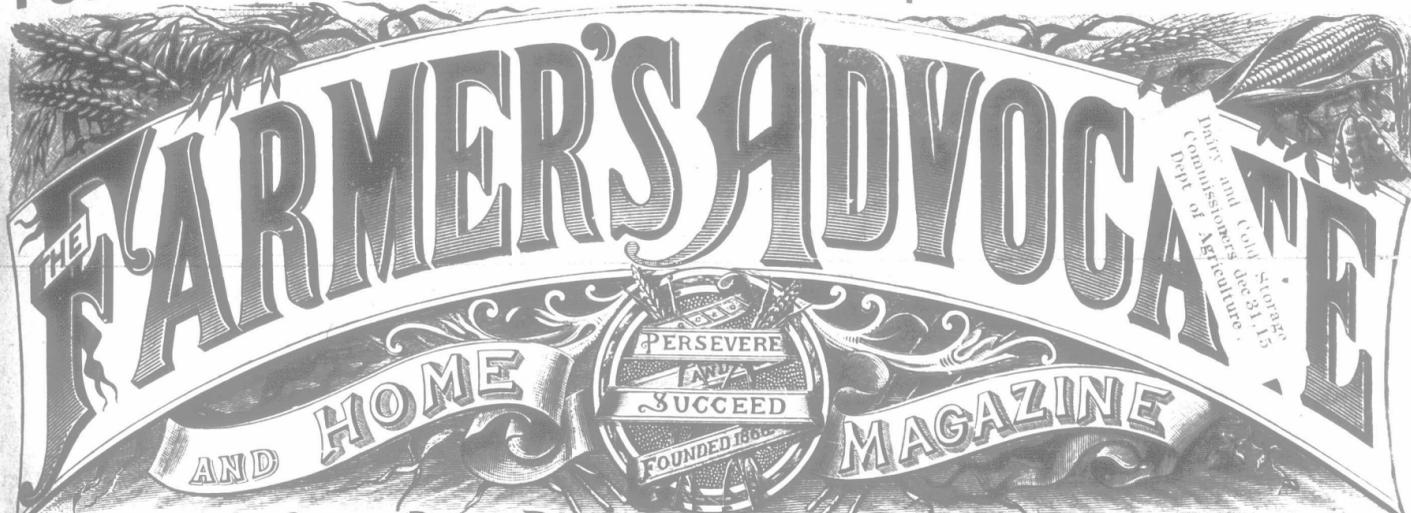


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AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.

Vol. L.

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LONDON, ONTARIO, APRIL 22, 1915.

No. 1178

Spring Construction Work On Telephone Lines Has Started

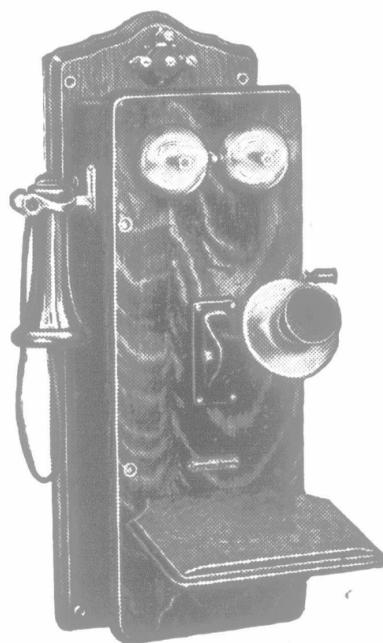
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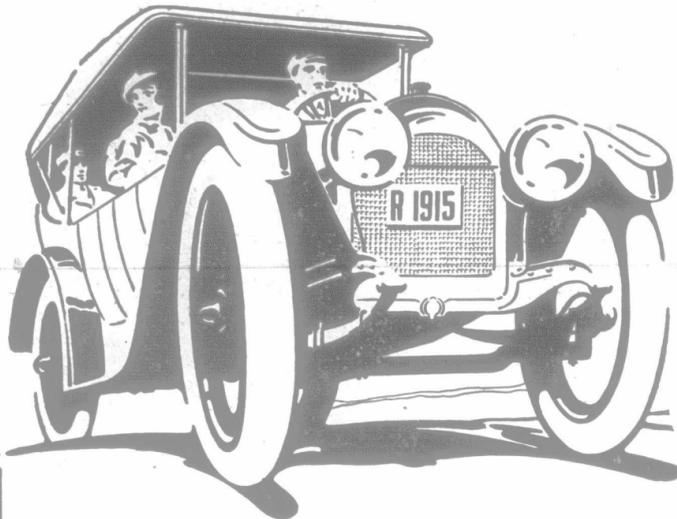


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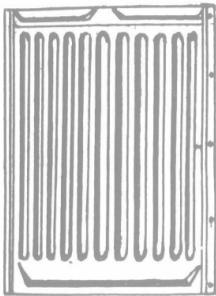
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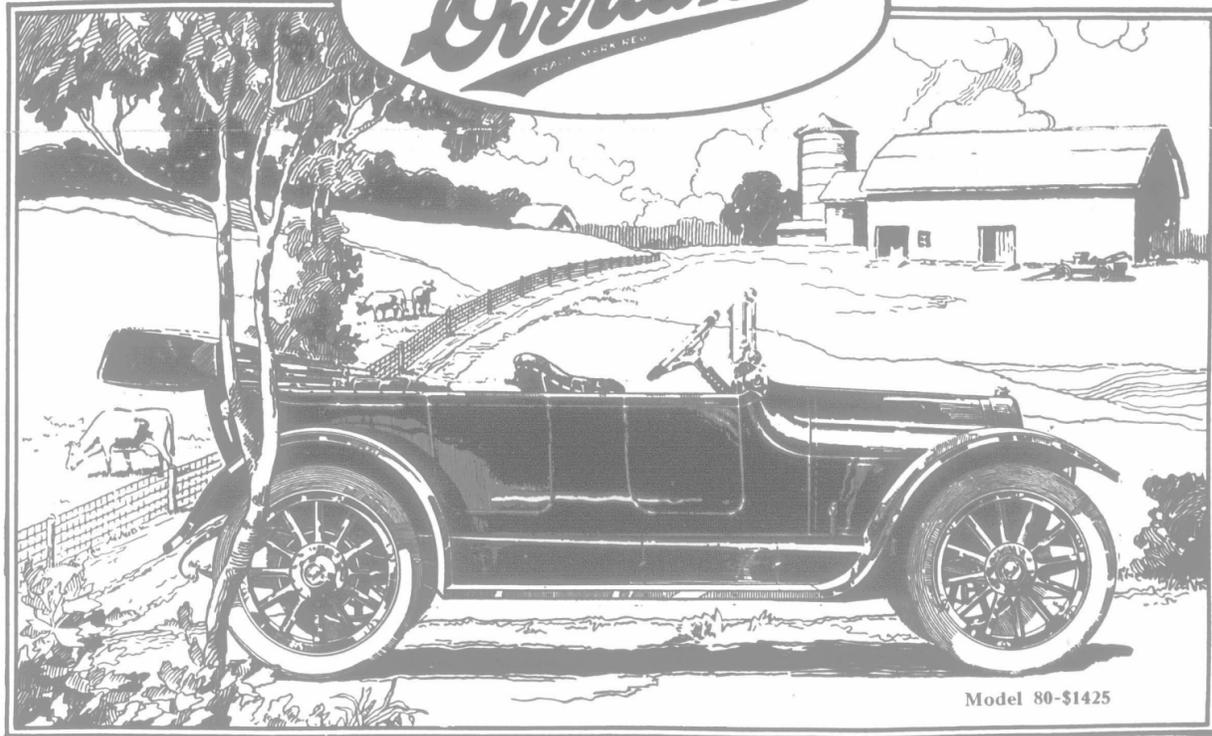
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YOU men who deal in acres, grain, live stock, farms and ranches are largely responsible for the prosperity of your country.

Your work is back of every substantial success.

Nowadays hardly anything can be a great national success without your loyal support. You are the big buyers of most of the necessities of life.

What you have accomplished has made the whole country "sit up."

To jump from almost last place, in its class, to first—and to do this in a few years is more than mere success—it's a feat.

But that's precisely what the Overland has accomplished. This could

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You made it possible. You buy more Overlands than anyone else.

The farmer buys the Overland because in his practical judgment it is the best car and the most car for the very least amount of money.

You know that in the Overland you get just a little more of everything for just a little less money.

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The Willys-Overland of Canada, Limited
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Which will you buy a "cream thief" or a "savings bank" Cream Separator?

WITH A GREAT MANY machines or implements used on the farm it doesn't make much difference which of several makes you buy.

ONE MAY GIVE YOU A little better or longer service than another, but it's mostly a matter of individual preference and often it makes little difference which one you choose.

NOT SO WITH BUYING A cream separator, however.

THE MOST WASTEFUL MACHINE on the farm is a cheap, inferior or half worn-out cream separator.

THE MOST PROFITABLE machine on the farm is a De Laval Cream Separator.

A CREAM SEPARATOR IS used twice a day, 730 times a year, and if it wastes a little cream every time you use it it's a "cream thief," and an expensive machine even if you got it as a gift.

BUT IF IT SKIMS CLEAN TO the one or two hundredths of one per cent., as thousands and thousands of tests with a Babcock Tester show the De Laval does, then it's a cream saver, and the most profitable machine or implement on the farm—a real "savings bank" for its fortunate owner.

AS TO HOW MUCH CLEANER the De Laval skims than any other separator, the best evidence of this is the well-known fact that all other makes were discarded by the creamerymen years ago, and that to-day 98% of the cream separators used in creameries the world over are exclusively De Laval's.

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THERE ARE OTHER ADVANTAGES as well, such as easier turning, easier washing, less cost for repairs, and the better quality of De Laval cream, which, when considered in connection with its cleaner skimming and greater durability, make the De Laval the best as well as the most economical cream separator.

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On the left is a healthy ear of wheat full and sound—the kind that makes money for you—on the right is an ear, drawn from a photograph, absolutely eaten up with that fungus spore called "smut"—there is no money in that. ; Some farmers, through no fault of their own, have had all the profit knocked out of their crops by "smut". Something must be done to stop it because it spreads.



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is a preparation used with great success in Europe. It has decided advantages over bluestone and chemicals because it is non-poisonous and will not endanger the germination of the seed. In fact, not only is it protection against disease, grubs and birds, but a great assistance to germination, producing a healthy stand. These are facts, established beyond a doubt by tests throughout all grain growing countries and we have striking letters from practical farmers testifying to the efficiency of this seed dressing.

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The Anthony fence does not roll up at the bottom or bend down at the top; but stands upright when erected. If you are in the market for a fence such as this let us ship you a trial order.

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Mr. Farmer, does that mean anything to you? We are to-day buying the same make of wire we bought seven years ago.

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The Farmer's Advocate and Home Magazine

PERSEVERE AND SUCCEED

ESTABLISHED 1866

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875

Vol. L.

LONDON, ONTARIO, APRIL 22, 1915.

No. 1178

EDITORIAL.

It is not too late to plant a tree.

The good grey earth enjoys a shower bath.

Every stock farm should have a flock of sheep.

As soon as seeding is finished prepare the mangel ground.

After the mangels are in lose no time in getting on the corn land.

The first spring rain washes the face of nature and opens her breathing pores.

And still we say do not sow wheat on land which will grow a better crop of oats.

In the eyes of some buyers the horse as well as man must enjoy a second period of youth.

If you cannot sell your surplus horses work them to best advantage in better and more cultivation than usual.

Help in the campaign for fewer varieties of potatoes by planting only one or two of the older standard kinds.

It would be rather an expensive means of disposing of old horses to take them to the front for the purpose of getting them shot.

How many have remembered to treat their seed grain for smut? And how many are planning to treat their seed potatoes for scab?

Opinion seems to be divided as to which war contract grafters need most, a six week's course with Billy Sunday, or six years on a prison farm.

Who is the backbone of this country anyhow? The farmer, and he does not need to put on a pair of red, white and blue overalls to prove it either.

Unless some people who have been in the searchlight at Ottawa mend their ways speedily the "Made in Canada" program may prove more of a boomerang than a benefit.

It is too early yet to allow the cattle out on grass, even in the earliest districts. Nothing so damages summer pasture as pasturing off before it has had a chance in the spring.

It is a good plan to study farm fencing, and work out a system which leaves the fields the best size for the crop rotation followed. Ontario has too many fences, and far too many of the tumble-down kind.

The man who sells his live stock to take up grain growing more extensively, because of the abnormal market conditions at the present time, is sacrificing his most valuable asset just when it is most needed and will prove most valuable.

Partizan newspapers would have their readers imagine that virtue and capacity are found on one side the fence, and that all the undesirables are in the other political fold by themselves. With sensible people this attitude has become absurd and nauseating.

Make the Fairs Worthy of the Grant.

Readers of "The Farmer's Advocate" were pleased to note in the review of agricultural legislation passed by the Ontario legislature during the session which has just been brought to a close, that the amount of the grant to fall fairs has been left at the usual \$75,000 mark and not reduced one-half as announced by the Minister of Agriculture at the time the Fairs and Exhibitions Association was in annual convention in Toronto last February. Fall fairs are one of the educative institutions which should be aided in every way possible. They are doing a great work in interesting the younger people of the country in better stock and better seeds. Many of the young folks, and older people too, have not the opportunity of visiting the larger exhibitions, and if they do go very often have only time to see the big exhibits in the buildings and to enjoy the "special attractions." Outside of the needless and often harmful miniature midway the county or township fair is purely an agricultural show, and as such should be fostered. Only last fall we noticed at a very successful fair of this kind more than one small boy in knee trousers proudly leading off a prize calf, a winning colt, or holding a red-ribbon sheep. Who can estimate the value of such an opportunity? The young attendant never forgets. It instals in him a love for stock and for the farm, and winning is not devoid of the same results for the older men. It makes one feel good to fit, show and win. There is also some inspiration even in defeat. To be met on common ground and fairly beaten is no disgrace; it should prove an incentive to do better next year, and the loser should always go home determined but not discouraged. The grant has been given "as usual." Now it behooves every fair board and all exhibitors to do their best to make the fall fairs of 1915 a "more-than-usual" success.

More Corn and More Roots.

It is not yet too late to plan more corn and more roots for this season's crop—not only more acres but a larger yield per acre. Many seem to forget that the call for "Increased Production" should perhaps apply in greater measure to corn and roots than to any other branch of Canadian agriculture. Canada must produce more wheat and milk if she is to go on increasing production, and these products must be produced at the lowest possible cost. Three feeds stand out prominently in economical feeding in Canada, viz., clover or alfalfa hay, corn and roots. It is too late now to do much to increase the hay crop more than to roll the meadow, but corn and roots should receive the best attention. An acre or two more mangels or turnips, and from two to five acres more corn than usual, will, provided the season is right, mean more cheap feed than usual, and this cheap feed will save grain which may be needed elsewhere, and will at the same time carry more live stock than usual over winter, and the foundations of our agriculture rest on the live-stock industry, which must not be undermined at this time. Plan also to prepare the land for corn and roots just a little better than it has ever been done in the past. Plow once more if necessary, disk, cultivate and harrow until the land is in the best possible condition. After the crop is up cultivate more frequently and go after a larger yield. It will surely pay.

Not Looking for Government Aid.

"We might say that the farmers of Western Canada are beginning to take it into their own hands to settle affairs in so far as they can through co-operation, and are looking for as little aid as possible from the governments."

The foregoing paragraph from a Western Canada reader of "The Farmer's Advocate" may be seriously taken as one of the signs of the times. Co-operation is gaining ground rapidly in the West, and with it is coming power. Organized farmers may yet be just as strong as if not stronger than any other organized industry or set of industries in this country. The Western farmer was driven to it. He had to organize, and he has done it so well that organization has become the key-note of his success, and has developed to such an extent that confidence is now felt in the ability of the farmer of the West to look after himself, or rather the farmers of the West to look after themselves, for it is co-operative effort that has made the movement a success. There was a time when these farmers looked for direct aid from the governments, but they looked in vain, so they tried the better plan of "self help," and it has succeeded until it seems that they have stopped looking for help and have built up an organization, which, by mutual assistance, can get what its members need most.

Ontario and Eastern provinces are beginning to awaken. It is a much more difficult proposition to organize so well in older-settled provinces where many farmers have reached the "independent" stage and where agricultural interests are so diversified in character, but a start has been made and if rightly followed up Ontario may soon present that formidable front which "looks for as little aid as possible from governments." One thing is sure, at the present time the Canadian farmer, East as well as West, has no use for "pap." He has no time for uncalled for and unnecessary special government campaigns instituted by city financiers in his behalf. Letters to the press during the past six months have proven this. He expects fair treatment, and there is no surer sign that he is going to get it than what is revealed in the paragraph from our correspondent's letter. The indicator begins to swing toward better things for agriculture, but the men engaged in farming must be given the credit for the change, and as the West grows and grows and the organization of farmers passes on from one successful stage to another and is followed by farmers in the other provinces of Canada, governments, unless we miss our guess, will be a little more careful about the methods by which they hope to pull the wool over the eyes of the agricultural community. The first great sign of strength comes in the words "are looking for as little aid as possible from governments." Politicians would like to ignore the organization which has made this statement possible, but they dare not. They are hushing up its importance as much as possible, but organization works on. The man with his ear to the ground already hears the rumble of the approach of this, the mightiest force which Canadian agriculture has seen, and the Canadian farmer is destined to reap a rich reward from his efforts on his own behalf, if he will but put his own business first, help himself and help his neighbor by organizing, and we hope when once organized party politics will get second place to the interests of the farmer's organization in the minds of all farmers composing the organization. Then agriculture would be



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The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

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placed on an equality with other important industries by the government, and legislators would give all enterprise its just dues.

America's Greatest Achievement.

Great epochs do not follow one upon the other at very short intervals in the world's history, and people of the New World do not often stop to think about the real importance of North America and its institutions in the world's history. True, we are sometimes a little inclined to brag about the strides made in this country, but as a general thing the Old World is looked to as the real birthplace, nursery and developer of civilization, and to it is given the credit for any accomplishments which have been made in Canada or the United States.

In an address delivered recently to a joint meeting of the Womens' Canadian Club and the Canadian Club of London, Ont., Dr. J. A. Macdonald, of Toronto, pointed out that North America really is a great "World Idea," that democracy had its birth on this continent, and that Europe and all the world must credit these two countries, with their 4,000 miles of boundary over which no fortifications tower, across which no cannons tilt their threatening muzzles, and on the waters comprising which no menacing war-craft floats with this great World Idea, rule of the people by the people.

Dr. Macdonald pointed out that 450 years ago Constantinople fell, shutting off the great East. Soon it became necessary for the thickly-populated countries of Western Europe to seek some outlet, and in an attempt to find a road to the East through the West America was discovered. In 1915 Constantinople is again about to fall, and with its fall the East looks to America for a measure of the democracy which has been so successful on this continent.

After all America has something of which to be really proud. The task of working out the first real democratic government in the world from the embryonic state to present-day perfection, Dr. Macdonald places as the greatest achievement in the history of the United States and the evolution of responsible Government in

Canada, where a nation was created within a nation, the first step of its kind to be taken anywhere in the world, Dr. Macdonald classed as the greatest achievement in the history of Canada, and to Canada and Canadians he gave all the credit for the developing and working out of this system, not by revolution but by evolution. Few Canadians realize that Canada was the first colony of any nation to be granted responsible government independent from that of the Central Government of the Homeland. It was purely a Canadian idea, which has spread throughout the colonies of the British Empire, to Australia, to New Zealand, to South Africa and to Newfoundland, all of which now enjoy the same privileges as exist in Canada in so far as Government is concerned. It would seem that the beginning of democracy in America was simply the beginning



Fig. 1—Western Dogwood.

of the end of autocratic rule the world over, and the present war in Europe is likely to bring about the end of more than one autocratic government, and when they go the people of those countries must look to America for the foundation of a system of government of the people by the people as the only system which can stand the test.

When thought is given to the matter perhaps, after all, in the final summing up decades or centuries hence, America will be credited with the greatest World Idea of them all. Credit should be given where credit is due, and there is no getting away from the fact that democracy was born, nursed, and reared into its present high state on the North American continent from the Gulf of Mexico to the Arctic Ocean. One thing is certain, the people of two great nations, the United States on the one hand and Great Britain on the other, have lived side by side for more than one hundred years without a shot being fired across the 4,000-mile frontier upon which no sentry has paced and no precautions have been

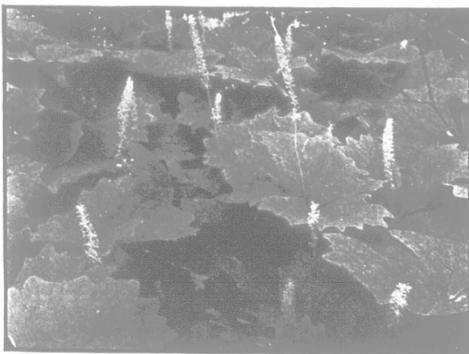


Fig. 2—Scented-leaf.

necessary to prevent an enemy from crossing from one country to the other. The two countries have been friends, but this does not mean that situations have not arisen from time to time which might have been used as excuses for war. However, all differences have been amicably settled without military demonstrations, and through the long century democracy has grown and proven that it is not necessary for frontiers to bristle with bayonets and to yawn with wide-mouthed cannons protected by every conceivable fortification in order that peace be maintained. While peace and industry have reigned in

America, Europe has been an armed camp laboring under the delusion that heavy and ever increasing armament would secure lasting peace. The present gigantic struggle has shown an armed peace to be "a colossal failure." In this great fight Britain and the colonies which have enjoyed democratic government are lined up with the other Allies against autocracy, against militarism, against rule by the sword, for by the sword is the only rule which autocracy knows, and when the war is finished and the war lords are taught the final lesson that the people really should and will have something to say in the Government of a country of which they form a part, then it is that America and her great World Idea will be recognized, and it is to America that the world will look for the greatest aid in rebuilding that which has been destroyed as the final stage of militarism and as the culmination of the long strain of increased armament in the forlorn hope that the more the nations armed the smaller were the chances of war. People will rejoice the world over if the great nations of the world, and the smaller colonies as well, could build their future on the World Idea which has proven so successful in America, and after this great war in times of peace prepare for more peace. This was one of the outstanding features brought out by democracy in America, and in place of following the old autocratic rule, where in peace or war the orders were "Prepare for war," reverse the rule and prepare for peace. The desire for democratic rule is in the Anglo-Saxon blood. Britain's colonies have proven what can be done under it. To the older countries it must be taken, and the larger the number of people who get responsible government in full measure as a result of the success which it has attained in America, and as a result of the present revolt against one-man rule the nearer will the world be to permanent peace. North America is truly as Dr. Macdonald brought out so well, "A Great World Idea," and ideas are the mightiest forces in the world. Dr. Macdonald referred to the people who think this war is Armageddon and put forward the belief that Armageddon when it comes will not be a conflict of armaments but a conflict of ideas. The idea is everything, and ideas such as the greatest North America has brought forward cannot fail.

Nature's Diary.

A. B. Klugh, M.A.

It is spring over most of the Dominion, but on the Pacific coast it is early summer. The early spring flowers are now over in this region, and those which mark the early summer are appearing. One of the most striking of these is the Western Dogwood (*Cornus nuttallii*) which is shown in Fig. 1. This species is a tree from twenty to seventy-five feet in height, with a gray, smooth, mottled bark which resembles that of the Beech. When in flower the trees look like huge pyramidal snowdrifts, as they are densely covered with the large white flowers. The large white appendages, which look like petals, are really bracts, and they surround the real flowers which are small and borne in compact heads. These bracts are from four to six in number, and are from one and one-half to two inches in length. In many localities on the Pacific coast the Dogwood is so abundant as to practically whiten the landscape when it is in bloom, and thus affords one of the most glorious botanical spectacles which I have ever seen.

Another plant which is very common at this season in the woods on the Pacific coast is the Scented-leaf (*Achylis triphylla*). This species, as may be seen from Fig. 2, has a unique-shaped leaf and bears its white flowers in long "rat-tail" spikes. The common name of Scented-leaf is derived from the sweet and peculiar perfume which the leaves of this species give off. This plant is one which puzzles the amateur botanist to classify, as it takes a very careful examination of its flowers to reveal its affinity to the Barberry, though it really belongs to the same family—the Berberidaceae or Barberry Family.

Two other Pacific coast flowers which are very noticeable now are those of the Salmon-berry and the Western Flowering Raspberry. Both are much like a wild rose in form and grow on bushes, the former being a rich rose-purple color and the latter white. The Western Flowering Currant with its hanging racemes of bright red flowers is also a very attractive species.

A very handsome blue flower which is also common in this region is the Camassia (*Camassia esculenta*). The specific name—*esculenta*—was given to it because its bulbs were eaten by the coast Indians. It belongs to the Lily Family, a family which is very well represented in the coast flora. These flowers, and many others which are now in bloom in our "farthest West," represent a stage in the floral procession which is not reached in the East until the middle of June.

Consequences and Reflections.

In magnitude and in the extent of the issues involved The Great War is unlike any conflict of the past. The god of war never staged so vast a drama. Practically all mankind were either participants or intensely concerned spectators. With armies and navies in size and equipment unparalleled in history, five of the world's greatest empires are immediately involved—Great Britain, Russia, France, Germany and Austria-Hungary, with Turkey aiding the two latter and with the Allies, Belgium and Serbia, the first victims of attack by the aggressors, battling for existence. It is greater than other wars of the past in the destruction and waste of material things. There are those who argue that the world had grown so idolatrous of wealth and pleasure that it needed this baptism of blood to recall it to higher things, and still more that the worshippers of military might must learn the humiliating lesson of its limits. The most irreparable losses of the war are not money and business and property, but human lives blotted out, disabled or in so many cases rendered inefficient for subsequent useful pursuits. The fairest and strongest go to the human slaughter house. War reverses nature's survival of the fittest, for in the jungle the "undesirable" and the weakling die and the strong survive.

The war has taught this world as never before its dependence for food upon the men who till the soil and rear the herds. Will governments learn the duty of the conservation of agriculture and rural life? Will they shape their policies and systems to supply the needs which they admit exist?

Because of her almost illimitable areas of fertile lands, forests and mineral deposits in Asia, Russia, which in recent years has been making astonishing strides, will feel the loss of men perhaps more severely than any of the Allies. At least one would infer this from the recent writings of competent observers like Nansen the explorer and Henry Norman, of England. Notwithstanding the war, the financial and social outlook of the masses in Russia seems never to have been so good as at present. This is in part attributed to the liberal policy of the government in making an allowance to the families which exceeds the earning power of the soldiers. The Prime Minister, however, attributes the improved prosperity to the stoppage of the sale of vodka. Here-tofore the average yearly savings deposited amounted to some \$15,000,000 to \$20,000,000, but in January of this year alone \$30,000,000 was deposited. Russia has taken a liberalizing pace and her people will not be likely to retrace their steps, and the influence will extend to other peoples.

Germany seems to be the last to comprehend the spirit and action of the British people. Only lately an eminent German lady, wife of an ex-minister of the Kaiser's government, expressed her "loathing" of Britain for having "turned her back upon civilization" in resisting the onslaught of Germany upon Belgium and France! As though national perfidy and civilization were interchangeable terms. And she further harbored the delusion that Britain was forcing the "Dominions beyond the seas" to come to Europe and fight her battles, whereas no movement in the history of nations was perhaps quite as spontaneous and heart-felt as that of Canada and the other Dominions. The world has learned too, if it did not fully realize before, how easy and beneficent has been the "yoke" of British naval dominion. She has been rather a trustee for humanity. Something of the progressive resources of Great Britain under stress are disclosed by a cable dispatch from London, England, which announces that the British fleet is being augmented by something like a submarine every three days, a destroyer every week, and a battleship, cruiser or dreadnought every month.

The one humiliating aspect of the period in Canada where every

back was beginning to bear the press of heavy burdens and her sons were going in thousands to the lines of death, has been the greed of the political and business grafter willing to traffic upon the peril and distress of the nation. The sound heart and good sense of the land revolts at such conduct and rebrobrates the guilty. This is hopeful, like the greater lesson of the war that this world has a conscience for righteousness which those who struck the first blow have vainly tried to appease. It is gratifying to see that men of foresight in other parts of the Empire are responding to the appeal made months ago by the Premier of Great Britain that the small shall have an inviolate and equal right with the large nations, to a place "in the sun," and that for the future as the greatest outcome of the war will come with peace, a world-code of international conduct and control. The first and chief business of governments after the war will be to improve the conditions of the people and to restore the resources of livelihood by promoting natural industries beginning with those of the soil, and relying upon the increase of contented home population instead of immigration.

THE HORSE.

Feed well and water often during seeding.

Never trust a colt too far the first spring it is working.

Exercise the stallion regularly, and give him plenty of it.

Do not forget to cool and rub off the shoulders carefully at frequent intervals.

If grass is not available do not neglect to give the in-foal mare plenty of bran.

Cut down the grain ration for the hard-worked, heavy-fed horse on Sundays or other idle days.

Get the in-foal mare out where she can get a

little grass as early as possible. Turn her in the lane or small grass plot near the buildings.

Do not be too anxious to breed the mares early in the season. Better success generally comes from breeding later on when the weather gets warmer.

Pull the shoes off the in-foal mare before starting her on the land. It is often good practice to remove at least the hind shoes from all the work horses during seeding.

Get a bottle of some disinfectant ready for the application to the umbilical cord of the foal as soon as dropped, and regularly two or three times daily until it is all healed up.

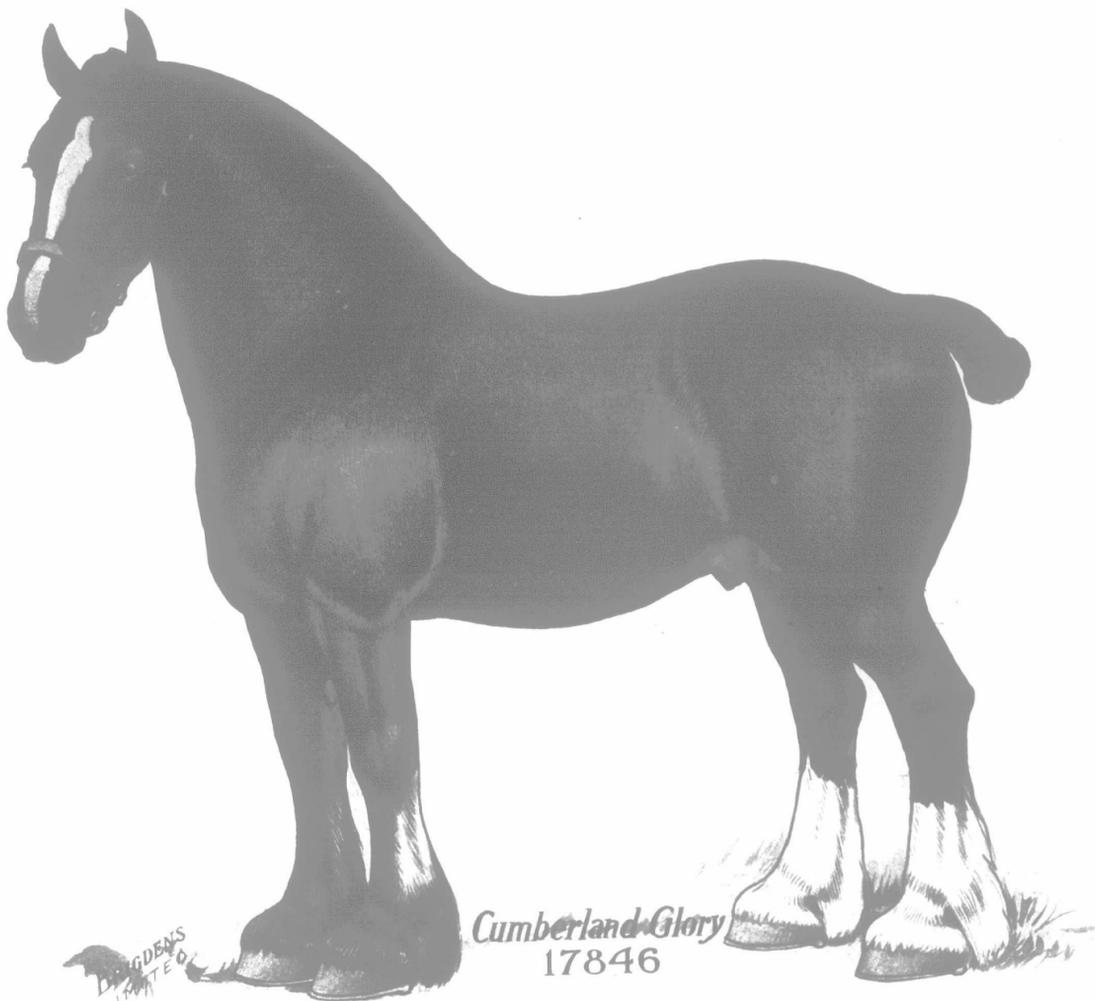
The Maritime Horse Show.

The Maritime Horse Show was held in Amherst, April 7, 8 and 9. The weather was good for April, and although the roads in the country were very bad the attendance was large, probably 10 per cent. better than last year. There are nearly two thousand soldiers stationed in Amherst at present, and they helped to swell the attendance. Owing to ice drifting into the Northumberland Straits and Pictou Harbor the exhibitors from Prince Edward Island were unable to be present, which made the exhibits small in some classes, perhaps more noticeably in the Percheron classes than others, as A. R. McKay, of Charlottetown, had a fine string of entries in these classes.

In the class for Thoroughbreds there were very few entries. Geo. M. Holmes, of Amherst, had things practically all in his own hands.

Standard-breds showed up in good numbers and splendid roadster quality.

A. E. Trites, of Salisbury, won first place in the aged stallion class with Leonard Wilton, a beautiful bay with clean, straight-away action; second going to W. M. Chesley, Amherst, on Major Stratton; third to R. P. Fraser, New Glasgow, with Alton S.; and six good ones were left outside the money. Eddie de Forrest, shown by H. C. Jewett, of Fredericton, one of the hand-somest road horses in the Show, although not



Cumberland's Glory (17846). Clydesdale stallion rising four years of age, weight 1,200 lbs., sire England's Glory (14666), dam Blossom of Parton (32895). Owned by T. J. Berry, Hensall, Ont. For service. Terms, \$17.

getting a ribbon, had many admirers in the audience.

In aged Standard-bred mares Mamie J., owned by Charles Thompson, won first in a class of nine. Mamie J. also won first in the roadster class over 15.2. The other winners in the Standard-bred mare class were "Harriet King," owned by T. C. Latham; Sylvestre, second; "Miss Be Sure," Geo. M. Holmes third; and "Kittie McNeil," owned by R. P. Fraser, New Glasgow, fourth.

Three-year-old Standard-bred stallions brought out three good ones, "Blmono," owned by Charles Thompson, won first; "Tryfast," H. C. Jewett, Fredericton, second, and "Kelly B.," shown by Blanchard Brenton, third.

The sections for younger animals of this breed were fairly well filled, the principal exhibitors being A. E. Trites; H. C. Jewett; Angus McGillivray, New Glasgow; H. W. Ryan, Petitcodiac; Geo. Cameron, New Glasgow.

Hackneys and carriage horses were not so numerous as in some former shows, as Col. McIvity, of St. John, and Geo. M. Fowler, of Sussex, are not showing this year. Those that were shown were of good quality, and rather a useful lot of horses. R. A. Snowball's stallion "Model Performer," though not having much competition, was shown in beautiful condition and was very much admired by the spectators. The other exhibitors in this class were McFarlane Bros., Fox Harbour, and Geo. M. Holmes, Amherst.

The General-Purpose class was cut out of the prize-list this year, as the management considered that it was of little value as an educator from a breeder's viewpoint, consequently some of the most useful horses (though hard to define) were not shown this year.

In the Agricultural classes there was a full line-up of entries, and the decision of the judge was a great surprise and perhaps an educator to some of the exhibitors and spectators who considered clean-moving, 1,300-lb. horses ideal agricultural horses, when the first prize for singles went to R. P. Fraser on a horse of over 1,600 pounds, and in the matched pairs to Hazen Dolson on a pair of about the same weight. Some of the entries in this class were grand, good General-Purpose horses of about 1,250 pounds, but were scarcely considered. The other exhibitors in this class were Avery Smith and Jas. Gray, of Fort Lawrence; W. O. Bowser; Edgar Atkinson; Geo. M. Holmes; Lyman T. Chapman, Hastings; C. M. Shipley, Amherst; and Henry Heather, Little River.

The exhibit of Clydesdales and their grades was the best ever shown at Amherst, and it is certainly gratifying to see the marked improvement since this show started. Our breeders are not satisfied with anything but the best, and the large numbers of good grades both at the show and in the country proves that the farmers appreciate the efforts of the breeders to get them some good stock.

In the aged stallion class McFarlane Bros., "Baron Squire," which has hitherto been considered unbeatable, had to give place to another son of Baron's Pride, "Baron's Own," shown by R. A. Snowball, Chatham. Third prize went to Jewett's "Day Dream," and fourth to "General Blake," owned by Snowball.

In the three-year-old stallion class McFarlane's won first on Boreland Crest, and R. O'Leary, of Richibucto, N. B., second.

In two-year-olds Prescott Blanchard, Truro, won first; O'Leary second; Snowball third; and B. H. McIvor, River Hebert, fourth.

In the class for aged mares McFarlane Bros. won first on the imported mare Nell Bowie; Logan Bros., Amherst Point, second, on Baron's Fancy; Snowball, third; and Logan Bros. fourth. This was a particularly strong class of nine, all good ones.

In the three-year-old mare class McFarlane's won first on Balmangon Belle; H. S. Pires, second, on Fleur-de-lis, and R. A. Snowball, third, on Kate of Meadowbrook.

The younger sections of the Clydesdale breed were well filled, and included much good stock.

The heavy drafts made a strong class, nearly all of them well-bred Clydesdales. Hazen Dolson, of Truro, showed a very handsome pair of chestnuts (cross-bred Belgian and Suffolks) but they were beaten by Fraser, of New Glasgow, with a pair of high-grade Clydesdales lately brought from Ontario. The young stock in this class was particularly promising, and showed both breeding and care. Some of the principal exhibitors were T. W. Keitor, Amherst Point; Fowler Bros., Amherst Point; W. O. Bowser, Amherst; R. L. Rutherford, River Hebert.

Percherons were few in number, but there were some good ones. H. C. Jewett, Fredericton, won first in aged stallion class on Gresham, one of the showiest draft horses that ever entered a ring, a beautiful dun-colored grey weighing about 1,900 pounds with good action and quality to the ground. It is a pity we had not more Percherons of this type.

Horses were shown by Casson, of Truro; R. A. Snowball; Richard McCully, Amherst; Marjorie

Lusby, Amherst, and Murray Jones, Amherst, and were of all sizes from that of a large Newfoundland dog to the size of a small horse.

Roadsters and carriage horses were shown in large numbers, the roadster class having 21 entries. J. C. Purdy, of Amherst, showed a fine string of both roadster and carriage horses. A. P. Elderkin, of Amherst, and Geo. M. Holmes also showed some good individuals in both classes.

One of the most spectacular exhibits was the four-in-hand for carriage horses. J. C. Purdy won first, but A. P. Elderkin got round after round of applause as he drove around the ring with eight or ten of the boys in front in a carriage bedecked with Union Jacks, the boys singing "Tipperary" and "Britannia Rules the Waves."

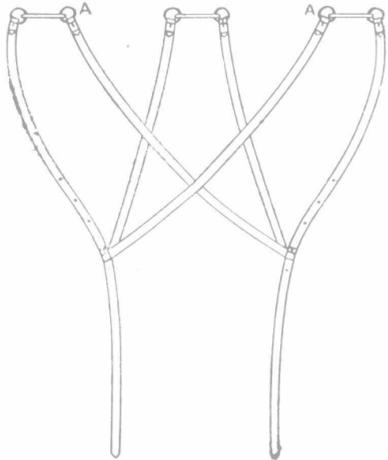
The hauling contest was apparently one of the drawing cards, as the crowds waited until midnight on both Thursday and Friday evenings to witness some good work on the part of horses and teamsters. C. H. B.

Three-horse Reins.

Editor "The Farmer's Advocate":

Will you please publish some good cuts for arranging lines for driving three horses? I have seen them shown but cannot find any papers with them in. W. R. McD.

The accompanying illustration represents a simple arrangement for reining three horses. The



Three-horse Reins.

extra side line may be buckled into the one connecting the checks for two horses or another buckle can be attached to the main line. The length of the different checks must be regulated when the horses are hitched together.

Foaling Time—II.

