Box 220

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

Put up a Lasting Fence

Standard Fence and Steel Tube Fence Posts make an ideal pair. Send for prices.

Standard Steel Tube & Fence Co., Limited,
Woodstock, Ont.

Keep Your Live Stock Healthy

and in prime condition by supplementing the feed with

LINSEED OIL CAKE "Maple Leaf" Brand

With a trial order we will send you free, "The Veterinarian", a valuable book about the diseases of cattle.

THE CANADA LINSEED OIL MILLS, Ltd.
—Toronto and Montreal—



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.

VETERAN LAND WARRANTS FOR SALE.
Clear title. No homestead duties. If going west, write J. Shoemaker, 23 Fourth, Ottawa, Ont.

Please mention Farmer's Advocate

portion of the staff because of the fact that one of the features of the sheet was an exploitation of women's overalls. Several pictures were shown, and really they didn't look too dreadful at all. Three girls working in a munition factory in England, it appears, grasped the fact that they could work much more quickly and with less danger if they substituted overalls for skirts. Quietly they made the change. The fashion spread, and now thousands of women in the factories of Great Britain are wearing the garment as naturally as they once wore skirts.

More than that it is creeping into Canada, hence there may be nothing surprising to us before long, in seeing women in the munition plants and mills, and even in the fields, going about unconcernedly in this garb.

After all, the manners change according to the days. Extraordinary days have come upon us, and if women have to do men's work why should they not dress in the way that is at once safest, most convenient and most comfortable? (—Surely "coming events cast their shadows before." As I finished writing that last sentence the Toronto papers came in, and lo and behold! the big Eaton full-page advertisement was wholly devoted to—Women's overalls. Thus are the Philistines (?) upon us!)

Is your housecleaning—I mean the big, season event—all over? And have you cleaned the old wall-paper to avoid getting new, and brushed up the old rug with ammonia water to make it do for another season?—There's a sort of satisfaction in "making things do," isn't there? And especially this year when everybody thinks economy a virtue.

I hope, too, that you used your "think-tank" to its utmost capacity in studying out how you could arrange things to save steps. So very much depends upon just how the furniture and utensils are disposed, especially in the kitchen: the work-table and cupboard near the stove; the stove near the woodshed door; the pans, and lids and working spoons and knives in the handiest possible place. Every step saved in doing housework will mean something this year, for by all accounts we'll need them all for other things.

You see I'm not speaking wholly from an office desk. Indeed I feel quite of the we class, for I'm to have a garden this year—a real, live, backyard city garden. A fourteen-year-old lassie and I are to work it, in the evenings, and so add our mite to the food production of the world. We're anticipating a great deal of interest in it.—If it had only been well enriched last fall or winter from a juicy old farm stable yard!—That's where you folk in the country get the start of us here; half-fed plants, like half-fed people, must needs be spindling or stunted.—But we'll do the best we can.

Speaking of plant-life, I wonder if any of you read this paragraph, from one of Philip Gibbs' very interesting articles on doings at the front. He has been telling about the bare fields all pock-marked with shell-holes so that nothing is growing on them, and, coming to the woods, continues.

"I thought perhaps some of these shell-slashed woods would put out new shoots when spring came, and watched them anxiously for any sign of re-birth, but there was no sign, and their poor, mutilated limbs, their broken and tattered trunks, stand naked and stark under the blue sky. Everything is dead, with a white, ghastly look in the brilliant sunshine, except where here and there, in the litter of timber and brickwork which marks the site of a French village, a little bush is in bud, or flowers blossom in a scrap-heap which was once a garden."

War—war—that destroys homes, and blots out young lives, changes farming lands into barren wastes, and spares not such innocent things as the woods and the garden flowers! Even of the animals it takes its toll, for who can tell the suffering of the endless chain of horses sacrificed in this war? And everywhere it carries out its devilry with the direst cruelty. Surely the world should be grown-up by this time! Surely it should now be able to put away this childish fury! . . . Perhaps we people living in the homes and offices can't do much with our little word.—But—yes, it is just such people as we who, in the aggregate, make up the people

of all the world; and as one well said to-day, "The people do not understand their own power."

But there—I'm off on the war again.
JUNIA.

A Philosopher.

[The other day a friend told me, in an amused yet admiring way, about a conversation which she had overheard, between the old janitor of the apartment house in which she lives and a workman who was doing some repairing. "Write it up," I said. She did so, and the following interesting little sidelight into the minds of two of the world's workers who are not in the limelight, is the result.—J.]

We watched him day after day sweep out the stone court yard and toil garbage-laden up and down the many steps of the high apartments. His three score years and ten have brought him but to this.

What are his thoughts as the dust flies before his broom? Are they, perchance, of wasted years, of lonely old age so soon to end in dust to dust, or does he think bitterly of the social conditions under which gold is allowed to be in heaps in one man's coffer while his neighbor works on through youth and manhood even unto helpless old age—or is his brain, dulled by ceaseless toil, merely lethargic?

Then one day an assistant appears and the old man finds a listener. We, brazenfacedly, play eavesdropper for lo, his discourse is on theology—evolution, no less! We have been entertaining a modernist unawares!!

"Yes every hundred years the old world is just a little bit better, not so as you'd notice it but it is better. Some day,—oh, a long, long, way ahead! but comin'—some day we will all be workin' for each other, not selfish like we are now, but every man will love his neighbor.

"That'll sure be a good place to live in", came the half contemptuous reply from the fellow-workman, but the sarcasm is quite lost on the orator.

"You're right, it will be, but," regretfully, "it's a long way off".

"Pshaw, there'll always be wicked people!"

"No there won't, you see it's this way: They'll learn that their evil ways bring them only stripes; at first they'll see it pays to be good, but in time we'll all be just naturally good."

His listener's hammer breaks in upon the discourse and we lose a word or two—"but it ain't true; it is all lies, just a scheme of the churches to get money out of us. There ain't no sense in all these different creeds. Keep your eye on the Master and push ahead. Perhaps we'll 'come back' many a time to learn another lesson," he mused, "but every time we'll be a little bit better, and one day peace and love will fill every heart."

"Peace! not while there're any women round," says the other, "they are born trouble-makers."

The newcomer's troubles are easily divined and the old man answers shrewdly.

"Well, you see, there'll be no marriage or giving in marriage, we'll be beyond all that." His glance is a bit uneasy; he realizes that this is very advanced teaching.

"Hump! that sure will be the millennium dawn; they can bring it on any time they like. It can't come too soon for me!"

"Aye, but we must work for it and the way is long. It ain't so easy; a man's bad habits do stick so. A thousand years is a long time and so-little done. Why they do say as the men who crucified Christ were just ordinary men like you and me, sot in their way and stubborn; mad as hornets because things were not goin' to please them. That's two thousand years ago, and but a few are much better, one or two here, one or two there. It will take time but it is sure to come, this peace on earth and good will to men!"

With a triumphant flourish his broom whisked away the last heap of dust.
M. LET.

Stain on Wood.—Garden Book.

Dear Julia.—We enjoy the "Farmer's Advocate" very much and have obtained much help from it. I now come to ask a couple of more questions:

1. How could you remove oil stains from quarter-cut oak furniture?

2. Where could you get a book on "backyard gardens"?

Huron Co., Ont.

Try placing a piece of blotting paper over the stain and placing a warm iron over. If a whitish mark is left go over the whole with mixed turpentine and linseed oil, rubbing the spot well with chamois.

2. An excellent bulletin on backyard gardening is issued by the Department of Agriculture, Parliament Buildings, Toronto.

Noisy Shoes.

Dear Junia.—We have taken "The Farmer's Advocate" for a number of years, and could not do without it. Would you please tell me what would stop squeaking in boots; they are practically new ones.

Carleton Co., Ont.

Squeakiness in shoes is usually due to cheap, stiff leather. It is said that the trouble may be removed by setting the shoes in a pan containing enough linseed oil or coal-oil, to saturate the soles. Leave over night.

Re Patriotic Work.

Dear Madam.—Would you kindly supply me with the addresses of Bureau of Information regarding Patriotic work.

Thanking you in anticipation of your kindness.

Very truly yours,

Macdonald Hall, Guelph, Ont. A.L.

Your letter is somewhat indefinite—there are so very many organizations doing patriotic work. Among these are the Red Cross, Canadian War Contingent Association, and Daughters of the Empire. Would advise you to consult the heads of the branches of these in your city for any information you may want.

The Cookery Column.

Baked Rhubarb.—Cut the rhubarb in half-inch pieces, pour boiling water over and leave 5 minutes to remove some of the acidity. Drain off, add 1 cup sugar to a pint of rhubarb, put in an earthen or granite dish and bake slowly until of the consistency of thin jelly.

Rhubarb and Figs.—Peel and cut enough to weigh 6 lbs. Add 1 lb. chopped figs, ½ lb. candied lemon peel cut fine, and 5 lbs. sugar. Let stand until next day then boil slowly for 1 hour. Put in glasses and when cold cover with paraffine. Rhubarb may also be cooked with oranges put through a food-chopper to make a very delicious marmalade. Indeed it combines very well with any fruit, and so some jars of it—stewed by itself—may be put away to combine with other more expensive fruits in the fall.

Brown Sugar Sandwiches (nice for school-children's lunches). To 1 cup sugar add ½ cup chopped peanuts. Put between slices of buttered bread.

Stuffed Ham.—Pour boiling water over the ham and set aside until cool enough to handle, then scrub with a brush, rinse well and put on to boil in a kettle or wash-boiler large enough to have the ham covered with water. Bring to boiling-point, then draw to the back of the stove and simmer steadily, ½ hour for each pound of ham. Be careful to keep the water just at boiling-point—simmering, not boiling. When done pull off the skin, then put in a pan with the lean side down and bake for an hour in a moderate oven. Set aside until cold, then with a sharp knife make deep incisions, and fill with the following stuffing: 1 pint crumbs, 2 hard-boiled eggs chopped fine, a little seasoning as liked (mace, thyme or sage), 1 tablespoon butter, ½ cup fat meat chopped fine, pepper and salt to taste. When the stuffing is packed in as tight as possible, cover the whole surface with a paste made with the yolk of 1 egg, a little sugar, dash of pepper, prepared mustard and bread crumbs. Put in a hot oven until well browned. Ham cooked in this way is very delicious, but its flavor depends most, like that of all boiled meat, on its being kept simmering, not boiling, while in the water.

Brown Sugar Sauce (For any kind of pudding).—Cook together 1 cup brown sugar and 1 cup water until they form a good syrup. Pour this over a well-beaten egg, then return to a double boiler and cook over hot water for a moment. Just before serving add juice

of 1 lemon, very the time.

Pineapple P now in, and many appetizin made as follow with cold mus Fill with sweete Serve with crea Pat 1 cup pin sugar and cook of 2 eggs and water with an then beat in th 2 eggs.

Chocolate F solve 2 squares water, add 1 c a boil. Now cornstarch ble water, and a until like custa spoon butter as on the cake w

Viennaise quarter lb. bre 2 tablespoons s spoons choppe milk, juice of crumbs in a b lemon rind.

the sugar in a over the fire, t until the sug milk hot. Po the basin wit and add the

up the eggs w the juice of t mixture in a b buttered pap

Serve with cr Cornmeal V ½ cup cornm 3 tablespoons butter, 2 egg spoons baking Cook the cor for 20 minute

baking-powder previously be then add the melted butter, whites of an greased pan a

Econo

Biscuit D may be ma dough as a it the follow all measurem sift with 4 and ½ teap finger-tips 2 other shorte knife mix in a fairly soft dough, just r with the kn lightly floure with the har good for bi

dumplings, cakes. For r thin, cut in jam, roll up brush the to you can mak serve with g For fruit sho and pat each one well, lay When done fruit of any heap thickly serve. Nic cherries, raspberries, etc. . . .

the dough stewing fruit boil steady at once with of butter or there is m thickened a Bread an a bowl and of crumble sweetened s kind of fruit pineapple, be are best.

over and let then unmo sugar or le necessary. T summer, q

Prune an prunes, 8 2 eggs; 4 ta

of 1 lemon, very slowly, and beating all the time.

Pineapple Pudding.—Pineapples are now in, and may be made the basis of many appetizing dishes. A pudding is made as follows: Line a buttered dish with cold mush or cream of wheat. Fill with sweetened pineapple and bake. Serve with cream or the following sauce: Put 1 cup pineapple juice into a cup sugar and cook 10 minutes. Beat yolks of 2 eggs and add. Whip over boiling water with an egg-beater until foamy, then beat in the stiffly beaten whites of 2 eggs.

Chocolate Filling for Cakes.—Dissolve 2 squares chocolate in 1 cup boiling water, add 1 cup sugar and let come to a boil. Now add 1 heaping teaspoon cornstarch blended with 1/2 cup cold water, and a pinch of salt. Let cook until like custard, then add half a teaspoon butter and vanilla to flavor. Put on the cake while warm.

Viennese Bread Pudding.—One-quarter lb. bread, 3 eggs, 1/2 cup sugar, 2 tablespoons sultana raisins, 2 tablespoons chopped candied peel, 1/2 pint milk, juice of half a lemon. Put bread crumbs in a basin, add peel raisins and lemon rind. Put a tablespoonful of the sugar in an old saucepan and brown over the fire, then add the milk and stir until the sugar is dissolved and the milk hot. Put the rest of the sugar in the basin with the other ingredients and add the milk mixture. Then heat up the eggs well, stir them in and add the juice of the half lemon. Pour the mixture in a buttered mould, cover with buttered paper, and steam one hour. Serve with cream or custard sauce.

Cornmeal Waffles.—Two cups flour, 1/2 cup cornmeal, 1 1/2 cups boiling water, 3 tablespoons sugar, 2 tablespoons melted butter, 2 eggs, 1 teaspoon salt, 3 teaspoons baking powder, 1 1/2 cups milk. Cook the cornmeal in the boiling water for 20 minutes. Add milk, flour, sugar, baking-powder and salt, which have previously been well sifted together, then add the beaten yolks of the eggs, the melted butter, and lastly the stiffly-beaten whites of the eggs. Fry on a well-greased pan and serve with maple syrup.

Economical Desserts.

Biscuit Desserts.—Many desserts may be made with any good biscuit dough as a foundation. For making it the following quantities may be used, all measurements level: Two cups flour; sift with 4 teaspoons baking powder and 1/2 teaspoon salt. Rub in with the finger-tips 2 tablespoonfuls butter or other shortening, then with a broad knife mix in enough sweet milk to make a fairly soft dough. Never knead the dough, just mix it as quickly as possible with the knife, then turn it out on a lightly floured board and pat into shape with the hand. This recipe is equally good for biscuits, crust for meat pies, dumplings, roly-polies and fruit short-cakes. For roly-polies pat the dough out thin, cut in 4-inch squares spread with jam, roll up, pinch the edges together, brush the tops with milk and bake. Or you can make it into one large roly-poly. serve with good cream and sugar.

For fruit shortcake cut the dough in two and pat each piece into a cake. Butter one well, lay the other on top and bake. When done put stewed or crushed raw fruit of any kind between and on top, heap thickly with whipped cream and serve. Nice for rhubarb, strawberries, cherries, currants, stewed gooseberries, raspberries, peaches, stewed dried apricots etc. For fruit dumplings, make the dough into small balls, drop into stewing fruit of any kind, cover closely and boil steadily for 15 minutes. Serve at once with the fruit around and a bit of butter on top of each dumpling. If there is much fruit-juice it may be thickened a little with cornstarch.

Bread and Butter Pudding.—Butter a bowl and fill it with alternate layers of crumbled buttered bread and hot, sweetened stewed fruit with juice. Any kind of fruit may be used, but rhubarb, pineapple, berries of any kind, and cherries are best. Put a saucer and a weight over and let stand several hours to chill, then unmould and serve with cream and sugar or lemon sauce. No cooking is necessary. This is a very nice dessert for summer, quickly and easily made.

Prune and Bread Pudding.—Two cups prunes, 8 slices stale bread, buttered; 2 eggs; 4 tablespoons sugar; 2 cups milk;

nutmeg. Cover the bottom of a buttered baking dish with a layer of buttered bread cut in strips; cover with stewed prunes and a sprinkling of sugar and nutmeg. Continue until the whole has been used, with buttered bread on top. Beat the eggs well, add the milk and pour over the pudding. Bake for an hour, covering the pudding for the first half hour, then uncovering to brown. Serve with cream and sugar or with a lemon sauce.

The Scrap Bag.

Washing Silk Stockings.
Use bran instead of soap for washing silk stockings; it is much better. To each pint of water add 2 tablespoons bran. Wash the stockings in this and rinse thoroughly in several waters.

Ironing Board.

Cover the board in the ordinary way with cloth or flannel, then add a half roll of cotton batting, and cover tightly with an old sheet. The result will be a joy when ironing.

Candyng Orange Peel.

Cut the peel, removed from the fruit in quarter sections, in strips of uniform thickness. Let cook in boiling water until very tender. Set aside until the next day. Take the original weight of the peel in sugar with enough water from the peel to dissolve it (half its weight). Boil and skim; add the peel and let cook until the syrup is nearly absorbed; pick out the strips of peel and roll them, while hot, one by one, in granulated sugar. Let dry on table oil cloth.

Spot on Ceiling.

"Idlelaze" kindly sends the following for the "Nooker" who asked how to remove a brine spot from a ceiling: "Paper" the spot with table oilcloth before papering with paper. This scheme also is effective for spots caused by leaking of sooty chimneys. Now, someone please give me a receipt for "Worcester Sauce."

Wall Paper Cleaning.

Wall-paper may be cleaned in several ways: (1) Brush the walls down well with a broom over which has been tied a large bag of old clean flannelette, changing the bag as often as necessary. (2) Brush down with pieces of stale bread or dough, changing frequently. (3) Brush with a cheesecloth bag filled with cornmeal and whiting. (4) If the paper is very much soiled get one of the wall-paper cleaners sold for the purpose and follow directions.

Milkweed Sprouts.

Don't forget that young milkweed sprouts, if cut when nicely up and before they get hard, are very good to eat when boiled and served hot on toast with milk sauce.

Care of the Eyes.

Dr. Charles Cushing, in World's Work, advises great care in diet to those who suffer from eye troubles. Constipation must be avoided and the general health kept up; stimulants—even excessive use of tea and coffee—must be done away with, also the use of tobacco. No eye-work must be done at night, and in some cases, in addition to all this, the services of a skilled oculist must be enlisted.

Watch the Expression of Your Feet.

"Just watch the expression of your feet!" shouted a small boy, as he raced by on the sidewalk, where a number of little girls were jumping rope. The saucy phrase recurred to the mind of the college professor, when, a few minutes later, she met the committee of five girls, whom she was to help plan a public entertainment for their literary society.

The chairman lost no time in presenting the work of the committee, and showed the efficiency of a trained mind and the natural ability; but the professor observed that the position of her feet was strange. She had one foot twisted round the chair-leg, and with the other she kept her rocking-chair in vigorous motion. Another member of the committee spread her feet at least thirty inches apart, and also rocked. Two of the other girls sat with their knees crossed, showing their perfectly neat black petticoats and

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The "New-Way" is a thoroughbred—sturdy, reliable, easy and economical to run and free from the troubles so common to the ordinary farm engine.

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It tells all about the many uses for a "New-Way" engine on the farm. It tells how the "New-Way" will make money for you every day—how it may be harnessed to any belt driven machine and made to saw wood, cut the ensilage, pump the water or perform any heavy duty within its full rated horse power.

It describes the "New-Way" system of direct cooling which requires no water. Water is always a source of trouble by freezing in the winter or boiling away in summer. The catalogue explains all the many points of "New-Way" superiority, points which put this engine in a class by itself.

TEAR OUT THIS ADVERTISEMENT

Write your name and address on the margin, mail to us. We will send the catalogue free.

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Sow Beans in rows 30 inches apart—90 pounds of seed to an acre—or in hills 30 inches apart (cultivate both ways), requiring 40 pounds of seed per acre.

White Field Seed Beans, the standard kind to grow for Shell Beans for winter use—10 lbs., \$1.70; bush. (60 lbs.), \$9.90.

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Gold Coin and Green Mountain Seed Potatoes—Peck, \$1.00; bush. (60 lbs.), \$3.90.

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Also at MONTREAL, WINNIPEG, VANCOUVER

excellent, sensibly shaped shoes. The fifth girl sat on the edge of her chair, leaned back, and stretched her feet out before her as far as possible. The professor longed to say to those really refined and earnest young women, "Watch the expression of your feet!"

Then she glanced at her own feet, in the expectation of finding them "near together," "one slightly advanced," "both delicately pointing outward," in accordance with the precept of her grandmother's boarding-school. Alas! although her feet were indeed near together, they toed in until the heels rested on their sides.—Youths Companion.

Garden Accessories.

There are several small accompaniments to our garden which add much to our outdoor comfort and happiness. First among these I place the summer-house. Here, in balmy weather, is where we doze in the hammock, or entertain our friends at luncheon. We would not part with this accessory to our garden for twice what it cost us to build.

Next in importance as a garden acces-

sory I place the rose arbor. Ours is not an elaborate affair, but was so situated as to separate the front of the house and the lawn from the garden proper. Our rose arbor is simply a rounding, trellised arch, about four feet wide, having a seat on either side. On one end of the arch we planted the Baltimore Belle, sometimes called the "five sisters," because the blossoms appear in clusters of five, or thereabouts, all springing from the same stem. On the opposite end of the arch is the Prairie Queen. The combination of the pink roses with the white is very pleasing. We also have several grape arbors, which served the double purpose: first, forming a suitable dependence for the vine and its heavy clusters of fruit, and, second, serving as a delightful resting-place when in the garden at work.

We derive much pleasure from our rockery. Where there are large stones partly sunken in the soil, it is easy to utilize them in this way. We planted ferns and wild flowers about some, nasturtiums about others. The stumps of old trees can be converted into objects of beauty by covering them with vines.

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.

ANNESSEY'S 200-EGG STRAIN INDIAN Runner ducks. Lay more, eat less, more profitable than chickens. Send for circular and prices. John Annesser, Tilbury, Ont.

BUFF ORPINGTON HATCHING EGGS, \$1.00 for 15. Nine chicks guaranteed. Extra heavy layers and silver cup winners. Hugh A. Scott, Caledonia, Ont.

BLACK SPANISH BRAHMAS, WHITE Leghorns, Hamburgs, White Guineas, Pearl Guineas, Bourbon Red Turkeys, bred right, priced right. Send stamp for mating list. John Annesser, Tilbury, Ont.

ANCONAS, WINNERS AT OTTAWA; WHITE Wyandottes, bred-to-lay; R.-C. White Leghorns, headed by 1st Ontario cockerel; S.-C. White Leghorns, choice stock; eggs \$1.50 per setting. Peterson Bros., Warkworth, Ont.

BLACK MINORCAS—ROSE AND SINGLE- comb, one dollar per setting. Prompt delivery. Fred Reikie, Camperdown, Ont.