While in a large percentage of cases the act of parturition in mares is effected in a normal manner without the intervention of man, cases in which this does not occur are so numerous that we think it wise to keep close watch on all mares about to bring forth young. The task of watching should be entrusted to a reliable man, and if he has some knowledge of the anatomy of both dam and foetus, and also some knowledge of obstetrics, or the manner in which the phenomenon of parturition takes place, the forces that produce it and the various conditions that tend to prevent and complicate it, and has the skill to remove these obstacles, of course it is all the better. Even though he has no special skill as an obstetrician, if he has an intelligent idea of the act when it takes place in a normal manner, he will be able to recognize abnormal conditions, and if not able to rectify them himself he can promptly send for an obstetrician. A very important point with the veterinary obstetrician is to know when to interfere, as, as much harm is often done by premature or irrational interference as is at other times by being too late. Some mares (especially primipara) become excited at the presence of man; while rarely the reverse is the case, i. e., the presence of a man, especially her master, appears to have a salutary effect upon the mare during labor pains. In most cases it is wise for the watcher to keep as quiet as possible, and practically out of sight of the mare, but at the same time in such a position that he can observe her actions and note the progress being made toward delivery. He should not be too anxious to help; he should be content to allow nature a reasonable length of time to perform her functions, and when things are making fair progress he should continue an interested but non-interfering spectator. He should see that the surroundings do not interfere with delivery, while in most cases the mare appears

to exercise a great degree of intelligence we sometimes notice that during the excitement caused by the pains she appears to have lost the intelligence or instinct usually shown, and will lie with her croup so close to the wall that delivery cannot take place, and if left alone the foal will perish and more or less serious complications be caused in the dam. In such a case the attendant should interfere promptly and cause her to rise, and, if he cannot do this he can at least shift her sufficiently by pulling her by the tail or in other ways to give room for delivery.

It is not uncommon, in cases of rapid and easy birth, for a foal to be born enclosed in the membranes. So long as the circulation between the mucous membrane of the womb and the foetal membranes continues the blood of the foetus is purified by a supply of oxygen from that of the dam, but so soon as the membranes are disconnected from the womb the foetus must receive oxygen from the air, and if born with the membranes intact it will perish unless these be promptly ruptured. Instinct is supposed to teach the mare to at once rupture these with her teeth, but experience teaches us that even when birth is easy and not preceded by any considerable pain or distress, she will generally lie a few minutes after delivery and in the meantime the foetus will perish. When this condition exists the attendant should at once make an opening with his knife and expose the foetus to the air. In this and in all cases where the navel cord is not severed he should at once disinfect it with the solution of corrosive sublimate or other disinfectant and, with the cord that has been soaking in the carbolic solution, tie it tightly about an inch from the abdomen and sever it with a scraping motion of the knife about an inch below this. When the cord is severed in this manner, even though the ligature should become severed, bleeding will not be nearly so great as if it had been severed by a straight cut with a sharp knife. Again, instinct is supposed to teach the mare to sever the cord with her teeth, but she frequently fails to do so, and unless the attendant does it the membranes remain attached to the foetus by the cord and materially interfere with its actions. He should remove all mucus from the foal's mouth and eyes, and unless the dam rises and attends to it he should rub it with cloths or wisps of hay or straw until it becomes dry. When it struggles to regain its feet he should assist it, and, if necessary, hold it up to nurse, but, if the foal be strong and smart and the dam is giving it the proper attention probably the less interference is given the better, and this especially applies if the dam is cross and cranky with the attendant, but it must be understood that if the foal be not strong enough to rise and nurse, in at most two hours after birth, it is necessary to assist it, even though it be necessary to secure more help in order to control the dam.

As soon as practicable the attendant should remove the membranes, and all wet and soiled litter and replace it with dry straw. In some cases the dam is unnatural and vicious with her foal, and if not prevented will injure and probably kill it. In such cases it is necessary for the attendant or attendants to control her (this can usually be done with a twitch) to allow the foal to nurse. Some claim that sprinkling salt upon the foal tends to prevent any trouble of this nature; others claim that spraying the foal and the nostrils and face of the dam with brandy has never been known to fail to reconcile the dam to the foal, but we have seen cases in which all methods failed. In most cases the dam soon becomes reconciled, but it is often necessary to watch the mare closely or even remove the foal from her between nursing periods, at least for a time.

In some cases of parturition labor pains have been frequent and severe for a considerable time, yet no apparent progress is being made towards delivery. In such cases the attendant must decide that some abnormal condition exists, and that there is some cause operating to prevent delivery. It is then his duty to ascertain if possible, what the cause is, and remove it if he can. If he has an intelligent idea of the anatomy of both dam and of the normal position of the foetus he should roll up his shirt sleeve, oil arm and hand and insert his hand into the vagina and womb and discover the abnormal condition that exists. In most cases it is a malpresentation, (the foetus in an abnormal position); in others it may be an excess of volume of the foetus; in others a non-dilation of the entrance through the neck of the womb. Whatever it is when once he has discovered it he should carefully consider whether he has sufficient knowledge and skill to remove the obstruction, whether it consists in rectifying a malpresentation, dilating the entrance, reducing the volume of the foetus or removing other obstructions. If he decides that he can succeed he should proceed to do so promptly, but should never get in a hurry. He should act promptly but carefully, as this is a case in which things hurriedly done are seldom properly done, and it is a very critical period in the life of both dam and foetus. If he decides that the case demands greater skill than he pos-

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seases, or the use of instruments which are not in his possession he should not spend time in a vain endeavor to rectify matters, but at once send for a veterinary obstetrician, who, if promptly called, can, in most cases succeed in saving the life of the dam, and in many cases that of the foetus also; while if unskilful interference has been carried too far and too long a time has elapsed, complications which he cannot overcome may have arisen and one or both will perish. As soon as possible after birth the attendant should dress the foal's navel with a strong antiseptic; a 10 per cent solution of carbolic acid or other coal-tar product, or the solution of corrosive sublimate already mentioned. We prefer the latter, and he should continue to use the dressing several times daily until the parts become entirely healed. This in most cases is an effective preventive for joint-ill.

Other reasons why a mare should be watched at this critical time might be given, but space will not permit; and we think we have given sufficient to prove our claim, "that she should be watched."
WHHP.

Breeding Two-year-old Fillies.

We have heard many an argument over the advisability of breeding two-year-old colts and sometimes three-year-olds as well. It all depends upon conditions. If the colt is well-grown and sufficiently developed for age harm seldom results from early breeding. Of course, a colt bred at so early an age cannot be expected to go to work and do as much work as an older horse, or even as much as she would have done had she not been with foal. The developing foetus is a drain on her constitution, and is bound to retard growth somewhat, even under the best of conditions. For this reason undersized colts should not be bred, and where it is necessary for the colt to do a work-horse's work she should not be called upon to raise a colt. A young mare also requires more care than an older brood mare. She must be well but carefully fed, and above all things she must get plenty of exercise and laxative feed such as grass, bran and roots. For this reason it is generally considered more advisable to delay breeding young mares until the warm weather comes, for this generally ensures plenty of pasture for the mare the next year for some time before she foals, and an abundance of this is the best of feeds for brood mares after the foal is dropped. Fairly late breeding also is generally most successful, because mares generally "catch" with less difficulty in warm weather than early in the spring when it is quite cool. It is particularly essential that the young mare get with foal the first season bred. For some reason mares which do not conceive the first season bred are very often quite difficult to get with foal in after seasons. All mares should be returned regularly to the horse and this is doubly true of young mares, and every precaution should be taken to get them with foal at the first service if possible. Some of the best and surest brood mares we know were bred at two years of age, and have gone on as regular breeders since and have grown into good big mares. It must be remembered, however, that these mares were not worked to the limit either while carrying or nursing a foal, and were always well fed and cared for. It depends on the size of the colt, the care and the feed. Undersized, poorly-developed youngsters should not be bred. Many such have been practically ruined by breeding too early. It is a question for the judgment of the owner.

LIVE STOCK.

Value of Dairy By-products in Terms of Meal.

Silage and dairy by-products are seldom quoted in any market report, consequently many farmers are at a loss to know what their feeding stuffs are worth in dollars and cents. Neither of the two articles mentioned has a fixed value of its own. The price is arbitrary for it depends upon the quantity fed, how it is fed and what it is fed with. The nearest any estimate can approach a definite valuation is to express the product in terms of meal. This done, the value of dairy by-products can be determined from the existing market price of meal. To make the discussion still plainer these products may be considered as fed to hogs. Whey and buttermilk are not customary feeds for calves, hence calculations based upon experiments with swine will cover the field more fully.

All kinds of feeding stuffs range high at the present time and it matters little which is chosen as a basis for comparison. Corn meal is a staple and will serve the purpose here. At the Wisconsin Station, Prof. Henry conducted 19 feeding trials with 88 pigs of all ages to determine the value of separator skim-milk when fed in combination with varying amounts of corn meal. The following table gives a resume of the results upon which some deductions are based.

Ratio of milk to meal when feeding

Ratio of milk to meal when feeding	Feed for 100 lbs gain	
	Lbs. Meal	Lbs. Milk
1 lb. corn meal with 1 to 3 lbs. skim-milk	321	585
1 lb. corn meal with 3 to 5 lbs. skim-milk	265	1048
1 lb. corn meal with 5 to 7 lbs. skim-milk	250	1434
1 lb. corn meal with 7 to 9 lbs. skim-milk	207	1616

Assuming that 500 pounds of meal, if fed alone, would have produced 100 pounds of gain the following table is derived from the above data.



Canada Needs More of These.

When feeding with each pound of meal	Milk required to save 100 lbs. of corn meal
From 1 to 3 pounds skim-milk	327 pounds
From 3 to 5 pounds skim-milk	446 pounds
From 5 to 7 pounds skim-milk	574 pounds
From 7 to 9 pounds skim-milk	552 pounds
Average	475 pounds

When corn is worth \$20.00 per ton or 56 cents per bushel, 100 pounds of skim-milk would be worth 31 cents when 1 to 3 pounds of milk are fed with 1 pound of meal. When 7 to 9 pounds of milk are fed with one pound of meal the milk would be worth 21 cents per cwt. If on the other hand, corn is worth 84 cents per bushel 100 pounds of milk would be worth 46 cents when 1 to 3 pounds of milk are fed with one pound of



The Beef Maker.

Mated to the right kind of a sire, this type of a cow will produce good steers.

meal or it would be worth 27 cents per cwt. when 7 to 9 pounds of milk are fed with 1 pound of meal.

The Ontario Agricultural College reports a trial in which 355.6 pounds of skim-milk proved equal to 100 pounds of meal. The proportion of milk to meal was about 2.5 to 1. The result is similar to the findings at Wisconsin with a similar proportion of milk to meal.

Two rules for finding the value of skim-milk when fed to fattening hogs may be quoted as follows:

To find the value of 100 lbs. of skim-milk when fed alone, multiply the market price of live

hogs in cents per pound by 5; if fed in combination with corn or barley multiply by 6."

"The value of 100 lbs. of skim-milk when fed along with corn to fattening hogs is half the market price of corn per bushel."

Where no water has been added to buttermilk, the general experience of experimenters is that it is equal to skim-milk for feeding swine.

Both Prof. G. E. Day, at the Ontario Agricultural College and Prof. Henry, at the Wisconsin Station found 785 pounds of whey equal to 100 pounds of grain, in pig-feeding trials. Two trials at the Wisconsin Station gave an average result of 800 pounds of whey equal to 100 pounds of grain. This is considered the maximum feeding value of whey. Generally it is considered that 1,000 pounds of whey will equal 100 pounds of meal as fed throughout the country which gives whey half the feeding value of skim-milk.

For Calves That Must Drink.

Every calf that is not slaughtered has a right to be reared well. These rights will probably be observed by stockmen because it means economy and profit. Young animals make cheaper gains than older ones so investigation proves, and since conditions demand economical production of beef it is better to start with the calf than with the stocker. The dairyman, however, cannot afford to rear his calves in the good, old-fashioned way, because butter-fat is valuable and the calf must drink, not suck. Pail-fed calves do not possess the bloom and roundness that identifies the nursing calf, but only for show or for sales purposes will that method of rearing calves be popular. The pail is becoming more in evidence all the time.

The long-jacketed buyer in the stock yards is looking for tidy stuff that will make small cuts, and the offering that supplies that demand best is the young, well-finished animal. The breeding heifer too should be well developed at time of service and at freshening, so much that is done to make the steer or heifer what it should be transpires in the first year, during which time the young one is a calf and should be treated as such.

To begin with a herdsman must use his own judgment as to how long the calf must be left with the dam. It will depend on the condition of the cow's udder and strength of the calf. The sooner the calf is removed, the quicker will it learn to drink and forget the dam. Its mother also will cease to worry much earlier. In all cases the calf should receive the colostrum or first milk, as it is designed by nature to cleanse the bowels and start the digestive functions.

From 8 to 10 pounds of milk per day is a good allowance to start off an averaged-sized calf which will weigh 70 to 75 pounds at birth. This quantity should be divided evenly between the

feeding periods. If the dam's milk is rich in butter-fat it is advisable to feed the milk that is drawn first, as it will contain less fat, yet provide the ingredients that a growing calf demands. The amount should be gradually increased and care should be taken not to over-feed. At the end of two weeks the calf should consume from 12 to 16 pounds divided equally between the morning and night feeds. If a case of scour develops the quantity should be reduced at least one-half.

Whole-milk feeding is necessarily expensive, but the time for substituting skim milk will depend upon conditions. In many cases the skim milk begins to appear in the ration when the calf is between two and three weeks old. In any case the change should take place very gradually, so the calf's stomach may become adjusted to the new conditions. Stockmen seldom find it profitable to feed more than 20 pounds of milk per day. When the calf is large enough to consume that quantity it will eat meal and consume roughage which will probably be cheaper than the milk. The milk should be fed sweet and at body temperature. Utensils cannot be kept too clean.

When the young animal is two or three weeks old it will soon learn to eat meal by throwing a little into the pail after the milk is gone. At 5 to 6 weeks of age the calf should be eating

1 pound a day, and it should be fed dry in order that mastication may be thorough. Clover and alfalfa hay are also relished at this time. A good grain mixture for calves can be made by mixing 3 parts of corn meal, 3 parts of ground oats, 1 part of bran and 1 part of oil cake.

FARM.

Agriculture and the Milling Industry.

Editor "The Farmer's Advocate":

Referring to the article by D. A. Campbell in your issue of April 8, written in reply to my letter published March 11, we may well say, "Where ignorance is bliss, 'tis folly to be wise." I would invite him to read the article again,—put his own down beside it,—and endeavor to realize that the true object of all discussion is to produce thought and study, and gain information. In so far as he has attained this noble purpose, I thank him, and am indeed sorry at not being able to extend the same compliment to the manner in which, (even before adducing a particle of proof in each instance), he uses the expressions:—"Mr. McMillan takes a pessimistic view of everything", "shows gross ignorance and great temerity, etc., etc.", "shows ignorance and failure to study", "alleges a huge flour-milling combine . . . and should be called upon to prove", "juggles figures", and winds up by "displaying gross ignorance and narrow prejudice in promulgating his opinions through the Farmer's Advocate". Will Mr. Campbell kindly look over these epithets again and ask himself if he is proud of such "ornaments" to his article?

He leads off by giving me a lecture on agriculture, but before he indulges in such again, he should inform himself that the live stock industry in its various forms, is the very foundation of successful and permanent agriculture rather than "comparatively unimportant features" and he will then know how childish are his opening remarks. His main grievance, however, is my remarks on the flour-milling industry. After studying his reply, I may well reproduce that portion of my article, viz.:

"One and two years ago, it is known that at the same time flour was being sold to the retail merchants in Winnipeg for \$2.90 per cwt., the same quality of flour was being laid down at the doors of the Co-operative Societies in Manchester and Glasgow for \$2.50 per cwt." Does he deny or disprove that fact? No! It still stands.

Does he deny or disprove that the Commission of the Toronto Board of Trade (Report 1912) found that at the same time ——— Brand of Canadian flour was being sold retail in Toronto at \$3.00 per cwt., it was being sold in London, Eng., at \$2.53 wholesale? No! And I am satisfied to take the testimony of Prof. McKenzie, of Toronto University, who was chairman of that Commission.

Does he dispute the quotations of prices as reported in the Montreal Telegraph, Sept. 12, 1913, of the relative prices of the same grades of flour in Winnipeg, Montreal and London, Eng., or show wherein they were false or misleading? No! These still stand. He talks about "juggling" but does he ever once say that his milling company or any other Canadian milling company makes a practice of selling to the Canadian trade at the same prices as they sell to their British and foreign customers? Never once! If his company does so, and other companies do so, would it not be easy to say so? His very reply bears its own refutation. It is simply begging the question, ludicrous, to talk about selling flour to the Canadian trade in wooden barrels, and at least, unkind to cast the slight upon home trade in saying—"Domestic credits are not of a very satisfactory nature."

Next comes the threat:—"Mr. McMillan alleges a huge flour-milling combine . . . and should be called upon to prove." There is not a syllable in my article alleging such a combine. My friend apparently does not know the difference in meaning between "combine" and "monopoly". He might study a standard dictionary and find out.

The most pitiable part of his whole article is when he talks "profit". If he will consult the Canadian Census, 1911, vol. 3, pages 4 and 5 he will find the returns tabulated under the supervision of the late A. Blue, who was the most reliable statistician in Canada, and compiled from the information furnished by the Canadian millers themselves which is irrefutable—Capital invested in Canadian flour mills, \$42,905,689; Materials used, \$57,227,520; Salaries and wages, \$3,756,275. If he will add these two latter items and subtract the sum from the output the result will be \$82,494,826, or an annual dividend of \$21,511,031, which on the investment is just 50 per cent. Mr. Campbell talks about "juggling", but these figures still stand, and he may juggle till Doomsday, he cannot refute them.

If he will study the development of Canadian

flour-milling as I have endeavored to do ever since the Canadian Miller's Association tried to hoodwink the farmers by trying to get them at Farmers' Institute Meetings years ago, to co-operate with the millers to petition the Dominion Government to increase the duty upon flour from 50 cents to \$1.00 per barrel, and how their little scheme was blasted at a meeting in the village of Brussels; if he will go back over the Globe's Financial Surveys and read the testimony of such men as the late Robert Meighen, F. Page Wilson and others on the great expansion and phenomenal profits of milling and if he will follow the exhaustive discussion of the present Parliament of Canada on this question, and above all if he will manfully consider the chances of the big milling companies this present winter, he may possibly condescend to wipe out some of those epithets so freely indulged in.

And as a clincher he asks if I would be satisfied to run my farm on a net annual return of 9 per cent. on my investment? I would be delighted. If such were the case, my smile and the smile of the Canadian farmer would be perennial. But I frankly confess my inability to do so. The saddest feature in Canadian farm life is the meagre net annual returns. If it could be shown that any such return was easily obtainable, the problem would be solved, and you could not keep the people off the farm. They would be falling over each other trying to get on to the land.

Huron Co., Ont.

THOS. McMILLAN.

Killing Grain Insects.

It is estimated that infesting insects if left unchecked in bins and granaries where grain is held over can easily cause a loss of from five to fifteen per cent. of the total value of the grain thus stored. A leaflet recently sent out by the Kansas Experiment Station explains the treatment.

Of the several species of beetles and their larvae attacking stored grains, not more than five or six are commonly found in the farmers' bins, of which the two species of grain weevils (snout beetles or little "bill-bugs"), the grain molytor, the cadelle, and the saw-toothed grain beetle are the most damaging. To these may be added three species of moths, the Angoumois grain moth, which is the most serious attacking corn, and the two meal moths, which are the serious ones in meal, bran, or any other ground grain products. All of these species are of small size, none of the beetles exceeding five-eighths of an inch in length, and most of them being less than one-fourth of an inch long. They are reddish, brown, or black in color. The moths are tiny "millers," and with the exception of the Angoumois grain moth, the work of their larvae in bins, granaries and mills may be distinguished from that of the beetles by the presence of web or silk in the grain, bran, meal or flour. Only two of these insects are true weevils, although the farmer and the miller usually apply the term "weevil" to most of them.

Measures to be employed in the control of this class of insects are both insecticidal and preventive.

INSECTICIDAL METHODS OF CONTROL.

Fortunately, it matters little what species may be causing the trouble, for all succumb to the same treatment. The simplest, most effective, and least expensive remedy for all insects infesting the farmers' grain and grain products stored in tight bins is careful fumigation with carbon bisulphide.

While carbon bisulphide fumigation is effective and is strongly recommended for all insect infestations in the farmers' bins, it is not an effective fumigation in flour mills, and since there is such an element of danger from fire in its use in these mills and in large grain elevators, it is not recommended for this purpose. It is prohibited by mill and grain-elevator insurance companies, and the use of it voids the policies.

The amount of liquid to be used depends on the temperature, on the size and shape of the building, on its tightness, and on the nature of the attack. Since temperature is a very important factor in the success of fumigation, it should always be given careful consideration. Fumigation experiments, conducted in practically an air-tight chamber with the larvae, the pupae, and the adults of the confused flour beetle (*Tribolium confusum*) and the adults of the rice weevil (*Calandra oryzae*), show that while at a temperature of 90 degrees F. one pound of carbon bisulphide is sufficient for every 500 cubic feet of space, at a temperature of 80 degrees F. one pound of the liquid is required for 400 cubic feet of space, and at a temperature of 70 degrees F. one pound of the liquid is required for every 300 cubic feet of space. At a temperature below 60 degrees F. the amount of carbon bisulphide required and the results obtained are so unsatisfactory that it is impracticable to attempt fumigation. If the building is reasonably tight and the temperature is above 70 degrees F., five pounds of carbon bisulphide is sufficient for every 1,000 cubic feet of space, or one pound for every

25 bushels of grain. In case the building or bins are not sufficiently tight to allow thorough fumigation, the amount of the liquid should be doubled or even tripled.

The building and bins must be as nearly airtight as possible in order that the vapor may remain in all parts of the space in full strength and for the required time. The vapor must enter all cracks and crevices by diffusion. Doors should be wedged tight. If they are loose, either paper should be pasted over them, or cotton batting should be inserted in the openings with a case knife. A similar treatment should be given all holes and cracks in the wall and floor. The batting should be packed tightly. The door and one or two windows should be so arranged that they can be opened from the outside when fumigation is completed. Care should be taken to have everything ready and in place, so that after the distribution of the liquid has begun it will be unnecessary to stop to adjust anything. Everything should be done to avoid unnecessary delays and to facilitate the rapid evaporation of the liquid.

Since the vapor is heavier than air and settles to the lower parts, the liquid should be placed in shallow pans at the top of the bins or buildings. It should be well distributed, not more than a pound in a place, and even less than this amount where it is practical to have it distributed in small quantities. If larger amounts are used in one place, it should be placed in pans having considerable evaporating surface. In large bins, to hasten and to equalize the operation, it is well to put a quantity of the liquid in the centre of the grain by thrusting into it a gas pipe, loosely plugged at one end, down which the carbon bisulphide may be poured, the plug being then loosened with a rod. The plug should be attached to the rod in order that it may be withdrawn. The liquid may be applied or sprinkled directly upon the grain. Unless used in excessive quantities the liquid will not injure the edible or germinative qualities of the grains or seeds.

If a building of more than one floor is to be fumigated the operator should begin on the first floor and work upward, and after placing the liquid in the upper story, leave the building through a window that he can close after him. If it is impossible to get out from the upper story, the carbon bisulphide should first be distributed there, and the operator should work downward as rapidly as possible to avoid the settling vapor.

The bins or building should be allowed to fumigate 36 hours. If the grain is not to be used for germinating purposes, it is well to subject it to the fumigation for 48 hours. The best plan usually is to apply the liquid on a Saturday afternoon and leave the building closed until the following Monday.

Doors and windows should be opened wide and the building or bins aired thoroughly one or two hours before being entered. Slight traces of the odor will linger in corners and other places where the air does not circulate freely, but these will gradually disappear.

The vapor of this liquid is highly inflammable and explosive. No fire or light of any sort should be allowed about the building while the fumigation is in progress. The application should always be made in daylight, for artificial light of any kind is dangerous. Electric lights must not be used, since when turning them on or off there is always danger of producing a spark. It is not safe to have heat of any kind in the building while the fumigation is in progress.

We have had several enquiries regarding killing the pea weevil commonly known as the pea "bug." Carbon bisulphide is the best. Place the seed grain in a tight box and place the liquid in a shallow dish on top of the box and cover in as closely as possible. This will kill the weevils.

What Political Economy Teaches.

Editor "The Farmer's Advocate":

Farmers are now busy doing their part in increasing production, and in this section have to be thankful that the winter's rigors have spared both wheat and clover. Paid exhorters frequently fail to attach sufficient importance to old mother nature, who always has something to say as to crop production. And it is perhaps well that man should realize his helplessness, lest he become vainglorious and boastful.

Appropos of our recent "Patriotism and Production Campaign" it would be well for everyone to recognize the fact that production will increase as soon as increased production is seen to be profitable, when all considerations are taken into account. Every farmer knows in a practical way the truth stated in the law of diminishing returns. Increased production per acre is profitable only up to a certain point. This point is determined by conditions—by the cost of land, labor and capital. The fundamental law of political economy operates for a maximum product per man, not a maximum product per acre; and, if conditions created by society make it more profitable to leave land idle than to use it, it is futile for us to inveigh against the rising cost of

living and the growing burden of debt upon our country. Our general policy has been constructed to favor the speculator, shark and parasite, and we are only reaping what we have sown when we complain of rural depopulation, and general commercial depression. Waste always produces want, and we can waste our opportunities and our possibilities just as truly as we can destroy our buildings by fire. The land speculator, whose income is filched from the industry of nearby land users, the beneficiary of special privilege, who fattens upon the public generally, and the political crook, who lines his pockets from the public treasury; these, and the laws which permit and encourage them are responsible for business depression and financial disaster. The honest and industrious citizen does his best to repair the waste, and in doing so bears a double burden. Too often he feels the pinch without knowing what causes it. But, if the pain is sufficiently acute and prolonged, some real investigation as to the causes will be in order, and that is one way in which Canada stands to gain from the present financial crisis.

Referring more specifically to the problem of increasing production the matter may be reduced to fairly simple terms by stating that there are only three ways in which this desideratum can be obtained—viz. by (1) cheaper land, (2) cheaper labor and (3) cheaper capital.

A great deal of discussion is going on now—days as to cheaper capital—"cheap money" it is called. In so far as the aim of this discussion is to obtain as cheap capital for the farmer as other business men get it is entirely useful and desirable. But in so far as it seeks to regulate the price of capital—what we call interest—it is both wrong and needless. Under free conditions the price of capital—what we call interest—is supply and demand. Interest being high, and capital scarce, labor will be diverted from the production of goods for immediate consumption and will go into the production of capital (not money). This will increase the relative quantity of capital, relieve the scarcity, and result in a fall in the rate of interest. No legislation should attempt the impossible task of interfering with this delicate balance: it is enough that legislation should secure and preserve freedom and justice. The fact is that cheaper capital is an entirely secondary consideration, in so far as it relates to the rate of interest. In so far as it is (improperly) understood to mean the cost of the tools and implements for production it is, of course, an extremely important, though entirely different, question.

So far as cheap land and cheap labor go, the fundamental factors in cheap production, the following may be said—

(1) Land can be made as cheap as possible by raising all public revenues by the taxation of land values. To tax the products of labor makes them dearer, but to tax land values makes land cheaper. There is no paradox in this. To tax a product of labor puts an obstacle in the way of producing—makes production more difficult. To tax land values on the other hand forces all land into maximum usefulness, because it penalizes the man who does not use the land to maximum advantage. Consider, if you will, two 100-acre farms of equal natural value, one farmed intelligently and well, the other ignorantly and ill. To tax the products of labor in this case puts the main burden upon him who has taken fullest advantage of his opportunities, and discriminates against his industry and intelligence; while on the other hand to tax only the land values places equal social burdens upon the two men because both have equal social opportunities. In this way the greater production of the good farmer is encouraged.

Hence so far as cheaper land is concerned, one of the two factors in cheaper production, we can get it in only one way—by the taxation of land values,—by the adoption of the principle that each unit in society should contribute to society's support in proportion to his social opportunity, in proportion to the privileges which society confers upon him. To violate this principle of justice makes land dear, encourages speculation and idleness, leads to famine and misery, and degrades and corrupts our morals.

(2) So far as cheaper labor goes we must be careful to measure labor properly. The labor which is cheap because it is ignorant and inefficient is not cheap—it only appears to be cheap. Everyone knows that one man will be cheap at \$3.00 a day while another man will be dear at 50 cents a day. Labor is therefore measured by its quality as well as by its quantity; and it is only by a tacit assumption (usually wrong) as to the uniformity in quality that we are justified in stating that wages are so and so.

Now, how are we to get cheaper labor? The question is a big one, but I venture to suggest that it can be got in the following ways:—(a) By improving the race physically. (b) By wide and thorough education of the mind. (c) By the development of a high moral character. (d) By the cultivation of thrift and sobriety. (e) By

technical education. (f) By patient and prolonged practice, leading to skill in technique.

So far as reducing nominal wages goes, we must remember that the real wages are what a man gets with his nominal wages. \$2.00 a day in Canada is little better than \$1.00 a day in England. High or low money wages mean nothing to the receiver of them; he wants to know how much he can buy with the money.

We have had enough exhortations to "produce more." Let our exhorters turn their attention to the study of political economy and then the real cure will become apparent. It is folly to expect the impossible, and the sooner we get down to solid ground the better for us. In party politics one sometimes hears it said: "It's time for a change." I will venture the same suggestion as to methods of assisting agriculture, we have been pursuing one policy for 30 years with few or no results: let us have a change.

Brant Co., Ont. W. C. GOOD.

The Political Situation.

By Peter McArthur.

A time has come when it is necessary to speak a word in defence of the people of Canada. They are in grave danger of being disgraced within the Empire and before the world by an unnecessary election during the progress of the war. No question of either Imperial or Canadian significance makes an election imperative. If it is brought on it will be purely for selfish purposes and the fact that it is unnecessary is emphasized by the daily evidence that the leaders of both parties, who are jockeying for position at Ottawa, are each trying to lay the blame on the other for an appeal to the people at the present time. Each wishes to appear before the electorate with the excuse that the issue was forced by the other party. Surely the people who have been taught to think seriously by a realization of the calamity that has befallen us in the war will see through these subtleties in time to voice a protest and make the infatuated politicians call a halt. There is plenty of evidence that the organizations of both parties are fully prepared for an election and straining at the leash. They are ready to plunge the country into a struggle in which the Conservatives and Liberals will pour on each other the wrath which should be directed against the enemies of the Empire. They are ready to chant their hate against each other from platform and press and to change a people brought together by the gravity and sorrow of the time into two hostile camps. Surely this crime against our Canadian citizenship can be averted.

During the past week I spent each day in a different city or town and had the privilege of discussing the situation with many prominent men in both parties. Nowhere did I find anyone who wants an election at the present time. In both city and country an election is regarded with dread for it would be bound to be a struggle of unexampled bitterness. The issues that are being hinted are such as cannot be discussed moderately and for the purpose of arriving at the truth. If an election is brought on both parties will conduct campaigns of insult that will stir the country to fury. This is no time to call the Government to account for its conduct of the war. There may have been mistakes and worse but the fact remains that we are rendering efficient aid to the Empire. Our soldiers are in the trenches and others are being sent forward as rapidly as they are needed. There may be waste and extravagance as has been alleged but the work that the people of Canada want done is being done. After the Allies have triumphed will be time enough to cast accounts and deal signal justice to any self-seeking men who may have betrayed their country in its hour of peril. Also, this is no time to question the loyalty of any man who is willing to do his part in supporting the war. The war measures have been supported by both parties, the war taxes will be paid by both parties, and the sons of the fathers and mothers of both parties are standing shoulder to shoulder at the front. As one Conservative editor said to me last week, "How can I accuse the Liberals of disloyalty when the tent mate of my son at Valcartier and his closest chum on the firing line is the son of the Liberal candidate in this riding?" That statement did honor to him as a citizen, a publicist and a patriot. He took the broad view of the situation that every true man should take at the present time. He is unalterably opposed to an election.

I have certain well-grounded beliefs that I shall venture to lay before you. I believe that the great mass of the people of Canada of all classes are loyal to Canada and the Empire though they may differ as to the method of showing their loyalty. I believe that the organizations of both political parties are disloyal to the interests of Canada and loyal only to the Privileged Interests that supply the campaign funds to put them in power. We have the records of both parties on

banking legislation, railroad legislation and all legislation that helped to build up in this country an arrogant privileged class. Both parties are deep in the mire.

I am also convinced that if an election is brought on at the present time it will not be brought on by the farseeing and unselfish men of either party, but by men obeying the orders of certain financial and corporate interests that are so besotted with greed that they hope through an election to cause new alignments that will enable them to plunder the country more recklessly than in the past.

The ordinary issues that are usually discussed at elections, such as graft, extravagance, etc., are of only local importance. Their influence is confined within the borders of Canada and they may be dealt with at any time. But the question of loyalty to the Empire is of Imperial significance and it cannot be discussed during the progress of the war without robbing the country of the unity it should have in the presence of the enemy. Because of its wider scope it may be discussed without reference to party politics. At the present time the wish of every earnest man is to see all the people united in the prosecution of the war. The Empire needs the whole-hearted support of every man. The politician who tries to brand any large section of the Canadian people with disloyalty and weaken their support of our great cause is guilty of a dangerous form of treason. He will drive into indifference or open hostility many men who would otherwise give ungrudging support to the war. In so doing he will be playing into the hands of Germany. If short-sighted men, for party purposes or to serve their corporate masters, should succeed in branding either of the great political parties with disloyalty they would to that extent weaken Canada and the Empire. Could you expect further aid from a man whose son was on the battle-field if you managed to place on him the stigma of disloyalty because of his political affiliations? It will be time enough for the Liberals and Conservatives to discuss their relative loyalty when the war is over and they have counted their dead. The highest loyalty at the present time would be to declare a true party truce and live up to it. That is what the mass of the people of Canada want to-day. They are all loyal, all working in their own way for the common cause and the man or party that dares to divide them on the question of loyalty will write the blackest page of Canadian history. The people of Canada do not want an election and let those who do want it beware!

THE DAIRY.

The Creamery at the Beginning of the Season.

Editor "The Farmer's Advocate":

Right or wrong, the impression is, that apparently the quality of butter in Ontario creameries is not improving. The butter in Quebec is at least holding its own, if not gaining; and the Western Provinces are gaining in quality by leaps and bounds—possibly for one reason because they may have started from a comparatively low plane. It is an easy matter to make wonderful relative improvement in any industry if you start low enough, but it is when a comparatively high plane has been reached, that relative improvement becomes more difficult. The man with a herd of cows producing 3,000 to 4,000 lbs. milk per cow in a year can easily make 100 per cent. improvement by selection and grading, but the trouble comes in making the second and third 100 per cent. increase in production.

We are not arguing that Ontario butter is necessarily on a high level of quality that there is no room for improvement, but the general average quality of butter is probably higher in Western Ontario creameries, than is the general average of quality in some other parts of Canada, hence it is more difficult to show any marked improvement in a short time. Having reached what may be called the second stage, it is more difficult to attain the third stage. The condition is similar to that of the man who has increased his herd average from 5,000 lbs. milk per cow to 10,000 lbs. per cow, which was comparatively easy, but the real work begins at the point where an endeavor is made to bring the average up to 20,000 lbs. milk per cow. An average score of 80 to 85 points on butter may be easily increased to 90 or 95 points, but it is the 98 to 100-point butter that keeps patrons and makers of creameries guessing.

However, there are a few points on which we have noticed criticism of Western Ontario butter more particularly, that look as if they might be remedied without too great trouble and expense.

POOR FLAVOR.

The first is poor flavor,—more especially an old and stale flavor. This is chiefly caused by keeping the cream too long on the farm and at too a high a temperature before it is delivered to

the creamery. It would look as if these conditions might be remedied. We are aware that it costs money to haul cream and that the oftener the cream wagon goes over the route the greater the expense, but are we not losing as much, or more, in smaller price received for the butter than will cover the extra cost of haulage in most cases? Better roads and the use of the auto-truck, look to be methods whereby hauling costs may be reduced. Creamerymen everywhere are, or should be, interested in the movement for better roads. We do not seem to be making much progress on the road question, but constant agitation and education will gradually bring about this much-needed reform.

Horse labor is becoming more and more expensive for road work. With the perfection of the motor truck and the improvement in country roads, we may look for that condition which will enable the farmer to have his cream delivered in a sweet condition at the creamery, not less than three times a week in summer, and twice a week in winter. This will allow the buttermaker to pasteurize the cream, ripen it with a pure culture and in this manner overcome most of the difficulty and disarm the criticism, regarding stale-flavored butter.

The foregoing, combined with cream-grading, and paying a higher price for the good cream, would seem to be the lines along which we must proceed in order to secure a place in the sun of a reputation for good butter.

Quebec has taken the lead in making the grading of cream compulsory and Ontario may well consider whether she should not follow the example set by a sister province. Ontario appears to belong to that family of "fearful souls, who stand shivering on the brink afraid to venture in," on some matters, although she has usually been foremost in those things which make for the welfare of her people in agriculture in general.

Our leaders seem in doubt as to methods of grading, some favor making the standard general and leaving the question of grades largely to the judgment of the buttermaker. This is no doubt the easiest plan, but it seems to the writer as if something more definite were needed as a guide or standard, in case of doubt or appeal. Without a standard of fat and acidity, which are things that can be exactly determined or measured and are not things of judgment, we shall not get very far, though it may be necessary as a "starter" to adopt something simpler. It might not be necessary to apply the standard too strictly at the beginning but eventually we shall have to rely largely on those qualities in cream which can be measured with accuracy. As a suggestion, we venture on a standard of 25 per cent. fat and not over 25 per cent. acidity, flavor good, as grade 1. All under this to be grade 2, or rejected. The flavor question adds complications, because there is no standard for flavor which can be accurately gauged. In this case, every man is largely a law unto himself, which necessarily results in more or less confusion.

SALT.

A general complaint with reference to much butter is that it contains too much salt and that it is not salted evenly. This is something which can be easily remedied, especially the condition of too much salt. It is far better to err on the side of light salting, rather than overload the butter with salt so that the true flavor of the butter is hidden by the salty flavor. This high salting might be advisable with bad-flavored butter, but we ought not to make such. On the average not over 5 or 6 per cent. salt should be added, which will leave 2½ to 3½ per cent. salt in the finished butter. In no case should the butter, as prepared for market, contain over 3½ per cent. salt. The general taste is not in favor of heavily salted food products. This belongs to the age of "salt pork and potatoes" as a chief diet for human beings.

In order to obtain uniform salting the weight and test (per cent. fat) of each churning of cream should be at least approximately known and the salt added on the basis of the fat content of the cream. Guessing at the weight of the butter in the churn is a very poor way to salt butter correctly and uniformly. The guessers ought to be eliminated from creameries as buttermakers.

MOTTLES AND MOULD.

Mottles are largely caused, either directly or indirectly by improper salting and hence another reason for care when salting butter. If troubled with mottled, streaked or wavy butter it is better to work the butter twice—once very lightly after salting and again in a few hours. This makes extra labor but if the mottles persist, the remedy will be worth the cost.

Mould is caused by spores (seeds) of minute plants, which thrive in damp, dark places. The creamery should be thoroughly cleaned and sprayed with formalin or some other mould destroyer, before work begins in the spring, more particularly where the butter is stored. The parchment paper should be soaked in brine, or formalin, or both, before lining the boxes to kill the mould spores. Saltless butter is much more

likely to become mouldy than is salt butter, hence greater care is needed in the preparation of boxes and parchment paper for holding unsalted butter.

MARKETING AND STORING.

The time has come when we should consider the question of food products for human consumption from a national viewpoint. The question is so important that we can no longer view it from a selfish point of view. We are confronted by the following fact—at certain seasons of the year we have a surplus of food products; at other seasons we have a condition of scarcity—in this case, a scarcity of butter, and are obliged to import butter to fill the requirements of our home market.

Considering these facts, has not the time come when the people as a whole, should make provision to store the surplus under suitable conditions for the time of scarcity which comes regularly with the winter season? This is a big question, involving many interests and is apt to be regarded with narrow vision, but it will be necessary to get away from all this, if we should be able to place this question on a sound national basis. This means building national cold-storage for perishable products like butter, and proper supervision which savors somewhat of "militarism" but better this than face the danger of starvation or exorbitant prices to the consumers at a time of scarcity, at the same time, the producer receives very low prices under present conditions.