CLARK'S FAMOUS BUFF AND WHITE Orpingtons; exhibition and laying strains; 18 years a specialist; 20 breeding pens Toronto National and Ontario Guelph Show winners. Eggs, \$2, \$3 and \$5 per setting. Grand utility laying strains, \$1.50 per 15; \$4.00 per 50; \$7.00 per 100. O. A. C. bred-to-lay Barred Rocks, direct from college best strain, \$1.50 per 15; \$4.00 per 50; \$7 per 100. Mating List free. J. W. Clark, Cedar Row Farm, Cainsville, Ont., R.R. No. 1.

EGGS FOR HATCHING—SINGLE-COMB Brown Leghorns from imported stock, mated with vigorous cockerels; very persistent layers, setting 100 eggs daily from 220 hens. Price \$1 per 15; \$2.25 per 40, or \$5 per 100 W. C. Shearer, Bright P. O., Ont.

FAWN AND WHITE INDIAN RUNNER duck eggs, \$1.00 per 15 eggs. Hastings Bros., Crosshill, Ont.

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

LARGE PEKIN DUCKS; PRIZE-WINNING stock. Hatching eggs, \$1.50 for fifteen. Wainwright & Woodcock, Seagrave, Ont.

MUSCOVY DUCKS, AND EGGS FOR HATCH- ing. Apply J. A. Tancock, R.R. 1, Hyde Park, Ontario.

MAMMOTH BARRED ROCKS. WE HAVE bred for heavy weight and persistent laying qualities, and we think we have succeeded. Eggs from three choice matings. John Annesser, Tilbury, Ont.

O. A. C. BRED-TO-LAY, SINGLE-COMB White Leghorn eggs. \$1.00 per setting of 15 eggs, \$4.50 per 100 eggs. Day-old chicks, 15c each. R. J. Graham, Saint Williams, Ont.

RINGLET BARRED ROCKS. PURE-BRED trapnested, heavy winter layers. Beauty and utility combined. Setting, \$2.00. 100% fertility guaranteed. Book order now. Particulars, F. Coldham, Barryfield, Kingston, Ont.

REGAL DORCAS WHITE WYANDOTTES— New York State Fair Champions. Hatching eggs, \$3 and \$5 per setting. Send for free illustrated catalogue. John S. Martin, Drawer F., Fort Dover, Ont.

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

WHITE WYANDOTTES A VERY CHOICE lot, exceptionally well-bred. Eggs \$1.50 per 15. Herbert German, Paris, R. R. No. 1, Ont.

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

I am also fond of my granite urn, which is ornamental as a garden accessory. Small plants thrive wonderfully in these receptacles. We have also found that century plants, calla lilies, Mexican lilies, amaryllis, and oleander plants, grown in tubs, are ornamental when scattered through the garden or on the outskirts of the lawn.

Where one has ample grounds and is desirous of a more formal effect in the line of garden accessories, there is the Japanese pergola, the sun-dial, and the pond-lily basin.—Suburban Life.

Smiles.

Keep your eye on Mesopotamia—Earl Curzon.

It is certainly an interesting fact that Maude is in the Garden of Eden.

His Strong Point.—"Is your husband much of a provider, Malindy?" "He jes' ain't nothin' else, ma'am. He gwine to git some new furniture providin' he gits de money; he gwine to git de money providin' he go to work; he go to work providin' de job suits him. I never see such a providin' man in all mah life."—San Francisco Chronicle.

Current Events.

According to statistics issued on April 20th, there were then 19,459 Canadians in the hospitals of the United Kingdom, suffering chiefly from wounds and tuberculosis.

A movement is being agitated to secure an elective Senate in Canada.

Ex-Premier Viviani and Marshal Joffre, of the French Commission to the United States, spent the week-end in Canada. Hon. Arthur Balfour visits Toronto this week.

The British Government is considering State control of the liquor trade. In the Dominion Parliament last week Mr. Devlin urged that measures be taken to stop the waste of grain which is being used up in the Dominion breweries and distilleries to make intoxicating drink. The materials used are barley, wheat, rye, sugar, corn and molasses. It was shown that last year in Canada there was consumed in the manufacture of liquor, 2,353,273 bushels of barley, 589,394 of corn and 128,801 of rye.

Great Britain's meatless day is to be abolished because it was found that it increased the demands on breadstuffs to make up more than the difference.

Bolivia has severed diplomatic relations with Germany. The Chinese, after a riotous scene in their House of Representatives, have refused to approve a declaration of war against the Teutons. Relations between Germany and Spain are becoming more and more strained.

The United States will loan Great Britain \$100,000,000 to help out the war expenses in May.

More and more frequently, since the Russian revolution, come whispers of an impending revolution in Germany. Evidently the Kaiser and his advisers are becoming afraid of the possibility, for they are hurrying reforms as they never would do otherwise, most of all when the country is torn with war as at present.

Local option has been passed by both Houses of the New York State Legislature.

The United States Senate on May 13th, passed an Act forbidding the use of grain, sugar and syrup for the production of intoxicating liquor during the war.

During the week terrific and almost continuous fighting has taken place in Northern France, where the line has wavered back and forth, with results, at time of going to press, in favor of the Allies, with the exception of the village of Fresnoy, which was regained by the Germans after a fierce struggle with the British troops. British forces, splendidly assisted by Australians, have taken Bullecourt and Roex, while, south of the Souchez River, in the Lens Sector, they regained the positions which, for a time, they had lost. Here they fought against the troops of the Bavarian Crown Prince, and in the face of liquid fire used by the enemy. North of Fresnoy the Canadians have been engaged, and along the Chemin-des-Dames, after two days brilliant work, Gen. Nivelle's Frenchmen have taken 19 miles of front. While all this fighting goes on on the land, aerial combats take place daily, the one side attempting to take observations, the other striving to prevent them. Last week the greatest battle fought in the air so far took place, 5 British planes engaging and defeating 27 German planes, of which 8 were wrecked. Nearly all of the British aviators were new men, quite unaccustomed to fighting. The Italians, are again preparing for a big drive along the Austrian front, while in Macedonia the British have gained 4 miles of trenches near Lake Doiran. The Allies in Greece, including Venizelist troops who are fighting with them, have also engaged in bitter fighting against the Bulgarians in the Cerna salient and elsewhere, and report satisfactory progress.

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 4 to May 11: Arthur Richardson, R. 4, Embro, \$5.00; "One Who Cares", London, Ont., \$1.00; Mrs. A. D. Johnson, Bickford, Ont., \$2.50; P. A. McDonald, Stratford, Ont., \$1.00.

For *Byron Military Hospital*: Mrs. A. D. Johnson, Bickford, Ont., \$2.50. The amount received so far for the *Farmer's Advocate Readers'* ward in this hospital is \$345.35, leaving \$154.65 to be made up in a month's time. If everyone who reads this will send even 25 cents the amount will be realized, and more, so that something will be left over for the soldiers in Europe.

Total amount previously acknowledged.....\$4,474.70

Total to May 11th.....\$4,486.70

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

The Windrow

Alfred Noyes, English poet and lecturer, has been in Canada for the past fortnight.

John Burroughs, American naturalist and author, who recently celebrated his 80th birthday, has been presented with a medal by the American National Institute of Arts and Letters.

There are at present two Chinese women students at Toronto University. They are studying Canadian institutions and social service enterprises.

Three million acres of previously uncultivated land are this year being put under crop in England.

"Every available foot of vacant land in New York, including some of the city's small parks, is to be placed under cultivation."—New York Tribune.

General Goethals, who carried out the construction of the Panama Canal, will assume supreme command of the construction of the thousand wooden ships which are to be rapidly built in the United States to carry food to the Allies.

Miss Marian Bostock, daughter of Senator Bostock, Liberal Leader in the Canadian Senate, has passed the first part of the examination for the London degree F. R. C. S., L. R. C. P. She is the first woman from the overseas Dominions, and the seventh in Britain, to win the standing. Miss Bostock is now acting house physician in the Queen's Hospital for Children, Hackney.

"We may take it as an assured fact that when the war is over we shall have some sort of a league of nations formed in the interest of peace. . . . And we must have universal service, which is the only effective and only democratic form of service."—The Bookman.

A collection of relics of the Bronte family recently announced for sale in London exposed this sort of hero-worship to just ridicule. The New York "Nation" noticing the catalogue, wrote:—"Among the items is Emily Bronte's toilet comb solemnly certified to have been 'used by her on the day of her death with some of the teeth burnt or broken away.' Another lot is an oak chair from Top Withams Haworth, known to readers of Emily Bronte as Wuthering Heights. It is accompanied by a letter written on behalf of the widow of the original possessor, stating that 'the Misses Bronte used often to come and see them and had sat in the chair'—whether both together or in succession deponent sayeth not. A choice lot enriched by the inevitable letter attesting their genuineness is 'a kitchen table from Haworth Vicarage and a china teapot with pewter lid used in the kitchen. There may be some justification for the enthusiasm that would invest these homely objects with a measure of sacredness, but when we come to a 'lock of the hair of the Rev. P. Bronte, his spectacles, and a pair of his white clergy-

man's bands,' we are certainly in the marle of bathos. The reverend gentleman was a surly, selfish recluse, who gave neither sympathy nor encouragement to his gifted daughters. Worse still is the offer of their brother's 'walking stick of knotted wood' accompanied by a framed certificate that 'the stick' was given by Patrick Bronte to J. Briggs in the parlor of Black Bull Inn at Haworth'—probably for a pot of beer. Patrick Bronte was a drunken, dissolute reprobate, who gave years of pain and tribulation to his sisters. If he were still alive, his walking stick of knotted wood might be put to better deserved purpose than being submitted to auction in a London saleroom."

Speaking of the Kaiser, Joseph McCabe, a brilliant English writer, says: "The Kaiser is the Caesar Borgia of modern times. I have studied both men minutely. When I wrote my life of the Kaiser I was honestly puzzled, and I was lenient. Since then I have, for a forthcoming historical novel of mine, had to study Caesar Borgia in his youth; and I see remarkable parallels. This war has been the secret dream of the Kaiser's life. He has been one of the great dissemblers of history; a clever, sinister man with mediaeval ambition in its worst form, the ambition to purchase territory by blood. He remodeled the school system of Germany solely to prepare the nation for this war."—New York Times.

How Townspeople Could Help?

EDITOR "THE FARMER'S ADVOCATE": While the continual advice readily given by our town and city friends to farmers has afforded considerable amusement, yet, the matter becomes more serious when they ask legislation to hamper the farmer in his farm management. I understand they now propose asking legislation to prohibit the killing of lambs, calves and young pigs. We will look at the situation as it confronts the live-stock man, who is in the business for what there is in it. The production of lambs for the lamb market is the most important part in the sheep-breeding industry. It is a well-known fact that after a lamb becomes seventy-five or eighty pounds in weight its flesh becomes less desirable, and lambs of this kind will not bring as much per head when they weigh one hundred and thirty or forty pounds, which puts them in the mutton class. Thus the farmer loses the feed they consume and realizes no more on his lambs. As to beef production, surely the farmer knows, if he knows anything, that while he now realizes a very small profit in feeding cattle of the choicest beef breeds, that with inferior, nondescript, or dairy type he would be feeding at a loss of fully thirty per cent. And with pigs, the hog raiser certainly knows whether it would be more profitable and patriotic to market them at an early age, or even to destroy the weaklings and sell the grain to supply Great Britain and her Allies with foodstuffs. My rule has been to destroy all weaklings—calves, lambs or pigs that would be unprofitable to raise. Young, mal-formed or diseased animals seldom develop into healthy food producers.

Who is to blame for the high prices of all foodstuffs to-day? I might draw the attention of dog-owners in cities, towns and villages to the destruction of and menace to sheep husbandry which these curs are. They eat more than the crumbs that are dropped from the table. There is no indication of a war-tax being placed on them. Could a starving nation afford to feed dogs?

What is it, but the highly bonused factories of the towns that has induced the farm help to leave the farm and become consumers instead of producers, which very materially widens the gulf. If the depletion of farm help continues much longer food prices will soar higher still. Nothing said about the methods of marketing to give the farmer prices commensurate with goods sold and cost of production. What about sudden drops in pork prices which have been experienced in the past? Our city cousins would do producers and consumers a favor if they would ask the Government to investigate the matters complained of.

W. J. WESTINGTON, Northumberland Co., Ont.

Question

Planting Ne

Is it advisable to plant potatoes in New England?—We have potatoes should

Is alfalfa m

pigs? What fed with it t for young pig ing pigs? If the cutting-bo running it th

Ans.—Alfalfa comparatively young and green. In "Producti G. E. Day, conducted in which various alfalfa are a fattening than half alfalfa and satisfactory years' experi fattening hog when alfalfa and 50 lbs. c in the ration the finest an fed. Alfalfa portion of p valuable for It might be finely ground when it is fe considerable For fattening largely of co may be fed a box, without crusher.

Do you f

powders for 2. What mare? We linseed oil a without res a mare in

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Ans.1. T powders ca toning up

2. Take of iron and of calomel; r Give a pov damp feed. way, mix w Starve for t and give a nant, feed p hours after is a mil la jurious if g

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Questions and Answers.
Miscellaneous.

Planting New Brunswick Potatoes in Ontario.

Is it advisable to plant Irish Cobbler potatoes in Elgin County which were grown in New Brunswick? E. C.

Ans.—We see no reason why these potatoes should not mature properly.

Alfalfa For Pigs.

Is alfalfa meal of any value for feeding pigs? What kind of grain should be fed with it to make a balanced ration for young pigs, growing pigs, and fattening pigs? If the alfalfa is cut fine with the cutting-box, can the meal be made by running it through the grain thresher? E. H.

Ans.—Alfalfa in any form has a comparatively high value for feeding young and growing pigs and brood sows. In "Productive Swine Husbandry", by G. E. Day, the results of experiments conducted in Nebraska are given, in which various proportions of corn and alfalfa are tested. It was found that a fattening ration should contain less than half alfalfa, but a ration of half alfalfa and half corn was found quite satisfactory for brood sows. With five years' experiments it was found that fattening hogs made satisfactory returns when alfalfa was fed without grinding and 50 lbs. of the hay was worth more in the ration than a bushel of corn. Only the finest and brightest hay should be fed. Alfalfa meal contains a large portion of protein which is especially valuable for young and growing pigs. It might be fed with a little shorts and finely ground oats to young pigs, and when it is fed, corn can be utilized to a considerable extent for feeding shorts. For fattening hogs the ration can consist largely of corn and alfalfa. The alfalfa may be fed as it comes from the cutting-box, without putting it through the crusher.

Worms—Size of Disc.

Do you favor the use of condition powders for live stock?

2. What is a cure for worms in a mare? We gave her one pint of raw linseed oil and 2 ounces of turpentine without results. Will raw oil injure a mare in foal?

3. Are 15-inch discs too large for general use?

4. Is it lawful for a rural mail carrier to go into a private dwelling house along his route and stop for a considerable length of time? He claims he has to water his horse. C. L.

Ans.1. There are times when condition powders can be used to advantage in toning up the animal system.

2. Take 1½ ounces each of sulphate of iron and sulphate of copper and 1 oz. of calomel; mix and make into 12 powders. Give a powder night and morning in damp feed. If it is not eaten in this way, mix with a little water and drench. Starve for ten hours after the last powder and give a physic if the mare is not pregnant, feed bran only for twenty-four hours after giving the physic. Oil is a mild laxative and should not be injurious if given in small doses.

3. Fifteen-inch discs are larger than the average in use, but we see no reason why that size should not give satisfaction. They should draw more easily than the smaller size.

4. A rural mail carrier has a certain time in which he must cover his mail route. On long routes where they are out practically the entire day, it is necessary that horse be fed and watered. If it is not considered that he is doing his work properly it would be necessary to lay a complaint.

The Berliner Tageblatt states that the Socialists in Germany are asking for sweeping reforms in the Constitution. From Copenhagen comes the news that Germany is at present torn by peace talk, with a sharp division between the Socialists and the Pan-German League. The Socialists want peace with neither indemnities nor annexations. The Pan-German League call for both indemnities and annexations, and greater power all the way round for Germany.

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packing, etc. Agents wanted. Write address
plainly. DR. BELL, V. S., KINGSTON, ONT.

Advocate Ads Pay

Questions and Answers.
Miscellaneous.

Operating for Stringhalt.

Can a horse be successfully operated
on for stringhalt? C. M. R.

Ans.—It is possible to partially remove
the trouble by cutting the tendon or
tendons of the muscles. However, it
is doubtful if the operation is practicable.
Stringhalt is an unsoundness for which
there is no sure cure.

Sweet Clover Heaving.

I find that my sweet clover plants are
practically all lying on top of the ground.
It was a good catch last fall. What has
happened? P. J. H.

Ans.—The frost is responsible for the
plants being heaved out of the ground.
The damage was done no doubt by the late
spring frosts. It is generally an advan-
tage to run the roller over a field
of clover that is heaved. The plants
which are only partly out of the ground
are pressed back into place.

Growing Potatoes on Shares.

A has a piece of sod, also the potatoes,
and would like someone to put it in on
shares as A has no means of working
the land. What would be the proper
share to each? G. A. G.

Ans.—It is rather difficult to say how
the crop should be divided with fairness
to both parties concerned. It depends
somewhat on the age and nature of the
sod also on the texture of the soil. A
tough blue-grass sod will require con-
siderably more work than a clover sod.
On potato land we would consider 60
per cent. for the owner of the land and 40
per cent. for the workman a fairly equi-
table basis of division. However, on
tough sod at a time when labor is high-
priced sharing equally might be fairer.

Books on Fruit Growing.

Can I secure a book on gardening,
fruit growing, grafting trees and budding
through your office? H. W. B.

Ans.—"Vegetable Gardening", by
Green, can be secured through this
office for \$1.10, postpaid; "The Pruning
Book", by Bailey, for \$1.60; "Principles
of Fruit Growing", by Bailey, \$1.90.
These latter two books discuss general
fruit growing and methods of pruning.

Miles Walked in a Day Harrowing.

I harrowed 33 acres of ground in one
day with a five-section harrow. How
many miles did I walk that day? H. W.

Ans.—The sections of the harrows
vary in width. However, estimating
that 12 feet is covered each time across
the field, you will have walked practically
23 miles. This is a pretty fair day's work.
If the harrows covered more than 12
feet at a stroke, the number of miles
would be reduced accordingly.

Drying a Cow—Potatoes for Planting.

What is the best method to force
a cow to go dry in order that she may
have six or eight weeks' rest before
freshening?

2. Potato eyes are offered for sale.
How much potato should adhere to
the eye for planting?
3. I purchased a bushel of potatoes
which were selected to weigh 2 ounces
each. Would it be advisable to cut them
in two? J. C. G.

Ans.—1. You might slacken off a
little on the feed, especially the suc-
culent portion of it. Milking at irregular
periods and only drawing part of the milk
at a milking will tend to dry a cow. Some
cows are such persistent milkers that it
is very difficult to give them the required
rest.

2. We have known crops of potatoes
to be grown from planting merely the
potato peelings. However, it will re-
quire a very favorable season to get
results from this method. A 2-oz. set
is recommended by some potato growers
but it is found that much less than this
will give results, although the practice
of planting too small a set is not to be
recommended. The larger the set the
less risk in an unfavorable season.

3. In an average season it is not
generally advisable to plant the small
potatoes. However, last year was rather
a peculiar season and the small tubers
are due largely to climatic conditions
rather than to inherent qualities. While
we might favor planting a 2-oz. set in
the average year, we believe you would
be justified in cutting these tubers in two
for planting this year, provided you get
one or more eyes to the set.



The Truth About Corns

You have read much fiction about corns.
Were that not so there would be no corns.
All people would use Blue-jay.

Here is the truth, as stated by
a chemist who spent 25 years on
this corn problem, and as
proved already on almost a bil-
lion corns.

"This invention—Blue-jay—makes
corn troubles needless. It stops the pain
instantly, and stops it forever. In 48
hours the whole corn disappears, save
in rare cases which take a little longer."

That is the truth, and millions

of people know it. Every month
it is being proved on nearly two
million corns.

So long as you doubt it you'll
suffer. The day that you prove
it will see your last corn-ache.

It costs so little—is so easy
and quick and painless—that
you owe yourself this proof.
Try Blue-jay to-night.

BAUER & BLACK
Limited
Toronto, Canada.
Makers of Surgical
Dressings, etc.

Blue-jay
Stops Pain—Ends Corns

15c and 25c at
Druggists
Also Blue-jay
Bunion Plasters

LIME IS BEING USED MORE AND MORE

If crops are not up to the mark, likely your soil needs Lime. Look back
to article in this paper, January 13th, 1916, pages 46 and 47.

At a time like this, when potash materials are so scarce and costly, lime
has a double value. It helps to bring the potash and phosphoric acid in the
soil to an available form, and results will show in your crops very quickly

Our lime-stone is the highest quality in Canada. Write for free folder,
giving facts of value to you.

Beachville White Lime Co., Ltd.

Beachville, Ontario

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

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Fertilizers Yield
Big
Results
Write for booklet.
THE ONTARIO FERTILIZERS, LTD.
WEST TORONTO

CLYDESDALES and AYRSHIRES

Two Canadian-bred stallions, rising 3 years old, sired by 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

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.
Bell Telephone **HILLSDALE FARM** Farm, 3 1/4 miles east of Ottawa
B. ROTHWELL
BREEDER OF HIGH-CLASS CLYDESDALES
Write me for prices on champion mares. R. R. No. 1, OTTAWA, ONT

Clontarf Farm **MANNING W. DOHERTY** Established 1820
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.

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**

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.

PEE
SHI

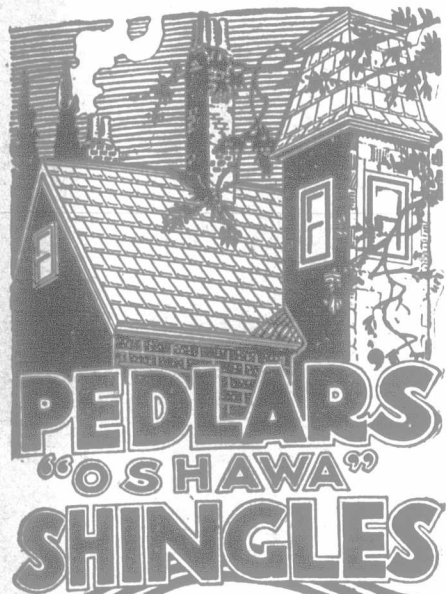
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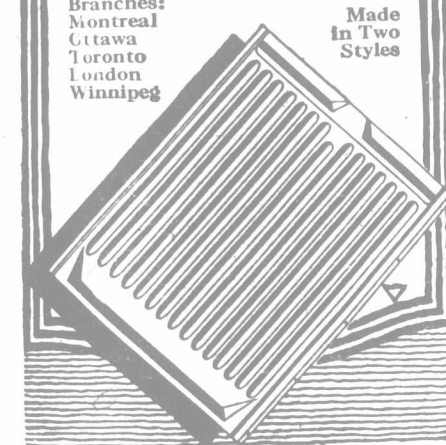
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"OSHAWA"
SHINGLES**

THE value of your home is judged most often by the wear-resisting qualities of the roof. Get permanence and security into your roof and you add a definite measure of value to your home. PEDLARS "OSHAWA" SHINGLES give you both, at small cost. Made of specially tested galvanized iron—cannot rust or rot or break away. Easy to put on. Locks weather-tight on all four sides. If you want your home to remain more valuable to you and others for years, it's time you Pedlarized your roof with "OSHAWA" Shingles. Write for "The Right Roof" Booklet L.F. to-day.