Looking at the creamery industry as a whole, especially in conjunction with our live stock for which skim-milk is almost a necessity when young, the prospects for 1915 look good. Old butter is practically all cleaned up and new goods are eagerly awaited in both home and British markets. The price of butter at the beginning of April is exceptionally high and we have not yet heard of buyers "knocking" the price. All this is favorable. We enter the new season with confidence. But let us all try to improve the quality of the butter produced in the creameries of Canada during the coming summer. This means co-operation between milk and cream producers and manufacturers of butter.

O. A. C.

H. H. DEAN.

Two Good Records.

Illustrated in this issue are two Jersey heifers owned at the Central Experimental Farm, Ottawa. These heifers made exceedingly good gains and their net returns are worth noting.

Brampton Blue Duchess, 1504, at third calving and 4 years, 42 days shows in Record of Performance—Official Production, 9,775 lbs., milk testing 5.25 per cent. fat—514 lbs. fat in 365 days.

Herd Record between calvings as a four and five-year-old:

Number of Days in Milk	376 days.
Milk Produced	9,726 lbs.
Butter Produced	619.4 lbs.
Value Butter at 30c	\$185.82
Value Skim-milk	\$18.39
Total Value of Product	\$204.21
Meal Consumed	4,186 lbs.
Roots and Silage Consumed	7,585 lbs.
Hay Consumed	2,853 lbs.
Green Feed Consumed	3,700 lbs.
Total Cost of Feed	\$76.78
Profit over Feed	\$127.43

Brampton Oakland Trial (Imp.), 1450, at third Calving, 3 years, 317 days. Record of Performance—Official Production 9,082 lbs. milk testing 6.36 per cent. fat—577.6 lbs. fat in 365 days. Herd Record between calvings as a three and four-year-old:

Number of days in Milk	417 days.
Milk Produced	9,674 lbs.
Butter Produced	765.3 lbs.
Value Butter at 30c	\$229.60
Value Skim-milk	\$18.04
Total Value of Product	\$247.64
Meal Consumed	4,209 lbs.
Roots and Silage Consumed	8,360 lbs.
Hay Consumed	3,039 lbs.
Green Feed Consumed	3,700 lbs.
Total Cost of Feed	\$78.75
Profit over Feed	\$168.89

Prof. Archibald writes that he considers these two heifers have under very normal conditions, performed exceptionally well. They calved just previous to the loss of the buildings at the Experimental Farm, Ottawa, and received very poor housing and attention for the first three months of their lactation period. At no time were they given more than nine pounds of grain per day, and at no time were they milked more than twice per day. Had these heifers calved in the comforts of the new barn, and been given the treatment usually allotted to cows of this calibre, they would certainly have made some outstanding records. However, the records which they have are sufficient to prove that they are money-makers.

A Big Cheese.

It is said that the largest cheese ever made in the United States has been completed recently in New York State and is to be exhibited at the Panama Pacific Exposition. It is 4 feet 6 inches thick, and 6 feet 6 inches in diameter, weighing 11,000 lbs. It took 100,000 lbs. of milk to produce the cheese.

POULTRY.

These Hens Pay.

Editor "The Farmer's Advocate":

I read with some interest an article recently published in "The Farmer's Advocate" written by Howard A. Clark, of Northumberland County, on poultry and profits. I would certainly like to find a leaf out of Mr. Clark's book if it would teach me how to feed 50 hens for one year and raise 170 chickens fit for market on \$25.75 worth of feed, saying nothing about the feed that went to the 80 the hawks got. In the first place a flock that will only average 86½ eggs per year in my estimation is not worth bothering with. I think that Mr. Clark's poultry must have had access to the granary as well as the turnip bin or his feed bill would have been much higher. As for myself I might say I am not in the poultry business although I am keeping 150 birds especially for the eggs, 103 White Leghorns and 47 Rocks all pullets. I have fed mash once a day at noon constantly all winter very much the same proportion as Mr. Clark has been feeding, with no bad results. I am living on one acre of land so buy all my feed with the exception of a few roots so know just what it costs me. I bought my feed in bulk lots last fall, paying \$1.10 per bus. for wheat, a little less than 50c for corn, \$1.30 per cwt. for middlings, \$1.20 per cwt. for bran and 90c. per cwt. for oyster shell. At these prices it cost me a little over \$15 per month to feed my flock. Now the question comes: "Do they pay their way?"

Well, we sell our eggs at the country store for just the regular price and here is the result for the last three months:—

Jan. 129½ doz. at 30 cents	\$38.85
Feb. 174 doz., 30c down to 25c	48.70
Mar. 262 doz., 25c down to 16c	47.50
Total	\$135.05
Three Month's Feed	45.50
Profit	\$ 89.55

The prospects for April are much better.
Kent Co., Ont. JAS. ANDERSON.

HORTICULTURE.

See that the spraying outfit is complete.

Sprinkle a few ashes on the strawberry patch and if any bone meal or basic slag is available use it also.

Quality must be the aim of all fruit-growers. Uniformity in size, good color and freedom from disease or injury are the cardinal points.

For peach leaf curl, spray the trees shortly before the buds begin to swell with lime-sulphur. One gallon of commercial lime-sulphur to 9 gallons of water is recommended where an hydrometer is not available with which to test the strength of the mixture.

If the branches of the old apple trees are long and the fruit is borne far out on the limbs do a little pruning to encourage suckers and allow them to grow on the branches near the trunk in a very few years they will bear fruit and the tree will be strengthened and rejuvenated.

The Needs of Fruit Growing.

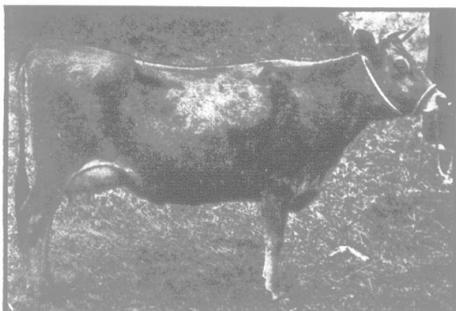
A speaker, George F. Lewis, at a fruit growers' meeting in Grimsby, Ont., lately, after a careful study of the industry in the Niagara district reached the conclusion that it was neither "Patriotism nor Production" that was lacking to spell prosperity, but the fundamentals of organization, co-operation, standardization and publicity. My plan is to organize—in a short campaign—the fruit-growers and shippers throughout the district in a parent association with subsidiary branches on a federated basis. The territory to be divided into seven or more districts. Each district to have representation in the central council or governing body. My plan is such that there will be no interference or change with the present manner of carrying on business. A grower will be free as he is now to ship direct or send his fruit through a shipping company. We need

FARM BULLETIN.

Ontario's Crop Prospects.

The following information regarding agricultural conditions in this Province is contained in a bulletin prepared by the Ontario Department of Agriculture, based upon information furnished by a large staff of correspondents under date of April 1.

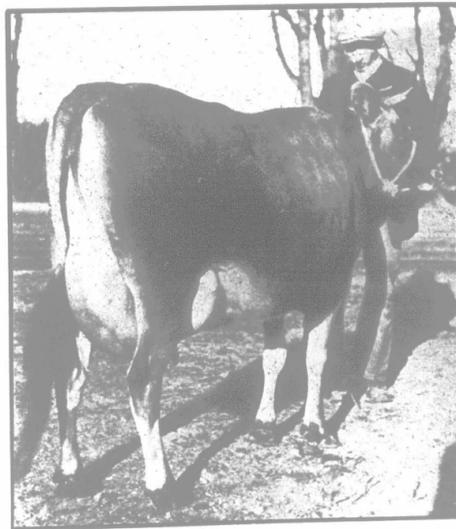
WINTERING CROPS.—Reports of correspondents in November described the new fall wheat as never more promising, there being a good growth and a much increased area. The fields were well protected by snow until the middle of March, when in many sections they became comparatively bare, and suffered more or less from alternate thawing and freezing, cold winds, etc., causing some heaving and considerable browning



One of Two Profitable Jersey Heifers at the C. E. F., Ottawa.

of the top. The hope was entertained, however, that warm rains and good growing weather later on would revive these more backward fields, as the tops only seemed affected. Late sown fields are the least promising. At present there is no cause for anxiety as to the condition of the main crop.

Clover did not make a good catch last year, especially in the eastern portion of the Province, owing to the unusually dry summer, and as a consequence new fields were not so well prepared for the trying open spring weather. More or less heaving has occurred in every district, and while a number of correspondents report fields as giving good promise the prospects of the crop, taken as a whole, are not so encouraging as might be desired. However, favorable spring weather may yet put a brighter face on the situation.



Showing a Fine Udder—Another Good Jersey at the C. E. F.

Rye appears to have come better through the winter than either wheat or clover, and gives promise of being a good crop.

ORCHARDS AND SMALL FRUITS.—Fruit trees so far have not suffered much from the winter, especially where care has been given the orchards. A few complaints have been made of injury to peach buds in some localities in southwestern Ontario, but so far the peach orchards of the Niagara peninsula have been practically unscathed from this cause. Several reports were made of girdling of young fruit trees by rabbits and mice, more especially in the county of York. Fruit bushes have come through the winter in good condition, but some correspondents speak of injury to strawberries from severe open weather in March where not mulched.

LIVE STOCK.—The wintering of live stock,

owing to the light hay crop and the poor summer pastures of last year, depend largely upon silage, straw, roots and other roughage, of which, happily, there was more than an average supply, as many farmers were chary in using grain owing to the high prices prevailing during the winter.

As a class, horses have come through in generally good condition, although a number of minor cases of distemper have been reported. Working horses particularly are said to be in excellent fettle, although perhaps not so heavy as usual, as owners have in most cases been sparing with feed.

Cattle also have come through the winter in fair condition—healthy but somewhat thinner than might be desired, owing to the high price of grains and mill feeds. All ailments have been of local nature, no serious outbreak of disease being reported. Fat cattle were picked up in large numbers in the fall—some of them rather unfinished—especially in those counties near the border; but in some sections a fair supply is yet on hand. Store cattle are not so plentiful as usual, and graziers are anxious to get them on the grass owing to the scarcity of hay and the high value of grain. Many of these animals are younger than usual, and some correspondents point out that, owing to the large number of milch cows now in use grazing cattle are tending more toward the dairy type. It is also stated that farmers are holding on to their cows in the dairy counties owing to the good prospects for cheese, and that more calves are being retained than formerly.

Sheep have wintered better than any other class of live stock. They are doing well, and lambs are coming strong. The dread of the dog, however, is very apparent in reports of correspondents, and it acts as a brake on the sheep industry of the Province.

Hogs have been kept thinner than usual, but it is said that they have suffered less from crippling than for several winters past. The high cost of grain has caused many animals to be turned off in a somewhat unfinished state. A few spring pigs have died, but no serious disease is at present affecting swine.

Nearly every farmer has his own plan of feeding, and the methods reported vary from careful stall care, the ration being well balanced and nourishing, to a feed of chopped straw and silage or some other roughage, with perhaps a trifle of hay or crushed grain, just sufficient to bring the animals over to the grass. Some breeders of sheep and cattle speak well of rape for fall pasture, while advocates of the silo for general use are more enthusiastic than ever. There does not appear to be as much grain fed to live stock as in more recent years, except where they were being finished for delivery. Judging by the reports of correspondents, however, it is plain that a great advance has been made during the last few years in the economic wintering of all classes of stock while yet bringing them through in fair condition for early pastures.

The fodder supply at the present time is largely a matter of local—or individual—experience. Hay and straw, where not too freely sold to pressers at tempting prices, will be sufficient in most cases and there will also be enough coarse grains on hand to meet requirements. Progressive farmers have an ample supply of roots for all needs, while the excellent crop of corn last year ensures an abundance of either silage or dry fodder. In this connection a correspondent tersely remarks: "Silage solves the feed problem."

Correspondents are not unanimous regarding the response to the call for a larger production. A few are outspoken against the movement, fearing over-production with a lowering of prices, but the great majority of those reporting heartily endorse the Patriotism and Production idea, and it is certain that there will be a substantial gain in the quantity of most of the commodities raised this year on Ontario farms.

Fall wheat already shows a decidedly increased area. More fall plowing than usual was done, much of it with old sod, and while this may mean an increase of grain (especially of oats), and of corn or roots, it will also mean to some extent less pasture. In the cannery districts a smaller acreage will be devoted to supplying the factories and more attention will be given to raising general farm crops. The cheese season will be earlier than usual, and this will require an increased production of milk and consequently a greater consumption of fodders.

Several correspondents point out that some of the gain in crop production will come not so much from an enlarged area as from a better selection of seed, a more careful preparation of the seed-bed, and a more thorough cultivation of the growing crops. They say that poor seed and poor tillage have been responsible for many of the poor yields of the past.

One drawback to farm crop development is the lack of competent labor; for while help is offering fairly freely it often lacks quality.

Not only in field work, but in the orchard and the stable the idea of improvement and increase seems to have taken hold of many, and the year 1915 promises to be one of the busiest in history of agriculture of the Province.

better transit facilities, better laws, better Government inspection, uniform packing, etc., but to get results there must be underlying unity in all things.

"First-grade fruit only can be packed under the 'Sunmaid' label. Consisting of well-grown specimens of one variety, sound, of uniform and of at least normal size, and of good color for the variety, of normal shape, free from worm-holes, bruises, scab and other defects, and properly packed."

Varieties That Will Sell.

Editor "The Farmer's Advocate":

Last year was one to be remembered by apple growers, as the export trade in apples was so affected by the war that it was for a time almost wiped out, causing a glut in the home market such as was never known before. There must have been a great wastage, as thousands of bushels were never gathered. However, the experience of last year teaches some lessons that may be useful. The production of the apple orchards of Canada is now such, that in a year of average yield it is doubtful if, under the very best system of distribution, the home market could absorb the crop. Therefore it is evident that we must secure some other outlet for our surplus. Foreign markets must be explored, and it is along this line that the Government, Federal and Provincial, can best help the apple industry, not only in securing markets but in improving and cheapening transportation. Fruit Growers do not ask to be coddled or spoon-fed, but if the Department of Agriculture can do anything to aid the industry, their help should not be withheld.

I hope and believe that when the war is over perhaps not immediately after, but in years to come, Canada will ship more apples to the countries of Europe and secure wider markets there than we have ever had.

The past year of overstocked markets has shown which varieties sell best in such a season, and that there are some choice varieties that will sell when others are not wanted. Snow, McIntosh and Spy are the best sellers, as a late-fall and early-winter dessert apple, it is not likely we will ever get any variety better than the snow, and it is always in demand while the McIntosh is at its best in January, and is certainly a high-class dessert apple. But among the winter varieties the Spy always stands at the top. Everybody wants it, and everyone buying winter apples is sure to ask for it. No other winter apple combines the three essentials, long-keeping, high-class dessert and cooking quality, as does the Spy. This applies to the markets on this side of the ocean of course, for when we come to the British market, they have not yet learned the real value of our Spy apples, for we have there the Russet selling at a higher price and in greater demand. This seems to us anomalous, that a variety, generally neglected in the home market should sell across seas at a higher price than our famous Spy, but such is the fact. There is another winter apple grown to perfection in Canada that in the past has been neglected and a poor seller, and yet were its virtues and uses properly known it would be one of the most popular of varieties we have. I refer to the Talman Sweet. For people who relish a sweet apple for dessert it is unsurpassed. But as a baked apple, it has every other variety beaten. It will keep as long as the Spy. It is one of the hardiest and longest lived trees and if people, especially those who live indoors, only knew the benefit of baked apples as a part of their diet, there would be as great a demand for Talman Sweets as there is now for Spy. I can speak of this from experience, for I get through with about two barrels myself every winter, and if everyone of our adult population would use the same amount it would solve the problem of markets, and save doctor's bills and the buying of patent medicines as well. I am still using them at this writing, April 12, and they are yet in good condition, though kept in an ordinary cellar.

With proper care the orchards of Ontario will produce the popular varieties of a quality that will take second place to none in the world. Those who have varieties that are not popular in the markets, providing the trees are not too old, can change them to Spys, McIntosh, and other desirable kinds in a few years by top grafting. Instructive articles on this subject have appeared recently in the Advocate, and although it was well explained, yet the better way to learn it is by means of an object lesson. Go and watch some experienced person while they are doing it. There is room for a vast improvement in the orchards of this country and many of them could be increased very much in value by spending a few days in top working every spring.

Simcoe County, Ont. G. C. CASTON.

It is not much of a blockade that will allow in the neighborhood of 8,000 ships to arrive at and depart from British ports in a month. The submarine "scare" has not been so terrifying after all, and yet submarine commanders have been murderers.

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rest an article Farmer's Advo- A. Clark, of n poultry and to find a leaf ould teach me how raise 170 chickens t of feed, saying t to the 80 the a flock that will in my estimation l think that Mr. l access to the n or his feed bill As for myself I poultry business ds especially for nd 47 Rocks all a day at noon the same pro- feeding, with no e acre of land so on of a few roots I bought my feed .10 per bus. for r corn, \$1.80 per wt. for bran and At these prices month to feed my : "Do they pay

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Our Scottish Letter

These are quiet days in one sense, and in another they are anything but quiet. Farming operations in a normal season would have been regarded as well forward for this date (April 5), but this year on account of the war and the scarcity of labor, Spring work in many places is in a very backward state, and between absence of an adequate supply of labor of any kind, and a defective quality of labor when there is a supply, the arable farmer is very much perplexed. Nor is the flockmaster much better off. Shepherds are quite as scarce as capable horsemen, and many a flockmaster who had long since discarded the toilsome vigils of the shepherd in lambing time is again in harness. In East Lothian, where farms are generally large and it pays for the master to superintend with his coat on, many masters are compelled to doff their outer garments and bear their full share of the manual labor. These are the minor yet serious disadvantages of a state of war. If these were all war would not be regarded as such a very terrible thing. But these things have a reflex influence on the conduct of the campaign. I am not one of those who believe that this war will come to a speedy termination. I am not impressed with the ostentatious parading of Germany's needs. If she were in straits for food and munitions of war she would not be proclaiming the fact on the house tops as she is doing. The very ostentation of her statements should lay them open to suspicion. We, that is the British Empire, had better make up our minds that in order to secure "victory as usual" we must strain every nerve, and that Nelson's watchword, "England expects every man to do his duty" means at present, not alone every man in the Navy and every man in the Army, but every man on the arable field and the pastoral grazing, every man engaged in growing food or manufacturing munitions of war, every man, every woman, and every boy and girl, who can do anything to keep the wheels of industry moving at their maximum speed.

A new phase of this question has been entered on. It has been crystallized by the Chancellor of the Exchequer, in one of his happy phrases, "We are fighting three enemies, Germany, Austria, and Drink, and of the three the last is the worst. Hence we have the extraordinary spectacle of men who are known to be no teetotalers—like yours truly, standing on prohibition platforms and demanding that the nation shall follow the example set by the King and Lord Kitchener, and banish strong drink from their tables during the period of the war. One who has been a life-long total abstainer and an adherent to and apostle of the well-worn maxim, "Total abstinence for the individual and prohibition for the State," naturally feels glad that the principle advocated is recognized as the only sound principle in the present emergency. If it is so, and no one has expressed any doubt on the subject except those whose pecuniary interests are at stake, then it must be so at any time if the best is to be made of the labor of men, and happiness is to be secured in the homes of the toilers. It is indeed a melancholy fact that, while our gallant soldiers are fighting a life and death battle in France and Flanders, and our brave marines of every grade, including the most heroic of all the mine-sweepers, are risking life in the North Sea and the Dardanelles, the industrial classes at home should, through their drinking habits, be working fewer hours in a week than under normal conditions, and adopting the policy of "cag canny" even when working. To what a depth of baselessness and idleness will men not sink when they become the slaves of drink, and devotees of debauchery and pleasure! Let not men dream that they are doing anything heroic when, during the time of war, they forego drink. Those of us who have always foresworn it are not inclined to boast; we have only done our bare duty, and thus are but unprofitable servants.

The agricultural labor question occupied the attention of parliament before it rose. The Prime Minister intervened at an early stage as well he might. So far as Scotland is concerned his own constituency of East Fife is feeling the stringency as much as any part of the country. It is not easy to be silent when one sees three and four pairs of horses standing idle in the stable and no visible means of having them employed. Crops cannot be sown or planted under these conditions, and it is miserable penance to urge objections against the employment of boy labor under such circumstances. According to the compulsory clauses of the Education Act it is not permissible to employ boys aged from 12 to 14 years, yet in many cases such boys, especially in the country are in a position to render most active help on a farm. Many, like the writer, have done so, and are quite unable to discover that they suffered thereby. And in any case the times are so abnormal, and the necessity for growing as much food for man and beast within our own borders as we may, so eminent, that it is the wisest thing to advance educational objections as an objection to the employment of such lads. It appears to be left to the discretion of School Boards to determine what

should be done; the only thing necessary is to give breaches of the letter of the statute during the present distress. A war policy can never be the constant experience of this country. Great Britain's every interest is peace, but in order to peace there must be security, and that there could never be while Prussian militarism dominated and threatened where it did not dominate Europe. Therefore, we are in for a big job, and the educational advancement of the theorist can wait.

In the stern fight at Neuve Chapelle many well-known farmers fell. The 4th Seaforth's, a territorial regiment from Ross-shire, were engaged, under Major Wilham Robertson, of Montegles Farm, a nephew of the late John Ross, the famous cattle breeder and feeder formerly of Mickle Tarred. Major Robertson was himself a farmer. He fell, leading on his men, so also did Captain Budge, another Easter Ross farmer, tenant of Easter Barichrigh, and many others. Major Cuthbert, the factor on the Ardross estate in Western Ross, was wounded slightly but recovered, and is now in command. Many homes in Ross-shire are in mourning, and up to the time of writing the Government have not published the official list of officers and men who fell in that conflict. We won, but there is a strong suspicion that the toll in men killed, wounded and missing was very heavy.

Perhaps your readers think that I have said enough about the war, but it is not easy to fix one's mind on anything else in these times.

March is always a month busy with horse shows. This year they were all compressed into the first week, with the Aberdeen Spring Show on Wednesday, March 10; so far the very best day we have had in 1915. The show held that day was one of the best ever held in the northern city. The spring show there is mainly, if not exclusively, a Clydesdale event. There are four classes for stallions and two for fillies. The most successful exhibitor this year was George A. Ferguson, Surradale, Elgin. He had first prizes with his aged stallion Gallant Stewart 16603, his three-year-old stallion Victor Dale 18148, and his two-year-old filly Rosalind. He secured champion honors for Rosalind over the two filly classes and the class of yearling colts. The championship of the three older stallion classes went to John P. Slough's black colt Kismet 18117, which was got by Dunure Footprint out of the Baron's Pride mare Moira. Both sire and dam are Cawdor Cup champions. The show resulted in an extraordinary series of successes for the produce of Dunure Footprint. In a large class of yearling colts all the prize winners except the third were got by Dunure Footprint. The third was got by Apukwa. In the two-year-old filly class the first, third and fourth were by Dunure Footprint, and the second was by his sire Baron of Buchlyvie. In a remarkable class of yearling fillies the first, fourth and sixth were got by a Dunure Footprint; the second and third by Apukwa, and the seventh by the useful breeding horse Hillhead Chief. William M. Ritchie, Balcain, Oldmeldrum, owned and bred the first and sixth, and sold the pair on the ground for close upon £900. The third prize two-year-old filly was also reported to have been sold for £1,600. A very fine filly is the second-prize two-year-old Verona, owned by her breeder, D. Y. Stewart, Crieff, and got by the famous Baron of Buchlyvie, one of the noted prize mare Veronique. Last year Verona was all but unbeaten. Her dam, Veronique, was also dam of the first-prize aged stallion, Gallant Stewart. She has bred very well, nearly all of her produce being better than the average. She breeds best to a Baron's Pride horse, Gallant Stewart being got by Revelanta.

I do not know whether I mentioned a remarkable hit made by a Scottish farmer resident in England in connection with the late Lord Rothschild's champion Shire horse Blaisdon Jupiter. Thomas Simpson, Rook Tree Farm, Haynes, Beds, hired this horse for 1915 for £100, with the option of hiring him for 1916, I believe at the same money. He advised Lord Rothschild's manager to exhibit the horse at London, which the said gentleman had not thought of doing, as he was of opinion that the stud contained better horses. Blaisdon Jupiter was, however, shown, in the notion that he might be mentioned honorably in the list. He, however, came out first in his class, champion of the senior stallions, and finally supreme stallion champion of the whole show. In the circumstances one is not surprised to hear that Mr. Simpson has exercised his option and hired the horse for 1916. He will make a fortune out of him at 12 guineas a mare, which is his fee.

Lord Rothschild, who has just passed away, was a remarkable man. He was born Nathan Mayer de Rothschild in Piccadilly in 1810. His father was the first Jew in a British sense returned to the British House of Commons. Lord Rothschild was the first Jew in a religious sense to be created a peer, and to take his seat in the House of Lords. He was returned as member of Parliament for Aylesbury in 1865, and sat for that constituency for 20 years. In 1885 he was created a peer, and consequently was a

British legislator for half a century. He was a college chum and life-long friend of the late King Edward VII. A zealous patron of Agriculture, and particularly of Shire horses and Jersey cattle, Lord Rothschild was unsparing in his benefactions for both breeds. He exhibited a team of Shire horses in British dominions overseas, and also at foreign exhibitions. His show at Tring in Herts, not far from London, was the chief centre for exhibiting Jersey cattle in this country. There the system of awarding prizes for points in milk production and butter-fat was put into force in an elaborate and exhaustive way. The deceased peer was a man of simple habits, and devoid of anything that savored of ostentation. He was the acknowledged lay leader of Jewish people in Great Britain, and is understood to have been extremely liberal in his benefactions, but refused to make any display of his name. His funeral rites were conducted with extreme simplicity also.

Canadian advices announce the resignation of an old friend, Robert Ness, from public offices in Huntingdon County, Quebec. How old a friend Mr. Ness is to the writer may be inferred from the fact that when he knew him first and for long after he was Robert Ness, Jr. Mr. Ness has very many friends in this country. He was a regular visitor for very many years, sometimes making two trips in a season to purchase Clydesdale horses. Although never taking large numbers at a time Mr. Ness was a regular customer and had his own taste and fancy in Clydesdales. He liked the kind he could sell, a sensible business-like way of doing horse trade, and with the short-legged, thick horses that he bought he has always done well. His son, Robert Ness, Jr., has made Ayrshires a study, and if he were here this week he would find plenty to interest him in the splendid lot of 150 Ayrshires which will be sold by public auction at Ardyne, Toward, Argyleshire, on Thursday. This herd is the property of John McAlister, Ardyne, who was born on Mid-Ascog, Bute, and is one of the most expert judges of both Clydesdales and Ayrshires in this country. His cattle are in remarkable bloom, and in spite of the uncertainties begotten of the war he is likely to have a record sale. Mr. McAlister leaves Ardyne for a farm on Lord Shrewsbury's estate in Staffordshire. He thus adds another to the large total of Scottish farmers who find their homes and fortunes in England.

Shorthorns have been selling well this season. At the Penrith sale early in March 144 bulls, mostly yearlings, were sold by auction for an average of £40. These were drawn from herds in the Cumberland and Westmorland dales and fells. The special characteristics of Shorthorns bred in these districts are their milking properties. In this respect they far excel Aberdeen Shorthorns. The dairy buyers in the East of Scotland are almost wholly recruited from the north of England, and the Darlington sale, held about a week later, 77 bulls sold for an average of £36 14s. 6d. These were much after the same character, although in the leading herd in Teeswater that of George Harrison, Gainford Hall, Darlington, Duthie bulls have been used to a large extent. Many fine cattle of Shorthorn character in the north of England are unpedigreed. That is to say, no record of their breeding has been kept. This is greatly to be regretted. The enlightened registration policy of the Shorthorn Society, however, prevents them being altogether lost to the breed. These fine cows can be mated with pedigree bulls, and in the fifth generations they can be registered and numbered in Coates's Herd Book. Every sensible, intelligent man knows that many so-called "Short-pedigreed" Shorthorns are the best and healthiest in the herd book. The foolish policy of those like buyers from the Argentine who discard all Shorthorns, no matter what their inheritance may be, whose pedigrees do not trace to a certain volume of Coates's Herd Book, operates entirely to the benefit of home breeders. It leaves in possession of first-class healthy cattle, well fitted to benefit breeders in any country. One can become pedigree mad, and certainly the craze for certain so-called "families" is absurd to a degree.

Times like the present are conducive to the activity of "cranks." There are many such connected with agriculture. One of the most active and well-meaning is the "crank" who believes the British farmer would be on the fair way to fame and fortune if he only would devote himself to the growing of sugar beet. The leader of this movement is the Earl of Denbigh, and he has associated a number of others with him. Their latest manifesto was read at the Farmer's Club, London, by Mr. Dowling, N. A. The paper is exhaustive but unconvincing. What the English farmer wants to know is whether it will pay him better to grow sugar beet than mangold-wurzel. So far the balance is in favor of the mangolds. As it does not pay the Scottish farmer to grow mangold, it follows that it would never pay him to grow sugar beet. On the whole the British farmer may be well advised to leave the growing of sugar beet to those who have made a study of the root, and can see their way to making some profit out of its growth. It requires a deep soil

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and plenty of manure. It is a very costly crop to clean, and an uncertain crop to reap. No doubt its growth is conducive to cleaning land and keeping it clean, but in days when labor is scarce it does not seem sound policy to advocate growth of a crop which entails a heavy labor bill.

SCOTLAND YET.

Barns and Their Builders

Editor "The Farmer's Advocate":

So much interesting and valuable information about the contents of barns appears in your columns that something about the barns and those who build them might not be out of place. Those who wish to study elaborate construction can do so in the advertising and other columns.

The earlier makeshifts need not be noticed. When the pioneer required a log barn about 30 feet by 40 feet and 16 feet high, he had overcome most of his difficulties, and hope shone on his future prospects. The raising was an event in a bush wilderness, and his neighbors helped. The most important men were the "corner men," the axemen, who fitted the logs at the corners. Sometimes the logs were hewed and the corners dove-tailed; usually they were left round and the ends "v'd." As the building increased in height, so did the self-importance and eagerness of the "cornermen." The first to complete his corner had the honor of naming the barn. The ceremony was giving the barn a name, and throwing a bottle from the first finished corner. This practice was also followed for some time at the raising of framed barns. At the launching of a ship a bottle is broken at the bow. It was not considered a good omen if the bottle was broken at the christening of a building. This seldom happened, as the contents were valuable and there were eager hands below to prevent such accidents. The men who put on the roof and laid the split shingles had mechanical experience, but as their work was done in quietness after the raising, they did not receive the publicity that their skill perhaps deserved. Nobody counted for much on these old structures but the corner men. Except for their association with the worthy people who built and used them, these old barns had little to commend them. Storms drove between the logs; rodents made them a home; constantly settling the doors would seldom swing. It was said though, that the contents never heated or mildewed, and that lightning never struck them.

Settlers from the United States are credited with having introduced frame barns into the Niagara District more than 100 years ago. Some of these are still standing, 36 feet by 48 feet with a 16 foot post, a low-pitched double roof, supported on each side by a purlin, in a few a single plate at the ridge, was about the limit in size. There are more smaller. The floors, studding, rafters, braces, as well as the frame were finished with the broadaxe. Why they should trouble to stud these heavy, everlasting frames, and cover with flimsy clabbering does not seem clear. The more so when nails were made by hand. A pound of nails to a bushel of wheat, was once the rule. They were invariably furnished with that puzzle to modern framers, the heavy swingbeam, often trussed or bridged to another beam. Threshing with the flail, tramping out with hooft, or the open cylinder, the grain was not separated from the chaff, and was stored under the swingbeam, for a suitable wind, as there were no fanning mills. Doubtless there were others, as none of these old barns were provided with base-

ment stabling. Making due allowance for the choicest timber, these old-time framers thoroughly understood their work. Most of these old barns have been remodelled, but there is generally enough of the original structure left, to show the design and workmanship of the first builders. Tenons fit the mortice, and shoulders the boxing, with a neatness that is not excelled to-day. Besides the hewing, they knew the use of the square and chalkline, and taxing timber out of wind. Where this method of working timber was first discovered is a matter of dispute. Writers on the square state that it was first used as a calculating tool, in Connecticut about 150 years ago. Previous to that the square was only used to mark a right angle, as carpenters now use the try square. If this is so, it is reasonable to suppose that taking timber out of wind soon followed. Millwrights claim they were the first to adopt this method, in the construction of frame grist mills. Barn framers, always prompt to see a good thing, learned from them. On the other hand, barn framers claim, that the slanting purlin post, so common in barns but not in other structures, must have been the work of one of their trade. No ordinary system of calculation or even mensuration will give the length, say nothing of the correct cut of this timber. The length and cut must be ascertained by the square, and by one who knows how to read it. However this may be, one thing seems certain that no one can lay out and properly frame even sawn timber, without knowing how to take timber out of wind.

There is something peculiar about laying out timber, especially barns. Many splendid workmen never acquire it, or at best take years, though possessing sufficient education. While others, who can scarcely read the inch figures on the square soon learn to lay out any building, neatly and correctly.—It seems to be a gift.

While there was plenty timber to be hewed, and especially after bank barns were introduced, the framer was a man of power in the community, and his opinion valued on many matters outside his profession. He selected his patrons, where, how, and when to build and chose for his assistants the most active and intelligent young men in the district. His word was more than law; it was superior intelligence as well. Never an ordinary mortal, at the raising he was almost superhuman. If the race was between two townships, he developed an authority that would serve a general of a division of troops. This was needed, if all stories about these old-time races are true. If they could only build one, or at most two different styles, they built them well, as their work shows, though present-day framers look with envy on the timber they had. Besides knowing how to build a variety of styles, the modern framer has to know how to enlarge, remodel, extend, etc. Stables are no longer mere rows of stalls. Whether of wood, cement or iron, stabling must be built with a view to litter carriers, silos and water as well as economizing space and labor. The upper structure must be constructed with an eye to windmills, hayforks, sheaf carriers or rack lifters, and many other things that were not dreamed of a generation ago, such as gasoline, and electric machinery. All this frequently with nail perforated junk, or brash, crooked, and twisted, new material that their predecessors would not use for firewood. Not having the authoritative influence of his predecessor, the builder is frequently imposed on. When masons make blunders, it is left to the framer to straighten things out. When amateur cement builders get the foundation walls all

wrong it doesn't matter, the framer will fix it. He has to know other people's jobs as well as his own. The man who said that the present-day framer required the constitution of Samson, the wisdom of Solomon, and the long suffering patience of Job knew what he was talking about, probably was one himself. However, the framer has risen to the occasion, though very few new framers in the older districts at least, are of new material, handsome, durable, and convenient barns in the older districts at least, are of new that would once be considered impossible. The framer who first enlarged a barn by the process known as "splitting," deserves a place with the one who laid out the first slanting purlin post. One good thing about barn work remains, however, the Ontario housewife lives up to a noble tradition, and seldom can the framer and his gang complain of their accommodation when boarding out.

Lincoln Co., Ont.

X. A. Y.

Four Acts Affecting Agriculture.

During the fifth session, twelfth parliament of Canada, just closed at Ottawa, no direct legislation affecting the Department of Agriculture has been introduced by the Department, but four bills more or less of an agricultural character have been brought down.

An Act to amend the Bank Act. This permits chartered banks to lend money for the purchase of seed grain on certain security, the bank acquiring first lien upon seed grain and crop; no loans must be made after 1st August, 1915.

An Act respecting Seed Grain, Podder and other Relief. This provides in Alberta and Saskatchewan for the purchase, sale and distribution of seed grain, fodder and other relief during the year 1915 to farmers and settlers in the drought-stricken area of 1914.

An Act to amend Canada Grain Act. This provides for the application of Part 111 to all water carriers, and gives power to the Board of Grain Commissioners to apportion losses on shortages between elevators and vessels.

An Act to amend the Adulteration Act. This strengthens the position of pure maple products, compelling all imitation or compound maple sugar or syrup to be labeled as such, it defines adulterated sugar and syrup, and restricts the use of the word maple to the pure products.

The Live-Stock Branch of the Department of Agriculture has recently put into effect an order, in council whereby the importation, manufacture, sale or use of hog cholera serum or virus, except by an Inspector acting under the special authority of the Veterinary Director-General is prohibited.

Ontario Licence Board

The Ontario Provincial Board of License Commissioners has been named to include the following: J. D. Flavell, Lindsay, Chairman; W. S. Dingman, Stratford, Vice-chairman; Frederick Dane, Toronto; George T. Smith, Haileybury; John A. Aycerst, Toronto. The appointments take effect May 5, and the new Act comes into force at once. The Chairman gets a yearly stipend of \$6,500, the Vice-chairman, \$6,000, and the other commissioners \$4,000 each. The Board will take over the present License Branch. This Board will have absolute control over the administration of the laws and over the existence of every license in the province, and is given power to cancel or suspend any license as it may deem expedient.

Toronto, Montreal, Buffalo, and Other Leading Markets.

Toronto.

Receipts at the Union Stock-yards, West Toronto, on Monday, April 19, numbered 141 cars, comprising 1,910 cattle, 340 hogs, 34 sheep, 34 calves, and 543 horses. Quality of cattle was best in many weeks, but prices easy, at steady quotations. Choice export steers, \$7.25 to \$7.50, with two loads at \$7.75; choice butchers steers and heifers, \$7 to \$7.25; good, \$6.75 to \$7; medium, \$6.50 to \$6.75; common, \$6.25 to \$6.50; cows, \$4 to \$6.50; bulls, \$5 to \$6.75; feeders, \$6 to \$6.75; stockers, \$5 to \$6; milkers, \$5 to \$9.1; veal calves, \$4 to \$9. Sheep, \$6.50 to \$7.50; yearling lambs, \$8 to \$11; spring lambs, \$5 to \$10. Hogs, \$9.25 weighed off cars.

REVIEW OF LAST WEEK'S MARKETS

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

Table with 3 columns: City, Union, Total. Rows for Cattle, Hogs, Sheep, Calves, Horses.

two markets for the corresponding week of 1914 were:

Table with 3 columns: City, Union, Total. Rows for Cattle, Hogs, Sheep, Calves, Horses.

The combined receipts of live stock at the two markets for the past week show an increase of 131 cars, 352 cattle, 4,299 hogs, 106 calves, and 1,073 horses, but a decrease of 160 sheep and lambs, compared with the corresponding week of 1914.

Deliveries of live stock at the Toronto market were moderate for cattle, and hogs, sheep and lambs were light, but calves were plentiful. Trade in fat cattle was slow all week, especially in the heavyweight steers, the top prices for which were about 40 cents per cwt. lower than for the previous week, while light, handy-weight steers and heifers were in demand at firm values. Prices for fat cows and bulls were strong all week, and canners and cutters were slightly higher, as the supply did not equal the demand. Stockers and feeders, for which there was a good demand, sold at firm values, be-

ing higher than for some fat cattle in a few instances. The receipts of milkers and springers were not large, and those of choice quality were scarce, selling at firm but not any higher prices. Deliveries of calves were larger, and generally of poor quality. Government restrictions in regard to weight and age are being rigidly enforced, and several lots were placed under lock and key by the inspector, being less than three weeks old, while four is said to be the standard. Values in all classes of calves were lower. Sheep and lambs were scarce, and of poor quality as a rule, selling at firm values for those approaching good quality. Hogs sold at firm prices all week, although the packers tried to reduce values.

Butchers' Cattle.—Choice heavy steers, 1,300 lbs. each, sold at \$7.60, and not more than two straight loads brought this price during the week; choice, light-weight steers and heifers sold at \$7.25 to \$7.50, but few at latter figure; good steers and heifers, \$6.90 to \$7.15, medium, \$6.50 to \$6.80; common, \$6.15 to \$6.40; cull cows, \$6.25 to \$6.50; \$5.50 to \$5.75; common cows, \$5 to \$5.50; cutters, \$1.50 to \$1.75; canners, \$4 to \$4.50; bulls, \$5.25 to \$7, the latter

price being for a few choice-quality animals of fine bone, and young.

Stockers and Feeders.—Feeding steers, 800 to 900 lbs., sold from \$6.25 to \$6.75, and a few brought \$7; steers, 700 to 800 lbs., \$6.25 to \$6.50; stockers, 500 to 600 lbs., \$5.50 to \$6.

Milkers and Springers.—Choice, heavy Holstein and Shorthorn grade milkers and early springers, sold from \$75 to \$95 each; medium to good cows, \$50 to \$65; common to medium cows, \$40 to \$50 each.

Veal Calves.—Choice veal calves, \$8.50 to \$9.50; good calves, \$7 to \$8; medium calves, \$5 to \$6; common calves, \$4 to \$5, and "bobs" \$2 to \$3 each.

Sheep and Lambs.—Light ewes, \$7 to \$8; heavy ewes, \$5.50 to \$6.50; rams, \$6 to \$7; spring lambs sold at \$5 to \$10 each, but there are too many light lambs coming, some of which sold as low as \$3 and \$4 each; yearling lambs sold from \$8 to \$11.