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Made
in Two
Styles



Wrest Hill, Ampthill, Bedfordshire, England.

Important Sale of the entire celebrated prize herd of

**Pure-bred
Dairy Shorthorns**

the property of the late Rt. Hon. Lord Lucas.

John Thornton & Co. will sell by auction on

Thursday, June 21st

at **Wrest Park,
Ampthill, Bedfordshire,**

this grand herd of Pure-bred Dairy Shorthorns, which contains a number of famous prize cows at the Royal and other Shows. The favorite Cranford and other good strains are well represented. The animals are one of the choicest lots that have ever been offered to the public.

Catalogues may be had of

**JOHN THORNTON & CO., 7 Princess
St., Hanover Square, London, Eng.,**

who will execute commissions and attend to shipment and insurance.

BALMEDIE ABERDEEN-ANGUS

Get a 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. **T. B. BROADFOOT, FERGUS, ONT.**

**May Wheat Exceeds the
Three Dollar Mark.**

Under date of May 4th, Canada Atlantic Grain Company, Ltd., of Winnipeg writes as follows regarding grain market conditions:

Wheat.—May wheat sold during the week at \$3.05 per bushel as a result of a condition which is entirely local, and perhaps unwarranted. The delay in the opening of navigation made it possible for the Line Elevator Companies to ship out the grain they hold in store at country elevators to deliver on the hedging sales they made in our May wheat. The railroads cannot load any more grain in the country until there is elevator room made at Fort William by shipments over the Great Lakes, and this prevented the elevator companies from filling considerable of their May wheat in time. They were therefore compelled to change over their hedges from May into July which results in forcing the May to \$3.05 per bushel. The Council of the Grain Exchange deemed it the wisest course to withdraw until further notice the privilege of trading in May and July wheat. As soon as navigation opens and the movement commences again from the country, the May and July wheat will undoubtedly be traded in as usual.

There is no material change in the situation otherwise. The demand from Europe continues very brisk, but shipments are moderate because of the shortage of ocean tonnage. Growing crop conditions in the winter-wheat belt of the United States are improving. Spring wheat seeding in the United States has been delayed somewhat by cool, wet weather, and the same condition prevails in the Canadian Northwest. Our cash demand is very poor, particularly for the low grades, although to-day, after considerable negotiations, the Government buyer is taking No. 5 wheat at 60c. under May and No. 6 wheat at 96c. under May. This is an improvement relatively of 26c. per bushel on No. 5 wheat and 24c. per bushel on the No. 6 wheat over the bid which the Government made yesterday. The American visible supply decreased 4,500,000 for the week. The total this year is 25,756,000 bushels against 48,864,000 bushels for the same week in 1916. The total World's shipments of wheat this week were 6,455,000 bushels compared with 11,813,000 bushels a year ago.

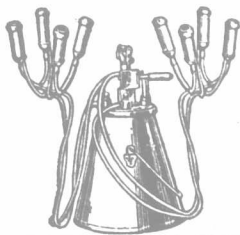
Oats.—May oats sold up to 77½c. The demand is as urgent as ever for our oats both from exporters and domestic consumers. Receipts are heavy but mostly low grade oats which cannot be delivered on the May future.

Barley.—May barley sold at \$1.25 and No. 4 barley at \$1.20 in store Fort William and Port Arthur. Considerable Canadian barley is still being shipped into Minneapolis, and a duty of 15c. per bushel paid on it. Exporters are beginning to inquire for all grades of barley from No. 3 down to the feed grade. The supply of barley is very light and any demand will quickly advance prices.

Flax.—The market continues strong. American crushers are absorbing the small receipts coming in from day to day. The cash situation is particularly strong because the Line Elevator Companies are covering their May hedges and re-ies are covering their seed in July, evidently intending to make every effort to ship wheat before they load out their flax. Argentine market has turned weak, and the Indian Government has taken over the flax crop of India at considerably below the present market price here and has arranged to ship same to Great Britain.

Tom Moore, the poet, was the son of a Dublin grocer. On one occasion, at a banquet, he had made some brilliant witticisms. A snob, thinking to humiliate him, leaned over the table to the poet and quite audibly said, in a drawing and quite a tone: "Pway, sir, wasn't your father a tone?" Moore smilingly replied that grossah?" Moore smilingly replied that he was. "Then, pway," continued the snob, "why didn't he make a grossah of you?" Moore quite affably retorted, "Wasn't your father a gentleman?" "Of course he was," was the rejoinder. "Then why," queried Moore, "didn't he make a gentleman of you?"

**"I could not have done without it
this Summer, as help is so scarce"**



Here is the experience of one of the scores of dairy farmers for whom the

**EMPIRE
Mechanical Milker**

is taking the place of the farm help they can no longer get, and enabling them to keep their herds together and take advantage of the prevailing high prices.

R. R. No. 3, INGERSOLL, ONT.

Gentlemen:—

I have used one of your "Empire Milkers" since early last April, on from 30 to 45 cows continually, and can find no injurious effects on the cows. They seemed to like it from the first time, and I think gave rather more milk than with the best hand milking. Easy cows seemed less inclined to leak, and hard ones gradually became easier. I have sent the milk a number of years to the Borden Condenser Company, and have had no complaints. I have just followed the instructions for keeping it clean. I could not not have done without it this summer, as help is so scarce. I may say further that I have been milking cows for over 50 years, and have been in the milk business nearly that length of time. I have had no previous experience with milking machines, but have had very little trouble or expense for repairs. I have used it on heifers never milked before, with perfect satisfaction, no matter how small their teats were.

The Milker has been of more practical value to me than I ever expected.

WILLIAM COLYER.

We will be glad to send you Booklets showing exactly how the Empire Mechanical Milker works, and telling the experience which dozens of prominent dairy farmers have had with it. Address Dept. C

The Empire Cream Separator Co. of Canada, Limited,
58 MONTREAL. TORONTO WINNIPEG.

**HINMAN
THE UNIVERSAL MILKER**



OVER

**26,000 HINMAN
MILKERS SOLD**

THERE MUST BE A REASON!

A success for 9 years. Be in good company, buy the successful machine. Write for FREE Booklet "H." and learn more about this simple machine.

H. F. BAILEY & SON, GALT, ONT.

Manufacturers under HINMAN patents

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, and 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, 1 LADY, 1 BROADHOOKS, 1 ROSEWOOD, 1 WIMPLE, 1 STAMFORD, 1 MERRY LASS, 2 DUCHESSES OF GLOSTERS and several others. Also equally well bred cows and heifers bred to (Imp.) ROYAL SCOTT, and BEAUMONT 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**

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 Farm, Brooklin, Ont.**

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.**

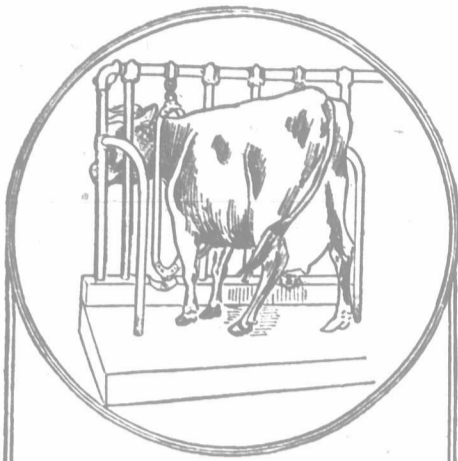
Spruce Glen Shorthorns of such popular strains as Minas, Fames, Miss Ramsdens, Florences, Emilya, etc. Have still a few young bulls—thick, mellow fellows, fit for service. **James McPherson & Sons, Dundalk, Ont.**

PARKHILL SHORTHORNS Herd comprising over 70 head, representing noted Scotch families. A few heifers, well in calf, will be sold right. Visitors always welcome to this herd of long-established reputation. **Parkhill, R. No. 2, Ontario R. S. Nicholson**

The Manor Stock Farm, SHORTHORNS Two young red bulls, a Wimple and a Julia, ages eight and nine months. Would buy a few females of good families. **JOHN T. GIBSON, DENFIELD, ONTARIO**

Welland District Shorthorn Breeders' Club are still offering young bulls of serviceable age, and a few breeding females. **Chas. Gainer, 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.,**



**A Contented Cow
is
A Profitable Cow**

ARE your cows contented? Are they profitable? If not, make them so by doing away with your old-time wooden stalls. They gather dirt, harbour disease germs, and prevent the free circulation of life-giving air and sunlight.

LOUDEN'S
Tubular Steel Stable Equipment is easily and quickly installed, and insures cleanliness and ventilation. Its use means comfort for your cows and profits for you.

GET INTERESTED. WRITE TO-DAY.
Our book, "Perfect Barn Equipment," and the service of our architectural department, are free.
LOUDEN MACHINERY CO. OF CANADA, LTD.
Dep 512 GUELPH, Ont. 5

**Scratches
and
Stocking**

—Are prevalent in cold weather irregular work and overfeeding induces both. A system tonic and blood purifier, such as

**FLEMING'S TONIC
HEAVE REMEDY**
will prevent these troubles and when developed, with Fleming's Veterinary Hoaling Oil will quickly cure them. Per box, \$1.

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Milton, Ontario

RAW FURS-HIDES

WOOL & C. SEND US YOUR SHIPMENTS—TO RECEIVE HIGHEST MARKET PRICES.

JOHN HALLAM, Limited
No. 9 Hallam Building TORONTO

For Sale—Four good Shorthorn females of choice Scotch breeding; two young cows in calf to an imported Augusta bull—also two yearling heifers. Must be sold at once; Prices right. Will meet visitors at Caledonia station. Allan Anderson & Son, Caledonia, Ont. R.R. 3, Haldimand Co.

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, G. P. R.

Mardella Shorthorns

Bulls, females, sires, quality; breeding dual-purpose cattle over 40 years. The Duke—dam gave 13,599 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-Purpose 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.

Questions and Answers.
Miscellaneous.

Preventing Self Sucking.

I have a Jersey cow which sucks herself. What can I do to prevent this?
J. J. M.

Ans.—Some put a halter on the cow and drive nails in the nose-piece, so that every time she touches her udder she receives a jab from the nails. Probably a better method is to put a ring in her nose and attach two common rings to it. These will hang in front of her mouth and prevent her from getting hold of the teats. The rings do not interfere with pasturing or feeding out of a manger.

Two Horses on a Spreader.

Do you consider a manure spreader that spreads a wide strip better than one that only spreads its own width? I want to operate the spreader with a two-horse team. My idea is that the time saved in unloading will not amount to very much by using a wide spreader and that it would be pretty hard work for two horses.
A. D.

Ans.—No doubt the machine that spreads a wide strip will unload faster than one spreading its own width. On plowed ground a spreader will be found rather heavy for one team. On soft ground it is heavy work at the best and where it is desirable to use only two horses we would prefer a small-sized machine. However, time is a consideration these days and if a third horse were available for a few days when hauling out manure, the work would be done more quickly with a big machine.

Disease in the Flock.