Hogs.—Hogs weighed off cars started off at the beginning of the week at \$9.15 to \$9.25, but as the close sold as high as \$9.35 to \$9.40.

BREADSTUFFS.

Wheat.—Ontario, No. 2, \$1.43 to \$1.45, outside; Manitoba, at bay ports, No. 1



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in Newfoundland, West Indies,
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189

northern, \$1.65; No. 2, \$1.64; No. 3 northern, \$1.61.

Oats.—Ontario, No. 2 new, white, 61c. to 62c.; outside; Canadian Western oats, No. 2, new, 72c.; No. 3 new, 67c., track, bay ports.

Rye.—\$1.45.

Buckwheat.—80c. to 82c., outside.

Barley.—Ontario, No. 2, 80c. to 82c., outside.

American Corn.—No. 3 yellow, 81c., Toronto.

Peas.—No. 2, \$1.75, car lots, outside.

Roller Oats.—Per bag of 90 lbs., \$3.40 to \$3.50.

Flour.—Ontario winter wheat, 90 per cent., \$5.80 to \$5.90, seaboard; \$5.90 to \$6, Montreal or Toronto freights. Manitoba flour—Prices at Toronto were: First patents, \$7.70 in jute, and \$7.20 in jute for second patents; strong bakers', \$7 in jute; in cotton, 10c. more.

HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto. No. 1, \$18.50 to \$20; No. 2, \$17.50.

Straw.—Baled, car lots, \$8 to \$8.50.

Bran.—Manitoba, \$26 to \$27 in bags, track, Toronto; shorts, \$28 to \$29; middlings, \$33 to \$35.

TORONTO SEED MARKET.

The following are the prices quoted by Toronto seedsmen, to the trade, for cleaned seed: Red clover No. 1, \$20 to \$21 per cwt.; red clover No. 2, \$18 to \$18.50 per cwt.; red clover No. 3, \$17 per cwt.; alsike clover No. 1, \$19 to \$20 per cwt.; alsike clover No. 2, \$17.50 to \$18.50 per cwt.; alsike clover No. 3, \$16 per cwt.; alfalfa clover No. 1, \$19 to \$22 per cwt.; alfalfa clover No. 2, \$18 to \$18.50 per cwt.; alfalfa clover No. 3, \$17.50 per cwt.; timothy No. 1, \$11 to \$11.50 per cwt.; timothy No. 2, \$9.50 to \$9.75 per cwt.; timothy No. 3, \$8.75 per cwt.

COUNTRY PRODUCE.

Butter.—Receipts have remained about steady; prices firm. Creamery squares, 35c. to 37c.; creamery solids, 33c. to 35c.

Eggs.—New-laid eggs remained steady, at 20c. to 21c. per dozen.

Cheese.—New, 18½c. for large, and 19½c. to 19½c. for twins.

Honey.—Extracted, 11c. to 12c. per lb.; combs, per dozen sections, \$2.50 to \$3.

Beans.—Primes, \$3.30 per bushel; hand-picked, \$3.60 per bushel.

Potatoes.—Ontario, car lots, per bag, track, Toronto, 45c.; New Brunswicks, 50c. per bag, track, Toronto.

Poultry.—Live-weight prices: Turkeys, 18c. to 20c.; ducks, 15c.; hens, 13c. to 15c. per lb.; chickens, 13c. to 15c.; geese, 13c.

HIDES AND SKINS.

City hides, flat 14c.; country hides, cured, 13c. to 14c.; country hides, part cured, 12c. to 13c.; country hides, green, 12c.; calf skins, per lb., 16c.; kip skins, per lb., 14c.; sheep skins, \$2 to \$2.50; horse hair, per lb., 38c. to 40c.; horse hides, No. 1, \$3.50 to \$4.50; wool, unwashed, coarse, 22c.; wool, unwashed, fine, 26c.; wool, washed, coarse, 30c.; wool, washed, fine, 36c.; rejections and cotts, washed, fine, per lb., 25c.; lamb skins and pelts, \$1.25 to \$1.75; tallow, No. 1, per lb., 5½c. to 7.

FRUITS AND VEGETABLES.

New Brunswick Delaware potatoes advanced slightly during the week, selling at 65c. to 70c. per bag. This was caused, no doubt, by the spring break-up, preventing the farmers from hauling them to the different shipping points, as there are still plenty down there.

Louisiana strawberries are coming in and are of good quality, selling at 19c. to 22c. per pint box.

Apples.—Spys, \$5 to \$6 per barrel; Ben Davis, \$2.75 to \$3 per barrel; Baldwins, \$4 to \$4.50 per barrel. Bananas, \$1.75 to \$2.50 per bunch; grape-fruit, \$2.75 to \$3.25 per case; lemons, Messinas, \$2.75 to \$3 per case; Californias, \$3.25 to \$3.50 per case; oranges, \$2.75 to \$3 per case; rhubarb, \$1 per dozen bunches; strawberries, Floridas, 30c. to 40c. per box; Louisianas, 19c. to 22c. per pint box. Beets, 40c. to 50c. per bag; new, 90c. per dozen bunches; cabbages, \$2.25 per barrel; celery, Florida, \$2.75 to \$3 per case; California, \$5.75 to \$6 per case; onions, \$1.50 per 75-lb. sack; Americans, \$2.50 per 100-lb. sack; Spanish, \$4.25 to \$4.50 per case; parsnips, 60c. per bag; turnips, 50c. per bag; leaf lettuce, 20c. to 40c. per dozen bunches; potatoes, Ontarios, 60c. per bag; New Brunswick Delawares, 65c. to 70c. per bag; seed potatoes, 80c. to 85c. per bag.

Montreal.

Live Stock.—The live-stock market showed very little change last week. Supplies were moderately large and there was a very fair demand all the way round from butchers. The quality of the stock was not choice, but some very good animals were on the market. Butchers have lately been buying dressed beef in a good many instances owing to the warmer weather, and it is thought this may have its effect on the market. Fine steers sold at 7½c. to 7¾c., while good were 7¼c. to 7½c., and medium 6¼c. to 7¼c. From this the price ranged down to 5½c. for commoner grades. Butchers' cows and bulls ranged from 5c. to 6½c. per lb., to cover all qualities. The supply of calves is constantly increasing, and as a result prices tend to decline. Calves were being purchased at about \$1 a head lower than a week ago. The less desirable calves sold as low as \$1.50 each, and from this the price ranged up to \$9 each for the choicest. The offerings of lambs and sheep were not at all large. Some spring lambs sold at \$6 to \$10 each, according to quality, while sheep sold at 4c. to 6c. per lb. The trade in hogs were fairly active, and prices ranged from 9½c. to 9¾c. per lb. for selects, weighed off cars. Some specially fine stock sold at a little above the prices mentioned.

Horses.—Horses showed no change in price, but the tone of the market was firm, and there has been some purchasing for shipment to farmers in the country. Heavy draft horses, weighing from 1,500 to 1,700 lbs., were quoted at \$275 to \$300 each; light draft, weighing from 1,400 to 1,500 lbs., at \$150 to \$200 each; broken-down, old animals, \$75 to \$100 each, and fancy saddle and carriage animals at \$300 to \$400 each.

Dressed Hogs.—The market for dressed hogs held very steady, no change of importance taking place last week. Abattoir-dressed, fresh-killed Ontario hogs were slightly firmer, at 12½c. to 13½c. per lb. Northwest hogs were unchanged, at 11c. to 11½c., and light-weight country-dressed sold at 11½c. to 11¾c., with heavies at 9½c. to 10½c.

Potatoes.—Potatoes have at last begun to show the advance expected for months past. Week before last they rose from the low point of 40c. to 42½c., and slightly higher. Last week the range was 45c. to 47½c. per 90 lbs., carloads, track. In a jobbing way, the price was 60c. to 65c., bagged.

Honey and Syrup.—The make of syrup was good and supplies were liberal. Prices were unchanged, being 75c. to 80c. for 8-lb. tins, and up to \$1.25 for 13-lb. tins. Sugar was steady, at 12c. to 13c. Honey did not sell freely. White-clover comb was 15c. to 16c. per lb.; extracted, 11c. to 12c.; dark comb, 13c. to 14c., and strained, 8c. to 9c. per lb.

Eggs.—The market held practically unchanged. Production is large, and good stock arrived freely, and packers were busy putting away the stock. Prices were 21c. to 22c. per dozen.

Butter.—Receipts of new-milk creamery were constantly increasing, but prices were not greatly affected. New-milk goods sold at 34½c. to 35c., and finest held creamery was 33½c. to 34c. Fine creamery was 32½c. to 33c., and seconds, 31c. to 32c.

Cheese.—Cheese was fractionally higher, at 17½c. to 17¾c. for colored, white being ¼c. lower. Easterns were 16½c. to 17c., and under grades 16½c. to 16¾c.

Grain.—Wheat prices still fluctuated wildly, but the tone was strong. No. 2 white oats were 66½c.; No. 3 65½c., and No. 4 64½c. per bushel, ex store. Canadian Western were 67½c. for No. 3 and extra No. 1 feed. No. 1 feed was 66½c., and No. 2 feed 65½c. Beans were unchanged at \$3.05 for 1½-lb. pickers; \$2.90 for 3-lb., and \$2.80 for 5-lb., with cheaper stock at \$2.70, in car lots.

Flour.—Flour was \$7.80 per barrel for Ontario patents in wood, and \$7.30 to \$7.40 for straight rollers, bags being \$3.50. Manitoba first patents were \$7.80; seconds \$7.30, and strong bakers' \$7.10, in jute.

Millfeed.—Bran, \$26 per ton in bags, shorts, \$28; middlings, \$33 to \$34 per ton; mouille, \$37 to \$38 for pure, and \$35 to \$36 for mixed, bags included.

Hay.—The hay market was steady. No. 1 pressed hay, Montreal, ex track, was \$19.50 to \$20 per ton; No. 2 extra was \$19.50 to \$20 per ton; No. 2 extra was \$18.

Hides.—Beef hides were another cent down, at 17c., 18c. and 19c. for Nos. 3, 2 and 1, respectively. Calf skins were 16c. per lb., and will be 15c. Sheep skins were \$2 to \$2.25 each, and horse hides were \$1.50 for No. 2, to \$2.50 each for No. 1. Tallow was 6c. per lb. for refined, and 2c. to 2½c. for crude.

Seeds.—Prices were steady, at \$7 to \$8.50 for timothy per 100 lbs., and \$7.50 to \$9 per bushel of 60 lbs. for red clover, and \$7 to \$8.50 for alsike at shipping points.

Buffalo.

Cattle.—Buffalo had a high market last week, considering that supplies were liberal at Western markets, and that a continued unfavorable condition existed in the beef market. Receipts were a hundred and ten loads on the first day of the week, and around thirty cars were shipping steers. Quite a few loads of Canadians were offered. Best steers offered ranged from \$8.35 to \$8.50, and proved very ready sale. New York alone took around twenty-five loads that cost in the neighborhood of \$8.25. The market looked a full dime to fifteen cents higher than the previous week on shipping steers, while butchering cattle generally looked fifteen cents to a quarter above the level the week before. Best handy steers sold from \$7.75 to \$8.10, and proved active. Local killers reported an improved beef outlet, and the result was that they needed quite a few cattle. A load of handy Canadian heifers sold at \$7, this price also prevailing for a load of weighty natives. Canner and medium cow stuff sold at about steady prices, few canners making four cents, while the demand, under liberal Jewish outlet, was strong for the better kinds of cows, and these looked as much as a quarter above the week before. Bulls showed a dime to fifteen cents advance. About the worst sale of late is a class of long-legged, big, coarse steers, which are more desirable for kosher demand, these selling from \$7 to \$7.50, and they are very draggy. Sellers still think that it will pay feeders and shippers to hold back a fair-fleshed and warmed-up kind of steers and give them a little corn, carrying them into the grass season, when they will put on some fat around about June and bring more satisfactory prices. Receipts the past week were 3,275 head, as against 3,390 the week before, and 3,500 for the

corresponding period a year ago. Quotations: Choice to prime native shipping steers, 1,250 to 1,500 lbs., \$8.10 to \$8.50; fair to good native shipping steers, \$7.60 to \$7.75; plain and coarse, \$7 to \$7.25; Canadian steers, 1,300 to 1,450 lbs., \$7.50 to \$8; Canadian steers, 1,100 to 1,250 lbs., \$7.25 to \$7.50; choice to prime handy steers, native, \$7.40 to \$8; fair to good, \$6.75 to \$7.25; light common, \$6.25 to \$6.50; yearlings, \$7.25 to \$8; prime fat heavy heifers, \$7 to \$7.15; good butchering heifers, \$6.25 to \$6.75; light butchering heifers, \$5.50 to \$6; best heavy fat cows, \$6 to \$6.50; good butchering cows, \$5 to \$5.50; cutters, \$4.25 to \$4.50; canners, \$3 to \$4; fancy bulls, \$6.25 to \$6.50; best butchering bulls, \$5.75 to \$6.25; good killing bulls, \$5.25 to \$5.50; light bulls, \$4.50 to \$5.

Hogs.—Prices were higher every day last week. On the opening day pigs sold at \$7.50, with all other grades generally \$7.70, a few \$7.75, and Tuesday, prices on all weights were a nickel higher. Wednesday a few good grades sold at \$7.75 and \$7.80, with bulk of light grades going at \$7.85, and Thursday's transactions were made at \$7.85 and \$7.90. Friday's run numbered around 4,500 head, and prices were advanced ten to fifteen cents. Deck of heavies sold at \$7.95, and five or six decks reached \$8.05, with the balance selling at \$8. Roughs the past week ranged from \$6.50 to \$6.75, and stags \$6 down. Receipts for the week ending Friday totaled approximately 28,200 head, being against 25,198 head for the previous week, and 32,640 head a year ago.

Sheep and Lambs.—Run the past week reached around 20,800 head, as compared with 17,980 head for the previous week, and 27,800 head for the same week a year ago. Monday about wound up the season on wool lambs, top for these being \$11.10, with bulk selling at \$11. Clipped lambs on the opening day ranged from \$9.50 to \$9.65, and while Tuesday's top for these was \$9.60, buyers got the bulk at \$9.50. Wednesday, best shorn lambs sold at \$9.75, and Thursday's and Friday's sales on tops were made at \$9.75 and \$9.85. Shorn lambs, averaging around 90 pounds, sold at \$9.50 and \$9.60, heavy ones, kinds weighing better than 100 pounds, sold down to \$8.50, and culls went from \$8.25 down. Best yearlings quotable from \$8 to \$8.25, tops shorn wether sheep \$7 to \$7.25, and clipped ewes mostly \$6.75 down, few selling Friday at \$7.

Calves.—Good supply the past week, grand total, which included 350 head of Canadians, being approximately 3,700 head, as against 2,911 head the week before, and 3,050 head a year ago. The first two days of the past week buyers got tops down to \$8.50, and the next three days values were higher, Wednesday best ones selling at \$9.50, and on Friday tops reached \$9.75. Culls \$8 down, and common fed calves sold as low as \$4. Canadians, which were on the veal order, sold in the same notch as the natives.

Chicago.

Cattle.—Beeves, \$6.20 to \$8.55; Western steers, \$5.65 to \$7.50; cows and heifers, \$7.90 to \$8.10; calves, \$5.75 to \$8.25.

Hogs.—Light, \$7.20 to \$7.60; mixed, \$7.15 to \$7.60; heavy, \$6.85 to \$7.45; rough, \$6.85 to \$7.05; pigs, \$6 to \$7; bulk of sales, \$7.25 to \$7.45.

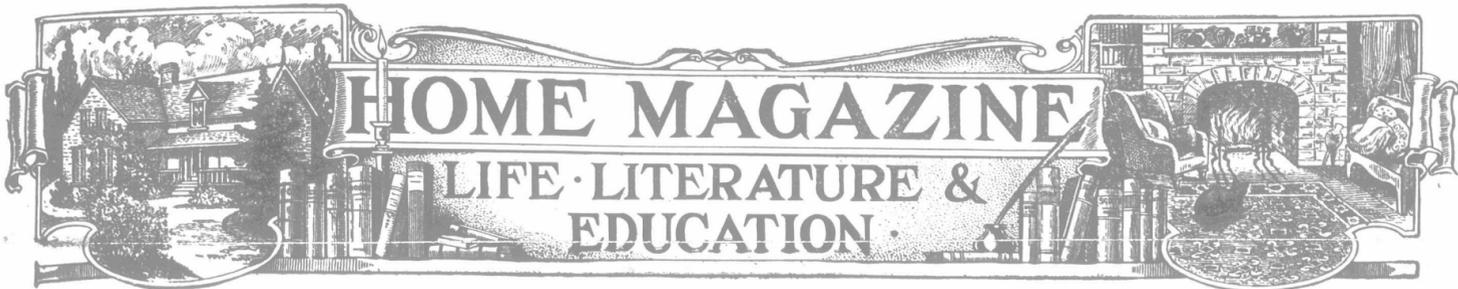
Sheep and Lambs.—Sheep, native, \$7.60 to \$8.65; lambs, native, \$8.25 to \$10.65.

Corn Improvement.

The greater part of the Report of the Ontario Corn Growers' Association, now ready for distribution, is taken up with valuable hints on the breeding of seed corn. Methods of improving the yield of husking and silage varieties are given by both college-trained specialists and by practical farmers, with the result that the report contains what may be termed the latest word in corn growing.

The raising of alfalfa as an alternate crop is advocated, and some excellent pointers are given concerning its cultivation.

The report also contains a homely but very timely talk by an Essex county man, on "The Value and Intelligence of Birds on the Farm," which will be found most refreshing as well as informing reading. A brief but suggestive article is also given on the use of electricity on the farm.



A Song for April.

By Robert Loveman.

It isn't raining rain to me,
 It's raining daffodils;
 In every dimpled drop I see
 Wild flowers on the hills.
 The clouds of gray engulf the day,
 And overwhelm the town;
 It isn't raining rain to me,
 It's raining roses down.

It isn't raining rain to me,
 But fields of clover bloom,
 Where every buccaneering bee
 May find a bed and room;
 A health unto the happy!
 A fig for him who frets!
 It isn't raining rain to me,
 It's raining violets.

Tipperary.

A NEW VERSION.

By the Rev. W. Parton Shinton, in Titbits, London.
 Up tae feckless London came a Highland-man lang syne;
 As the Southrons were a wee bit saft he prospered fine;
 Kept awa' frae Piccadilly, Strand, an' Leicester Square,
 Stickit tae his wee bit chairge, forbye his hert was sair.

(Chorus.)

It's a lang way tae Auchtermuchty,
 It's a lang way tae Perth,
 It's a lang way tae get tae anywhere
 Frae anywhere else on earth,
 Guld-bye tae Ballachulish,
 Farewell but an' ben;
 It's a lang, lang way tae Auchtermuchty,
 But I'll gang back again.

Sandy sent a wee bit screed tae tell the lass he loo'ed,
 "O' the kiltie laddies a' the Empire's mighty proud,
 If my letter should be longer, Kirsty, dear," said he,
 "Remember that I'm somewhere wi' my rifle on my knee."
 (Chorus.)

Kirsty wrote an answer maist becomin' in a lass,
 Sayin' "Censors ken nae Gaelic, sae they'll let it pass.
 Stay and finish fechtin' for auld bonnie Scotland's fame,
 I'll never marry ye until the Belgians get back hame."
 (Chorus.)

Browsings Among the Books.

FROM "MY RELIGION."

By Tolstoi.

[Published by Walter Scott, 24 Warwick Lane, Paternoster Row, London, England.]

One rainy autumn day I rode on the tramway by the Sukhareff Tower in Moscow. For the distance of half a verst the vehicle forced its way through a compact crowd which quickly reformed its ranks. From morning till night these thousands of men, the greater portion of them starving and in rags, tramped angrily through the mud, venting their hatred in abusive epithets and acts of violence. The same sight may be seen in all the market-places of Moscow. At sunset these people go to the taverns and gaming-houses; their nights are passed in filth and wretchedness. Think of the lives of these people, of what they abandon through choice for their present condition; think of the heavy burden of labor without reward which weighs upon these men and women, and you will see that they are true

martyrs. All these people have forsaken houses, lands, parents, wives, and children; they have renounced all the comforts of life, and they have come to the cities to acquire that which, according to the gospel of the world, is indispensable to everyone. And all these tens of thousands of unhappy people sleep in hovels, and subsist upon strong drink and wretched food. But aside from this class, all, from factory workman, cab-driver, sewing-girl, and lorette, to merchant and government official, all endure the most painful and abnormal conditions without being able to acquire what, according to the doctrine of the world, is indispensable to each.

Seek among all these men, from beggar to millionaire, one who is contented with his lot, and you will not find one such in a thousand. Each one spends his strength in pursuit of what is exacted by the doctrine of the world, and of what he is unhappy not to possess, and scarcely has he obtained one object of his desires when he strives for another, and still another, in that infinite labor of Sisyphus which destroys the lives of men. Run over the scale of individual fortunes, ranging from a yearly income of three hundred roubles to fifty thousand roubles, and you will rarely find a person who is not striving to gain four hundred roubles if he have three hundred, five hundred if he have four hundred, and so on to the top of the ladder. Among them all you will scarcely find one who, with five hundred roubles, is willing to adopt the mode of life of him who has only four hundred. When such an instance does occur, it is not inspired by a desire to make life more simple, but to amass money and make it more sure. Each strives continually to make the heavy burden of existence still more heavy, by giving himself up body and soul to the practice of the doctrine of the world. To-day we must buy an overcoat and gloves, tomorrow, a watch and chain; the next day we must install ourselves in an apartment with a sofa and a bric-a-brac lamp; then we must have carpets and velvet gowns; then a house, horses and carriages, paintings and decorations, and then—then we fall ill of overwork and die. Another continues the same task, sacrifices his life to this same Moloch, and then dies also, without realizing for what he has lived.

But possibly this existence is in itself attractive? Compare it with what men have always called happiness, and you will see that it is hideous. For what, according to the general estimate, are the principal conditions of earthly happiness? One of the first is that the link between man and nature shall not be severed, that is, that he shall be able to see the sky above him, and that he shall be able to enjoy the sunshine, the pure air, the fields with their verdure, their multitudinous life. Men have always regarded it as a great unhappiness to be deprived of all these things. But what is the condition of those men who live according to the doctrine of the world? The greater their success in practicing the doctrine of the world, the more they are deprived of these conditions of happiness. The greater their worldly success, the less they are able to enjoy the light of the sun, the freshness of the fields and woods, and all the delights of country life. Many of them—including nearly all the women—arrive at old age without having seen the sun rise or the beauties of the early morning, without having seen a forest except from a seat in a carriage, without ever having planted a field or a garden, and without having the least idea as to the ways and habits of dumb animals.

These people, surrounded by artificial light instead of sunshine, look only upon

fabrics of tapestry, and stone and wood fashioned by the hand of man; the roar of machinery, the roll of vehicles, the thunder of cannon, the sound of musical instruments, are always in their ears; they breathe an atmosphere heavy with distilled perfumes and tobacco smoke; because of the weakness of their stomachs and their depraved tastes they eat rich and highly-spiced food. When they move about from place to place they travel in closed carriages. When they go into the country they have the same fabrics beneath their feet; the same draperies shut out the sunshine; and the same array of servants cuts off all communication with the men, the earth, the vegetation, and the animals about them. Wherever they go they are like so many captives shut out from the conditions of happiness.

Another inevitable condition of happiness is work: First, intellectual labor that one is free to choose and loves; secondly, the exercise of physical power that brings a good appetite and tranquil and profound sleep. Here, again, the greater the imagined prosperity that falls to the lot of man according to the doctrine of the world, the more such men are deprived of this condition of happiness. All the prosperous people of the world, the men of dignity and wealth, are as completely deprived of the advantages of work as if they were shut up in solitary confinement. They struggle unsuccessfully with the diseases caused by the need of physical exercise, and with the ennui which pursues them—unsuccessfully, because labor is a pleasure only when it is necessary, and they have need of nothing; or they undertake work that is odious to them, like the bankers, solicitors, administrators, and government officials, and their wives, who plan receptions and routs, and devise toilettes for themselves and their children. (I say odious, because I never yet met any person of this class who was contented with his work or took as much satisfaction in it as the porter feels in shoveling away the snow from before their doorsteps.) All these favorites of fortune are either deprived of work or are obliged to work at what they do not like, after the manner of criminals condemned to hard labor.

We must rid ourselves of the savage prejudice which leads us to think that a man who has an income from a place under the government, from landed property, or from stocks and bonds, is in a natural and happy position because he is relieved from the necessity of work. We must get back into the human brain the idea of work possessed by undegenerate men, the idea that Jesus has when He says that the laborer is worthy of his food. Jesus did not imagine that men would regard work as a curse, and consequently He did not have in mind a man who would not work, or desired not to work. He supposed that all His disciples would work, and so He said that if a man would work, his work would bring him food. He who makes use of the labor of another will provide food for him who labors, simply because he profits by that labor. And so he who works will always have food.

The Fortifications of Paris.

(From "Paris, Past and Present," by Henry Haynie, Stokes Pub. Co., New York.)

Besides the credit of having inaugurated the first railway, of having had the nephew of an Emperor and son of a King tried for conspiracy against the State before a Court of Peers, of having brought Napoleon's remains from St. Helena, of having erected the Colonne Juillet, of seizing and holding Algeria, and of lighting Paris with gas, to mention only a few of the more important

events,—the "Citizen King" (Louis Philippe) and his Government are also responsible for the fortifications which still surround the capital.

This wall, as it is called by most foreigners, is impassible only to peaceful people, for any army could get over it, or batter it down without much trouble. It was constructed at the instigation of Monsieur Thiers, who was then the King's advisor. Here and there are portes or gateways, in all thirty-two or three, through which trains, carriages, tram-cars, and persons may come into or go out from the great city. For defensive purposes, these ditches and works are really of no consequence; nevertheless, just outside of them is a military zone, which is as much under the control of the War Department as any part of the French army.

The fortifications, or barriers, serve effectually for the octroi service of the city, but the necessity of the military zone is something not so easily understood. However, these dry moats and earth-covered walls are now and then threatened by the spades and picks of demolishers, for the talk every few years is that a bill is about being introduced into the French Parliament, the intent of which is to suppress the fortifications. Twelve or fifteen years ago it was a question of demolishing them, but the Deputies and the Government officials could not agree as to the better way of going about it, and so it was permitted to rest in peace among the pigeon-holes of unfinished business.

The question is more complex than one would suppose. If it were only necessary to consider civil interests the thing would be all right and quickly attended to. Everybody in Paris is aware of the inconvenience which these fortifications create, not to speak of the great spaces of unprofitable land that serve only for the shanty habitation of the worst prowlers in Paris, a result of the dense overcrowding of the population.

The surface occupied by the military grounds measures close on to one thousand and fifty-five acres, the zone itself is one thousand nine hundred and fifty acres at the least; fortifications render useless more than four million square metres, and the military zone more than seven million square metres of land. Counting the average price at which land is sold in the city, it is easily seen that, owing to these barriers, a colossal fortune is not being used at all. This is an immense loss, especially for a population the density of which gives to each Parisian a superficial space of only about one hundred and forty feet. If we take into account the space occupied by the River Seine, the Champ de Mars, the Tuilleries Gardens, the Champs Elysees, and the other promenades, also the quays, streets, boulevards, railway stations, and government warehouses, this space is reduced by about half to the actual surface for each individual. There are parts of town where Parisians have no more land to live on than that accorded them for their last sleep, which is two metres.

Moreover, there is not another capital anywhere in the civilized world which is surrounded by walls or fortifications. London has none, nor Berlin, nor Vienna, nor has Paris always had them, although we read a good deal about them in her past history. Of that past enough has been already written; suffice it to say here that Louis XIV. gave orders to have the walls pulled down, and their site was turned into boulevards.

But under Louis XVI., and in 1782, a new wall was constructed which enclosed not only the capital, but several suburban villages or faubourgs; however, that was done, not for defense, but to facili-

tate the collection of the octroi, or duties paid on all articles entering the capital. Then, in 1840, a law was passed directing the construction of a continuous line of fortifications outside that wall, and consisting of 94 bastions with a wide ditch, the whole being a circumference of nearly twenty miles, and which cost twenty-eight million dollars.

The old octroi wall was pulled down in 1860, and the line of fortifications became the limit of the capital. But the war of 1870-71 demonstrated their uselessness, the detached forts which formed an important part of the system having alone stood the whole brunt of the siege. Since then the city has been surrounded by a second series of detached forts, at a distance of from ten to fifteen miles beyond the fortifications; hence these latter, besides being useless for defensive purposes, impede the growth of the city, while occupying a space of land worth at least fifteen million dollars.

The Windrow.

The women of England are organizing into volunteer reserves, to be ready for action in the remote contingency of invasion. Those who enlist are taught signalling, despatch riding, telegraphing, motoring and camp cooking. Four companies have already been formed under command of Lady Londonderry as Colonel.

The number of professors mobilized in the German army is said to equal at least one army corps. Most of them are now wearing the iron cross. Their services include advice in medicine and surgery, dietetics, sanitation, meteorology, and giving geological information in regard to ground through which trenches are to be dug.

Prof. Dr. Carl Ludwig Schleich recently wrote an article on "Abstinence From Food," in which he stated that Germans in time of peace almost without exception ate too much. He said:

"One has always hesitated to speak it out openly, for social reasons, that in general; not only the well-to-do, but also our workers and our poor, speaking strictly scientifically, eat far more than necessary in order to be nourished. It is a proved fact that with a couple of carrots, a few nuts, an apple a day, and a quart of water a day, one can gain in weight.

"The ground for the new bread ordinances was prepared weeks and months ago by an effective press campaign, in which many professors showed that mixed rye-and-wheat bread was more nourishing than pure white rolls and

bread; that black bread was even better, and that the addition of 20 per cent. or more of potato flour would not materially impair the food value of bread, while bringing with it many advantages."—Literary Digest.

Last year 7,343 patients were treated by the Grenfell Mission on the Labrador Coast.

The French War Office has sent out moving-picture operators to secure films showing the actual operations of the great war.

The "cedars of Lebanon" now exist only as a little grove of about 400 trees on a high plateau of Mount Lebanon. They are protected from goats by a stone wall and saved from the axe by the traditional reverence of the Syrians, who believe them to be the tallest trees in the world and almost sacred. It is probable that many times this number of trees and finer examples might be counted in Europe, especially in England.

How many interesting spots there are right in the midst of the war zone. The following from "Onward," describes one of these in Northern France:

Just a narrow channel divides France from England, and a map of the former country bears many names that have become familiar to us in English history. There is Normandy, from whence came the ancestors of many Britons of today. The Norman farmer tends his orchards with the greatest care, for upon its fruit depends most of his income. Beneath the fruit-laden branches, however, he will grow crops of grain, principally rye, wheat and maize. It is from the meal of these three products mixed together that the staple food of the farmer and peasant is made. This bread, mixed with little moisture, baked very hard, and very flat in taste, is often baked in huge rings like lifebuoys which hang upon wooden pegs in the kitchen. Normandy contains many fine examples of ecclesiastical architecture. Among its splendid cathedrals is one at Bayeux, which is also noted for the famous Bayeux tapestry which was worked soon after William the Conqueror became ruler of England, and which many people believe to have been done by Matilda, the wife of the Conqueror, and her ladies. On a strip of linen, about 20 inches wide and 230 feet long, are worked in wool pictures of many incidents leading up to the Conquest, beginning with Harold's voyage to Normandy, and ending with the death of Harold and the retreat of the English in the Battle of Hastings. The tapestry is spread out in a glass-dwellers in Jerusalem. But—aside from

case, and the colors are apparently as bright as they were the day it was completed.

Hope's Quiet Hour.

A Fragrant Offering.

Then took Mary a pound of ointment of spikenard, very costly, and anointed the feet of Jesus, and wiped His feet with her hair; and the house was filled with the odour of the ointment.—St. John xii: 3.

I know these blossoms, clustering heavily, With evening dew upon their folded leaves, Can claim no value nor utility.— Therefore shall fragrance and beauty be The glory of my sheaves.

—E. A. Allen.

It was about a week before our Lord's death that He was the honored Guest at a feast in Bethany. His three special friends were there—Lazarus reclined beside Him, Martha waited on Him willingly, while Mary brought out her store of precious ointment and poured it on His head and His feet. Edersheim tells us that its value was nearly fifty dollars of our money, and such a prodigal gift, poured out with the lavishness of one who evidently thought that nothing was too good for her loved Master, roused the indignation of Judas and others. "To what purpose is this waste?" they exclaimed, "for this ointment might have been sold for much, and given to the poor."

This protest roused our Lord to defend the action of His loyal-hearted friend. "Why trouble ye her?" He said, "she hath done what she could; she is come aforehand to anoint My body to the burying. Verily I say unto you, whosoever this gospel shall be preached throughout the world, this also that she hath done shall be spoken of for a memorial of her."

Then Judas—who had most indignantly calculated the value of the ointment, and expressed his disapproval of this "waste"—proved that his love of money was far greater than his love for his Master. St. Mark, after telling the story of the anointing, says that Judas went to the chief priests to betray JESUS unto them for money.

We know that Mary's fragrant offering was not wasted. For nearly two thousand years it has been an inspiration to loving hearts, so it has done infinitely more good to the world, and even brought more practical help to the poor, than if it had been sold and the proceeds divided among a few of the needy

that—the fact that it gave joy to our King, as He entered the dark valley of the shadow of death, is enough to satisfy anyone who loves Him. He gave all, and we are glad to know that at least one loving heart was moved to pour out the fragrant, treasured ointment on His sacred flesh. Mary did not wait, as others did, until He was dead. Perhaps her pound of ointment was more valuable than the hundred pounds of spices brought by Nicodemus to anoint the unconscious Body before it was laid in the tomb.

Let us bring fragrant offerings to our friends now, instead of waiting until after they are dead. I know a lady who visits a friend in the hospital every week, and always she carries flowers. This habit has been kept up for months. I know a young girl who has spent hard-earned money on a bunch of violets for a Christmas gift to an elderly flower-lover, who was far more delighted than if she had received a "useful" gift.

What does our Lord's approval of Mary's fragrant offering teach us? One thing, surely, is that our life is not made up only of "useful" things. God might have made a gray world, with no lovely, fragrant flowers, no sunshine or blue sky, no pink peaches, red cherries, purple grapes, or golden oranges, no butterflies or birds—and what a depressing world it would have been! The extras show the delight of love in giving more than is absolutely necessary. A mother, when preparing the tiny wardrobe for her baby, is not satisfied to get only plain and necessary garments. She wants fine muslin and lace, baby ribbons and embroidery, if she can possibly procure these entirely unnecessary things. The baby doesn't care whether his toilet articles are kept in a dainty pink-lined basket or in a cardboard box—but the mother cares, and I am sure God wants her to care. I heard the other day of a rich man who had spent a thousand dollars on a nursery carpet! Who can draw the line, and say what amount of money is rightfully spent on pretty things for the children, and what is sinful extravagance? I suppose each must answer for himself, in this matter, to God and his own conscience.

Shall we say: "In this time of war, when millions are suffering from want, and money is urgently needed, no one has any right to spend money except on actual necessities?" Then what of other times? There are always people in the world suffering from want. Must we wait until every need is satisfied before spending any time or money on the beautiful things of life? In that case we must copy John the Baptist, whose food was locusts and wild honey, and who made no attempt to be "in the fashion," but wore only the rough garment which was necessary. In that case we must never buy a picture or ornament of any kind. The lover must not spend money on a ring, the mother must never "waste" money on a doll or a picture-book for her child.

But it was Judas, not Christ, who considered Mary's fragrant gift wasteful and extravagant. Christ—our Example—began His public ministry by presenting a wedding gift of a large quantity of the best wine to a poor family. The six water-pots contained two or three firkins apiece, and the "firkin" was nearly nine gallons. Was wine a necessity? Then our Lord praised Mary of Bethany for pouring on His head and feet nearly fifty dollars' worth of ointment. He did not consider it wasted, did not think it should have been sold and given to the poor, but accepted it gratefully. Yet, on another occasion He told a rich man to sell all his property and give the proceeds to the poor. How are we to balance these things?

The truth is, our Lord was absolutely balanced. He was not an ascetic, like John the Baptist, yet no one dare say He was luxurious or a lover of ease. The costly ointment was prized by Him, because it was the outward expression of love. Love only can solve the difficulty, or tell any of us what proportion of our income we have a right to spend on things of luxury and beauty, for ourselves or for friends.

Some may cry out against any giving of presents to friends in this time of world-wide stress, and they may be actuated by love. Others may use the plea of "the needs of the poor" as an excuse for holding on to money them-



Young Women at Mezokovesd, Hungary.

gave joy to our
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He gave all,
now that at least
moved to pour out
ointment on His
did not wait, as
s dead. Perhaps
was more valuable
ounds of spices
to anoint the un-
t was laid in the

selves—neither giving it in their usual
presents to friends, nor supplying with
it the needs of the poor. Judas only
used "the poor" as an excuse to cover
his own covetousness (St. John xii: 6),
but his Master read his heart.

If a gift expresses love it is prized by
the receiver, and is given with joy by the
lover. Our Lord looks at the heart, and
there is no fragrance in a gift which is
cheerlessly and unwillingly offered. The
house was filled with the fragrance of
Mary's offering, and the disciples should
have shared in their Lord's pleasure and
rejoiced at the love He received, instead
of finding fault as they did—for Judas
was not the only one who objected.
(St. Matt. xxvi: 8.)

God testifies His love to us by filling
the world with fragrance and beauty.
Do we look up and thank Him for the
glory and freshness of the springtime, for
the music of birds and streams, for the
blue of the sky, and the beauty and
perfume of the flowers? Or do we re-
ceive these unnecessary gifts—these lux-
uries—thanklessly or complainingly?

Take the weather, for instance. How
many of us seem to think it is right to
speak complainingly of the weather!
Either it is too cold or too hot, too wet
or too dry. Very seldom does it suit
us exactly, and even then we take it as
a right, without thanking our Father for
His gift of a beautiful day. Yet the
weather comes to us straight from God's
hand, and this continual fault-finding is
a presumptuous assumption that we know
better than He what is good for us. Do
you think that a complaining spirit is a
small offence in God's eyes? In Num.
xi: 1, we read: "When the people com-
plained it displeased the LORD, and the
LORD heard it; and His anger was
kindled."

Our Father's love is manifested in
thousands of pleasant ways, let us re-
ceive His gifts thankfully instead of un-
graciously; let us follow Christ in stead
of Judas. There is an Irish legend of "The
Hungry Grass," which reminds us that
"whoever sows a kind seed is sowing
hunger and heartache in the path his own
feet will some day tread." We can of-
tend a loving heart, or ungraciously
receive or reject an offered kindness with-
out suffering loss of our lives. The love we
failed to prize is a costly treasure, and
to throw any love away carelessly is the
real "waste."

One more thought and I have done.
Let us offer our gifts to Christ, instead
of trying to win the praise of men. Our
most treasured gifts may only meet with
the world's disapproval, but we can be
sure of pleasing God if we are really try-
ing to give Him pleasure. A teacher in
an English public school used to say to
a boy who brought in an untidy exercise:
"Would you like to offer this to Christ?"
He appealed to the highest motive for
perfection, instead of talking about the
danger of losing marks. We, like Mary
and Martha, are allowed the high priv-
ilege of ministering to our Royal Guest.
What a motive for perfection that is!

The flower on the table is to please His
eye, the rooms are kept in beautiful order
for Him, the dress is neat and clean—
and as becoming as possible—to please
Him. Let us be like the child who said
to her mother one morning: "I think
Jesus can see in the dark, so when I
woke in the night I smiled at Him." He
never fails to smile back.
DORA FARNCOMB.

And the Home Builder.

I will remember that though I may
have courted an angel, I have married a
woman, and must expect a few imper-
fections and frailties.

I will resist the temptation to grab
land at the expense of my wife and
children.

I will find time, or make it, in which
to be the companion and chum of my
sons and daughters.

I will hold up before my sons a higher
ideal than mere money getting.

I will aid and abet my wife in every
effort to beautify our home and sur-
roundings, and will, if necessary, take
the initiative in this work.

I will encourage a spirit of genuine
hospitality in my community so that
my children may grow up in a pleasant
wholesome social atmosphere, and will
not feel it necessary to leave home in
order to indulge their youthful propensities
for fun and laughter.

I will give my moral and financial
support to every effort that is for the
betterment of the community at large.

I will not allow myself to sink into a
state of mental stagnation and will
avoid "ruts" of every kind.