One of my hens stood around and gaped as if it had a barley awn in its throat. It made a wheezing sound when breathing. I killed the bird and found two large, cheesy lumps at the top of the tongue. One of the other hens became very weak and on killing her I found the liver enlarged and light in color. The bird appeared to have very good appetite. What ailed these two hens?
W. E. A.

Ans.—These lumps or tumors found on the tongue were evidently the cause of the gaping. It is difficult to state what would cause this condition, as it is only of local occurrence and it would be necessary to examine these lumps in order to accurately diagnose the case and prescribe a preventive or remedy. Lack of exercise and over-feeding with rich albuminous feeds, are the causes of many diseases of the liver. For enlargement of the liver part of the treatment consists in supplying plenty of green feed. Dandelion leaves are especially valuable. The birds should be given plenty of exercise and not fed too heavily. Tuberculosis usually affects the liver. It becomes enlarged and covered with lesions or raised tubercles which are filled with a cheesy substance. There is no treatment for this latter trouble, and infected birds should be destroyed to prevent the spread of the disease. Symptoms which accompany tuberculosis are lameness, and light weight.

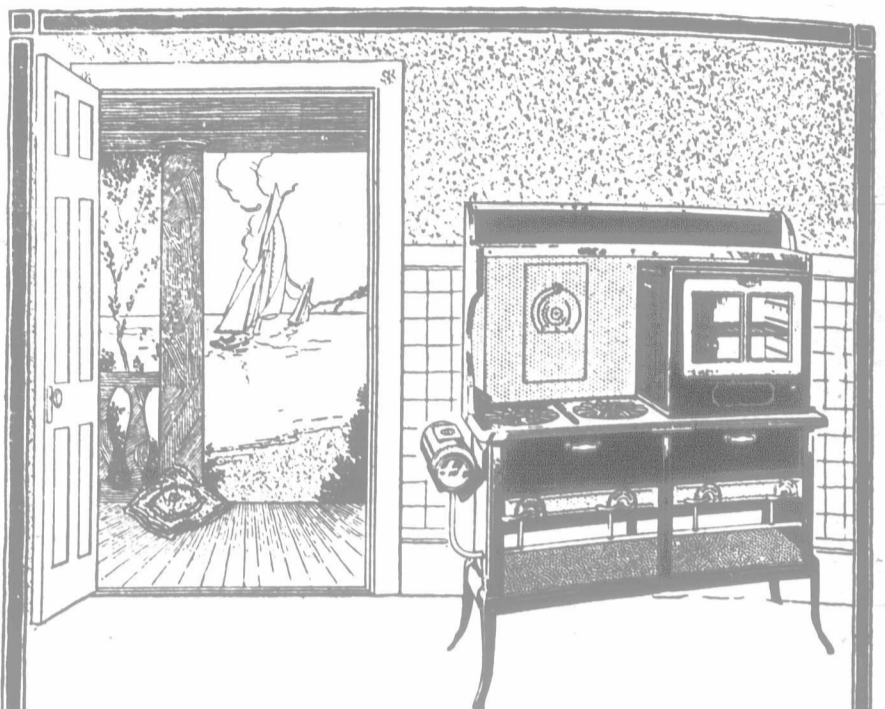
Veterinary.

Fatality in Horse.

While working, my horse showed illness about 3 p. m., when unhitched he lay down and rolled. I treated him for colic. He appeared all right about 7.30, but again became sick and continued to get worse until about 1 o'clock, when he died. Our veterinarian arrived about 15 minutes before death. A post-mortem revealed the bowels much inflamed and darkened. The veterinarian claimed the trouble was due to a twist in the bowels.
S. L.

Ans.—No doubt the veterinarian in holding the post-mortem discovered the "twist in the bowel" which, of course, checked all peristaltic action, caused inflammation of the bowels and death. No treatment would have been effective.
V.

Because of the Maritime situation, relations between Norway and Germany have become strained, and Norway is said to be trying to induce Sweden and Denmark to enter the war on the side of the Allies.



OIL gives quick heat, is easy to handle, readily obtainable anywhere—and you have a cool kitchen. That's reason enough for doing your summer cooking on a McClary's Florence Oil Cook Stove. Booklet free.

**McClary's
FLORENCE**

OIL COOK STOVES Wickless, Valveless, Blue Flame, Automatic

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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., ONTARIO.
Jos. McCrudden, Manager. Farm ¼ mile from Burlington Jct.

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

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.

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.
KYLE BROS., Drumbo, Ont. Phone and telegraph via Ayr

A Choice Offering of Shorthorn Bulls—We have several good, thick, 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.**

Shorthorns and Shropshires—T. L. Mercer, Markdale, Ont.

Have sold all the Shropshires I can spare this season. 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.

SALEM SHORTHORNS

Nothing for sale at present. Annual sale June 28th. Tel. 101, Elora, Ont

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.
A. G. FARROW, OAKVILLE, ONTARIO

IMPORTED SHORTHORNS

35 imported cows and heifers, forward in calf to service in Scotland, also five imported bulls. Our 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.**

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.

An Opportunity For Bee-Keepers.

EDITOR "THE FARMER'S ADVOCATE":
 Sugar is an important war food, its price is high and there will probably be a shortage in the near future. These conditions are affecting honey, the unequalled natural sweet that sugar can never wholly replace. The unusually large crop of honey produced in Ontario, Quebec and Manitoba in 1916 was sold quickly at prices slightly above those of the previous season, and present indications point to a still greater demand and higher prices for the new crop. By producing as much honey as possible this year, the beekeepers of Canada will not only increase their returns but will be helping the Empire. These remarks refer to extracted-honey. An increased demand for comb-honey cannot be predicted.

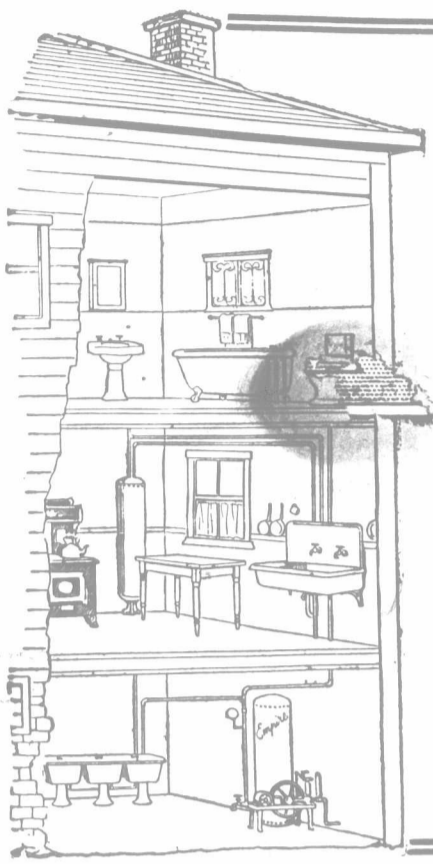
There are many apiaries in good localities for honey production, more particularly in Eastern Canada, in which the colonies, now in box hives or, in seldom-opened frame hives, producing from 20 to 40 lbs. of honey each in an average season, would produce 80 to 100 lbs. or more if managed well in proper hives. If time cannot be spared to give these bees the attention they need, they might be handed to a member of the family who would take an interest in them, or they might be sold to a professional beekeeper. But bees well cared for often pay as well as, or better than the regular occupation, considering the amount of time spent with them. The different operations in modern apiculture are briefly described in "Bees, and how to keep them" (Experimental Farms Bulletin No. 26, Second Series), which may be obtained free on application from the Publications Branch of the Department of Agriculture, Ottawa. A good way to become acquainted with improved methods of beekeeping is to arrange to attend one of the apiary demonstrations that will be held early in the summer under the auspices of several of the Provincial Beekeepers' Associations. A list of Beekeepers' Associations with addresses of the Secretaries is given in the bulletin.

The expert apiarist located in a good honey-producing region, whose time is not fully occupied with the bees, should plan to increase to the utmost the number of his bees in time for the honey flow, so as to make the most of his valuable knowledge of bee management. The early replacing of unsatisfactory queens is important. Judicious feeding during the dearth that in many places immediately precedes the honey flow will help under some conditions. Dividing strong colonies not less than seven weeks before the middle of the main honey flow will further increase the population in good time, provided a fertile queen is on hand to be given to the queenless part. These queens may be procured from breeders in the Southern States at 80 cents to \$1.00 each. This procedure, which will also check swarming, is chiefly applicable to the fireweed and goldenrod districts; as a rule the clover honey flow comes too early for it. Two pound packages of bees with untested fertile queens obtained from the South by express in May or early June, costing about \$3.00 each, will be found a paying investment if they arrive in good condition and can be placed on combs.

There should be a sufficient supply of supers for extracted honey, with frames and foundation, or combs, on hand to take a maximum crop, and this year it is more than ever necessary to order supplies and honey containers early. Two comb-honey supers may be fastened together to make a deeper super for extracted-honey production. Particulars of an attractive paper container for honey, that has been designed to meet a possible difficulty in obtaining sufficient tin pails or glass jars, will be supplied on application to the Apiarist, Central Experimental Farm, Ottawa. Beeswax is very scarce and all discarded combs and scraps of wax should be saved to be turned into foundation. It will be wise to retain some combs of clover honey in case they are needed for winter stores because sugar may be very dear in the autumn.

F. W. L. SLADEN,
 Apiarist, Dominion Experimental Farms.

General Petain, the hero of Verdun, has been made Chief of Staff of the French Ministry of War.



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The most important announcement of the year.

40 HOLSTEINS 40

Thirty Females Ten Bulls

1883—The Old Reliable Spring Brook Herd—1917
 will be dispersed by Public Auction, at the farm,

Breslau, Ont., Wednesday, May 23, 1917

The best breeding and the best lot individually that has come into any sale-ring this year. The more mature females are all direct descendants of the old imported cows that laid the foundation for the Spring Brook Herd in 1883.

Twenty of the younger cows and heifers are daughters of the great 32.17-lb.-bred son of Pontiac Korndyke, Sir Korndyke Boon. The young bulls, most of which are of serviceable age, are all sons or grandsons of this great Pontiac Korndyke sire. His daughters are nearly all fresh, or safe in calf to our junior sire, Sir Echo Posch, a son of Inka Sylvia Beets Posch, who is also the sire of May Echo Sylvia, the champion milk producer of the world. His dam is a sister to Lulu Keyes, 36.40 lbs. of butter in seven days. Sir Echo Posch will be sold subject to a reserve bid.

Apply for catalogue early. Cattle will all be sold between trains.

Those from points south will be met at Kitchener on morning of sale.

A. C. Hallman, Spring Brook Farm, Breslau, 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 Pietertje 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. Prices, extended pedigrees and photos on request. Correspondence solicited. All faultless individuals. Oak Park Stock Farm R. R. No. 4, PARIS, ONT., CANADA. W. G. BAILEY.

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.

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—as the others did. GRIESBACH BROS., COLLINGWOOD, ONT.

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 1/4 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, 156.92 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.

DUMFRIES FARM HOLSTEINS

175 head to choose from. Special offering: bulls from one month to one year old. Grandsons of Prince Aaggie Mechthilde. Visitors always welcome. ST. GEORGE, ONT. S. G. & ERLE KITCHEN.

Silver Stream Holsteins

Herd headed by King Lyons Hengerveld, whose five nearest dams average 30 lbs. butter in 7 days. Bull fit for service; 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. MOGK & SON, R. R. No. 1, Tavistock, Ont.

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"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, phone, or wire for prices.

CRAMPSEY & KELLY
 Dovercourt Road, Toronto, Ont.