I will take some pride in my personal
appearance, slovenly attire begets slovenly
manners and morals, and the pride
of wife and children will well repay me
for a little extra trouble.—Sel.

The Beaver Circle

OUR SENIOR BEAVERS.

[For all pupils from Senior Third to
Continuation Classes, inclusive.]

A Happy Farmer Lad.

What I do like is to go out
And watch the baby calf
Go capering around the lot,
'Twould make a donkey laugh.
Then, there's the hen that hatched out
ducks.
She used to be so prim,
But now she throws a dozen fits
When they go in to swim.

I love them all; they are my pets,
From Dobbin clear on down.
I'd rather be just what I am
Than any boy in town.
For I've these friends, who love me, too,
Farm life ain't half so bad,
So I just guess I will remain
A happy farmer lad.

Funnies.

In a class in arithmetic the word
"average" was encountered. The teacher,
wishing to make sure that the word was
understood, asked the meaning of the
word. One boy raised his hand:
"Please, ma'am, it's what a hen lays
an egg on."
"What?" exclaimed the astonished
teacher.
"Well, that's what my book says," re-
plied the boy.
The teacher requested him to bring the
book and show her the statement to
which he referred. He got his reader
and pointed to the sentence:
"The hen lays one egg a day, on an
average."

A Splendid Bird Book.

Dear Beavers,—We seldom advertise
books in this way, but such a very
beautiful bird book has come to the
office that we cannot keep from telling

you about it. The name of it is, "The
Canadian Bird Book," by Chester A.
Reed, B.S., and it is published by the
Musson Book Co., Toronto. If you have
a school library, tell your teacher about
this book, and perhaps she will be able
to buy one. It has 472 pages, with
pictures, in color, of all our birds, also
pictures of their eggs.

There is a way, however, by which you
can get one of these splendid volumes
for your very own. Get five new sub-
scribers for "The Farmer's Advocate and
Home Magazine," send us the names and
the money, and the book will be mailed
you just as soon as possible. Now what
can you do?

Senior Beaver's Letter Box.

Dear Puck and Beavers,—This is my
first letter to your charming Circle. I
like reading the letters, especially the
riddles. We have taken "The Farmer's
Advocate" for about three years. I live
on a rented farm of about seventy-five
acres. There are about fourteen acres
cleared, and the rest is all bush. I have
read a few books, which are: "The
Brave Tailor," "The Three Giants," "The
Little Mouse," "Alice in Wonderland,"
and a lot more.

The war is still going on, but I think
the Germans will be beaten at last. I
go to school nearly every day, and am
in the Junior Fourth Class. We have
two miles and a half to go to school.
Wishing the Circle success,
THOMAS E. NOTT (age 12, Jr. IV).
MacLennan, Ont.

Dear Puck and Beavers,—This is my
first letter to the Beaver Circle. I have
often intended to write, but I never have.
I enjoy reading the letters from the
Beavers. We have taken "The Farmer's
Advocate" for nearly four years, and we
like it fine. I have quite a few books.
The names of some are: "The Story
of Helen Keller," "The Bessie Books,"
"Wait and Hope," "A Sweet Girl Gradu-
ate," "Herbert Carter's Legacy," "Mar-
garet Mervin's Cross," "Jacob's Sun-
beam," and a number of others.

My teacher's name is Miss Sterling,
and I like her fine. We had a concert
at our school on Good Friday. I have
three brothers and one sister. My
youngest sister and brother had the
whooping cough this winter. Well, Puck,
I think the Beavers have done pretty
well to keep up this Circle so long, and
do you ever get tired of reading the let-
ters? I will close now, wishing you
every success.
AMY C. PRINCE (age 12).
R. R. No. 1, Petrolia, Ont.

Hello, Puck and Beavers,—Have you
room for another girl in your club?
The Fourth Class girls have a club in
our school. I am a member. We call
it "Good-time Club." We have parties
in our school, and invite girls and boys
of our own age, we also have skating
parties, and sometimes we go to the
movies. I live on the north bank of the
St. Lawrence, across from Ogden's
Island. We have a pretty large orchard.
It was a demonstration orchard last
year. Most of our apples are McIntoshes.
I think I will try my Entrance next
year; my sister is going to. I have two
sisters and three brothers. Hoping to
see my letter in your valuable paper.

KATHLYN FARLINGER.

P. S. Will some of the Beavers of my
own age (11) write.
Morrishburg, Ont.

Dear Puck and Beavers,—This is my
first letter to "The Farmer's Advocate."
I enjoy reading the letters very much.
My father has taken "The Farmer's Ad-
vocate" ever since I can remember. My
brothers and I have to walk about a
mile to our school. Our teacher's name
is Miss Sterling; I like her very much.
There are 33 scholars coming to our
school. I like to read, and have a num-
ber of books. I also enjoy my Sunday-
school papers, "The Pleasant Hours,"
and "Onward." Now, I will close with
a few riddles.

Why is a nobleman like a book? Ans.—
Because he has a title.

What has only one foot? Ans.—A leg.

Why is an elephant like a brick? Ans.—
Because neither of them can climb a
tree.

What is that which you can see but
cannot catch? Ans.—Your shadow.

ADA DOBBRIN (age 13, Sr. III).
R. R. No. 1, Petrolia, Ont.

Honor Roll.—Morley Bride, Margaret
Savoie, Jenett Hall.

Beaver Circle Notes.

Margaret Savoie (age 13), Upper Dun-
dee, Restigouche Co., N. B., wishes some
of the Beavers to write to her.

Leila Stinson's letter was left out be-
cause written on both sides of the paper.

Junior Beavers' Letter Box.

Dear Puck and Beavers,—This is my
first letter to your charming Circle. My
father has taken "The Farmer's Advo-
cate" for a number of years, and likes
it fine. I enjoy reading your letters



Young Peasants of Mezokovesd, Hungary, in Their Sunday Costume.

very much. I go to school every day that I can. I am in the Senior Third Class. Our teacher's name is Miss M. Kieth, and we like her fine. We had a school fair the last two years, and we are to have one again this year. As my letter is getting long I will close, wishing the Beaver Circle every success.

MARJORIE ABELL (age 12).
Walkerton, Ont., R. R. No. 4.

Dear Puck and Beavers.—This is my first letter to your charming Circle. My father takes "The Farmer's Advocate," and likes it fine. I like to read the Beavers' letters. I have two cats and a dog. The cats' names are Fluffy and Trimmy; the dog's name is Joe. I live on a farm about eight miles from Tilsonburg. I go to school every day. My teacher's name is Miss Vera Atkinson; I like her very much. I hope my letter will escape that w.-p. b. I would like some of the Beavers to write to me. Wishing the Circle every success.

ERIE FISHER.
Courtland, Ont., R. R. No. 2.

Dear Puck and Beavers,—I thought I would write a letter to you, as I have never written before. I am nine years old. My father has taken "The Farmer's Advocate" for about fifteen years, and likes it very well. I am going to school and in the Third Book, and I like the teacher real well, as she is so very kind and good to us. I am taking music lessons on Saturdays, and have taken over two terms, and intend to keep on. Now, I will stop and give you some riddles.

What lion is allowed in the lawns of public parks? Ans.—Dandelion.

What is it that is over the water and under the water, and yet not touching the water? Ans.—A man standing on a bridge with a pail of water on his head.

What is it that has hands and no arms? Ans.—A clock.

MAY RICKER (age 9, Jr. III.).
Canboro, Ont., R. R. No. 1.

Dear Puck and Beavers.—This is my first letter to your charming Circle. We have been taking "The Farmer's Advocate" for some years. I have for pets five kittens and one puppy; its name is Carlo. I had the chickenpox about a month ago and had to stay home from school, but now I go every day I can. My teacher's name is Miss Timbers; I like her fine. My papa died the 28th of December, and we are very lonely without him. One of my brothers died about six years ago. I have one brother living. I have no sisters. Well, I must close, as my letter is getting long. I hope this will escape the w.-p. b. I will give you a riddle.

If the poker, shovel and tongs cost \$750, what will a ton of coal come to? Ans.—Come to ashes.

VERA FARR (age 9, Jr. II.).
Mongolia, Ont.

Dear Puck and Beavers.—This is my first letter to the Beaver Circle. My father has been taking "The Farmer's Advocate" for ten years. We would not like to do without the paper. I am going to school every day. I am in the Senior Third Class. My teacher's name is Miss Blakestone; I like her very much. I have a dog called Tory for a pet. I hitch him in my sleigh when I come home from school. I have a pony to go to Sunday school. I have a brother named Alie and two sisters named Ellise and Katie. Hoping this will escape the waste-paper basket.

GEORGE EHGOETZ.
(Age 11, Sr. III.)
R. F. D. No. 1, Sebringville, Ont. ...

Dear Puck and Beavers.—May I join your charming Circle? I like reading the letters which are sent by the little girls and boys of other towns. This is my first letter to your Circle. I go to school every day; my teacher's name is Miss MacLeod. I am in the Senior Third Class. For pets I have a cat named Tommy; he is pure white. I have a dog called Carlo, and a sheep called Nancy. Well, as my letter is getting long I will close, hoping to see my letter in print.

HELEN MACRAE (age 10).
Lochalsh P. O., Ont., Box 68.

Fashion Dept.

HOW TO ORDER PATTERNS.

Order by number, giving age or measurement, as required, and allowing at least ten days to receive pattern. Also state in which issue pattern appeared. Price ten cents PER PATTERN. If two numbers appear for the one suit, one for coat, the other for skirt, twenty cents must be sent. Address Fashion Department, "The Farmer's Advocate and Home Magazine," London, Ont. Be sure to sign your name when ordering patterns. Many forget to do this.

When ordering, please use this form:

Send the following pattern to:
Name
Post Office.....
County
Province
Number of pattern.....
Age (if child or misses' pattern).....
Measurement—Waist, Bust,
Date of issue in which pattern appeared.



8525 Girl's Dress, 6 to 10 years.



8609 Fancy Blouse, 34 to 42 bust



8559 Boy's Suit, 8 to 14 years.



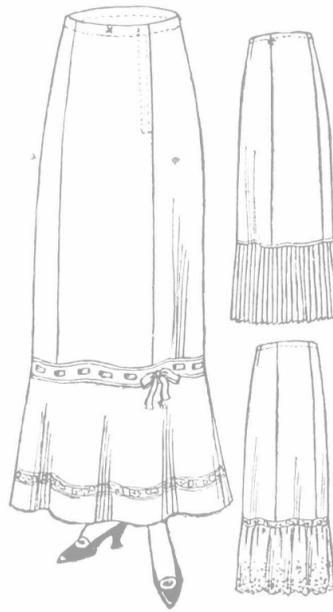
8558 Breakfast Jacket, Small 34 or 36, Medium 38 or 40, Large 42 or 44 bust.



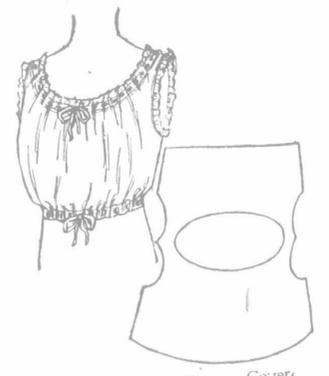
8561 Night Gown for Misses and Small Women, 16 and 18 years.



8597 Fancy Blouse, 34 to 42 bust.



8555 Four Gored Petticoat, 24 to 34 waist.



8615 One Piece Corset Cover, One Size, 36.

The Dollar Chain

For Belgian Relief, Soldiers' Comforts and Red Cross Hospital Supplies.

A fund maintained by readers of "The Farmer's Advocate and Home Magazine" for (1) Belgian Relief; (2) Soldiers' Comforts; (3) Red Cross Supplies.

THE SCHOOLS TO THE FORE.

In giving the Dollar Chain list for the past week we wish to mention particularly the contribution work done by the schools during the month. The ball was set rolling by S. S. No. 13, Ekfrid, Middlesex Co., Ont., which, as the result of a bazaar, sent \$35.00 for the Dollar Chain, acknowledged in April 1st issue. On April 15th we were delighted to give especial notice to S. S. No. 6, Wellesley, Perth Co., Ont., from which links amounting to \$24.25 were added; and today we have to thank S. S. No. 12, Euphrasia, Grey Co., Ont., for a donation of \$12.00, sent with the following kind letter:

Gentlemen,—Enclosed please find \$12.00, the proceeds of an entertainment given by the pupils of S. S. No. 12, Euphrasia, Blantyre school. We wish to donate this sum to the Belgian Relief Fund, and trust that our "mite" may help in this great work.

Signed in behalf of Blantyre school.

ELSIE YEADELL,
RUSSELL WHITEFIELD,
GERTRUDE K. FOLEY (Teacher).

If the teachers and pupils of these schools could only see exactly how much good their contributions will do, they would be more than fully repaid.

It is expected that the great climax of the war will be reached during the next two months. That will mean suffering indescribable,—more people homeless and starving, more need for bandages, antiseptics, anesthetics, and, indeed, medicines of all kinds, since, with the coming of the warm weather, diseases and plagues comparatively unknown in winter will run amuck over Europe's fighting lines. The amounts of money needed even for insect powder and tobacco are enormous. It is well known that the soldiers must have tobacco; it is the only way of combating the intolerable stench. Every link added to our Dollar Chain will help,—that chain aptly described by T. F. Howell, of Paris, as one "that binds sympathetic and suffering hearts together."

The list from April 9th to April 16th is as follows:

Contributions over \$1.00:—
S. S. No. 12, Euphrasia, \$12.00; Eva E. Robinson, Stittsville, Ont., \$2.00; Mr. and Mrs. John W. Studiman, Branchton, Ont., \$2.00; John Morphet, Kirkton, Ont., \$2.00; Jas. Marshall, Blenheim, Ont., \$5.00; "A Countrywoman," Bridgen postmark, \$4.00; F. M. Howden, Middleport, Ont., \$2.00.

Contributions of \$1.00 each:—
F. C. Barrington, Ste. Martine, Que.; "Old Subscriber," Grattan, Ont.; Jennie Vance, Forest, Ont.; Mrs. Elwood Long, Woodford, Ont.; "Country Chick," Guelph, Ont.; T. F. Howell, Paris, Ont.; Alex. Geddes, Port Elgin, Ont.; "Reader of The Advocate," Rodney, Ont.; Edw. Fulton, Brussels, Ont.; "A Reader," Brucefield Ont.

The last two names, by the way, should have been published sooner, but, by a mistake, were omitted.

Total amount previously acknowledged from Jan 30th to April 9th.....\$1,166.48

Total to April 16th.....\$1,205.48

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

A Great Mystery.—"One of the most baffling of the many mysteries that enshroud us," grimly remarked the Old Codger, "is why people persist year after year in going away on vacations when they could be just as uncomfortable at home."

The Daily Miracle.

All the commonplace things which nature flings

Around and about us everywhere,
Which we do not prize, which we half despise,

We should seek and sigh for if they were rare.

If the song of a bird but once occurred,
We should pause and listen in breathless hush:

And try to regain the beautiful strain
Or describe the note of the warbling thrush.

Nay, let us suppose that the moon arose

Only once a year in the cloudless skies:

We should mark the date, we should watch and wait

And behold the sight with an awed surprise.

It is only in youth we see the truth,
Or feel the magic, the marvellous spell;
Thus we hold the clue when the world is new,

But we miss the way when we know it well.

So the miracle of the beautiful
Cannot heal the fever of daily strife,
For many have lost, or begrudged the cost,

Of the inner vision—the joy of life.
—Gertrude Darlow.

The Women's Institute.

Demonstration Lectures for Women's Institutes.

By Geo. A. Putnam, Department of Agriculture, Toronto, Ont.

The enthusiastic interest which the Women's Institutes have taken in the itinerant demonstration-lecture course in "Food Values and Cooking," "Sewing," and "Home Nursing," provided by the Ontario Department of Agriculture for the past three years, led to a new experiment this year. Instead of holding a class at five different points in a district each week for ten weeks, a teacher was sent to give a two- to four-weeks' course at one central point, the lessons to be free to any woman or girl in the district, whether an Institute member or not. The results have gone beyond our highest expectations, and have convinced us that the people are ready and waiting for the extension of this work.

The prospect during the earlier part of 1914 was for a rapid development of the demonstration-lecture feature of Women's Institute work during the fall and winter of 1914-15; but after the outbreak of war, the Institutes became so engaged with Red Cross, Belgian Relief, and various forms of local relief work, that they would not take the time, except at a few centers, for systematic instruction. The Department did not wish to discontinue this excellent feature of work, so urged a few centers to take advantage of the instruction, which has heretofore been given at a small charge, but this winter offered free of tuition.

Courses in sewing have been given at some twelve points, while instruction in food values and cooking has been given at seven centers. One of the most successful of these was that held at Aylmer, Elgin County, Jan. 26 to Feb. 19, 1915. This course included twenty-six lessons in domestic science:—sixteen morning lessons, planned especially for girls, and ten afternoon lessons for the same girls, as well as experienced housekeepers. The last six afternoons were devoted to lectures from special instructors in dairies, poultry-raising and gardening. The subjects were arranged after the plan of the Macdonald Institute short course in the domestic science, the programme for the afternoon lessons including:

1. Fruit—Typical methods of cooking; combinations; different ways of serving fresh fruit.
2. Vegetables—Fresh, starchy and dried.
3. Milk—Soups, puddings and combinations, with especial relation to infant, children, and invalid diet.

4. Cereals and Cheese.—Various methods of cooking; their high food value compared with other more expensive foods.

5. Eggs—Correct methods of cooking, variations in methods; storage.

6. Meat—Roasting and broiling; braised dishes, stews and soups, uses of the different cuts, and food value compared with other foods.

7. Baking-powder Breads—Yeast; bread and fancy breads.

8. Cake and little cakes.

9. Puddings and desserts.

10. Salads.

The morning lessons were arranged in correlation with these, going a little more fully into elementary principles and including such additional subjects as Invalid Cookery, Meat Substitutes, Made-over Dishes, Hot Supper Dishes, Pastry Croquettes, Table Setting, and Serving, etc.

The Aylmer women have reflected credit on their Institute by the business-like way in which they carried out their part of the contract. The local Institute is required to provide and equip the room where the classes are to be held, and to furnish the supplies required for the demonstrations. In this case they rented a club-room in an office block, put in a three-burner oil-stove, a work-table and chairs, and then circulated printed programmes advertising the course. The attendance at the first morning class was 34, with 78 in the afternoon. In a few days this had increased to 86 in the morning, and in the afternoon 200, and some more who couldn't get in. On the last evening a hot supper was given, at which the Institute realized enough to pay all the expenses of the course, with a considerable surplus for patriotic work. It might also be added that during the course ninety-six new members joined the Institute.

A new feature in short-course work was introduced in the form of a written examination for those who had taken the complete series of lessons. This also was an experiment, and the question of writing purely voluntary on the part of the students. The paper set will give some idea of the work covered. The questions were:

1. Explain the uses of proteids, carbohydrates, fats, mineral matter and water in the human system, and name some of our common foodstuffs in which each of these principles is found largely.
2. Give the recipe, and explain definitely your method of making any two of the following:
 - (a) Tea biscuits.
 - (b) Plain pastry and puff pastry.
 - (c) Cheese croquettes.
3. Make out suitable menus for the three meals a day for one week in July.
 - (1) For a farm family where there is access to a good kitchen garden, a dairy, eggs, and a beef-herd or other fresh-meat supply.
 - (2) For a family of five in town where \$400 a year can be spent for the food supply.
4. Explain with reasons for your method in each case.
 - (a) How you would pan-broil a steak.
 - (b) How you would make a beef stew.

5. Of what special nutritive or medicinal value is each of the following?

- (1) A salad of green vegetables.
- (2) The same salad with nuts added.
- (3) Beef tea.
- (4) Coarse vegetables, like spinach or cabbage, and Graham bread.
- (5) A macaroni-and-cheese dish.

6. (a) Give definite directions for making:

- (1) Any two light desserts.
- (2) Any two hot-supper dishes.

(b) Give five salad combinations.

7. What are the characteristics of a good waitress? Give five general rules to remember in table-serving. The results of this examination were gratifying indeed. The only means of preparation the girls had was through the lessons, with the use of demonstrations and charts, and the reviewing of the notes they took each day, but the following answers taken from four different papers show something of the thoroughness with which they grasped the ideas.

Proteid in food is that which builds, and repairs worn-out tissue. It is found largely in lean meats, eggs, cereals, milk, dried beans, cheese, etc.

Carbohydrate is that in food which supplies heat and energy. It is composed

of starch and sugar. It is found largely in potatoes, parsnips, beets, grains, etc.

Fat is that in food which supplies heat and energy to the body. It is found in fat meat, bacon, cream, cheese, etc.

Mineral matter or mineral salts is of use in the system to build body tissue, blood and muscle, and nerves. The lime in food also builds up the bone. The mineral salts also act as regulators. They are found in lettuce, cress, spinach, celery, apples, and other fruits. Lime is found in cereals and milk.

Water.—Its use is to act as a regulator, to flush out the system and to carry off impurities. It is found largely in vegetables such as onions, lettuce, cabbage, etc., also in raw fruits such as oranges, lemons, apples, peaches, etc.

Recipe for Puff Paste.—Two cups flour, ¼ cup lard, ¼ cup butter, ½ teaspoon salt. About ¼ cup ice water and 1 teaspoon lemon juice.

Sift the flour and salt several times to get air into it and make it light. Add the lard, cutting it in with a knife as well as you can, then finish rubbing it in with the tips of the fingers. Then add the water very gradually, using a knife to mix it through, until the dough is of the right consistency to handle. Put on the bake-board and roll very lightly. When rolled one-third inch thick, dot part of the butter over half of it. The butter should be creamed with a spoon until it is waxy and will work into the dough easily. Fold the paste over, fold again in three layers the other way, and roll again till the butter shines through a little, but not till it begins to come through. Fold it over and put it away to chill. When chilled, roll again, dot butter over half the dough, fold, and roll as before. Do this four or five times, or until you have the butter all worked in. When you roll the paste, keep it as nearly square as possible so it is easy to fold. Roll very lightly. Always roll the one way. Never turn the dough over. Keep it cold. Never use puff paste for the bottom crust of a pie.

To Pan-broil a Steak.—Have your pan very hot so that when you place your steak in it it will be quickly seared over, then turn and sear the other side. Be sure to never pick it with a fork so that any of the juices will be lost. After it is seared over, cook it rather slowly. When it is done, sprinkle with salt and a little pepper, and you may rub it over with a little butter and lemon juice.

Reasons.—Sear it quickly so that the little tubes will be sealed over and all the juices be retained in the meat. Do not sprinkle salt on at first for it will draw out the juices. Do not turn with a fork else you allow some of the juices to escape. Finish cooking slowly so as not to toughen the proteids.

One of the answers to the questions about the special medicinal or nutritive value of certain foods was:

A Salad of Green Vegetables.—The green vegetables, such as lettuce or other above-ground vegetables, have a great amount of mineral salts in them. Therefore, when eating green vegetables this would purify the blood and would also help to clear out the system.

The same salad with nuts in it.—Nuts, and especially walnuts, are great in food value, having so much proteid and fat. So, therefore, if we had nuts in a green vegetable salad we would get the fat and proteid, besides the mineral matter, and it would be a nourishing dish as well as a medicinal dish.

Beef Tea.—When making beef tea our main idea is to get all the food we can out of the meat into the water, therefore beef tea would be very nourishing if we left the flakes of proteid in it. It is also very good for a sick patient, as there isn't hardly any digesting to do. If the proteid is strained out, the beef tea is only a stimulant and has no nourishment in it.

Coarse Vegetables, such as Spinach or Cabbage, and Graham Bread.—These are all valuable for the cellulose that is in them, that is the fibrous material. For example, if you scrape a turnip and then squeeze the pulp through a cloth, the cellulose would be the particles left in the cloth. It is indigestible, but forms a bulk in the intestine which stimulates the muscles and helps carry away the waste, and therefore helps to overcome constipation. We should take a lot of these foods mentioned.

Macaroni and Cheese.—Cheese is about



34 to 42 bust



Misses and Small 18 years.



orsset Cover, 36.

one-third proteid and one-third fat. Macaroni is made up of nearly all starch. Therefore, this would be a well-balanced dish, and very nourishing.

But while we may be most enthusiastic over the possibilities of this work among the young women living out of reach of any other form of technical education, not so much for the specific information given, as that it starts an intelligent interest in things of the home, and inspires a desire to make a profession of housekeeping, we appreciate just as much the immediate value to the women who have charge of homes now. The interest which the clever, capable, experienced women of the community have taken in this course, promises that it may become one of the most practical and far-reaching lines of college extension work yet undertaken in Canada.

The Future Outlook of Rural Ontario.

[A paper given by Mrs. J. J. MacCallum at the Harrietsville Branch of the Women's Institute.]

The future outlook of rural Ontario depends very much upon the viewpoint of the individual. The optimist will say that the outlook for the future is very bright. He will point to the progress already made, and taking this as a basis, will press onward toward the achievement of bigger and better things. The pessimist, on the other hand, can see nothing but gloom ahead. He will point to the poor crops, the continued wet weather, the high cost of machinery and labor, the low price of everything the farmer has to sell, and the high price of everything he has to buy, and will paint a gloomy picture of the country going to the dogs as fast as it can go. Briefly put this is the outlook from the two opposite standpoints. Which of the two will we take? For my part, I unhesitatingly choose the side of the optimist. Optimism is unquestionably the spirit to be cultivated in order to make this great Province what nature intended it to be—the greatest of any country in the world. The pessimist has no place in the march of progress. There is absolutely no room for the croaker. The only kind of croaking the progressive people of rural Ontario will stand for,—is the melodious kind we hear in the spring-time in the quiet ponds and beautiful streams, from the frogs.

Why should we not be optimistic over the future outlook of rural Ontario—particularly this Western part of it. With the start it already has, there is nothing to retard its progress. Situated in the peninsula bordered by the Great Lakes, it is peculiarly adapted for all kinds of agriculture, fruit growing and stock raising. No other country is so well favored in this respect. The railways form a network over the Province, making transportation facilities of the very best—an important factor in the development of any country. The cities, towns and villages, are closer together, easily reached by good public roads, and furnish a market for all the products of the farm. Rural telephone lines are being built, and almost every farm house is equipped with a telephone. The automobile is gradually dropping into its place among the other vehicles of the farm. Modern houses and magnificent bank barns are taking the place of the buildings erected in pioneer days. The weekly newspaper has long ago been displaced by the daily, brought to the door by rural mail delivery. School advantages have greatly increased. Public libraries are being established in convenient central locations. Educational organizations, like the Farmer's Institute, Women's Institute and kindred societies, have been formed for some time. It is reasonable to expect that in the near future, electricity will be found operating the machinery on the farm, and lighting the houses, the barns and the public roads of the Province.

Compare this condition with those of twenty-five, twenty or even ten years ago, and will anyone say that rural Ontario has not progressed? Will anyone say that because of a poor crop, a wet season, or other temporary check, the hands of the clock shall be turned back? The answer is emphatically No. Not so long as our people possess any of that British bull-dog sentiment, "What we have we

hold," or a spark of faith in the Divine promise that seed time and harvest shall fail not. If there is seed time and harvest in any country in the world, Western Ontario stands a splendid chance of being that country. And yet, we are frequently told by some that we are slow, and in some cases we are rather inclined to believe it. We hear of the great advantages—or rather some special advantages and opportunities, in other parts of Canada, chiefly the Northwest provinces and British Columbia. We hear of the almost fabulous wealth acquired in a short time, in mining, ranching, wheat growing and real estate—with the emphasis on the real estate.

The "sub-divider" is abroad in the land, and we frequently are tempted with get-rich-quick propositions in mining stocks, town lots or "horizon lots." Some particular special feature of the country is enlarged upon, until we forget that right at home, our own Province possesses perhaps that same special advantage, with a great deal more thrown in for good measure. The trouble is, we have listened so long to the praises of other parts of the country that we have forgotten the advantages of our own. Is this not so? How many of us can tell off-hand what Western Ontario is noted for? We would have to think it over a while. We are too much exercised over poor prices, scarcity of labor, of help and alleged hard times. We envy the prosperity of those Westerners, who are making so much money with so little work. Let any one, however, mention the name of one of the Northwest Provinces and at once some special feature of that province will suggest itself to our minds. Take a trip through that great country—and it is a great country—lying between Lake Superior and the Pacific ocean. You will learn many things, you will be told many things. One thing you will not fail to notice is the intense optimism of the people you meet. You will be told in Manitoba and Saskatchewan of the great progress the country is making. Towns are springing up almost in a single night. They will point to mile after mile of golden wheat undulating like billows in the wind. They will tell you that you are only wasting time back in Ontario on your little garden-patch of a farm, and advise you to sell out and come West, where you have a chance to expand. The Albertans will sing the praises of "sunny Alberta" and extol the free life of a rancher. They will tell you that Alberta is the greatest country in the world, that "the cattle on a thousand hills" are theirs. The British Columbians will point with pride to the Rocky Mountains with their magnificent scenery and their mines. You will see all these things on your journey, and it is more than likely that every third man you meet will try to sell you some real estate. Unless you are completely carried away by the glamor of it all, your mind will revert with pride and longing, to your own home neighborhood, away back, perhaps in the County of Middlesex. You will begin to miss some things. You will long for the sight of a maple tree, or a cedar hedge, or an apple orchard, or a bank barn with a silo, or gravel road, or a home like farm house with flowers blooming in the garden, or a hundred other things that you were wont to see every day at home but cannot see now, and you will remember some things that perhaps you forgot before. You will remember that back home we have some things worth living for after all. We may not be able to point to miles of waving wheat (because the view is obstructed by forests of beech and maple) but we can show you field after field of waving corn, and peas and vegetables growing in our own despised "garden patches" that find their way in the form of "canned goods" to the lonely shacks that dot the prairies of Manitoba, Saskatchewan and Alberta. We, perhaps, may not boast of "the cattle upon a thousand hills," but we can mention in a modest way, what is infinitely better—thousands of cattle, comfortably housed in stone stables, and great dairy herds supplying some of the necessities of the life to those picturesque cow-boys on the ranches of the West. We have no Rocky Mountains, but we have some tall chimneys surmounting factories where, boots and shoes, underwear and

other clothing are manufactured for the miners and fishermen of British Columbia to wear. The farther you get away from home, the more you will realize that Ontario overtops other countries, as the mountain overtops the hill, and when you return there will be no doubt whatever in your mind that taking everything into consideration the advantages are all on our side. There are other things beside money to think of. Are your present conveniences and surroundings worth nothing? Think of your pleasant homes, your churches, your schools, your neighbors, your friends.

It is perhaps true, alas, that there are isolated cases of individual failure on the part of the farmer, even in this favored part of Ontario, but you will find that in the majority of such cases failure is due to unprogressive methods of farming. A penny-wise-pound-foolish policy in the matter of expenditure for drainage, for proper buildings, to house the live stock, implements and vehicles belonging to the farm, for good fences, for the acquisition of the knowledge necessary to carry on the business of farming along up-to-date progressive lines is the primary cause of unproductiveness of an otherwise splendid farm. This is what causes boys to leave home to seek their fortunes, amid the allurements of the towns and cities. Many of them go to the Northwest and you cannot blame them. You will almost invariably find that the farmer who is unable to secure hired help is the one who is trying to get along with out-of-date appliances and methods. Likely he has two or three sons doing well in the West. He is the pessimist previously referred to. He finds fault with the weather, the crops, the hard work, the Government, and you will generally find that he is better posted on the doings of the Government than on the things pertaining to his own farm. Shall we gauge the outlook from his standpoint? I think not. With the advantages already in our favor, all that is necessary is intelligent, well-directed effort along progressive lines. Do not be afraid of the future, down here in Ontario. Do not forget that progressive farming is the most honorable and independent of callings. Individual failures can in most cases be traced to lack of appreciation of this fact. There are still resources in Ontario, awaiting development. Many of them have been neglected. Of late years there has been a tendency to specialize along certain lines, thereby allowing many so-called less-important features of farming to become neglected. For instance, sheep raising is almost a thing of the past. Some years ago every farmer kept sheep. Now you may drive through the country for miles without seeing a flock. The reasons offered are that they are too much trouble, and cannot be protected from dogs. The answer is—keep fewer dogs and keep them under proper control, particularly at night. Sheep will thrive on poor pasture-land where other animals will starve, and if raised extensively there would be less importations of wool from other countries for manufacturing into clothing. The same neglect applies to poultry raising. This has been left to the women folk, for in many cases the men think they have no time to waste on such a paltry thing as poultry. The hens have been allowed to shift for themselves, and it is only of late—after a practical demonstration by the women that poultry can be raised at a profit—that the farmers are beginning to realize that it pays to provide proper buildings and other facilities for taking care of this most important industry. The hen will pay her way if properly looked after, to say nothing of other farmyard fowls.

Then there is the orchard. How often has this been neglected? No pruning, no spraying, no fertilizing, nothing but neglect. There are thousands of magnificent orchards in Ontario worth many dollars to their owners, upon which scarcely any attention is bestowed. Thousands of barrels of apples rolled on the ground last year because of this inattention. The farmers had no time to pick them, and the price offering was considered too low to admit of hiring the necessary help. Ontario grows the finest fruit of any country in the world. A Northern Spy apple will sell quicker than an orange if put up in the same

attractive form. Small fruits and vegetables of the finest flavor can also be grown at a profit.

Again, how many farmers keep bees? Very few. The bee industry is well worth the comparatively little attention necessary to make it pay. You do not have to feed bees. They will look after themselves, and while you are engaged in looking after, what you are pleased to term the more important work of the farm, they are busy making the delicious honey that you are buying at a good price from your grocer. Get a few skips of bees, look after them properly and see if you are not amply repaid for the little labor it costs you. These are only a few of the many resources of the farm of Ontario that should receive more and better attention.

It is frequently argued that there is not much prospect for a large family of boys on a small Ontario farm, and the only thing to do is to take up a trade, or go to the Northwest, where land is both cheap and plentiful. There never was a greater mistake. In the first place, good land, well located is no longer cheap in the Northwest. There is no question but that it is plentiful. The vastness of the country proves that, but it is only adapted for certain special features of farming, such as wheat growing and ranching. You do not need whole sections, half sections or even quarter sections of land here in Ontario. If every resource of even a small Ontario farm were fully exploited, there would not be enough boys to do the work. Instead of leaving the farm, if one of them would take the orchard, another the poultry, another the sheep, another the garden, bees or any of the many other industries and develop it, you would find that instead of not having enough land to give the boys a start, you would be hiring help to assist you in the many enterprises involved on the farms you already have. The result would be to check the movement to the towns and cities, and would go a long way to solve the problem of the high cost of living. At the same time opportunity could be found for beautifying the home and providing conveniences that make life worth living. You would be spared the partings and the loneliness of those whose families are scattered to far-distant climes. There is plenty of room here in Ontario for all. There should be a better cultivation of the community-of-interest idea among farmers as a class. Your neighbor's interests are identical with yours. Do not allow the wiles of the politician to separate you. You are not in politics; he is. That is his regular business; yours is farming. A much more honorable one. Work together for your interests as a class. This principle is recognized and acted upon by every other class of businessmen in the community. Why not by yours? It is not class restriction. It is simply business. The destiny of rural Ontario is in our own hands, and it is up to us as farmers to keep it there, and make it as we would like to have it. Work along progressive lines always. We have the country, the facilities, the opportunities, the resources. Develop them to the best possible advantage and the future is assured. Stay in Ontario.

Resolutions for the Home-Maker.

I will rest every day even if it is only to cease work and relax my muscles for a minute at a time.

I will take some exercise in the open air every day. If opportunity presents I will skate and curl and snowshoe and romp with the children.

I will make of my work a profession and a science, using my brains and my intelligence in perfecting an efficient, smooth-running domestic routine.

I will read books and articles pertaining to my craft that I may acquire that knowledge which is power, books in lighter vein for my own amusement and edification, a good newspaper that will keep me informed on matters of general interest and progress in the world, and any other good literature for which I may have time and inclination.

I will take an interest in life outside the four walls of my own home, so avoiding a narrow, self-centred attitude and mental inertia.

I will take pains to make myself as

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QUICK NAPHTHA

THE WOMAN'S SOAP

MADE IN CANADA

attractive as possible, not being satisfied simply with passable cleanliness but paying some attention to the dressing of my hair and the general effect of my costume. As there is a very real and intimate connection between mental and physical well-being, I will resist every temptation to become slovenly and careless.

I will try to acquire a cheerful philosophy to sustain me through the little trials and vexations of every day. I will be the cheery companion as well as the wife and mother. I will join the Women's Institute, if there is one, if not I will organize one, even if it has only a single member. I will pass on to others, through the Ingle Nook, or in some other way, bits of practical advice, wisdom and philosophy which have helped and cheered me on my way.

News of the Week

Fifteen hundred University men are going to camp at Niagara to drill in preparation for active service.

Premier Hearst of Ontario, announced on April 18th the names of those who will form the Provincial Board of License Commissioners, to take over the administration of the license liquor laws. They are, J. D. Flavell, Lindsay; W. S. Dingman, Stratford; Frederick Dem, Glasgow; John Aycarst, Toronto; George Smith, Haileybury.

Women have been given the privilege of voting in all civic elections in Edmonton.

In the British House of Commons, on April 14th, it was announced that the Colonies will be consulted on terms of peace when the time comes for making them at the close of the war.

The liquor question will be decided on by the House of Commons in Great Britain as a non-party issue.

A Zeppelin airship dropped bombs on several villages in Eastern England on April 14th. The venture was repeated on April 16th.

Four million men have been engaged in deadly battle during the week in the Uszak Pass in the Carpathian mountains. The Russians report that from March 19th to April 12th, they took 70,000 prisoners in these mountains.

It is now known that in the battle at Neuve Chapelle the British losses were 190 officers and 2,337 men killed, 359 officers and 8,174 men wounded, and 23 officers and 1,728 men missing.

It was announced in New York recently, on behalf of Thomas A. Edison, that he has accomplished an improvement in submarines which will enable them to remain submerged for 100 days without danger of asphyxiation to the crew.

On April 14th, British torpedo-boat destroyer Renard entered the Dardanelles on a scouting trip and boldly penetrated the straits for ten miles, escaping without injury.

Lieut. William Glynne Charles Gladstone, grandson and heir of the Right Hon. Wm. E. Gladstone, met death in action in France. He was 29 years of age.

During the week German submarines have torpedoed the British vessel Ptarmigan (without warning, to-s eleven men); supply ship Katwyk, chartered by the Dutch Government, and the Greek steamer Ellispontos. The Dutch are demanding immediate reparations for the Katwyk.

It is reported that the German embassy in Rome has asked the Belgian Government, through the Belgian Legation to the Quirinal, whether, in event of the German armies evacuating Belgium terri-



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Mothers know it is practically all nourishment. They know it is a food—that Bread spread with "Crown Brand" makes a well balanced food that sustains and builds up the strength.

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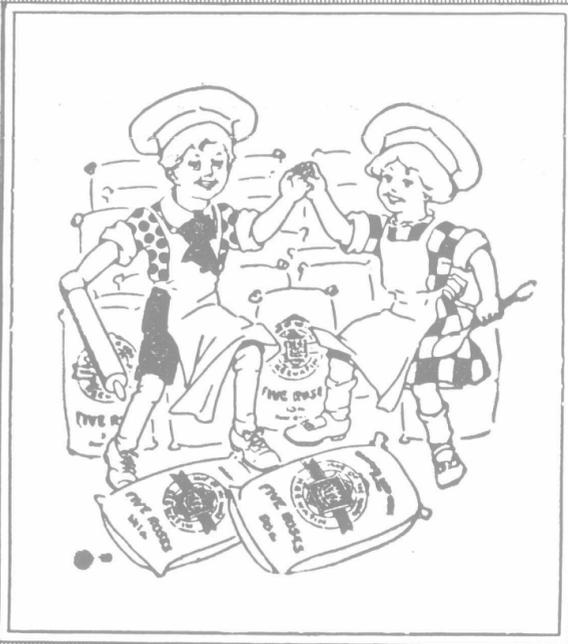
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Why don't they keep good?**

Because they contain too much of the branny particles, too much of the inferior portions of the wheat—may be little pieces of the oily germ.

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FIVE ROSES is the purest extract of Manitoba spring wheat berries.

Free from branny particles and such like. 'Twill keep sound, and sweet longer than necessary.

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Five Roses Flour

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tory, Belgium will remain neutral during the remainder of the war.

A French aviator dropped five bombs on the German headquarters at Mezières-Charleville, on buildings occupied by the Imperial General Staff. Also fifteen French aeroplanes dropped bombs on the Railway station at Freiburg, and on the German military buildings at Ostend.

The Ingle Nook.

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

Some After-thoughts.

Dear Ingle Nook Friends,—Not long ago we talked something about Growth. Following up the subject, does it ever occur to you to wonder why it is that, in the inevitable progression of things, some things that appear so very clearly progressive take such a long time to obtain a foothold? One may have all the confidence one chooses in the slow processes of unforced evolution, one may be absolutely convinced that the unfailling trend of all that is, is upward, yet one cannot but feel, at times, an impatience to see things "move," a wonder at the negligence, or stupidity, or whatever it is, that keeps them from moving with more appreciable speed.

How long did it take for Responsible Government to win out?—or, at least, such substitute of it as we have. How long for a reasonable degree of free speech and liberty of the press? How

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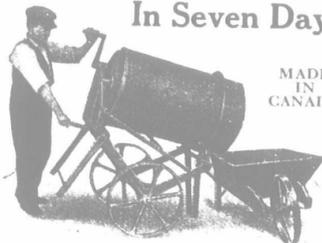
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long for some recognition of the democratic ideal? How long for the higher education of women?

And, indeed, in looking back over all those movements one cannot but remember that evolution in its real sense of gradual development by unfolding has not always been sufficient, perhaps because people have grown over impatient through long suffering. Occasionally the bold stroke appears to have been necessary, the daring of great minds, sacrifice even to life itself, noble ideals that have sometimes run amuck and lost themselves in a welter of brutality,—and so revolution has become a step in evolution. It required the horrors of the French Revolution, in which the pendulum swung appallingly to its farthest extreme, to bring some degree of justice to the working populace of France. The United States was deluged with blood to buy the freedom of the black slaves. Countless martyrs suffered and died to purchase liberty in religious and scientific thought; even the Carpenter Himself became a victim to the crystallized orthodoxy of His time.

—First the idea, then the slow and steady elaboration of it in one mind or in many, then, perhaps, insurrection or calamity to bring about the fruition.

But let us look at the whole matter a little more closely.... Has it really been "necessary" that calamity should come in order that right should be established? Has that been in very truth the "natural" order of things?—Or has something been dreadfully amiss in the minds of men that catastrophe has been thus piled upon catastrophe that the heights might be attained?

If you think about it long enough you are likely to come to the conclusion that, despite some philosophers who have argued otherwise, this last has been the

case. Can you think, to put the matter at once, of a single case in all history in which a calamity to anyone has been precipitated, which was not caused away down at the very foundation by one of two causes: In the first place someone's greed, either for more power or more possessions (the greedy one has not always been the aggressor—sometimes he has been the holder and defender—but the result has been the same); or, in the second place, someone's excessive conservatism and intolerance, such intolerance as has not been contented to revere the past, but has made a fetish of it, crying "No change!" when the very spirit and advancement of the time have clamored for change, an attitude to which has been due nearly all of the religious persecutions and opposition to the advancement of science in the world's history.

Surely it is time that, in the face of the Great War in Europe, people everywhere, even to the "highest" socially, should see what a sorry muddle the lust for great riches and power has brought about. Surely it is time to realize that the hour has come for beginning at the other end; for teaching service to humanity rather than domination of them; contentedness with "enough" rather than insatiate craving for more than enough; the desirability of keeping an open mind—a mind ever ready to leave the old when the better comes clearly in sight; love instead of jealousy and hate; Christianity instead of heathenism.—For it is a burning shame and disgrace to the humans of the world that they have ever needed insurrection or calamity to open their eyes or to compel them to justice,—that they have ever trampled where they should have lent the assisting shoulder. And does not this hold true in small things as well as in great?

To teach all this is a work for the preachers, and the teachers, and the parents in the homes, the three greatest powers in the world if they will but exercise their power. For these are they who mould the individuals, and the individuals make up the nations, and the nations the earth itself.

And so we come to our own day. The world has improved, that must be conceded, notwithstanding the gigantic fiasco of the Great War, but problems still stare it in the face: first and greatest the securing of world-peace, then the regulation of trusts and labor, the liquor question, and the granting of the franchise to women.

—All of which brings us back to the observation with which we set out, that calamity so often acts as a herald of advancement, for, odd as it may seem, the questions of liquor and women's franchise bid fair to be settled somewhat even because of the great horror that is now breaking the hearts of more than half of the civilized world. Russia has, as you know, by one stupendous sweep of the pen, driven vodka forever from her vast domain. Great Britain may follow in her footsteps. France has banished absinthe.

And the women's franchise question? Perhaps many would call it the least of all, trivial, and, indeed, quite unworthy to be mentioned in the same breath with other great issues, yet there are not a few who think to-day that had women a voice in the affairs of the nations, war itself, the most horrible, brutal, disgusting of all organized movements—whatever the inevitability or provocation of it—must soon become a thing of the past.

Be that as it may, this awful war-time is giving women everywhere the chance to vindicate their claim to recognition as capable humans, capable in work of all kinds, and in the sort of organization that means strong mental ability. On the very outbreak of hostilities the women of Germany at once organized to undertake the seeing through of work of all kinds that could be done at their hands. In Great Britain 1,000,000 women have been called for to do agricultural labor, and business and other positions of all kinds have been thrown open to them in order that men may be released to go to the front. And nobly everywhere, in spite of lack of training, are the burdens being shouldered. When the War is all over the women who have homes will go back to their places in them, glad that the awful time of strain and stress is past. In the meantime,

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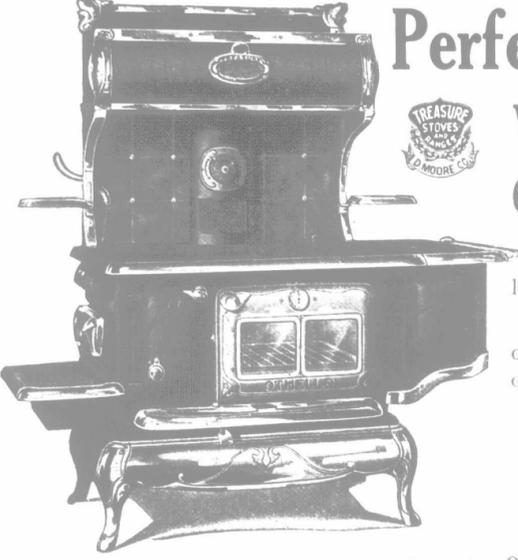
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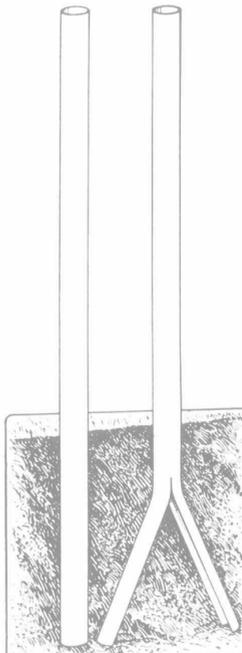
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Front of post, showing post-hook gripping lateral wire.



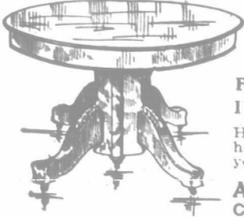
Back of post, showing hook gripping post snugly.

however, they will have shown their fitness to think and to do, and it is not unthinkable that even in England that fitness will be recognized, as the claims of the Home Rule party in Ireland have been recognized, by a quiet granting of that for which, for so many years, an apparently vain clamor has been main-

tained. To-day, Mrs. Pankhurst, using her powers of eloquence in patriotic speeches in Old London, is being cheered to the echo in the very halls in which she was formerly hissed and jeered. If her methods during the militant crusade were often misplaced and ridiculous, that has been forgotten.

It is not a sign of becoming a rabid suffragette to make such observations as these. Merely one cannot but think that women, as responsible human beings, have a right to speak in regard to the laws under which they must live; and, in the face of so frightful a world-crisis as exists at the present time, one cannot but

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Cream of the West (for bread)	\$3.95
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CEREALS	
Cream of the West Wheatlets (per 6-lb. bag)	.35
Norwegian Rolled Oats (per 90-lb. bag)	3.40
Family Cornmeal (per 98-lb. bag)	2.30
FEEDS	Per 100-lb. bag
Bullrush Bran	\$1.40
Bullrush Middlings	1.50
Extra White Middlings	1.62 1/2
Whole Manitoba Oats	2.05
Crushed Oats	2.10
Chopped Oats	2.10
Whole Corn	1.80
Cracked Corn	1.85
Feed Cornmeal	1.80
Whole Feed Barley	1.85
Barley Meal	1.90
Geneva Feed (Crushed Corn, Oats and Barley)	1.90
Oil Cake Meal (old process)	2.05
Cotton Seed Meal	1.95

These prices are not guaranteed for any length of time owing to the unsettled condition of the market.

Every bag of Flour ordered entitles purchaser to two bags of bran or middlings at 10 cents per bag less than the prices given above. Special prices to farmers' clubs and others buying in carload lots.

You can get a free copy of "Ye Olde Miller's Household Book" (formerly Dominion Cook Book), if you buy three bags of flour. This useful book contains 1,000 carefully selected recipes and a large medical department. If you already have the former edition, (Dominion Cook Book), you may select one book from the following list each time you order from us not less than three bags of flour. If you buy six bags you get two books, and so on. Enclose 10 cents for each book to pay for postage. Remember at least three bags must be flour.

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Helen's Babies	Beautiful Joe
Lorna Doone	Little Women and Good Wives
Mill on The Flood	The Story of an African Farm
Tom Brown's School Days	Black Beauty
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Rebecca of Sunnybrook Farm	Mr. Potter of Texas
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The Scarlet Pimpernel	A Welsh Singer

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pay attention to the voices which say that, if women had the right there could be no more war. JUNIA.

(To be continued.)

Write to Johnny Canuck at the Front.

Do you know any soldier who is fighting in the trenches? Then write him "a good, long, newsy letter." They are very lonely, those brave fellows away out on the fighting lines, and they feel very far from home. Perhaps we should not have understood their longing for letters so fully had it not been for the words of one of their number, Sergeant Brown, poet of the Princess Patricia's.

Here is what he says, speaking of the soldier at mail-time:

His hand is all a-tremble,
His eyes stick out like pegs,
He goes all of a quiver
From the ache in his legs.
And if his name's not on the list,
He wilts like a frozen bud,
Until another mail call drags
Him ploughing through the mud.

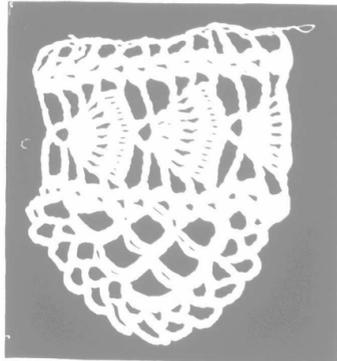
Now the moral is for folk at home,
Don't wait for him to write;
And don't just say, "Dear Tom, must close,

I hope this finds you right."
A good, long, newsy letter,
Is the best that you can yield,
In the way of downright service,
To your Tommy in the Field.

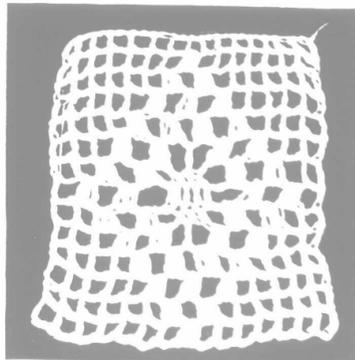
So if you know a Johnny Canuck or a Tommy Atkins, write him, cheerfully, brightly as you can. Put time on your letter. Tell all the little odds and ends that are happening about home. Give him a handshake across the water, and tell him of the big welcome that is piling up for the day on which he will return. Europe has few enough gleams of sunshine these days; don't withhold yours.

CROCHET PATTERN WANTED.

Dear Junia,—This is my first letter to the Nook, and, like many others, I come for help. Could any of your readers publish directions to crochet the initial "M" in filet crochet? I am enclosing a couple



A Crocheted Lace.



Crocheted Insertion.

of crochet patterns which some of the readers may like to copy. Wishing "The Farmer's Advocate" and Uncle Nook every success, I remain yours truly,

"A FARMER'S DAUGHTER,"
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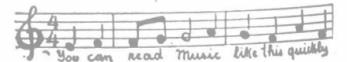
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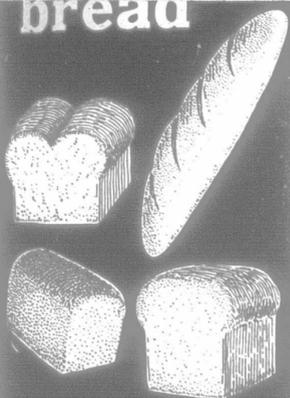
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Like all "Wear-Ever" utensils the Steamer Sauce
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Write for booklet, "The Wear-Ever Kitchen". It
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FACE CREAM - CLEANING WALL
PAPER.

Dear Junia,—Will you please tell me
the name of the kind of wax that you
rub on your face at night and wash off
in the morning?

Will you tell me what will take grease
spots out of wall paper. CANARY.

There are many kinds of wax and cold
creams sold by druggists. The best
complexion remedy is a daily bath, with
an especial washing of the face just be-
fore going to bed. First wash with
warm soft water, a good soap, and a
camel's-hair face-brush, then dash cold
water all over the face, dry, and apply
a little cold cream or glycerine and rose-
water. Here is a very good cold cream:

Half ounce white wax, half ounce sper-
maceti, one ounce lanoline, one ounce
cocoanut oil, two ounces oil of sweet
almonds.

Melt the two first ingredients, then add
the others and heat well, but do not
boil. Take from the fire, add one ounce
orange flower water and three drops
tincture benzoin. Beat till creamy.

To take grease spots out of wall paper,
lay a piece of blotting paper over the
spot and apply a hot iron. If a stain
is still left, apply a paste of Fuller's
earth or pipe-clay, let dry, and brush off.
Magnesia might do instead of the Fuller's
earth if it can be more easily procured.

Things to Eat.

Onion Soup: A Nice Supper Dish.—
Melt 1/2 cup butter or fat from the top of
beef soup. In it cook 4 large white
onions sliced fine. When they are soft-
ened and yellowed add 3 or 4 sprigs of
parsley, 2 quarts of rich beef broth, and
let simmer 20 minutes. Into the bot-
tom of cups or small soup bowls put
slices of toast, then pour the soup over.
Sprinkle the top with grated cheese and
set the cups in the oven long enough to
melt the cheese.

Pork Tenderloin, Stuffed.—For 4 large
pork tenderloins take 1/2 lb. fresh pork, 1
cup cracker crumbs, 2 tablespoons butter,
1 teaspoon salt, and 1/2 teaspoon pepper.
Chop fine the 1/2 lb. pork which should be
rather fat, add the other ingredients, and
mix well. Make a pocket in each ten-
derloin and fill it with the stuffing, then
roast about 1 hour, basting often. Gar-
nish the dish with quarters of apples
cooked without sugar, and with brown
gravy.

Chocolate Filling for Pie or Cake.—
Scald 1 1/2 cups milk in a double boiler.
Stir 1/2 cup each of flour and milk, and 1
teaspoon salt to a smooth paste, then
stir into the hot milk. Continue to stir
until the mixture thickens; add 2 squares
of chocolate, cover and let cook about
15 minutes. Beat 2 eggs; add 1/2 cup
sugar and beat again; then stir into the
hot mixture. Stir and cook until the
eggs seem cooked, and the chocolate is
evenly mixed throughout. When cold,
flavor with a generous half-teaspoon of
vanilla.

Maple Pudding.—Heat 2 cups milk, stir
in 2 tablespoons tapioca and cook for
20 minutes. Remove from the fire and
add the well-beaten yolks of 3 eggs and
a little salt. Replace on the stove and
stir until the mixture thickens. When
cool, add 1 cup nut meats and 1/2 cup
maple syrup. Place the stiffly-beaten
whites of the eggs on top and set in the
oven for one minute to brown.

White Fruit Cake.—Cream half a cupful
of butter with a cupful of sugar. Have
ready a half-pound of grated cocoanut,
half a pound of blanched almonds cut
into strips, and half a pound of shredded
citron. Add to the butter and sugar
the whites of four eggs beaten light, stir
in a teaspoonful of baking powder and
enough flour to make of the proper con-
sistency. Put in the fruit last, with
half a teaspoonful of almond extract, and
bake in a loaf. Frost with boiled icing.

Delicious Fritters.—One quart of water,
butter the size of an egg, boil a few
moments, stir in flour to make it as
thick as mashed potatoes, pour this into
a bowl and beat six eggs into it—one at
a time, add salt and nutmeg, then fry in
hot lard.

The Scrap Bag.

LEAKS IN ROOF.

If there are small leaks in your tin
roof, they may be mended by covering
the spot with coal-tar. Cover the tar
spread coarse sand.



RENNIE'S
BEST
XXX

Clover & Grass Seeds

Acknowledged by leading authorities to be
the highest possible grades obtainable

RED CLOVER
TIMOTHY
ALFALFA (Lucerne)
MAMMOTH CLOVER
ALSIKE CLOVER

Sold in Sealed Bags by Leading
Merchants, or direct from

Wm. Rennie Co. Limited
TORONTO
Branches at Montreal, Winnipeg, Vancouver

ECONOMICAL---Heats the house well
without burning all the coal you can buy.

McClary's
Sunshine
Furnace

Gives steady, even
heat on least fuel.
See the McClary dealer or write for booklet.

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 advertisement inserted for less than 50 cents.

BEAUTIFUL pens of bred-to-lay Single-Comb Reds, Partridge Rocks and Rose-Comb Brown Leghorns. Eggs \$1 per fifteen. Reuben Batho, Kenilworth, Ont.

BRED-TO-LAY, prize-winning White Wyandottes. Eggs per 15, \$1.50. Splendid Utility, 75c. Indian Runners 75c. per 11 eggs. George Buttery, Strathroy, Ont.

BIG, husky, heavy-laying White Wyandottes exclusively. Eggs \$1.50 per setting. Good hatch guaranteed. W. B. Powell, Galt, Ont.

BARRED ROCKS O.A.C. laying strain; one dollar for setting. Mrs. Berry, R. No. 6, Guelph, Ont.

BARRED Rocks and Buff Orpingtons, true bred-to-lay strains, the result of years' selection and breeding. All stock hen-hatched, farm-raised, big, healthy birds that produce fertile eggs; \$1 per 15. Send for circular. "Ingleside Farm," Rural 1, Ancaster, Ont.

BEULAH Farm White Wyandottes—America's greatest laying strain; hens in our breeding pens with over 200-egg records. Hatching eggs two and three dollars per setting. Catalogue free. McLeod Bros., Box A, Stoney Creek, Ont.

BRONZE turkey hens and eggs for sale. Angus Beattie, R. 1, Wilton Grove, Ont.

CRONIN'S Crackerjack Campines—Extra choice Silver Campine eggs 10c. each. Satisfaction guaranteed. Arthur Crone, Nottawa, Ont.

CLARK'S Famous Buff and White Orpingtons—The largest breeder in Canada. Eighteen years a specialist in exhibition and egg strains. Winning best prizes in United States and Canada's largest shows. My strain has led in the International Laying Competitions in B. C. Stock and eggs for hatching on sale. Free catalogue and prices. J. W. Clark, Cedar Row Farm, Cainsville, Ontario.

CATTLE'S S.C. White Leghorns, guaranteed winter layers, large white eggs, setting \$1.20. E. Cattle, Weston, Ontario.

EGGS from choice Barred Rocks and White Wyandottes; prize-winners and good winter layers. One dollar per setting. Miss Z. Barbour, Hillsburgh, Ont.

EXHIBITION laying strain—Anonas \$1.50; Barred Rocks \$2 per setting. Nash, President Poultry Association, London, Ont.

EGGS for hatching. O.A.C. and Guild's strain of bred-to-lay Barred Rocks. Pullett began laying at six months. \$1.25 per fifteen; \$7.00 per hundred. L. A. Pearson, Kintore, Ont.

EGGS from Imported S.C. Brown Leghorns, well mated, heavy layers, \$1.25 per 15. W. C. Soldan, Hensall, Ont.

EGGS from O.A.C. bred-to-lay Barred Rocks, healthy hens with reputation for winter laying. Good hatch guaranteed. \$1.50 per fifteen. Fred B. Hutt, College Heights, Guelph, Ont.

EGGS for hatching—Indian Runner Ducks, prize-winners, \$1.00 per ten eggs. Sunnyside Poultry Yds., Highgate, Ont.

EARLY and persistent layers of highest quality are produced from our Barred Rocks White Wyandottes, Buff Leghorns. Bred from America's greatest laying strains. Individual records from 200 to 245 eggs per year. Eggs \$1.25 fifteen, \$7.00 hundred. Infertile eggs replaced free; safe delivery guaranteed. Free catalogue gives full particulars. Charles Watson, Londresboro, Ont.

EGGS from Barred Rocks with world's record back of them—281 eggs. Three dollars per 15. Also White Wyandotte R. C. Reds. Jas. W. Coker, Cainsville, R. 3, Ont.

EGGS for hatching—O. A. C. bred-to-lay Barred Rock and good laying strain S. C. W. Leghorns, \$1 per 15. E. M. Crone, Mandamin, Ont.

EGGS for hatching from choice stock—Single-Comb White Leghorns, Rose-Comb Brown Leghorns and Rhode Island Reds at one-fifty per fifteen. Satisfaction guaranteed. Nelson Smith, Jerseyville, Ont.

EGGS and day-old chicks from Barrons White Leghorns and Parks and O. A. C. bred-to-lay Barred Rocks. Eggs \$5 a 100. Chicks \$15 a 100. Catalogue for asking. Huron Specialty Farm, Brussels, Ont.

FOR SALE—White China Geese, Runner Ducks, White Rocks, Silver Wyandottes, eggs or birds. Howse, Box 6, Niagara

GOLDEN and Silver Wyandotte eggs from both varieties \$2.00 per sitting of fifteen eggs. Peter Daley, Box 12, Seaforth, Ont.

HOUDANS—Pure white and town and white Indian Runners; eggs for hatching. Send for price list. Fred Krell, Simcoe, Ont.

LEGHORN—S. C. White Leghorns, McCormick and Linscott stock; S. C. Brown Leghorns, Burgott and Becker stock. Superior cockerels and pullets at \$2 and up. Eggs \$2 for 15. Address Fertile Meadow Farm, Bruce F. Bradley, Jeanette's Creek, Ont.

MAMMOTH Bronze Turkeys. Fine heavy birds, bred from prize stock. R. G. Rose, Glanworth, Ont.

MAMMOTH, Bronze Toms for sale, also Light Brahma and Barred Rock eggs, \$1.50, per 15 eggs. A. Stevens, Lambeth, Ont.

MAMMOTH Exhibition Pekin duck eggs—Two dollars per ten. T. McGovern, Bedford, P.Q.

O. A. C. bred-to-lay strain of Barred Rocks; eggs \$1.25 per 15, \$7 per 100. Ed. Fulton, R.R. No. 2, Brussels, Ont.

PENCILLED Indian Runner Ducks, guaranteed winter layers, trio \$10, laying ducks \$1, settings \$1.50. E. Cattle, Weston, Ontario.

ROSE-COMB Rhode Island Reds—Eggs for hatching, active pen, bred-to-lay, one-fifty per fifteen. B. Armstrong, Coltrinton, Ont.

ROSE-COMB Black Minorcas exclusively. Cockerels \$10 dollars. Eggs, twelve for one dollar. Isaac R. L. Orilla, Ont.

ROSE-COMB Black Minorcas and Houdans prize winners at Toronto, Guelph, Sarina, Port Huron and many other places. Eggs, Three Dollars per 15 or two settings for Five Dollars. C. Day, Hensall, Ont.

S. C. WHITE LEGHORN EGGS \$1.25 per setting; baby chicks fifteen cents each; cockerels \$1.50 from choice winter layers. W. Darlison, Brantford.

SILVER LACED WYANDOTTES—Eggs for hatching, \$1.00 per setting, from big, vigorous, beautifully marked birds, heavy layers, very profitable; also cockerels, \$1.50. W. Darlison, Brantford.

SINGLE-COMB, Brown Leghorns—the kind that lay. \$1.25 for 15. Wm. Barnett & Sons, Fergus, Ont.

S. C. White Leghorns—Our "Roseheath Strain" of Beauty and Utility are heavy winter layers, having for years been bred for egg production. Mammoth incubator now running. Book your order for baby chicks or hatching eggs. F. R. Oliver, Roseheath Poultry Farm, Richmond Hill, Ontario.

WHITE Orpington baby chicks, 25c., 35c., 50c. each. Eggs \$1, \$2, \$3 per 15. Best strains. Rev. W. J. Hall, Newmarket, Ont.

WHITE Wyandotte eggs \$1 per 15, \$1.50 per 30. Well bred, good layers, free run, eggs hatching good. T. P. Backhouse, St. Catharines, R. No. 3.

WHITE Wyandottes—Champions nine years at New York State Fair. Big vigorous cockerels, \$2, \$3 and \$5 each. Pullett, \$2 and \$3. Eggs, \$3 per setting. Send for free catalogue. John S. Martin, Drawer R, Port Dover, Ont.

WHITE Wyandottes, Martin strain; pure white blocky birds, excellent layers. Eggs—Dollar per fifteen; safely packed. Allan McPhail, Galt, Ont., R. No. 4.

WHITE Wyandottes, Brown Leghorns, Rhode Island Reds. Eggs \$1 per setting. Apply 692 Adelaide St., London, Ont.

WHITE ROCKS—Grand Pens of prizewinners and heavy winter layers. Eggs \$1.50 and up. Mating list on application. Herman Claus, Shannonville, Ont.

WHITE LEGHORN, Barred Rocks, Single Comb Black Minorcas and Houdans utility and laying strain. Eggs One Dollar Twenty-Five per fifteen. Sunnyside Poultry Yds., Highgate, Ontario.

EGGS FOR HATCHING S. C. White Leghorns, bred from heavy laying and prize winning stock, \$1.00 per 15 a hatch, guaranteed. \$4.50 per 100. GEO. D. FLETCHER, ERIN, R.R. NO 1

Chickens Bring Profits With Cyphers Helps Write for offer on Cyphers-Built hatching—3 styles, 8 sizes—\$12 and up. "The Profits in Poultry Keeping" 148-page book free. Write: CYPHERS INCUBATOR CO., Dept. 184 Home Office and Factory, Buffalo, N. Y.

Locharbar Poultry Yards

Offers eggs from M. Bronze turkeys at 40 cents each, or \$3.50 per nine; Barred P. Rock eggs, \$1 per 13 or \$6 per 100; English Pencilled Indian Runner duck eggs, \$1 per nine.

D. A. GRAHAM, Wyoming, Ont. HATCHES IN NATURE'S WAY

Cycle Hatchers and Brooder Hatchers Philo System. This is the genuine Cycle Hatcher—beware of imitations—this is the system where \$1500 was made in 10 months with 60 chickens on a city backyard, 40 feet square, 50 egg machine, one gallon of oil will run it from 4 to 5 weeks. These incubators are now made in Canada, with the new improvement, the outside thermometer. Thousands of these machines are in use and giving satisfaction. Cycle Hatchers \$7.00 each Brooder Hatchers \$8.50

Prompt Shipments Write for Catalogue COLLINS POULTRY SUPPLY CO. 415 Symington Ave. Toronto, Can.

FEED YOUR CHICKS Purina Chick Feed With PURINA CHICKEN CHOWDER and Watch Them Grow Ask your dealer for the Checker-board Bag, and take no substitute. Valuable Poultry Book free on request, giving your dealer's name. The CHISHOLM MILLING CO., Limited Dept. A, Toronto, Ontario

Ontario County Farm For Sale Eighty acres, Whitby Township, clay loam; ten-roomed dwelling, bank barn, horse barn, drive house, poultry house and pigsty, two acres orchard, ten acre bush (apple and hew), spring creek; mile-and-half from railway depot, 3 1/2 miles Toronto, half-mile from school; no encumbrance. Price eighty-five dollars per acre. JOHN FISHER & COMPANY Lumsden Bldg. Toronto

STICKY FLY PAPER.

Keep this for "fly-time." Three ways of making the paper. (1) Boil together linseed oil and resin until the compound becomes thick. (2) Boil 3 parts resin and 4 parts rape-seed oil together until thick and sticky. (3) Boil to a thick paste 1 pound resin, 3 1/2 ounces molasses, 3 1/2 ounces linseed oil. Spread any one of these compounds on heavy brown paper.

SAVING FEATHERS.

When getting a chicken ready, take scissors and clip the feathers before scalding, for cushions. Clip the stiff midribs from the feathers, and they will not be so likely to work through.

FURNITURE POLISH.

A polish that will bring back the lustre to shabby furniture is made as follows: Take 4 ounces shellac, 2 pints alcohol, 2 pints linseed oil, 1 pint turpentine. Mix together and add 4 ounces ammonia. Shake well and apply with a sponge.

CLEANING CARPETS.

Take a bar of laundry soap and shave into a pint or more of water. Let melt on stove, then remove, and when cool add half a bottle of household ammonia. This should make a soap-jelly. Apply to the soiled carpet, which has been well beaten and swept, with a stiff, clean, scrubbing-brush, dampened just a trifle, and scrub the carpet vigorously. Then wipe the soap off with damp cloths and see that the carpet is not walked on until it is dry. Do not use a drop more water than is absolutely necessary.

TO CLEAN RIBBONS.

Put the ribbons in a jar half full of gasoline, cover tightly, shake a few times, and let stand over night. In the morning shake and rub the ribbons and dry in the open air. Do not use gasoline near lights or fires, or even in the same room with them.

TO CLEAN A STOVE-ZINC.

Apply a paste of ammonia and whiting, let dry, and rub off. When polishing stoves, try mixing a teaspoonful of powdered alum with the black lead.

CLEANING STRAW HATS.

Straw hats may often be very nicely cleaned by rubbing them with coal oil.

INK FROM LINEN.

To remove ink from linen take up as much of it as possible with blotting paper, then soak the spot in sweet milk. Finally wash well and bleach in the sun.

TO CLEAN CHAMOIS GLOVES.

Chamois gloves may be cleaned in a weak solution of soda and warm water. Rub plenty of soap-jelly into them and let stand two hours, then wash and rinse in water to which soda and soap have been added. This prevents the gloves from becoming hard. After rinsing, press the water out with a rough towel and dry quickly, then pull and brush well.

TO RENEW GILT FRAMES.

Take enough flour of sulphur to give a yellow tint to 1 1/2 pints water, and boil in it five onions. Strain, and when cool apply to the picture-frames with a soft brush.

While waiting for the speaker at a public meeting, a pale little man in the audience seemed very nervous. He glanced over his shoulder from time to time and shifted about in his seat. At last he arose and demanded in a high, penetrating voice: "Is there a Christian Scientist in this room?"

A woman at the other side of the hall got up and said: "I am a Christian Scientist."

"Well, then, madam," requested the little man, "would you mind changing seats with me? I'm sitting in a draft."



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.

ALBERTA (Central) Farm Lands. Am offering some choice tracts on exceptionally easy terms. Chas. H. Page, Winona

For Sale: High-class Imported JERSEY BULL 4 years old. For description and pedigree, address D.E. Mains, R. No. 8, St. Thomas, Ont.

J. VICAR MUNRO, ARCHITECT & C.E. Now is the time to have your building plans and specifications prepared and save money by getting competitive estimates. All classes of buildings "The Twentieth Century Barn", plank framed. Moderate charges. Address Bank of Toronto Bldg., London, Ont.

Pure Bred Ayrshire Bull Calf Six months old from an 11,000 lb., 3-year-old cow. JAMES ELFORD, CORINTH, ONT.

2 Jersey Bulls fit for service from R. O. P. dams; sired by Kirkfield's Raleigh No. 2910. CHAS. F. WOOD, AURORA, ONTARIO

"1900" Gravity Washer Sent free for one month's trial. Write for particulars. "1900" WASHER COMPANY 357 Yonge Street, Toronto, Ontario (Factory 79-81 Portland Street, Toronto)

To Wind Up An Estate The Subscribers Offer For Sale One 75-gal. Wizard Pasteurized or Ice Cream Mixer. Size BB Victor Combined Churn and Butter Worker. Size A Disc Continuous Ice Cream Freezer with batch attachment (40 gals.). One Victor Ice Cream Breaker or Crusher. The above machines have been slightly used, but are in first-class repair, and must be sold to close the estate. Apply to MCKINNON & HOWITT, Solicitors Douglas Street, Guelph, Ont.

Harab FERTILIZERS Write for FREE Fertilizer Booklet and prices. THE ONTARIO FERTILIZERS, LIMITED West Toronto, Ont.

CREAM Where are you shipping now? And what are you getting for your cream? We want more individual shippers and more men to gather cream for us. Write for our proposition. Silverwoods Limited LONDON, ONTARIO

Is Your Neck Out of proportion because of goitre or enlarged glands? If you want it reduced to its normal size without discomfort, use Goitre Sure Cure A reliable, satisfactory and beneficial home treatment. It has cured many cases that were thought hopeless. We specialize in the treatment of skin and scalp troubles, and invite consultation at office or by mail. Send for particulars and booklet "F." describing trouble fully. Hiscott Dermatological Institute 61 College St. Toronto Established 1892

Eggs From bred-to-lay strains S. C. W. Leghorn and B. Rocks raised on free range. \$1.50 per 15 eggs. W. H. FURBER, Dugannon Poultry Farm, Cobourg, Ontario

Lots of Life



Get life into the eggs you set under hens, and in your incubators. Hatch out strong, healthy chicks. That's where you either make or lose on your poultry. The strong chicks grow fast; the cockerels are ready for market sooner; the pullets start laying earlier and keep it up through the winter. Less expense and quicker profits.

Strong, active mothers lay eggs that bring out vigorous chicks. Feed your hens now, to build up their strength. There is no secret, no mystery, no luck about it. You can learn how to put your stock in vigorous condition—and reap the big profits that careful poultrymen make.

We will send you a book FREE, "The Hen that Pays." You couldn't find a more simple and direct aid in all branches of poultry keeping. A copy for the coupon, TO-DAY.

GUNNS Limited.

Gunns Limited, 3-7 Gunns Road, West Toronto

I am interested in Gunns Shur-Gain Poultry Foods.

Gunns Shur-Gain Poultry Foods

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.

Scaly Legs.

Kindly give me a remedy for scaly legs on poultry, and the cause of it. Mine are White Wyandottes, and some are pretty bad with it. M. A. T.

Ans.—Scaly legs on poultry is caused by mites which work on their legs and produce bunches and scales. The first thing to do is to kill the mites, and this is best done by washing their legs thoroughly with soap and water, using a good stiff brush to rub it in. Then grease with lard and sulphur, using about a teaspoonful of lard to a teaspoonful of sulphur. One thorough washing and two or three applications of grease about two weeks apart should remove the trouble. It will probably be from one month to two months before the mites are killed and the legs returned to their normal condition.

Gossip.

One of the stallions offered at the auction sale announced by A. C. Hardy, of Brockville, for April 30, is an animal sired by Baron Cedric, a prizewinner in England, and his dam was by Lord Faunteroy. When in condition the horse should weigh a ton. He is a beautiful bay, with black points and white markings. Filgrave Royal John, a Hackney stallion, is also offered. His sire was Walden Squire John. This Hackney stallion, which will be sold on April 30, has good action, speed, and courage. He is a beautiful chestnut, with white markings. Mr. Hardy also offers Tissington Vandyke, a Hackney stallion which stands 13.2, and was sired by Sir Horace. This stallion sold at Sir G. Gilbert's sale for \$875 as a yearling. A pair of two-year-old chestnuts, by Filgrave Royal John, are also offered, and they should make a fine matched pair. There is also a beautiful ten-year-old dark-chestnut brood mare to be sold at the sale.

Two Important Reports.

The matter of marketing fruit both by co-operative associations and the more common method of commission men and retailers is fully dealt with in the forty-sixth annual report of the Fruit Growers' Association of Ontario. This report is just issued by the Ontario Department of Agriculture, and a copy may be had free upon application. Orchardists are endeavoring to solve the question of a possible over-production of fruit, and the matter is thoroughly discussed in the report. Practical hints are also given concerning the selection of nursery stock for orchards, spring and fall planting, and other matters of a cultural nature.

From very necessity the raising of Canadian vegetable seed is urged on account of the unprecedented conditions that exist in the European countries where a large quantity of seed is grown which has previously supplied our demands. In the report of the Ontario Vegetable Growers' Association this matter is exhaustively dealt with, considerable space being given to the breeding and selection of improved varieties. The newest methods of irrigation and spraying are described, and the results of recent experiments in combating the dreaded celery blight are given in detail. Many photo-engravings of features of vegetable-growing are also given. Readers should get a copy of the report.

Teacher—Now, Willie, tell me how many bones you have in your body.
Willie—Two hundred and eight.
Teacher—Wrong. You have but two hundred and seven.
Willie—Yes, but I swallowed a fish bone this morning at breakfast.

Triple Benefit Policies

Protection Under a MUTUAL Endowment Policy the Company undertakes to pay the amount stipulated in the contract instantly upon receiving proof of the policyholder's death.

Savings Should the assured survive a specified number of years, the MUTUAL will pay the amount of the policy to the policyholder himself. It is like withdrawing savings.

Investment If a participating policy the MUTUAL will, if desired, accumulate the dividends for the assured. In this way our policyholders have withdrawn sums equal to their premiums with 3 to 4 per cent. compound interest.

THE MUTUAL LIFE ASSURANCE COMPANY OF CANADA
WATERLOO, ONTARIO 102

THE DICK

Lever Plow Wheel Attachment

will fit all makes of single walking plows. Any boy that can drive a team is capable with this Attachment of doing as good work as the best plowman. Write for full particulars and illustrated catalogue.

DICK AGRICULTURAL WORKS
Bolton, Ontario

Our Interesting Free Bulletin



"A Telephone On the Farm"

tells how you can get market and weather reports, news, election returns, etc.

How your wife can sell her butter and eggs, order household necessities, get the aid of neighbors, call the doctor, veterinary, etc., etc., without interrupting farm work.

Explains how every farming community can build and run its independent phone system cheaply. Gives rules, bylaws and organization of companies.

Write for Bulletin No. 1011

STROMBERG-CARLSON TEL. MFG. CO.
Independent Telephones
23 Richmond St. W. Toronto, Canada

This Is Your Opportunity

to purchase a farm in Manitoba, Saskatchewan or Alberta at half their value.
* These are among the very best farms in Western Canada.
They are now owned by loan companies, who are willing to sell on very easy terms. They range in size of 160 acres to 640 acres. The price of farm lands in Western Canada is bound to rise on account of the increased demand for farm lands all through the West.
I shall be glad to send further particulars upon request. Inquire
E. W. QUINN, 308 McIntyre Block
WINNIPEG, MAN.

Poland-China, Chester White Swine stock of any age, either sex, both breeds. A limited quantity of AI seed corn, White Cap and Learning. Order early and avoid disappointment. Prices easy. Geo. G. Gould, Essex, Ont., R.R. 4.
Please mention "The Farmer's Advocate."

Auction Sale of Horses

Avondale Farm, Brockville, Ont.

Owing to the great increase in our herd of Holsteins, we have decided to close out the whole of our entire horse breeding establishment, and will offer at PUBLIC AUCTION on

Friday, April 30th, 1915

At the farm near BROCKVILLE, ONTARIO, one imported Clydesdale stallion, eight years old. An extra good Hackney stallion eight years old, imported by the Hon. Robt. Beith, sired by Walden Squire John. Both of these guaranteed right in every way. Imported purebred Hackney mare with foal at foot. A pair of Hackneys (nearly full brother and sister) purebred, two-year-old, by Filgrave Royal John, matched pair. A number of the finest Hackney ponies ever imported into Canada, including a stallion, Tissington Vandyke, a son of the great Sir Horace, from a London champion. Also several other head of extra fine young horses.

SALE AT ONE O'CLOCK.

A. C. HARDY, Prop.

THE LISTER MILKER

BRITISH BUILT "Follows Nature"

OVER A THOUSAND PLANTS IN SUCCESSFUL OPERATION

Ask Dept. "G" for Catalogue with photographs of Lister Milkers in use on Canadian Farms.

RALISTER & CO. LIMITED.
TORONTO-WINNIPEG-QUEBEC-ST. JOHN, N.B.
HEAD OFFICE & SHOWROOMS-STEWART ST. TORONTO
WORKS: DURSLEY, ENGLAND.

Look Out For

The Imperial Life Assurance Company's big advertisement in next week's issue entitled "War Portraits Free" It has an interesting message for YOU

The Sherlock-Manning

20th Century Piano
"Canada's Biggest Piano Value"
has every standard feature, yet costs \$100 less.
Ask Dept. 4 for Catalogue L.
THE SHERLOCK-MANNING PIANO CO.,
London (No Street Address Necessary) Canada

MILTON BRICK

PROMPT SHIPMENTS
can be made at once.