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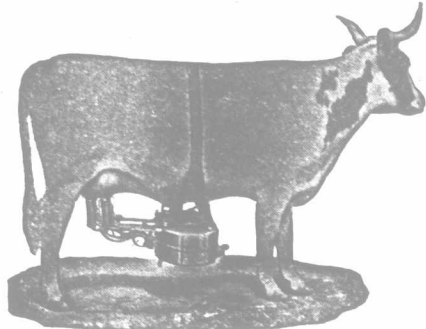
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Excerpts from an article in the "Implement News":
"One of the most important needs of users of milking machines is that of quick cleaning. It should be done properly at the proper time. The machines should never be allowed to stand until the casein hardens on the rubber tubes or cups."

Omega has NO RUBBER TUBES

Short, transparent celluloid tubes take the place of long rubber ones. They do not decay or harbor germs, and are easily and quickly cleaned. This is an exclusive OMEGA feature; another is that the pull and milking parts are suspended from the cow's back, and the teat-cups cannot fall to the floor and suck up filth.

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for illustrated booklet describing the many exclusive features of the OMEGA.

C. RICHARDSON & CO.
St. Mary's, Ontario

Size of Potatoes For Planting.

EDITOR "THE FARMER'S ADVOCATE":
The average yield of potatoes per acre in Ontario in 1916 was 53 bushels. The next lowest yield in the last thirty-five years was 76, and the average annual yield for the whole period, 114 bushels per acre. Considering both yields and prices of seventeen different farm crops, those which gave the greatest returns per acre in Ontario in 1916 were as follows: potatoes, \$78; turnips and other field roots, \$76; beans, \$63; husking corn, \$39; and fall wheat, \$33. It will be seen that the highest returns were obtained from the cultivated crops.

According to the present prices, the food value of rice purchased for one dollar is equal to that of potatoes costing two dollars. Rice can be used as a vegetable to take the place of potatoes. Seed potatoes are exceedingly scarce and people throughout the Province are eating potatoes which should be retained for planting. Those farmers are wise who retained their potato crop for seed purposes even though they were criticized for not bringing them to market. I would suggest that those having seed potatoes for sale, beyond local requirements, advertise in local agricultural or daily papers.

In normal years, it is economy to cut good sized potatoes in sets varying from one ounce to two ounces each. In the average of ten tests conducted at Guelph in five years the following average annual yields per acre were obtained from good sized potatoes cut into pieces of different weights as here indicated: two ounces, 150 bushels; one ounce, 130 bushels; one-half ounce, 109 bushels; one-quarter ounce, 98 bushels; one-eighth ounce, 79 bushels; and one-sixteenth ounce, 37 bushels. Small potatoes are frequently produced from scrubs or from diseased tubers. The potatoes produced in Ontario in 1916, however, were exceptionally free from rot and were unusually small owing to the growth being arrested by unfavorable weather conditions. Potatoes did not thoroughly mature last autumn, and immature potatoes are inferior for table use but make excellent seed. At this particular time, therefore, potatoes, the size of hens' eggs or even smaller, might be used for seed to good advantage. These could be cut into pieces even as small as one-quarter ounce each and could be planted in rows twenty-eight inches apart with the pieces twelve to fifteen inches apart in the rows. They should be planted the same day that they are cut. Where good seed is unobtainable whole potatoes, not more than one-quarter to one-half ounce in size might be planted with the prospect of receiving moderate returns. It would be an advantage to spread out the small potatoes in a warm, light room for two or three weeks to allow them to sprout before planting.

The usual time for planting potatoes for best results is from the 15th to the 25th of May. Potatoes do well on sod land. If it is impossible to get the land ready before the time mentioned, the sod might be plowed to a depth of about four inches and the potatoes planted in every third furrow; after which the land could be rolled immediately and then harrowed to press the soil around the potatoes and to conserve moisture.

According to present indications, the acreage of potatoes will be less than usual this year. With the possibility of a famine in food materials, great care should be exercised by both the farmers and the city gardeners in growing the crops of highest value, in using the best seed obtainable and in economizing labor.

O. A. C., Guelph. C. A. ZAVITZ.

Lord Percy, ship expert with the British party, at present visiting Washington, stated that the rate of construction of British and American ships is not keeping pace with the destruction by submarines, and urged that every effort be made to supply the deficiency, both in destroyers and freight ships. The United States is undertaking to provide as soon as possible 1,000 wooden ships to be used as food-carrying vessels. Submarines will have to shell these vessels, which cannot easily be torpedoed, and as all will be armed, great things may be expected of them. Two of the Hamburg liners seized in New York have been handed over to the Allies, one to France and the other to Italy.

MANOR FARM

KING SEGIS PONTIAC POSCH
SENIOR SIRE IN SERVICE AT MANOR FARM
Sire King Segis Pontiac Alcartra (the \$50,000 Sire)
Dam Fairmont Netherland Posch (32.59 lbs. at 4 yrs. old)

My two little boys advertised last week, are sold. I have a few babies left, really good ones, from 19-lb. two-year-olds to 26-lb. Jr. four-year-olds. Just drop a line for extended pedigrees and photos, or better still, call and look them over, and also see their daddy, who will be pleased to see you.

Yours truly,
KING.

GORDON S. GOODERHAM
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At Service
MAY SYLVIA PONTIAC CORNUCOPIA

His dam, May Echo Pontiac is a grand individual, never tested on account of accident but still with a three-fourths udder, with a possibility of being tested this season. She is a daughter of May Echo Sylvia, the world's greatest combined milk and butter cow, who is dam of Avondale Pontiac Echo, now eased to Messrs. Burnaby and Wallace. Also dam of champion Sylvia Echo Pontiac, Mr. A. C. Hardy's herd sire, the only 41-lb. sires in Canada. May Echo Pontiac's sire, King Pontiac Artis Canada has more high-testing two-year-old daughters than any bull in Canada; also a great many three-year-olds with high tests.

Book your orders early as only a limited number of cows bred.

W. F. ELLIOT, Secretary, Bell Phone, UNIONVILLE, 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 LeStrange, 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

SUNNYBROOK FARM HOLSTEINS

Extra Special Offering for April and May in several bull calves, from good official record dams and by our own herd sires, Sunnybrook Mercedes Natoye and Sir Natoye. We are far too heavily stocked. These may be had at prices that should move them quick. Write us also for anything in females. We have ONE HUNDRED head to choose from.

JOSEPH KILGORE, Sunnybrook Farm, EGLINTON, ONT
Phone: Toronto, Adelaide 3900, or Belmont 184.

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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

HIGHLAND LAKE FARMS

Herd sire, Avondale Pontiac Echo (under lease) a son of May Echo Sylvia, the world's record cow for milk production, and Canadian record for butter, 41 lbs. Only one other 41-lb. bull in Canada. Our herd of one hundred includes nearly fifty daughters of a 33.31-lb. son of the great King Segis, brother to the sires of three world's record butter cows: Mature, 50.68; sr. 4-year-old, 46.84; jr. 4-year-old, 40.32 lbs Junior herd sire, King Segis Pontiac Canada, a half brother to Avondale Pontiac Echo, out of a 30-lb Segis cow. He is for sale.

If this combination of breeding interests you, write for prices on either male or females.

R. W. E. BURNABY, Farm at Stop 55, Yonge Street Radial, JEFFERSON, ONTARIO

SUMMER HILL HOLSTEINS

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 80 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. Phone 7168

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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
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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**

11 months and under; also 1 cow; 8 heifers, freshening from March till September, from tested and untested dams.

R.M.Holtby, Port Perry, Ont., R.4

RIDGEDALE HOLSTEINS offers these young bulls (one ready for service) at special prices. One by Pontiac Hungerveld, Pretoria, and the others are by King Segis Pontiac Duplicate. Can also supply a few females. **R. W. Walker & Sons, Port Perry, R. R. 4, Manchester, G.T.R., Myrtle, C.P.R.**

Willowlea Holsteins \$50 takes a bull calf 5 months old, from a 65-lb. dam; \$125 will buy a choice 2-year-old heifer in calf. The sire is from a dam with 12,000 lbs. milk in 8 months. Visitors welcome.

A. E. MIGHT, Brampton, Ont., R.R. 6

Questions and Answers. Miscellaneous.

Tanning a Skin.

Can a deer skin be tanned at home to make lace leather? How is it done? V. A.

Ans.—While there are recipes for tanning hides at home, it is much more satisfactory to send to a tannery. The following is a recipe for tanning hides: soft water, 10 gallons; wheat bran, 1/2 bushel; salt, 7 lbs.; sulphuric acid, 2 1/2 lbs.; dissolve together and place the skins in the solution and allow them to remain 12 hours, then remove and clean them well and again immerse twelve hours longer. Skins may then be taken out and washed and dried.

Keeping up a Road.

I live on a concession road which has been neglected and has become impassable. Can I compel the council to make this road passable? Have parties who drain their farms on the road a right to stop there with the drain? J. F. D.

Ans.—In many districts the roads are kept up by statute labor. If this does not suffice to keep the road passable, you and your neighbors living on such a road should petition the council to have something done. If the natural outlet of the water is along the road, it is necessary for the council to give the farmers who drain on to it an outlet.

Sweet Corn for Silo—Unthrifty Pigs.

1. I grow sweet corn for a canning factory. Will ensiling the stalks be satisfactory; if so, how many pickings of corn should I take off?

2. I have a litter of eleven pigs and when they were three days old one developed into sort of a hump-back. They are now five weeks old, and five others appear to be developing hump-backs.

What is the cause and remedy for same? 3. Is a house basement, 6 feet 2 inches in height, high enough to allow a furnace to work satisfactorily? F. J. W.

Ans.—1. Sweet corn stalks are frequently ensiled and make very satisfactory feed. Of course, it is not as strong a feed as silage from which the ears have not been removed. You can take all the ears that are fit for canning purposes and ensile the stalks and nubbins.

2. Hump-back is not considered a disease in itself, but is a sequel to some other trouble, as crippling or indigestion. Pigs should have plenty of exercise and unless there is plenty of bedding a board floor is preferable to concrete for young pigs. Give the pigs a small dose of castor oil and allow them the run of a yard as soon as possible. This will do as much as anything to put the pigs in a thrifty condition.

3. Furnaces work satisfactorily in basements of the height mentioned, but for convenience a higher one is better.

Keeping Silage from Spoiling.

What is the best plan of covering silage to keep it from spoiling until it is used in the summer?

2. When feeding in warm weather is it advisable to take a small portion off the entire surface each day, or to take half the width of the silo and feed it out first? The silo is 14 feet in diameter.

3. A wooden silo was erected last year. Would it be advisable to paint the exterior this fall? How much paint would it take? R. H. M.

Ans.—1. There will be practically no waste of silage if from 12 to 15 inches of chaff or cut straw is spread over the top.

2. It depends on the amount of stock to be fed. If it is sufficient to consume about two inches of silage from the entire surface, we would prefer taking a little off the whole surface each day. However, if the herd is small it would be advisable to feed out one-half first, as at least two inches should be taken off each day. Under the latter method there will be considerable waste where the silage is exposed to the air. It will spoil for two or three inches in from the surface, but this cannot be avoided when one-half the area is used first.

3. Paint would, no doubt, aid in preserving the wood. It is difficult to state definitely how much paint would be required as it would depend on the nature of the wood and whether or not it had been previously painted.

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BOTH SUMMER AND WINTER

The NEW PERFECTION OIL COOK STOVE will do more work than a cheap coal or wood stove of twice its size.

The Long Blue Chimney—that's the secret. All the heat goes into the cooking and the visible flame "stays put."

NEW PERFECTION STOVES come in many different sizes—there is one for your family.

With Royalite Coal Oil a New Perfection cooks the meal for from 5 to 10 cents.