MILTON BRICK can be had in Reds, Buffs,
Fire Flashes and many excellent combinations.

WRITE FOR SAMPLE AND FREE BOOKLET.

MILTON PRESSED BRICK CO.
Dept. "F," Milton, Ontario

THE Premier Cream Separator

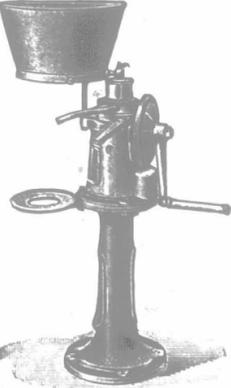
Tens of thousands of Dairy Farmers
have proved by experience
that the Premier
Insures Its Owner—

INCREASED PROFITS by its great skimming efficiency.
LESS LABOR
All revolving spindles run on single ball bearings.
Machine cut square gear reduces friction to a
minimum. Easily washed and set up.

FREEDOM FROM EXPENSE FOR REPAIRS
The most simple construction. No complicated
parts to get out of order.

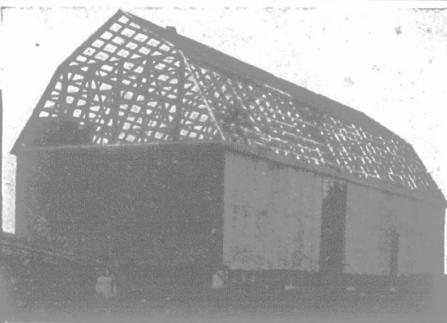
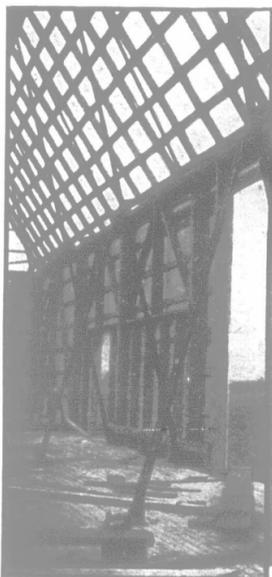
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**Questions and Answers
Miscellaneous.**

Plank Frame Barn.

I have been taking out logs to get cut for a plank-frame barn, and have been following diagrams of plank-frame given in "The Farmer's Advocate," December 5, 1912, by A. A. Gilmore. There are a few things I do not understand, so thought I would write.

1. The timber in the end bent calls for 18-foot posts, and for interior bent 19-foot posts. Is this a mistake, as I can't understand how it is built, if not?
2. I can't understand the meaning of diagram of top view of end bent, when there is a full showing of end bent shown above. Mr. Gilmore does not say what size to get the rafters cut. Would 2 x 5 inches be strong enough, or should 2 x 6 inch be used? Also length of rafters.

F. P.

Ans.—1. The side posts and corner posts for barn should all be the same length. The end purlin post and side purlin posts, though, may be slightly different in length, those in the end being shorter than those in the side. This is to allow the side posts to extend down through the cross sill in order to secure the lower end, while the end posts do not need to extend through the cross sill, because it is securely tied by the girths which are nailed across the end of the building.

2. The diagram of top view of end bent shows the section of the barn across at the main end beam. This gives you an idea of how the end beam is trussed with two planks running from the side plates into the center of the end beam. It means that if you were standing on the end beam and looking down you would see the view shown. Cut your rafters 2 x 6 and place them at 3-foot centers.

A. A. G.

Materials for a Basement Wall.

1. We intend building an addition to our barn this summer. Of the foundation there will be three walls, a total of 147 feet by 11 feet high, 12 inches thick. How much cement, stone and gravel will it take?
2. What proportions would you advise?
3. Would stone be better? We have both stone and gravel of our own handy. Which would be the cheaper?

R. R. A.

Ans.—1. This length of wall would require 162 bags of cement and 11 1/2 cords of gravel. These amounts do not take into consideration the doors and windows. It will be an easy matter to calculate the amount that will be rendered unnecessary through the presence of these openings. Furthermore, it is advisable and quite customary to use small stone in the concrete structure, but they should not come closer than two inches to the surface of the wall. The amount of stone used as a filler will also decrease the amount of gravel and cement required. It would also require some reinforcing around the windows and doors. A good system of reinforcing for the windows is to place vertical rods up and down by the window, and across below and above. In a wall 12 ins. thick, two rods, 1/2-inch, on each side should be sufficient. Shorter rods placed diagonally across the corners would help to bind the cement. The rods should be about two or three feet longer than the sides of the opening. Doors and large openings should be reinforced with one-half inch rods.

2. One to nine will make a good mixture, and one that should be quite strong. The gravel should be from 20 to 30 per cent. fine, sharp sand. These calculations are based on a mixture of 1 to 9, but a stronger mixture is sometimes recommended. Many reliable builders use 1 to 9.

3. One cannot recommend a concrete wall over a stone wall properly constructed. As to the cost, it would be impossible to say. Up to a short time ago \$1.50 per cubic yard, or 5 1/2 cents per cubic foot was considered a fair price for building cement wall. Owing to the cost of labor, etc., at the present time, this may be slightly increased. The mason you intend to employ could give you figures on the cost of constructing a stone wall.

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Alfalfa Clover

No. 1 Ontario grown	\$17.00
No. 2 Ontario grown	15.00
No. 1 Dakota grown	14.00
Ontario Variegated, per lb.	33c
Lymann's Grimm, per lb.	80c

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(Bags Free) Per bush.

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Emmer	1.50

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Made from very finest
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Any desired size or gauge,
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IN ADVANCE. No bank deposit.**
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The Hurst Potato and Orchard Sprayer
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Adopted by the best dairies in
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the butter firm—even consistent
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Three sizes—14 in., 17 in.
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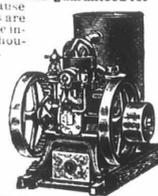
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Please mention "The Farmer's Advocate."

Questions and Answers.

Miscellaneous.

Light and Ventilation for Basement Wall.

I am going to build a basement for
stabling, with straw shed overhead, and
I should like to have your opinion as to
the number of windows I should put in.
The building is 22 x 40 feet. I carry
about ten head of cattle. I am going
to build the basement of concrete, and I
am advised by a friend to use pieces of
oak in the wall as a filler instead of
stone. He claims that the wall never
sweats, and that one needs no other re-
inforcing. For ventilation, I was think-
ing of putting tile through the wall for
an inlet and have the outlet through the
roof. If you think this plan feasible,
how many tile should I put in each side
of the building, and how big should the
outlet be? D. F.

Ans. 1. Each side should have at
least four windows, and perhaps five
would not be too many. Six panes of
10 x 12 glass makes a very good window.
The windows could be hinged, and by
opening and closing they will provide a
better inlet for air than would tile. We
do not approve of filling a wall with
wood, and advise the ordinary reinforc-
ing as described in the query on "Mat-
erials for a Basement Wall" in this
issue. For our ideas on ventilation, re-
fer to page 338, in "The Farmer's Ad-
vocate" of March 4.

Staggers in Pigs.

I have some pigs weighing 135 pounds,
six months old. They have been kept in
a pen all winter, and have done very well
up to a few days ago. A few of them
have taken sick with what I would call
"blind staggers." They go around as if
blind. I have never been troubled with
it before. I gave them some salts and
threw cold water on them. I have two
at present; they now seem much better
after treatment. I killed one on Satur-
day. Kindly let me know whether the
meat would be good for use, what is
cause of same, and treatment? I have
taken them out of the pen and put them
in a shed with a large yard to run in,
as I know they should have exercise.

R. H.

Ans.—Staggers in pigs is not an in-
frequent trouble. The primary cause is
usually attributed to indigestion. On
treatment that would probably remove
the trouble would be to give them their
meal dry, or feed them grain or corn on
a dry-plank floor so they would mas-
icate it more thoroughly. Their milk or
swill should be fed separately, and the
chill taken off with hot water. Any
food that tends to relax the bowels will
also be helpful. Charcoal, ashes and
salt, kept where they may take it at
will, may also help. Plenty of exercise
and out-door conditions will soon correct
matters. Whether the pork would be fit
for consumption or not we should not
like to say. If the pigs are so much
diseased as to have staggers, one would
not like to eat the pork if they knew it,
and it would not be fair to ask others
to do so unknowingly.

What to Do With Grafters.

The "London Times" recently published
a good story of the way Grand Duke
Nicholas, leader of the Russian armies,
got rid of grafters. "At the outbreak
of the war, contractors who were wont
to attend on the national exchequer in
hours of crisis, went to the Grand Duke
to talk matters over. Much to the dis-
tress of the first little company, who,
with smiles and ingratiating men came
to broach the subject of supplies, they
were kept waiting for hours in the ante-
chambers. At last the generalissimo ap-
peared, and, ignoring the outstretched
hands, addressed the gathering in one
sentence: "Him who steals I hang!
Good morning."

"Repairing and Building" is the title
of a twenty-page booklet which Bird &
Son, of Hamilton, Ont., have just issued.
This booklet is nicely illustrated, and
gives a complete description of the
Nepeset line of products—shingles, roof-
ings, wall-board, sheathing papers, roof-
ing paints, etc. The Nepeset building
products are made in Canada, and they
are all of that quality of which Cana-
dians are proud.

Fruit Trees Planted with C.X.L. crop earlier



**Blast the holes, and your fruit
trees will crop two years earlier than if set
with a spade.**

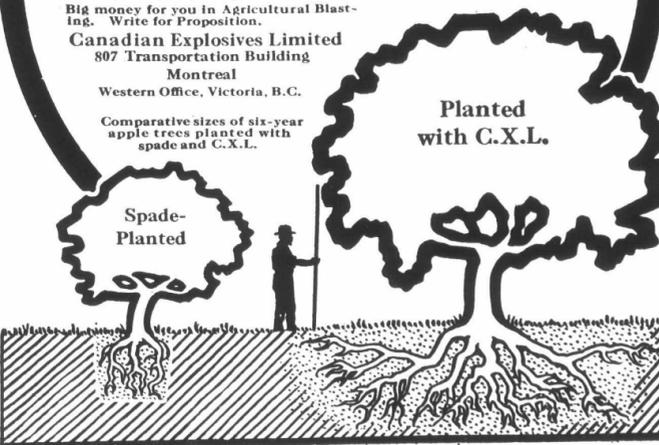
A small charge of C.X.L. digs the hole and breaks up the
sub-soil for yards around, which permits the roots to
spread wide and deep, making rapid, healthy growth.
C.X.L. digs holes quicker, cheaper and better, without labor, and it's
safe as gunpowder.

Send for our Free Book, "Farming with Dynamite," and learn how to
use C.X.L. in planting trees, blasting stumps and boulders, digging
ditches and sub-soiling.

Big money for you in Agricultural Blast-
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apple trees planted with
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The mares are black. The stallions are gray and black.
The stallions weigh 1950 to 2100. All inspected by the
Government and have Number One Certificates. These
stallions must be sold. Now is your chance to get a cheap
stallion. Any reasonable offer will not be refused. Write:
J. B. HOGATE, West Toronto, Ontario

Percherons, Belgians and Clydesdales

We have still a few good Percheron Stallions and Mares left, one champion Belgian Stallion, one
good Clydesdale mare, coming 4 years, due to fall in June. Those wanting a good stallion or mare,
now is the time to come along, as they are going fast. Prices extra low. Terms to suit buyer. As
I said before, we are renovating and building, and must get rid of our stock. Grenville is midway
between Montreal and Ottawa. C.P.R., C.N.R., G.T.R. Three trains daily each way. Bell phone.

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We have just ended the season's show circuit with a practically, clean up of every-
thing worth winning and can show intending purchasers the biggest and choicest
selection of stallions and fillies, imported and Canadian bred, we ever had.
Champions and Grand Champions at common horse prices.

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The Germans Missed Them Clydesdale Stallions And They Landed
Yes, they landed at my stable in Markham all right. This is the year to buy if you want one
Mine are topgers of highest quality, character and breeding. Come and see them.
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I have just landed a new importation of Clydesdale stallions, in ages from 3 years up
the big, drab kind that makes the name. I can satisfy any buyer no matter what
the wants; a visit will convince. WM. COLQUHOUN, Mitchell, Ont.

Imp.—Clydesdales, Stallions and Fillies—Imp.
We have had lately landed, an exceptionally choice importation of Stallions and Fillies.
They have the big size, the clean, flat quality bone and the most fashionable breeding.
Our prices are consistent with the times.
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WE want men in every vicinity to represent Dr. J. M. Stewart's Veterinary Remedies, the oldest and best known line on the market. Always sold in stores, but now selling direct to the consumer. Every farmer in the county a customer. An established line that repeats. Big money for a man spending all or part of his time selling these remedies. No capital required. Write to-day for full particulars.

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Golden Ray [11886] (15655).

Dam—Islay Queen (23833); by Loch Sloigh (11398), by Hiawatha (10067), by Prince Robert (7135), by Prince of Wales (673).

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Will be sold reasonably, as we are quitting the stallion business; guaranteed sound and sure foal getter; enrolled and inspected; can be seen at John Rawlings' Farm, Forest, Ontario.

McKinley & Rawlings, Props.

Apply to: JOHN RAWLINGS, Forest, Ont.

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Keir Jasper No. 11908 (15669) by Baron Cedric. This is a grand light bay, 8 years running up to about a ton, magnificent body and a fine old standing horse right through. Guaranteed a sure foal getter, has left a beautiful lot this District, has Enrollment Board's certificate of soundness; selling because closing out stallion business. A bargain for quick sale. Also grand Hackney. Filgrave Royal John, first prize the Toronto Horse Show, 1911.

A. C. HARDY.

Avondale Farm, Brockville, Ont.

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Dr. Bell's Veterinary Medical Wonder men who will give the Wonder a fair trial. Guaranteed for inflammation of the Lungs, Bowels, Kidneys, Fevers, Distempers, etc. Send 10 cents for mailing, packing, etc. Agents wanted. Write address plainly. **Dr. Bell, V.S., Kingston, Ont.**

For Sale—HACKNEY STALLION

Golden Jubilee; sire Jubilee Chief, color brown, 12 years, sure foal getter, very handsome and sure driver, and of a high class. My son has come to the farm. I can't go on, would trade for cows. Apply **Geo. Grav, R. R. No. 2, Mossley, Ont.**

Please mention "The Farmer's Advocate"

Questions and Answers. Veterinary.

Lame Colt.

About two months ago a two-year-old Percheron stallion went extremely lame on one hind leg while outside with other horses. The trouble seemed to be in the hock. The pain was intense. We treated it, and he became lame on the other hind leg, and then on the near fore leg. We then called our veterinarian in and he treated him until he had regained his normal condition. After a short time he dropped back to his former state. We have been using liniment externally and administering saltpetre, nitre, and condition powders, but he is not improving. At present he is severely lame with intense pain in the tendons of his left shoulder.

T. H. P.

Ans.—This appears to be a very peculiar case, and without more minute details we are unable to diagnose. We do not know just what you mean by "the tendons of the shoulder." Your veterinarian appears to understand the case. At least, it yielded to his treatment during the first attack. Of course he has a much better opportunity to diagnose than one who has not seen the patient, and we would not presume to venture an opinion and prescribe in the face of the fact. It might be wise to ask for a consultation, which, of course, will please the veterinarian in attendance.

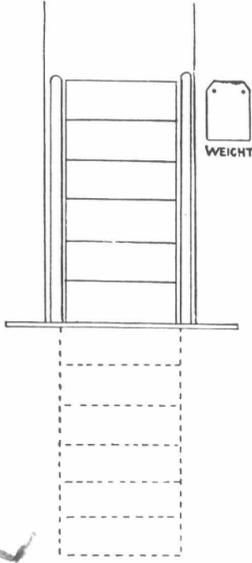
Miscellaneous.

A Dumb Waiter.

Would you kindly publish in your valuable paper, full directions for making a dumb-waiter?

R. J. H.

Ans.—The following plan of a dumb-waiter has come to us from one who installed it in a new house: This waiter

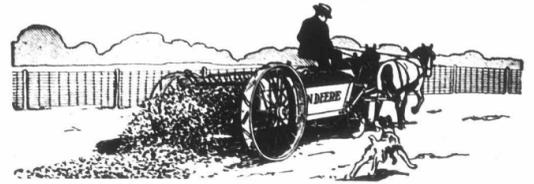


Sketch of a dumb-waiter.

is 6 feet high by 1 1/2 feet wide, and the shelves are 14 inches back. The top of the waiter forms the floor when down, and the bottom forms the floor when up. There are four little, common, window-sash pulleys at the top of boxing of waiter, two at each side, just seven inches apart, to match the holes in weights, and two ropes fastened to waiter and through two pulleys on one side and then down to the one weight, and the same fixture on the other side. If the two weights, weighing 90 pounds, are too heavy for the amount on waiter, it is easy to put more weight on the waiter to make it work easy. The ropes go through the top shelf, and are tacked to the inside of waiter. Weights are 45 pounds each, 12 x 10 inches, and 2 inches thick; holes for rope about 7 inches apart. Perhaps readers may have some improvement on this plan. Their ideas would be valuable in "The Farmer's Advocate."

Attention is called to the advertisement of The Times Book Club, of London, England, in this issue. This great clearance sale should induce readers to buy

John Deere Implements



The Spreader with the Beater on the Axle The John Deere Spreader

The beater—the business part of a spreader—and all its driving parts, are mounted on the rear axle. That is why the John Deere is the simplest, easiest running and most efficient manure spreader.

Here is what the beater on the axle means to you:

- 1st.—No clutches to give trouble.
- 2nd.—No chains to break or get out of line.
- 3rd.—Less than half the parts

heretofore used on the simplest spreader—some two hundred parts are done away with.

4th.—Manure not thrown on the axle—straw cannot wind around it.

5th.—You get big drive wheels and a low-down spreader, without stub axles—traction and strength.

6th.—Drive wheels back out of the way when loading—you see where you place each forkful.

7th.—Only hip high—easy to load.



John Deere One-Way Plow

The plow with the auto foot frame shift. This feature insures uniform plowing on hillsides or level land and in irregular fields. Full width furrow obtained under all such conditions. Team relieved of all side strain.

Auto foot shift is easy to operate. A slight foot pressure swings frame and moves plow as desired.

A real power lift plow. Slight pressure of foot causes lug to engage in ratchet in the hub and forward movement of horses raises the bottom.

High lift—plow easily transported over rough roads. Easily backed and turned.

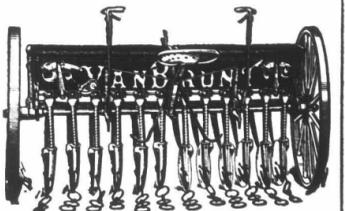
Wide bearing base permits use of wide or narrow cutting bottoms and prevents plow from tipping on hillsides.

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No Seed Wasted—All the Field Sown. Van Brunt Drills have an adjustable gate force feed which compels an even, continuous flow of seed from each seed cup without bunching or cracking the seed. It cannot choke up.

The seed beats the dirt. Individually adjustable pressure springs can be made to force discs to cut furrows of even depth. Seed is conducted from hopper to furrow opener by metal tubes and there protected from dirt until it reaches bottom of furrow. All the grain is up and ready for harvest at the same time.

Van Brunt Drills do not clog up, even in trashy soil, mud or gumbo. Spring steel scrapers keep discs absolutely clean. Disc bearings guaranteed to last lifetime of drill.



Grass seeder attachment can be furnished for any Van Brunt Drill. It will sow broadcast or drill, as desired.

The Accurate "Natural Drop" Corn Planter

The John Deere No. 999 plants 2, 3 or 4 kernels as desired. You merely shift a foot lever. Quick change hilling to drilling, and also in varying drilling distances. Its corn plates all have 16 cells.

Accurate, because surface of hopper bottom and openings to seed cells are oblique or sloping. Kernels naturally move toward and fill

cells rapidly. Better than any other method because more accurate.

Enclosed gear case, oil tight, dust proof. Gears always in mesh and not under severe strain. As perfect a driving mechanism as that used on automobiles.

Easily detachable runners, simplified check-heads, disc marker without rope and overhead reel are also improvements you will appreciate.



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Poor tools cut down his efficiency. Use good judgment by buying from a man who has an established reputation for high quality implements—your nearest John Deere Dealer.

John Deere Plow Co. of Welland, Limited
Toronto, Ontario

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I did not exhibit at any shows during 1914. I am still in the horse business, and at present have the best lot of Stallions and Mares I ever had at any one time, 29 head; 17 Clyde Stallions and 4 Mares, 5 Percheron Stallions and 3 Mares; a visit to my stable will convince you I have more high-class horses than can be found in any one stable in Canada, and won't be undersold by any dealer in Canada; always a pleasure to show stock to intending purchasers, sale or no sale.

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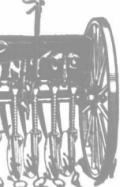
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thrown on the wind around it. Drive wheels are made of steel and strength. They back out of the mud—you see a forkful. It is easy to load.

Deere Way Plow

with the auto shift. This feature permits uniform plowing on all land and in irregular width furrow. It is easy to operate. It is easy to operate. It is easy to operate.

Drill



can be furnished to sow broadcast

Planter

any other method. Tight, dust proof. Not under severe strain. Simplified check-plate and underbar. You will appreciate.

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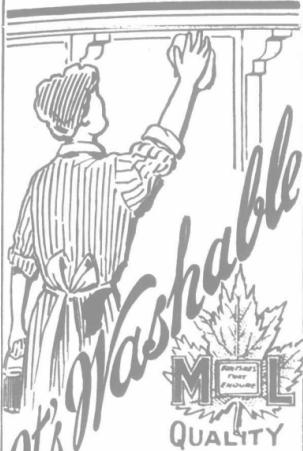
ess, and at present head; 17 Clyde. One stable will always be.

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ported mares (3 with fillets 1 imp. and bred 2-year-old stallions) either sex, all ages.

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Paint for the economic protection they give. Paint does not have to be renewed as frequently as wall paper or kalsomines,—and the artistic results are superior.

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ABSOLUTELY ON APPROVAL

The bowl is a sanitary marvel, easily cleaned. Different from this picture which illustrates our large capacity machines. Shippers made promptly.

From **WINNIPEG, MAN., TORONTO, ONT., and ST. JOHN, N.B.** Whether your dairy is large or small, write for our handsome free catalog. Address: **AMERICAN SEPARATOR CO.** BOX 3206 Bainbridge, N. Y.

Please mention "The Farmer's Advocate."

Questions and Answers. Miscellaneous.

To Keep Potatoes From Sprouting.
Under what conditions of temperature, moisture, light, etc., can potatoes intended for table use during May, June, and early July, be preserved from sprouting as much as possible? W. T.

Ans.—It may be considered practically impossible to keep potatoes from sprouting some, but it is considered good practice to spread them out in a light, dry, cool place. The sprouts will be short, and the tubers will not become as soft as when they are left barreled or bagged up in a dark, damp cellar.

Scrub Bulls.
A, B, C and D have a number of acres of pasture land on an island. The fences are not much good. A had pure-bred cattle on his lot; B, C and D had a number of scrub bulls, all breeds, and A's cows this spring had grade calves.

1. Can A forbid B, C and D from putting bulls on their pasture lots this spring?
2. If so, what step would A take?
Ontario. U. W. B.

Ans.—We do not think so. There was, however, an Act passed by the Ontario Legislature last year which makes the owner of a scrub bull liable if his bull breaks out and does damage through breeding other cattle.

Horse Deal.
Kindly answer, through the columns of your valuable paper, the following: A, being a farmer, sells horse to B, a dealer in horses. A does not guarantee said horse in any way. B using his own judgment, B ships horse to Montreal, and in about a month returns to A with certificate that horse has heaves, and asks refund. Is A liable when no guarantee is given, or does a certain price guarantee any horse sound?
W. J. W.

Ans.—If the horse was not misrepresented by A, or sold on a month's trial, or some such agreement, we do not see that he is responsible.

Pasture Mixture in N.S.—Sweet Clover.
1. I saw in a recent issue of "The Farmer's Advocate" where a mixture of oats, early amber sugarcane and red clover, is recommended in Ontario for summer pasture. Will early amber sugarcane prove successful farther north in Nova Scotia? What would you substitute, if not?
2. I wish to try sweet clover in an acre of pasture land that was plowed last fall. How should this be treated? What nurse crop, if any, should be used?
M. G.

Ans.—1. The sugarcane may not grow quite as well if the climate is a little cooler, but the mixture should be all right in Nova Scotia.
2. If the sweet clover is sown without a nurse crop, it should give a crop of hay or afford pasturage the same season. We would advise sowing the sweet clover alone and giving it a fair trial. Prepare the land thoroughly before sowing the seed.

Warbles in Cattle—Setting Posts.
Please answer the following questions, through the columns of your valuable paper:

1. How to prevent warbles in cattle?
2. How to set cedar fence posts, in land that is inclined to heave with frost, so they will remain firm? E. B.

Ans.—It has been recommended that the backs of cattle be smeared with preparations of tar or ill-smelling products, such as fish oil and carbolic acid, in order to repel the warble fly in the summer. However, authorities who have investigated the ways and habits of the warble fly, claim that the practice is ineffective. Greater results can be obtained by providing shade for the cattle during the warm days of summer, and by squeezing the maggots from the backs of the cattle in the spring. If one man does this alone the results will not be noticeable, but if it should become a community practice, co-operation would help to solve the trouble.

2. In many instances they are set similarly to anchor posts, that is by fastening a board or scantling to the side of the post and allowing it to project in two directions. This, of course, makes more digging, but it enhances the chances of keeping the post firmly in the ground.

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True to Its Name

It is actually the IDEAL Fence, ideal in every way. Every wire—line wires, the uprights and the locks are hard, springy, full-gauge No. 9 heavily and evenly galvanized. Every lock is on, and every roll goes up straight and true—no long wires to make the fence sag, and no short wires to take up all the strain and then break. The spacing between the uprights is accurate and exactly as our catalogue states.

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The McGregor Banwell Fence Co., Limited
Walkerville, Ont. 19

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"The Silo That Lasts for Generations"

is built of hollow vitrified clay tile, whose glazed surfaces are impervious to air and moisture and whose double air compartments prevent freezing. The door frame consists of special jamb tile. Doors are of gulf cypress. Perfect fit. Greatest convenience. Durable. Rigid. Bands of steel laid in the mortar reinforce this strongest of all silos. No blowdowns—therefore a taller silo with smaller diameter can be built—exposing less silage on top. Nothing can fade this giant of strength and efficiency. Send today for list of Natco owners in your province and our Catalog 4

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Hereford Bulls and Heifers
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For Sale—good young show bulls and females, also a few oxford rams. **Thos. B. Broadfoot,**
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Present offering: 1 young bull out of heifer that in five months R.O.P. Test has given 4,000 lbs.; another just as well bred, both sired by a son of a 60-lb. cow. Tamworth specialists, young sows bred.
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For Sale—Boars and sows, 9 months, 4 months and 3 months, from choice imported English Stock.
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The Brant County Shorthorn Club offers for sale bulls and heifers of all ages, of the best breeding either singly or in car lots. For information address the Secretary.
James Douglas, Pres. Geo. L. Telfer, Sec.
Caledonia Paris, R.R. No. 2

Questions and Answers.

Miscellaneous.

Distribution of Estate.

A, B and C are brothers. B and C die, each leaving children. Then A dies, leaving neither heir nor will. Is A's property equally divided among his nephews and nieces, or should the property be given one-half to each family?
Ontario. INTERESTED.

Ans.—All A's nieces and nephews take equally.

Millet—Fertilizer.

1. When is the best time to sow millet, and what kind of seed?
2. How much seed to the acre?
3. When should it be cut as a fodder?
4. Which is it the better feed for horses or cattle?
5. Is the fertilizer called — good for a bearing orchard?
M. E.

Ans.—1. Early in June.
2. From two to four pecks per acre.
3. Cut when the heads are in the dough stage.
4. Will do for either, fed in reasonable quantity. Better for cattle.
5. It is very well adapted for orchards, and might help, although action might be a little slow.

Why Septic Tank Tile Do Not Freeze.
Re article, "Disposal of Farm Sewage," on page 480, is mentioned, "The field tile should not be laid deeper than one foot from the surface." How are the tile kept from freezing?
EVERGREEN.

Ans.—The reason septic-tank tile laid at this depth do not freeze is that a large amount of water is discharged into them every day or two. This water has considerable heat in it. Much of the water from the kitchen is considerably warmed, and even that which comes directly from the service pipes contains a considerable amount of heat, and the heat from this water is conducted to the soil and prevents freezing. I have seen these systems of tile opened up in February or March, and no frost in the ground over the tile except a shallow layer of two or three inches.
W. H. D.

Endorser of Note.

A endorses note for B at sale, December, 1912, for twelve months, in favor of C, for \$81. Note put in bank for collection. In April, 1914, bank returned note to C stating that B had paid \$90, and that for C's information B had made an assignment for benefit of creditors. In November, 1914, C for the first time notifies A that the note is not paid. A writes B, but receives no answer. Now C gives A 30 days to settle balance of note. Is A still liable, or should C, acting on information supplied by bank, have acted before? A never having been notified by bank or anyone else until last November that the note had not been paid. There have been no stops taken to make B pay.
Ontario. F. S. J.

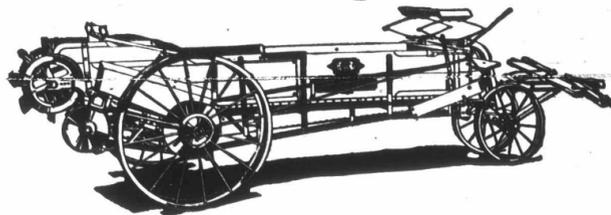
Ans.—A being simply an endorser was entitled to due notice of dishonor, and that he was looked to for payment. Such notice not having been given he is not liable on the note.

Liability on Medical Bill.

A worked for B for four years and gave satisfaction. In spring of last year B hitched up two colts (never been hitched before) together with an old horse to a cultivator. After a few times up and down the field, two men leading the horses, A was left in charge. The horses took fright and ran away, A being severely injured. At the time, B acknowledged he was to blame, and told the doctor he would pay the bill. Doctor has now sent bill to A, stating B declines to pay same.
1. Could A compel B to pay doctor's bill?
2. Could small sum received from Sick-benefit Society by A be claimed towards payment?
Ontario. J. S. F.

Ans.—1. In effect, yes. He should arrange to have the doctor sue B. We cannot feel quite sure, from the statement of facts given us, that we are informed of all the circumstances material to a proper consideration of the case; but it appears to us from what is stated that the doctor is in a position to recover the amount of his bill from B direct.
2. No.

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Escana Farm Shorthorns—100 head in the herd, which is headed by the best herd at 1914 Toronto National Show, and Raphael, Imp., the sire of the first prize bull of 1913. For sale: 20 bull calves, 9 to 14 months old, several in show form, also 20 cows and heifers.
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"Thistle Ha" Herd of Scotch Shorthorns. The oldest established herd in Canada is now offering for sale 10 young bulls from 10 to 18 months old. Some good enough to head the best pure bred herds and some suitable to get choice steers. All at very reasonable prices.
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PICKERING STN., G.T.R., 7 miles. Greenburn Stn., C.N.R., 4 miles.

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They are dirt cheap now. The war will more than double their value in a year, at rock bottom prices. I have choice young bulls from 10 to 18 mos. of age. Cows due to calve in the Spring. Heifers bred and of breeding age.
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Our bulls are all good colors and well bred. We also have Shorthorn females of all ages. In addition to our imported mares, we have 7 foals and yearlings. Write for prices on what you require.
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PLEASANT VALLEY FARMS SHORTHORNS
Herd headed by Imp. Loyal Scot. Have for sale, 10 high-class young bulls of herd heading quality and several of the milking type. Also females of the leading families. Consult us before buying.
Farm 11 miles east of Guelph; **GEO. AMOS & SONS, MOFFAT, ONTARIO**
C.P.R. ½ mile from station.

Glenallen Shorthorns We offer for sale some of the best young bulls we ever bred, Scotch or Climax = 81332 = sired by Uppermill Omega.
R. Moore, Manager **GLENALLEN FARM, ALLANDALE, ONTARIO**

SALEM STOCK FARM HOME OF THE CHAMPIONS
Many of our Shorthorn bulls are good enough to head the best herds. Others big and growthy that will sire the best kind of steers. Elora is only thirteen miles from Guelph. Three times daily each way. **J. A. WATT, ELORA, ONTARIO**

Belmont Farm Shorthorns Herd headed by Nero of Glenallen (imp.) and Sunnyside Margaret (imp.) and Sunnyside Margaret (imp.)
For sale: a number of young bulls and heifers, also young cows sired by Missie Margaret with 4 days at foot.
F. W. SMITH & SON, R. R. No. 2, SCOTLAND, ONTARIO
Long-distance Telephone.

Shorthorn Bulls and Heifers For Sale
A number of promising young bulls from ten to sixteen mos. old, from large good milking dams, also choice heifers from one to three years old. Write phone or call on
H. J. DAVIS, WOODSTOCK, ONT.

HIGH-CLASS SHORTHORNS Honest representation and square deal is our motto. We have still left some choice young bulls, bred in the purple and of beef to the hocks. Come and see them.
Myrtle, Oshawa or Brooklin. Richardson Bros., Columbus, Ont.

Questions and Answers. Miscellaneous.

Heifer Sucks.

What can I do for a heifer two years old that, after she gets through drinking, puts her tongue between her teeth and sucks until the froth runs out of her mouth? Sometimes the water runs out of her nose. She seems to eat well. E. S.

Ans.—This seems to be a habit. Has she persisted in doing this since being fed as a calf? It will likely be difficult to break her of it. Have any of our readers had any experience with such a case?

A Puller.

I have a horse that would be valuable as a driver only that he is a bad puller. I have tried different kinds of bits on him, but none of them had the desired effect. Perhaps some of your subscribers may have had some experience with hard-mouthed horses and could give me some advice, through the columns of "The Farmer's Advocate."

D. F. M.

Ans.—Although very severe, a curb bit is sometimes used. Good results are sometimes had by using a double-twisted wire or scissors bit. Have any of our readers any experience to offer?

Blackleg.

1. What is the cause of blackleg, its symptoms, cure, etc.?

2. Horse is lame on hind leg. Does not flinch under pressure, nor does it show signs of spavin. Could spavin be there and not visible? D. M.

Ans.—1. Blackleg is caused by a micro-organism which infests certain kinds of soils. It gains entrance to the animal's body through the food or abrasions and sores. The first noticeable symptom will be lameness, either in front or behind, which rapidly increases in severity, making progression impossible. Appetite and rumination are lost; the animal becomes very weak, and shows signs of high fever. If the animal is down and unable to rise, an examination will reveal a tumor or swelling of the fore or hind quarters, generally the latter, though sometimes in other parts of the body. The central part of swelling is insensitive, feels cold to the touch, and on passing the hand over it, emits a crackling sound. The disease runs a variable course. Sometimes the swellings are most marked, and other times the general symptoms. It is generally fatal, death taking place between 36 hours and three days following first noticeable symptoms. The post-mortem examination will show the skin covering the swelling to be mortified. On cutting the tumor, the subcutaneous connective tissue is found infiltrated with blood and serum, distended by foul-smelling gases, which give the tissues a frothy appearance. The muscles of the affected region are black or dirty brown, streaked with yellow bands of fibrinous exudate. They break easily and crepitate on being incised. There is no cure for the disease after it has once attacked an animal. The preventive in vogue is vaccination. Animals up to six months of age are seldom affected, and those over two years of age do not often contract the disease, yet they are not considered absolutely immune. Vaccination may render an animal immune for eighteen months, but an animal that has been vaccinated before it was six months of age is liable to take the disease at any time. Vaccination should take place as the season for blackleg approaches. In infested areas the pasture has been burned off each summer for two or three seasons, but this is not considered practicable, and it is not very widely practiced. The Health of Animals Branch of the Dominion Department of Agriculture, at Ottawa, have charge of such work, and any outbreak should be reported to them.

2. It is possible that a horse may be troubled with occult or blind spavin and give no external evidence of it except in occasional lameness. A good test for spavin is to put the shoulder over the hock. Lift up the foot and bend it backwards and forwards the leg. Drop it quickly, and at once start the horse off at a brisk trot. If an spavin exists, the horse is not likely to go lame at first.

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Makes possible the greatest shooting satisfaction. This is due to its positive operation in every make of rifle and is the result of the extreme care exercised in every detail of manufacture. Insist on having Dominion .22 Cartridges—they mean more "bull's-eyes."

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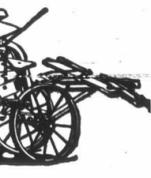
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thorn bulls at a price that will ove them. Many of them of a y down, thick and smooth will ing more money in the marke- too. Write for what you want.

ASHBURN, ONT.

ld, which is headed by the not mp., the sire of the first-prize calf mpion at London Western Fair. w form, also 20 cows and heifers

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ry value in a year, at rock bottom age. Cows due to eeding age.

Clydesdale Mares

in females of all ages. In addition for prices on what you require.

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No. 2, SCOTLAND, ONTARIO

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from large good milking dams. te phone or call on WOODSTOCK, ONT.

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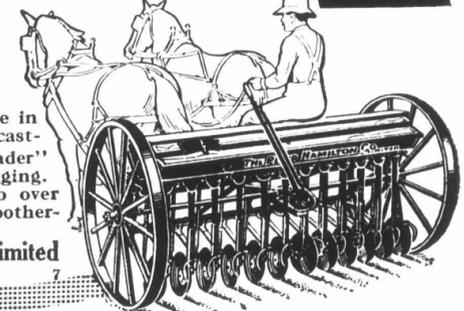
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Careful seeding needs no recommendation. When you use a "Leader" Disc Drill, every seed falls just where it will get the best chance to germinate and give results. Because the shields on the "Leader" go well to the bottom of the disc, the seeds are deposited right down in the furrow instead of falling along behind anywhere. We use malleable disc castings instead of the old-fashioned grey iron—another feature of superiority in the

"Leader" Disc Drill

Old style castings must be made heavy and cumbersome in order to get them strong enough. By using malleable castings, we get maximum strength with light weight. "Leader" discs go through heavy mud and wet trash without clogging. They don't break when you meet tough roots or go over stones. The high-grade steel saves expensive and bothersome repairs. Write for free booklet to-day.

Better Work Guaranteed The Peter Hamilton Company, Limited PETERBOROUGH, ONT.



Sold by all John Deere Plow & Dealers

ROSEDALE STOCK FARM

6—SHORTHORN BULLS—6

From heavy milking dams. These are choice bulls fit to head the best herds in the country. Two are from Imported dams. Write at once for particulars.

J. M. Gardhouse, G.T.R., C.P.R. Weston, P.O. Street Railway and Long Distance Telephone.

MAPLE SHADE SHORTHORNS

Nine young Bulls around a year old for sale. Sired by Archer's Hope, the winner of First Prize in Aged Bull Class at both Toronto and London, 1914. Archer's Hope is undoubtedly the best individual and the best breeding bull that ever stood at the head of this herd.

WILL. A. DRYDEN, Brooklin, Ont. Brooklin G.T.R. and C.N.R. Myrtle C.P.R.

Scotch—SHORTHORNS—English If you want a thick, even fleshed heifer for either show or breeding purposes, or young cows with calves at foot, or a thick, mellow, beautifully-fleshed young bull, or a right good milker bred to produce milk; remember I can surely supply your wants. Come and see.

A. J. HOWDEN Myrtle, C.P.R.; Brooklyn, G.T.R. COLUMBUS, P.O., ONT.

GLENGOW SHORTHORNS

For this season's trade we have the best lot of young bulls we ever bred. Wedding Gifts, Strathallans, Crimson Flowers and Kibban Beauties, sired by Broadhooks Prime. These are a thick, mellow, well-bred lot. Heifers from calves up.

WM. SMITH & SON, COLUMBUS, ONTARIO

H. SMITH, - HAY P.O., ONT.

12 SHORTHORN BULLS and as many heifers for sale. Write your wants. You know the Harry Smith Standard.

Poplar Hall Shorthorns If you want a herd-header of the highest possible individuality and richest possible breeding, visit our farm; sired by the great Uppermill Omega Imp.; we have C. Butterflys and Lovelys. Marr Roan Ladys and C. J. Berellas, from 7 to 18 months of age.

MILLER BROS., R. R. NO. 2, CLAREMONT, ONTARIO Greenburn C.N.R. Station Pickering G.T.R. Claremont C.P.R.

SHORTHORNS and CLYDESDALES

We have three good bulls all of serviceable age and are offering females of all ages; have a choice lot of heifers bred to Clansman = 87809 =, also four choice fillies, all from imported stock.