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BRANCHES IN ALL CITIES

PREPAREDNESS!

The government says that milk will be paid for by test, therefore—

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Bartley A. Bull, Secretary, Brampton.

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Let us ship you a

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DETACHABLE SPINDLE, OIL SPLASH and loose discs. We GUARANTEE these machines to be built of the best material, first-class workmanship, skim clean, easy to turn and wash. Cash prices very low. Must satisfy or money refunded. Sold on easy terms if desired. Write to-day for catalogue and local agent's address.

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Round trip tickets to points in Manitoba, Saskatchewan and Alberta via North Bay, Cochrane and Transcontinental Route, or via Chicago, St. Paul or Duluth, on sale each Tuesday until Oct 30 inclusive, at low fares.

Through Tourist Sleeping Cars to WINNIPEG on above dates leaving Toronto 10.45 p.m., no change of cars, via Transcontinental Route.

Return Limit, Two Months. Exclusive of date of sale. Final return limit on all tickets, Dec. 31st. Berth reservation and full particulars at all Grand Trunk ticket offices or write C. E. HORNING, District Passenger Agent, Toronto, Ont.

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A few young bulls for sale from Record of performance dams, imported and Canadian-bred sired by Auchenbrair Sea Foam (Imp.) 35258 grand champion at both Quebec and Sherbrooke. Write for catalogue.

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Dominion Express Building, Montreal, Que.
D. McARTHUR, MANAGER, PHILIPSBURG, QUEBEC

Herd established 40 years. Producing ability from 8,600 to 11,022 lbs. If that sort of production appeals to you, we have heifers all ages and young bulls for sale. Thos. J. McCormick: Rockton, Ont., Copetown Stn., G.T.R.

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JERSEYS
LONDON, ONTARIO
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CANADA'S MOST BEAUTIFUL JERSEY HERD

Present offering—Some high-class bull calves ready for service, from Record of Performance dams, including grand champion bull at last Western Fair and his full brother; also cows and heifers. State distinctly what is wanted if writing. 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.P. records, save one. Females, all ages, also for sale. B. H. BULL & SON, Brampton, Ontario.

THE DON JERSEY HERD—

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. Todmorden P. O., Duncan Station, C.N.O. D. DUNCAN & SON.

Jerseys for Sale

One bull, twelve months, and one bull calf; also yearling heifers and heifer calves, sired by imported bull and from high-testing dams. Write: Chas. E. Rogers, Ingersoll, Ont.

JERSEY BULL FOR SALE

Lord Torano—5889—has the quality and size. For particulars, write to CASTLE HILL FARM, Magog, Quebec. William Lyall, Prop., Fred Smiley, Mgr.

Hillhouse Ayrshires

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Headed by Burnside Lucky Master Swell, a combination of blood so hard to equal, being of the Masterpiece and Lucky Girl families, a combination which means quality, production and constitution which means quality, production and constitution which means quality, production and constitution which means quality, production and constitution. Special offering—29 yearling heifers and 3 bulls. Inspection invited.

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STEINS

official record dam
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also for anything

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TEINS

all from high-record
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TICULARS,
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THE BOW LEVER is just one of the exclusive features of the Maxwell "Favorite" churn. No other churn has it. You can adjust the handle to centre, right or left which ever is easiest for driving.

It makes churning a pleasure. It's so easy to drive—requires so little effort to produce the butter.

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"American Red Tag"; Protein 38 1/2%, Fat 6%.
"Surety Brand"; Protein 36%, Fat 5.50%.
"Creamo Cotton Seed Feed Meal"; Protein 20 to 25%, Fat 5%.
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.

Berkshire Pigs Registered stock, choicely bred young boars, and sows a pig, all ages. Can supply pairs not akin.
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Young sows bred from April and May farrow, and a nice lot of young boars for sale. Write:
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Questions and Answers. Miscellaneous.

Corn Smut.

Can corn be treated for smut? If so, how is it done and when is it done?
W. B.

Ans.—There is no method of treating seed corn, to prevent smut, that is practicable. The smut should be broken off the corn stalks during the growing season and destroyed. If smutted corn is fed to stock the manure should not be applied to the next year's corn field.

Cement for Wall.

A one-story house 25 feet square is to be raised and a 7-foot wall put under it. How much gravel and cement will it take? The same house it to have three or four feet added to the wall and a hip roof put on, which will add eight feet to the end walls. A verandah 8 feet wide is to be built across the front and one end enclosed for an entrance. What will it cost to make these additions?
J.

Ans.—Building a wall one foot thick and mixing the gravel and cement in the proportion of one to eight it will require about 26 cubic yards of gravel and 22 barrels of cement. Not knowing the kind of wood you purpose using in the verandah or house walls, it is impossible for us to give an estimate of the cost. The price of material varies considerably in the different localities. Labor can also be secured for less money in some towns or country places than others; therefore, an estimate which we might give might be higher than what you could get the work done for in your locality. Consult your local contractor. You can explain definitely to him what improvements you want and the kind of material to be used.

Softening Egg Shells—Dead Chicks in Shells.

I would like to know how to soften egg-shells so that the chicks will be able to break through. If I remember correctly I saw where it was advisable to use a ten per cent. solution of Zenoleum. If this be true, how many table-spoonfuls of the material would it require to one quart of water to make a ten per cent. solution? I have set the incubator and would like to know whether the material is to be sprayed on and how many times it is to be done? What is the cause of dead chicks in the shell and how can it be avoided?
A. J. C.

Ans.—We think you are mistaken in regard to using Zenoleum for softening egg-shells. This or some other disinfectant should be used to thoroughly spray or wash out the incubator before putting the eggs in. It is a mistake to set an incubator without thoroughly disinfecting it, as it is possible for it to become infected with disease germs which will cause a serious loss in the new hatch. When there is a water pan underneath the eggs it is seldom that anything need be applied to the shells to soften them. We have known of the eggs being dipped in lukewarm water to assist in breaking down the shell. As a rule, the chicks which have difficulty in getting out of the shell are very weak, which may be due to improper handling of the machine, to weak breeding stock or to improper feeding of the breeding stock. Dead chicks in the shell are very often due to the eggs becoming overheated or getting a chill. If the hen sits too closely the same trouble is often experienced. It is essential that the temperature of the incubator be properly controlled. Directions usually accompany the machines and the temperature for hatching is given at from 101 to 103 degrees. If by accident the temperature reaches 104 or 105 degrees, in all likelihood there will be a large percentage of dead chicks. It is necessary to cool the eggs every day up until the nineteenth day. The length of time they should be left out of the incubator will depend on the temperature of the room. They should not be allowed to become cold. Care must be taken not to touch the eggs after handling the lamp. The hands must be clean, as oil or grease will clog up the pores of the eggs and cause death to the chicks. A ten per cent. solution can be made up by using one table-spoonful of the disinfectant to nine of water or one quart to nine quarts.

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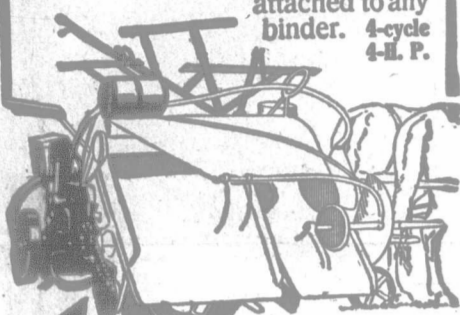
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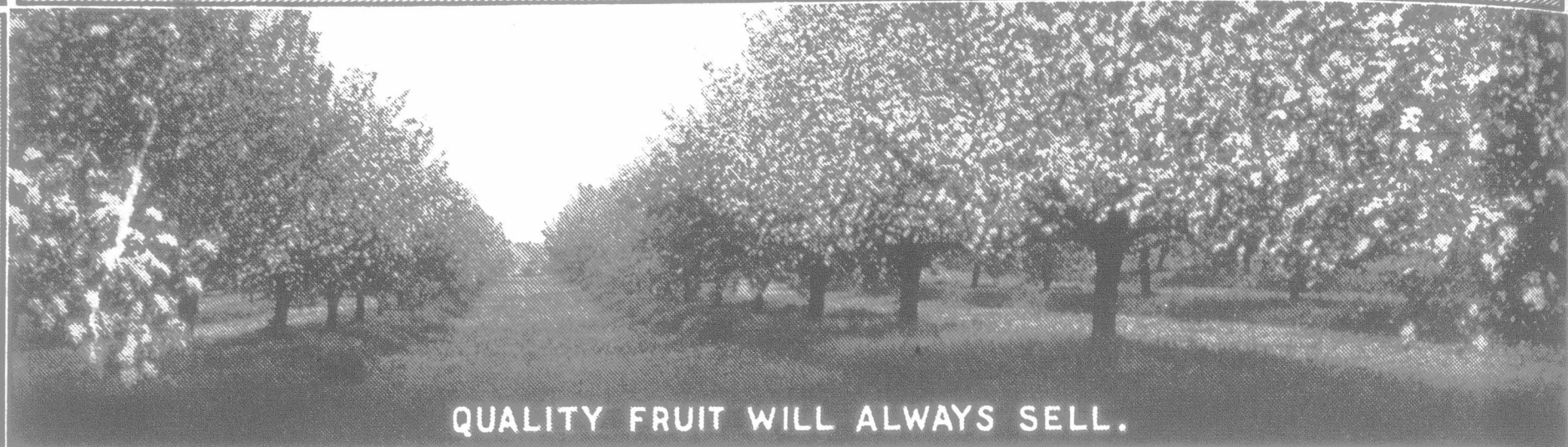
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The man with the best article has the one that will win out in a crowded market.

Do not neglect the spraying

If, owing to shortage of labor, your pruning had to be delayed for another year, no great harm can result. You may not get the size and color desired, but if the spraying is **thoroughly done**, a crop of good serviceable fruit can be obtained.

Two thorough sprays with the lime sulphur

will, under normal weather conditions, give sound apples and pears. Spray just before the bloom and within four days after the bloom drops away. One spray now before the leaf buds open will protect from San José or Oyster Shell Scale. Write us to-day for calendar, so as you can economize intelligently in spraying.

You can save on cultivation

Try the sod strip in the tree rows, and work the land between. If you can't manage this, let the land grow up in grass or weeds, then run the mower through it now and again to keep the growth from getting too rank and taking up too much of the moisture necessary for the fruit.

If the opportunity offers, you can put in a few profitable hours in removing some of the numerous suckers seen in the trees this year. These take much of the food that would otherwise increase the size of the fruit. For this purpose there is no tool so satisfactory as a fine-tooth saw. Cut close to the main limb.



WRITE US FREELY ABOUT ANY PROBLEM THAT FACES YOU ON YOUR FARM. WE ARE HERE TO BE OF ANY ASSISTANCE POSSIBLE, AND WE HAVE INFORMATION AND THE RESULTS OF EXPERIMENTS, ETC., ON FILE THAT MAY EXACTLY SUIT YOUR CASE. OF COURSE, THIS SERVICE IS ENTIRELY FREE.

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Very possible—and very profitable. Closer attention to apiaries will get better results.

Weed out the swarming strains.

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Of course, weather conditions control the crop to a large extent, but every beekeeper can assist production by giving the bees every care during changeable weather.

Prevention of Swarming

You can check this with a few precautions. First—study each hive carefully week by week and note the conditions. Second—give each hive sufficient room. Third—provide ventilation and some shade. Fourth—see that the queen is young and, if possible, of a non-swarming strain.

Look the queens over carefully and, when necessary, plan to re-queen during fruit bloom to increase your profits. You can get new queen bees from the Secretary of the Ontario Beekeepers' Association, O.A.C., Guelph, Ont.

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