A. B. & T. W. DOUGLAS, - L.D. Phone - STRATHROY, ONT.

SHORTHORNS

6 bulls from 9 to 16 months including a high-class herd header dam from an Imp. English Duchess cow; dams are good milkers, priced very low to clear them out, before spring, also a few females.

Stewart M. Graham, R.R. No. 4, Lindsay, Ont. Lindsay C.P.R. and G.T.R. Stations.

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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, ONTARIO Phone and Telegraph via Ayr.

1854--Maple Lodge Stock Farm--1915 We have now for sale one red bull, 18 months, a typical dual-purpose Shorthorn and a real good animal. A full sister is now in R.O.P. test, making very creditable record. Two others, good ones about one year.

(Miss) G. Smith, Clandeboye, R.R. 1, Ont. Lucan Crossing one mile east of farm.

Oakland 62 Shorthorns

Two fine roan bulls left, one 13 months old and one 10 months, both of good milk strain. If you want good dual purpose females, any age, of the prolific kind, we can supply you.

Jno. Elder & Sons, - Hensall, Ont. 5 SHORTHORN BULLS For Sale: Five bulls, 2 of good colors from 11 to 15 mos. of age. Two are extra choice and all are of good individuality and richest breeding. Priced easy. Write or phone.

John McLean & Son, R.R. No. 2, Rodney, Ont. Scotch Shorthorns, S. C. White Leghorn, C. J. White Leghorn, C. J. White Leghorn, C. J. White Leghorn. Reg. Banner Oats for sale. Three choice young roan bulls, high class herd headers and females of different ages. GEO. D. FLETCHER, Erin, R.R. No. 2, E. D. Phone, Erin Sta., C.P.R.

6 SHORTHORN BULLS

25 females, reds and roans, serviceable best type and quality; sizes cows milking up to 50 lbs. Priced easy.

Thomas Graham, R.R. No. 3, Port Perry, Ont.

Your Chance Has Come

YOU can easily start, this spring, in the profitable business of contract ditching for tile drainage.

BUCKEYE TRACTION DITCHER

For All Soil Conditions

Every Buckeye owner is making money—and there are hundreds of them. A reasonable down payment secures the machine. Besides a comfortable living you can pay the balance out of your earnings in a few months.

Write today for Catalogue T and new terms.

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Makers also of Buckeye Open Ditchers, Trench Excavators and Tractors



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Frequent Cultivation makes better crops and bigger profits.

Riding Cultivators

have that accuracy and ease of control that fits every condition of soil and growth of plants. Everything is at your finger tips—easily shifted, adjustable for all kinds of work.

Lever controlling width of cultivation does not change angle of teeth—very important. Steel frame. Guided by ball-bearing pivot wheels, excellent for hill-side work. Parallel gang shift, high and low wheels, dust-proof bearings, etc. One or two rows.

Ask your dealer to show them and write us for free booklet, "Two Horse Riding and Walking Cultivators."

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Methylene Blue for Infectious Abortion

This is the remedy made famous by the continued tests at the Vermont Agr. Exp. Station and now recognized by other colleges and by breeders and dairymen generally as the only reliable remedy.

USE BLUETTS

Bluetts are Methylene Blue Tablets, scientifically prepared, for easy, safe and certain treatment according to the Vermont recommendations. Not sold at retail. Can be obtained only from us. Write for full information and prices.

THE BLUETTS COMPANY
41 Tenney Block, Madison, Wisconsin

Lakeside Ayrshires

The herd is headed by the well-known Auchenbrain Seafoam (Imp.) = 35755 =. A few young bulls for sale from Record of Performance dams, imported and home-bred.

Geo. H. Montgomery, Proprietor
Dominion Express Building, Montreal.
D. McArthur, Manager, Philipsburg, Que.

High-Class Ayrshires If you are wanting a richly-bred young bull out of a 50-lb. a-day and over cow, imported or Canadian-bred dam or sire, write me. Females all ages. Prices are easy.
D. A. MacFarlane, Kelso, Quebec.

Good registered Jersey Bull 1 year old, sire and dam quick, dam Maid of Dentonia, No. 4014. Highest scoring Jersey cow at Guelph, 1913. Price low.
IRA NICHOLS, Box 988, Woodstock, Ontario

Please mention "The Farmer's Advocate."

Questions and Answers. Miscellaneous.

Blackleg and Vaccine.

1. How long are cattle rendered immune from blackleg by vaccination?
2. After what age are cattle generally considered immune?
3. Will cattle take it that have been vaccinated?

D. D. W.

Ans.—It is generally considered that immunization may last for eighteen months.

2. Cases of the disease affecting cattle over two years of age are seldom reported. However, a two-year-old is not considered absolutely immune.

3. Yes. Animals vaccinated before six months of age, or animals in infected districts, should be re-vaccinated before the season recurs.

Eggs in Lime—Paper Bands.

1. I have put 100 eggs in lime, and now am told that they will be no good. One reason given is that Canadian lime gives them a bad flavor; another, that it does not keep them. Do you know anything against this lime, and would you advise me to do any more this way? In England I have had eggs in lime nearly two years and quite good, but I always use salt and cream of tartar with the lime. Is lime good for this purpose after being exposed to the air some months?

2. Can you tell me where to obtain paper dirt bands? They were mentioned in an article in your paper, for use when potting tomato plants. ANXIOUS.

Ans.—1. It is not stated whether the eggs are put in lime or lime water. I would not expect them to keep very well in lime, but lime water is used extensively as an egg preservative, and with good results in many cases. I do not know that the Canadian lime is inferior to any other for this purpose. Ordinarily it is advisable to cover over the lime water with a slight coating of sweet oil, but this is not necessary when salt and cream of tartar are used. It is generally advisable to use good, fresh-slaked lime from which to make the lime water.

2. You might make them yourself. Firms should advertise these bands in our columns. A. C. M.

Value of Skim Milk and Whey—Time to Sow Peas.

1. How many pounds of skim milk are equal to 100 pounds of grain, say barley, at 75 cents per bushel?
2. What is the actual value of skim milk per cwt. for feeding?
3. Is there any value in sour whey? If so, how much?
4. What time should peas be sown, early or late, to escape the fly?

R. P.

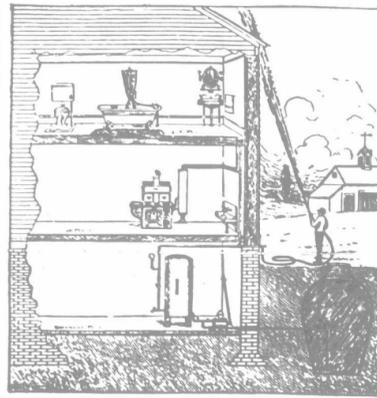
Ans.—1 and 2. The value of skim milk depends upon the quantity of milk fed in conjunction with grain. When mixed grains are worth \$1 per cwt., skim milk fed in the following quantities per day is worth as follows per cwt.:

- 2 lbs. per day, 54 cents per cwt.
- 3 lbs. per day, 31 cents per cwt.
- 5.4 lbs. per day, 18.6 cents per cwt.
- 15.7 lbs. per day, 13.6 cents per cwt.
- 17.1 lbs. per day, 11.33 cents per cwt.

As an average of many experiments, it was considered that 542 lbs. of skim milk equaled 100 lbs. of meal, and other results indicate that 600 lbs. of milk may be considered equivalent to 100 lbs. of rye or barley meal. Whatever barley or other grain may have as a market value, skim milk will have a corresponding value per cwt.

3. Whey also has a high feeding value when fed in conjunction with a liberal grain ration. Prof. Day found that when feeding about 2 lbs. of whey to 1 lb. of grain, from 750 to 800 lbs. of whey effected a saving of 100 lbs. of grain. There is nothing against sour whey if it has been soured in clean vessels. This matter is discussed in the Live Stock Department of "The Farmer's Advocate" in the issue of March 25.

4. Our querist does not make it clear whether the weevil or the pea-louse is causing the trouble. In any case the early seeding is to be recommended. The weevil should be destroyed in the seed by fumigating with carbon bisulphide.



We can furnish you with an apparatus at a price that will surprise you.

Write us to-day and let us help you solve your water supply problem.

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East London Ontario

Water on Tap in Every Part of Your House or Barn!

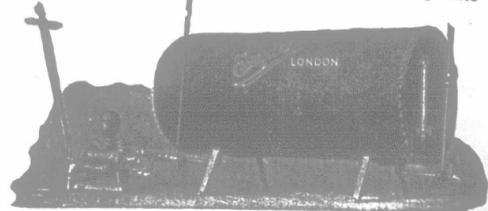
THAT gives you city convenience and city safety. Makes life better and healthier, gives you fire protection, simplifies stock watering and work in general.

Outfit illustrated is our pneumatic water supply system. It has a powerful hand power pump that gives strong pressure to any part of the house. Connections to kitchen range give ample hot water supply. Is very moderate in price. We make the

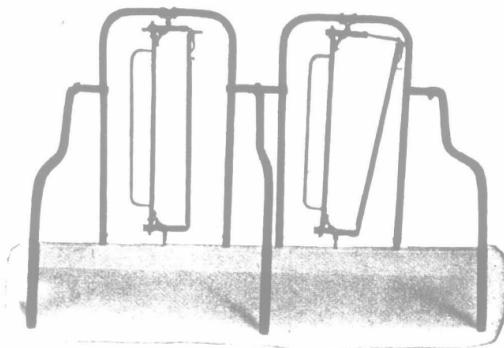
EMPIRE Water Supply System

in many styles and sizes to operate by hand, windmill, gasoline or electricity. Will supply air and water simultaneously, water alone or air alone.

System A:—Hand Operated



Cow Stalls That Are Different



These Stanchions and Stalls are in a class by themselves, both having features not to be found in any other make in Canada.

EACH STALL IS COMPLETE IN ITSELF.

You can install one or one hundred. No top rail being used, we get rid of the loud rattle and clang of the other makes. Our's being absolutely noiseless. Our Stanchion will fit the largest cow and can be adjusted for a calf. Has what we call the Positive Lock Attachment, which guards against animals getting loose.

Write for catalogue and prices, and nearest agent to

M. T. Buchanan & Company, Ingersoll, Ont.

Manufacturers of Haying Tools, Cow Stalls, Water Bowls, etc.

"Nothing Wrong With This Fellow"

Just imagine what a fine thing it is to be able to say that of every sheep in your flock. By mixing a little of

Pratts Animal Regulator

in the food every day, your sheep are kept healthy and their meat and wool are improved. It is a regulator and barks that act directly on the digestive organs, causing the perfect digestion of food.

"Your money back if not satisfied."

Pratts Sheep Dip and Disinfectant cures sheep of ticks, scab, and foot rot and other diseases. It is non-poisonous and beneficial to the wool. At your dealer's, \$1.50 a gallon.

PRATT FOOD CO. OF CANADA, LIMITED
Dept. 1 Toronto



A YRSHIRES

A few choice young bulls for sale, from one week to one year old, from high producing dams. Old Homestead Stock Farm, Waterloo, Que. Address—EDWARD GOODWILL, 119 St. Mathew St., MONTREAL

CITY VIEW AYRSHIRES

Every cow in this herd has a record. All young stock are from R. O. P. cows, sired by bulls from Record Dams. Bull calves come and see. JAMES BEGG & SON, R. R. 1, St. Thomas, Ont. 1/2 mile west of city limits

Brampton Jerseys

We are busy. Sales were never more abundant. Our cows on yearly test never did better. We have some bulls for sale from Record of Performance cows. These bulls are fit for any show ring.

B. H. BULL & SON,

BRAMPTON, ONTARIO

DON JERSEYS

With \$1 head to select from we can spare 5 mature cows, 2 yearling heifers in calf, sired by Fountaine Boyle and bred to Eminent Royal Fern, 4 yearling heifers, not bred, and 1 yearling bulls besides a number of 6 months heifers. We never offered a better lot. D. Duncan & Son, Todmorden, R.R. No. 1, Duncan Sta. C.N.O.

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city convenience and Makes life better and gives you fire protection, watering and work in

Hand Operated

Different

These Stanchions and Stalls are in a class by themselves, both having features not to be found in any other make in Canada.

EACH STALL IS COMPLETE IN ITSELF.

You can install one or one hundred. No top rail being used, we get rid of the loud rattle and clang of the other makes. Our's being absolutely noiseless. Our Stanchion will fit the Positive Lock Attach-

ersoll, Ont. er Bowls, etc.



high producing dams. St., MONTREAL

is herd has a record. All from R. O. P. cows, sired record Dams. Bull calves two-year-olds. Write, or 1/2 mile west of city limits

ever more abundant er did better. We have ord of Performance cows

PTON, ONTARIO

ifers in calf. g heifers not ever offered Sta. C.N.O.

The 20,000 Pound Kind Holstein Bulls

Fit For Service

SIRE BY SONS OF— Evergreen March, 26,107 lbs. milk; 1129 lbs. butter. Manuet Topsy Clothilde, 30,233 lbs. butter in a week. Sir Lyons Hengerveld Segis the \$1500.00 bull.

BREEDING AND INDIVIDUALITY ARE RIGHT.

Prices so low we are ashamed to quote them.

G. W. CLEMONS, St. George, Ontario

Cotton Seed Meal

LINSEED MEAL

CALF MEAL

POULTRY FOODS, etc.

Write for prices.

H. FRALEIGH, Box 2, Forest, Ont.

AN EVEN BALANCE

It takes 300 lbs. of BRAN to supply as much PROTEIN as is contained in 100 lbs. of

GOOD LUCK BRAND COTTON SEED MEAL

For Prices and Feeding Directions write to

CRAMPSEY & KELLY

300 LBS. OF BRAN = 100 LBS. OF MEAL

TORONTO = ONTARIO = 100 LBS. OF MEAL = 300 LBS. OF BRAN

LARGEST IMPORTERS OF COTTON SEED MEAL IN CANADA

Holsteins—This time I offer a beautiful bull rising 3 years of age, whose dam as a jr. 3-year-old produced 23 lbs. butter in 7 days and whose sire is a son of Francy 3rd—butter 29.16. This bull's dam is rising five years of age and gives great promise for a 30-lb. record with next calf, which will be in June, 1915. Her two records, 1st as a jr. 2-year-old 17.19 and as a jr. 3-year-old 23.32 stamp her as a sure 30-lb. cow. Have two great yearlings at \$100 each.

James A. Caskey, Madoc, Ontario

There is a Vast Difference Between Keeping

HOLSTEINS

and just keeping cows. ONE GOOD HOLSTEIN COW WILL DO THE WORK OF TWO OR THREE ORDINARY COWS. You save in feed, housing, risk and labor. Holstein cows milk longer, more per year, and more per life than any other breed. There's money for you in Holsteins. W. A. CLEMONS, Sec'y H.-F. Association, St. George, Ontario

CLOVER BAR

Sires From R.O.P. and R.O.M. Dams. We have several choice ones, 2 to 10 months old, from the splendid sire Count Mercedes Ormsby (sired by Paladin Ormsby) all are out of R.O.M. and R.O.P. dams with records as 3-year-olds, 21.6 and 2-year-olds, 16.3 butter; mature cows 14.891 lbs. milk with 661 lbs. butter. A couple of these sires fit for service, they are nice fellows, priced reasonable. Write, or come and see them. P. Smith, R. R. No. 3, Stratford, Ontario

Holstein Bulls

Twelve months and under from R.O.P. and R.O.M. cows and by such sires as "King Segis Pontiac Duplicate" and "King Fayne Segis Clothilde." Settings of Indian Runner Ducks \$1.50 per setting.

R. M. HOLTBY

R.R. No. 4, Port Perry, Ontario

The Maples Holstein Herd

offers ready for service, sons of Prince Aaggie Mechthilde from R.O.P. and R.O.M. sisters and dam of Duchess Wayne Calamity 2nd, Canadian Champion two-year-old for butter in R.O.P. 16714 lbs. milk, 846 lbs. butter. Write: Walburn Rivers, R.R. No. 5, Ingersoll, Ont.

RIDGE DALE HOLSTEINS For Sale. One bull call ready for service, and 3 young bulls, one of them sired by King Segis Pontiac Duplicate; also 2 young cows. Prices low for quick sale. R. W. Walker & Sons, R.R. No. 4, Port Perry, Ont. Manchester Station, G. T. R.; Myrtle, C. P. R. Station. Bell Phone.

THE FAIRVIEW HOLSTEIN HERD offers ready-for-service sons of Homestead Colantha Prince—3 nearest dams average over twenty-nine pounds of butter a week; also daughters from one week to two years old. Priced right. FRED ABBOTT, MOSSLEY, ONT., R.R. No. 1

Holsteins, Yorkshires and Cotswolds formerly Brickley, offers a young bull whose four-year-old dam and sire's four-year-old dam average 17064 lbs. also females all ages and other bulls of similar breeding. Write us.

HOLSTEIN BULL fit for service. Grand individual, nicely marked. Choicely bred. Dam imported show cow with yearly record of over 17,000 lbs. of milk. Price \$60 with certificate. Glenora Stock Farm, Rodney, Ont.

Questions and Answers. Miscellaneous.

Warbles.

A pure-bred Holstein fat bull has warbles on his back. Could you let me know what I could get to cure him, as I want to get rid of him? H. M.

Ans.—The only thing you can do is squeeze them out and destroy them. He will sell all right for beef, the only harm done being to the hide.

Sap Vinegar.

Can you tell me, through the columns of your valuable paper, how to make vinegar out of birch sap? Have heard of it, but have never seen it in the paper. W. L.

Ans.—To make vinegar from sap, boil from five to seven pailfuls down to one. Put into a barrel with one end open, cover with gauze and set behind the kitchen stove, having added a quart of yeast, more or less, to ten gallons of liquid. Alcoholic fermentation first takes place, followed in a short time by acetous fermentation, which develops vinegar.

Meat in Storage—Paying Man.

1. Will placing dressed beef and pork in cold storage for three weeks kill any disease germs that it may be affected with? A great percentage of the cattle and hogs killed are affected with tubercular trouble, and in a discussion the other day it was claimed by one party that putting the dressed meat in cold storage for 21 days would kill all the disease, so for my own satisfaction thought I would write and ask "The Farmer's Advocate" what they knew about it.

2. If you hire a man by the day, and it starts to rain at noon and continues all afternoon, is he entitled to a full day's pay when he was unable to work in the afternoon on account of the rain? F. W. G.

Ans.—1. Keeping meat in cold storage for this length of time will not kill the tubercle bacillus, which is very resistant to cold. Six months would not likely kill it.

2. Farm labor hired by the day is not generally paid for wet weather unless it is specially stipulated in the agreement. Of course, if inside work is provided for the man while it is raining he is entitled to pay for it.

Manuring—Farm Books—Alfalfa and Roots.

1. I have read that wood ashes should never be put along with stable manure. Does that mean in the yard, or not to put ashes and stable manure on the land together? I have a large quantity which I intend to top dress for potatoes, but I also intend to plow under a good dressing of stable manure. Would it be safe to put the two on together? I intend to top dress the ashes.

2. What book on farming would be the best to buy?

3. Is it best to sow alfalfa in rows and cultivate for seed production?

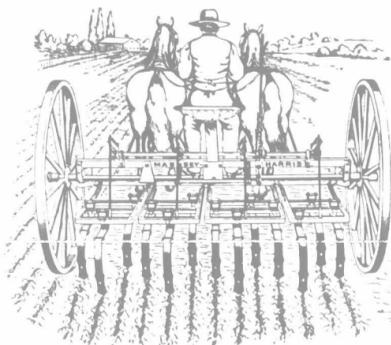
4. Last fall I manured three acres of sandy loam which I intend for roots this spring. On one half of the field I plowed the manure down, and on the other half I spread on freshly-plowed land and worked it in with the spring-tooth harrow. Would this field give a better crop if I plowed it all this spring again, or would it do to disk it thoroughly and sow the turnips? SUBSCRIBER.

Ans.—1. Do not mix in the yard. The manure applied to the soil and the ashes as a top dressing, would be all right.

2. You cannot learn farming from one book. Each special branch of the occupation should be represented in the farmer's library. For instance, Types and Breeds of Live Stock; Feeds and Feeding; The Farmer's Veterinarian; The Horse; Modern Sheep Breeds and Management; Farm Management; Vegetable Growing; special fruit books, poultry books, and so on. These may be had at reasonable prices through this office.

3. This is not necessary where alfalfa does well for seed.

4. You would likely get a better seed-bed by plowing again, especially if you sow your roots in drills. The land would likely drill better. For mangels, it would do all right to disk thoroughly and deep, and not plow.



Clean Fields Mean Increased Crops

By all means do everything possible to make and keep the soil productive—BUT—WEEDS FLOURISH IN A RICH SOIL AS WELL AS YOUR CROPS, so it is important to keep your fields free from weeds.

Cultivate Early and Often with a Massey-Harris Cultivator

And you will get rid of the most obstinate weed pests. Thorough cultivation at any desired depth, and the depth remains uniform regardless of dead furrows, ridges, etc.

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SUMMER HILL FARM

Holstein Cattle and Yorkshire Hogs

We offer for sale, a dozen bulls, some ready for service, from high official record dams. If you are wanting a bull, better write us and let us tell you how good they are. Can also spare a few good heifers. Yorkshire hogs all ages.

D. C. FLATT & SON, R. R. No. 2

HAMILTON

Phone 718

ONTARIO

Riverside Holsteins!

Herd headed by KING JOHANNA PONTIAC KORNDYKE, a grandson of PONTIAC KORNDYKE, and a brother of PONTIAC LADY KORNDYKE 38.02 lbs. butter in 7 days, 156.92 lbs. in 30 days—world's record when made.

J. W. Richardson, R. R. No. 2, Caledonia, Ontario

CLOVERLEA HOLSTEINS—Herd headed by Pontiac Norine Korndyke. Our special offerings for this month are two choice bull calves; No. 1 born Nov. 6, 1914; he is large and straight and evenly marked. No. 2 born Dec. 18, 1914; he is a fine calf, more white than black; he is from an imported heifer whose dam gave 17.98 lbs. butter in 7 days, and his sire's dam gave 116 lbs. milk in one day and 34.60 lbs. butter in 7 days. He is bred right. Either will be priced right if taken soon. Bell Phone. GRIESBACH BROS., COLLINGWOOD, ONTARIO.

Evergreen Stock Farm—High-Class Registered Holsteins—For sale: Two exceptionally fine young bulls, one ready for service, and dams have good official records. Also three heifer calves, six, seven and ten months old; good individuals and bred right. Write for particulars, or come and see them. A. E. HULET, R.R. No. 2, Norwich, Ont. Bell Phone

Constitution That Counts in any animal; our herd sires are noted for stamping that in their get and they are breaking the records. Choice young stock for sale. Write for prices. M. L. Haley, M. H. Haley, Springford

Ourvilla Holstein Herd—The first herd in Canada to develop a 31-lb. cow. The only herd in Canada to develop 27 two-year-olds averaging 16.20 lbs of butter in 7 days. We have also developed 7 three-year-olds averaging 23.23 lbs. in 7 days. If you want a bull backed by Ourvilla reputation and records, sired by a 31.76 lb. bull, write us LAIDLAW BROS., AYLMEER, ONTARIO

Holsteins—You are too late to secure a son of Pontiac Hermes old enough for service. But NOW is the time to secure a calf for next season's work. You can save money by buying NOW. Also one son of May Echo Lyons Segis out of 15,000 lb. dam. Get a catalogue for our consignment Belleville Sale, April 1st. E. B. MALLORY, Box 66, R.F.D., BELLEVILLE, ONT.

LAKEVIEW STOCK FARM, Bronte, Ont. Breeders of High-class Holsteins

E. F. OSLER, Prop. Offer for sale some choice young stock of both sexes. T.A. DAWSON, Mgr.

HOLSTEINS At Hamilton Farms For Sale: Cows and Heifers in Calf to our Great Herd Sires Prince Hengerveld of the Pontiacs, son of King of the Pontiacs and King Isabella Walker, son of King Walker. If you want a grandson of King of the Pontiacs, write us. We have some splendid Bull Calves. F. HAMILTON, St. Catharines, Ont.

IMPERIAL HOLSTEINS

We bred the sire and grand dam of the World's champion in public test. Do you want some of this blood in your herd, combined with that of Valdesa Scott 2nd, World's greatest cow, and Princess Johanna Rose, dam of a 33.92 lb. cow, and sister to the youngest cow in the world to make 35 lbs. butter in 7 days? Bulls for sale only. W. H. Simmons, New Durham, Ontario

"MAPLE LEAF" OIL CAKE MEAL
FINE GROUND OR NUTTED

MADE IN CANADA
FEED IT WITH EVERY MEAL

Great Britain could never have attained its eminence in beef and dairy products without linseed cake. On the larger farms, up to five thousand dollars a year is expended in these cakes. In the famous Darlington beef and dairy district, the fattening ration for cattle is from 7 to 14 pounds of linseed cake a day, with a mixed feed of roots, oats, barley and mill feed. Sheep and milk cows both get oil cake to the extent of about 2 pounds a day.

Prof Frank T. Shutt, M.A. Chemist of the Dominion Experiment Farm, Ottawa, submitted a table showing proportionate fattening and flesh-producing qualities of the following feeding substances in general use.

Feeding Stuff	Protein (Flesh Producers)	Fat	Carbohydrates (Fat Producers)
Linseed Cake (ground)	32.9	7.9	35.4
Buckwheat	10.0	2.2	64.5
Corn	10.3	5.0	70.4
Oats	11.8	5.0	59.7
Wheat	11.9	3.1	71.9
Barley	12.4	1.8	69.8
Shorts	14.9	4.5	56.8
Brass	15.4	4.0	53.9
Medicines	15.6	4.0	60.4
Pea Meal	21.2	1.4	55.8
Lean Meal	23.1	2.2	54.2

Protein is the most costly, necessary and valuable element in food.

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Alloway Lodge Stock Farm
Aberdeen-Angus Cattle, Southdown Sheep, Collie Dogs

Some right good young Angus bulls and heifers for sale.

Robert McEwen - Byron, Ontario

Sheep, Swine and Seed Corn—Young stock of both sexes in Dorset Horn and Shropshire sheep and in Swine: Poland Chinas, Duroc Jerseys, Berkshires and Chester Whites. Also Seed Corn, all varieties. Consult me before buying. Cecil Stobbs, Leamington, Ont., Phone 281, M.C.R., P.M. & Electric R.Y.

OXFORD DOWN SHEEP

Shorthorn Cattle, Yorkshire Hogs—Present offering: Lambs of either sex. For prices, etc. Write to John Cousins & Sons, "Buena Vista Farm", Harriston, Ontario

Morrison Tamworths and Shorthorns—Bred from the prizewinning herds of England. A choice lot of young sows to farrow in April, dandies and young boars, also choice young bulls and heifers in calf sired by Proud Royalist (Imp.) from extra choice milkers. Chas. Currie, Morrison, Ont.

Registered Chester White Swine

Pigs six weeks of age, pairs or trios not akin. Young sows just ready to breed. Shipments made on approval. Wilson McPherson & Sons, St. Ann's, Ont.

BERKSHIRES AND JERSEYS

Berkshires from prizewinning dams, Guelph and Toronto. Herd headed by Mountain Pat, 1st aged class and champion at Toronto in Aug. and Nov. and at London, 1913. Young stock for sale; prices low. Ira Nichols, Box 988, Woodstock, Ont.

Pine Grove Yorkshires—Bred from prize-winning stock of England and Canada. Have a choice lot of young pigs of both sexes, pairs not akin to offer at reasonable prices. Guaranteed satisfaction. Joseph Featherston & Son, Streetsville, Ont.

TAMWORTHS

25 young sows, bred for spring farrow and a few choice young boars, registered. Write for prices before buying elsewhere. John W. Todd, R.R. No. 1, Corinth, Ont.

Tamworths For Sale—Both sexes. We have four litters of young ones now ready to ship and they are selected. Quality right and breeding right. We guarantee satisfaction. We also offer a litter choice collie pups. B. Armstrong & Son, Codrington, Ontario

Cloverdale Large English Berkshires

Sows in 1 other ready to breed, boars ready for service. We need stock, both sexes, pairs not akin. All bred on our own farm or from Imp. stock. Prices reasonable. C. J. Long, Burkton, Ont. R.R. 3

IMPROVED YORKSHIRES

We are offering a few extra fine Registered Sows in the 1st class of the M.C.R. at 1/2 price. These sows are of very reasonable quality and will sell at about half price. We have also some Boars to be bred by. A. Pomona Farm, Cobourg, Ont.

Questions and Answers.
Miscellaneous.

Spray for Plum Trees.

Kindly tell me what would be suitable to spray plum trees with. T. A.

Ans.—Bordeaux mixture or lime-sulphur wash with some arsenical is what is used for such purpose. Refer to the Spray Calendar published in the issue of March 25, 1915.

Daffodils and Hyacinths.

Will daffodils and hyacinths, after having blossomed one spring, grow and blossom again from the same roots, and if so, how to take care of them? A. W. M.

Ans.—They will grow and blossom again year after year. All that is required is to keep them clean and to thin out or move them if they get too thick.

Lime-stone Queries.

1. Would you kindly let me know, through the columns of your paper, some of the uses of crushed lime stone?

2. Its value?

3. Some of the places of its manufacture?

4. A company manufacturing machinery for the purpose? A. W.

Ans.—1. Agriculturally, crushed limestone is used to make good deficiencies of lime in cultivated soils. Some soils naturally contain little lime, and all soils under cultivation are continually losing lime, owing to the fact that it is being gradually rendered soluble and lost in the drainage water. Consequently, in a longer or shorter time, depending upon the amount of lime originally present, and on the cultivation, cropping and manuring followed, all soils must become deficient in this constituent. In the older parts of the Province, especially on light, sandy soils, there is now great need of lime. In some sections, such as the neighborhood of Guelph, there is a large quantity in the surface soil; but there is every evidence that the lime is working downwards, as there is very much more of this constituent in the sub-soil than in the surface soil. Once the available lime disappears, the soil becomes acid or sour, and it cannot give good results until this condition is corrected. An application of crushed limestone will neutralize the acid, and thus not only improve the physical condition of both sands and clays, but it makes it possible for the nitrifying and nitrogen-gathering organisms of the soil to do their work. Furthermore, lime is an essential plant-food constituent, and it acts as a liberator of potash, i. e., it causes certain chemical changes to take place in the soil whereby potash is rendered available. These are some of the ways in which ground limestone may be useful agriculturally.

2. It is being offered for sale at three dollars per ton, and, in some places at very much higher figures. The more finely it is ground the quicker it will act in the soil. However, fineness in grinding is not the reason for the differences in prices. As the cheapest limestone dust we have seen has also been the finest. Nor does it necessarily follow that the finest material is the best. Possibly if the larger particles are the size of granulated sugar, and all the fine material that has been produced in this process of reduction is present, it will be fine enough.

3. In Ontario, ground limestone is being prepared for agricultural purposes by the following firms: The Crushed Stone Company, 47 Yonge Street Arcade, Toronto; The Henderson Farmen Lime Company, Beachville, Ont.; Smith Brothers, Beachville, Ont.; The Canadian Quarries, Ltd., Hamilton, Ont.; The International Agricultural Corporation, Caldonia Marl Branch, Buffalo, N. Y.; The Stinson Reed Company, of Montreal, are also grinding limestone for this purpose, and other firms are contemplating entering the market.

4. The Rock & Power Machinery Company, who have a branch office at the King Edward Hotel, Toronto, are prepared to make machinery for this purpose.

The Allis-Chalmers Manufacturing Company, Milwaukee, Wisconsin, U. S. A., manufactures special machinery for this purpose. R. H.



Do you want to **BUY A FARM?** Send for our list

Have you a **FARM FOR SALE?** List it with us

ONTARIO FARM AND FRUIT LANDS DEPARTMENT
DOVERCOURT LAND BUILDING & SAVINGS
W.S. DINNICK, PRESIDENT COMPANY LIMITED 82-88 KING ST. E. TORONTO.
LARGEST OWNERS & DEVELOPERS OF REAL ESTATE IN CANADA

FILL IN THIS COUPON AND MAIL TO

DOVERCOURT LAND BUILDING & SAVINGS CO. LIMITED
Gentlemen 82-88 KING ST. E. TORONTO.
Kindly send me list of Farms & Fruit Lands you have for sale with full information in regard to same.

NAME _____
ADDRESS _____

WE BUILD BARNES

Before you cut a timber investigate our plan of Barn Building. You can see what kind of barns we have built for hundreds of farmers. Let us show you the plans. Save time, money and danger of fire. Write us about **Steel Truss Barns**

Get the complete proofs that our plan of building is what you want.

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JOHN HALLAM LIMITED Write To-day—Address Desk F 72 TORONTO

BERKSHIRES

My Berkshires for many years have won the leading prizes at Toronto, London and Guelph. Highclass and Salty the best strain of the breed, both sexes any age.

ADAM THOMPSON, R.R. No. 1, STRATFORD, ONTARIO
Shakespeare Station, G.T.R.

DUROC JERSEY SWINE, JERSEY CATTLE

In Duroc Jerseys we have either sex of any desired age, bred from winners and champions for generations back. In Jerseys we have young cows in calf, and young bulls, high in quality and high in producing blood.

MAC. CAMPBELL & SON NORTHWOOD, ONTARIO

LARGE WHITE YORKSHIRES

Have a choice lot of sows in pig. Boars ready for service and young pigs of both sexes supplied not akin at reasonable prices. All breeding stock imported or from imported stock from the best British herds. Write or call.

H. J. Davis, Woodstock, Ont. Long-distance Phone. C.P.R., G.T.R.

NEWCASTLE TAMWORTHS AND SHORTHORNS

Boars and sows all ages, sows bred, others ready to breed, all descendants of Imp. and Championship Stock. Several choice young bulls from 10 to 16 months old and a few calves recently dropped, all at reasonable prices.

A.A. GOLWILL, Long-Distance Telephone NEWCASTLE, ONTARIO

ELMHURST LARGE ENGLISH BERKSHIRES

From our recent importation of sows, together with the stock bear Suddon Toronto we can supply select breeding stock, all ages. Satisfaction and safe delivery guaranteed.

H. M. VANDERLIP, Breeder and Importer, GAINSVILLE P.O., ONTARIO
Laneford Station on Brantford and Hamilton Radial.

BERKSHIRES---Woodburn Stock Farms

We are offering for immediate sale: 25 choice boars ready for service, 25 young sows bred These are of first quality from our prize-winning herd.

E. BRIEN & Sons, Proprietors RUDGETOWN, ONTARIO

Clover Seeds

Government Standard

No. 1 Red Clover	\$12.50 per bus.
No. 2 " "	11.50 " "
No. 1 Alsike	42.00 " "
No. 2 " "	11.00 " "
No. 1 Alfalfa (Northern)	12.50 " "
No. 2 Timothy	4.75 " "
(Grade No. 1 for purity and germination)	
No. 3 Timothy	\$4.25 per bus.

Terms cash with order. Bags extra at 25c. each. On all orders east of Manitoba of \$25 or over we pay the freight. We guarantee seeds to satisfy or ship back at our expense.

Ask for sample if necessary.

TODD & COOK

Seed Merchants

Stouffville, Ontario

SEED GRAIN AT FEED PRICES

Oats, O.A.C. No. 72	\$1.30 per bus.
Oats, Banner	1.00 per bus.
Barley, O.A.C. No. 21	1.10 per bus.
Goose Wheat	1.85 per bus.
Red Fife Wheat	2.00 per bus.
"Early Centennial" Peas	2.35 per bus.
"Silver Hull" Buckwheat	1.15 per bus.
SEED CORN (Flint varieties) (56 lbs.)	
Compton's Early	1.65 per bus.
Langfellow	1.60 per bus.
King Philip	1.60 per bus.
(Dent varieties)	
White Cap, Yellow Dent	1.40 per bus.
Improved Leaming	1.40 per bus.
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SEED POTATOES
Choice New Brunswick Government inspected stock. (90 lbs.)
Irish Cobbler.....\$1.00 per bag.
Delawares.....90c. per bag
Prices are f.o.b. Toronto (bags included).
TERMS:—Cash with order.

Crampsey & Kelly, Toronto
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PORTABLE ENGINES

New and rebuilt portable engines. Splendid stock of rebuilt portable engines, 10 to 18 h.-p., suitable for farmers' own use, silo filling, threshing or other work. Send for rebuilt list.

The Robert Bell Engine & Thresher Co., Ltd.
Seafarths, Ontario

WAR POST CARDS

Stock has just arrived. Beautifully colored views taken at the Battle Front. 20 for 25c, 44 for 50c, 72 month only. Owing to increased duty and postage, prices will advance on May 1st, 1915.

Ran. A. Soanes, Box 671, Toronto

200 Bushels 21 Barley

Grown after roots and corn. Yield about 70 bus. per acre; sample good; seed pure. Price \$1 per bus.; 16 oz. cotton bags 25c.

JNO. ELDER & SONS, Hensall, Ont.

SEED CORN

Many varieties. Specially selected and cribbed for seed. Also feed corn. Apply to

ED. TELLIER (St. Joachim), R.R. No. 2, Belle River, Ont.

ESSEX-GROWN SEED CORN

Five varieties. Money refunded if not satisfied. For particulars, write: JOSEPH TOTTEN, R.R. No. 2, South Woodbury, Ont.

Strawberries

All the leading new varieties the Fall-bearing strawberries and the old kinds; also Wallace Tufts & Sons, Mount Pleasant Fruit Farm, R.R. No. 4, Welland, Ont.

Seed Corn For Sale

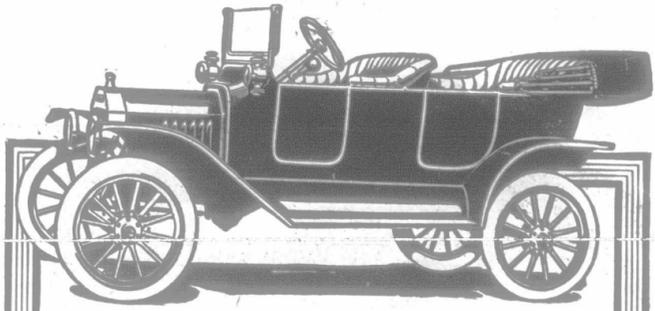
Satisfaction Guaranteed. Prices reasonable.

JOHN WALLACE, Rushamb, Ontario

Choice Alsike Clover Seed

\$10 per bushel. Write for sample.

A BINGLE, Himsby, Ontario



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Ford Touring Car Price \$590

Your neighbor drives a Ford—why don't you? We are selling more Fords in Canada this year than ever before—because Canadians demand the best in motor car service at the lowest possible cost. "The Made in Canada" Ford is a necessity—not a luxury.

Runabout \$540; Town Car price on application. All Ford cars are fully equipped, including electric headlights. No cars sold unequipped. Buyers of Ford cars will share in our profits if we sell 30,000 cars between August 1, 1914 and August 1, 1915. Write Ford Factory, Ford, Ontario, for catalogue E.



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Bigger profits per dollar of cost from SPRAYING than from anything else a farmer, orchardist or gardener can do. What's the use of selected seeds, fertilizer and tillage, if you let the bugs and insects pull down returns. There's money in growing things—IF YOU SPRAY. The bridge from poor crops to perfect produce is the—

AYLMER SPRAYER

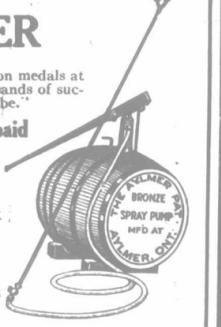
Here is a sprayer—a standard article for many years. Has won medals at home and abroad. Used by seven governments and by thousands of successful farmers, who will tell you the Aylmer is "all it ought to be."

Let Us Ship Your Sprayer on Next Freight—Prepaid

You can be absolutely sure the Aylmer Spray Pump is the last word in easy work, efficient force, fine penetrating spray, strength and durability. Outfit consists of 10 feet hose, couplings, 2 Bordeaux nozzles, brass stopcock, one Y, one long iron extension rod. Without Barrel.....\$15.25
For Barrel add \$3.00. Delivered freight paid, any station in Ontario.

Write for folder—"HOW TO SPRAY."

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Millions of acres of virgin soil, obtainable free, at a nominal cost, are calling for cultivation. Thousands of farmers have responded to the call of this fertile country, and are being made comfortable and rich. Here, right at the door of Old Ontario, a home awaits you.

For full information as to terms, regulations and settlers' rates, write to:

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MAIL CONTRACT

SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa until Noon, on Friday, the 7th day of May, 1915, for the conveyance of His Majesty's Mails, on a proposed Contract for four years, six times per week over Lambeth (Howlett) Rural Route, from the Postmaster General's Pleasure.

Printed notices containing further information as to conditions of proposed Contract may be seen and blank forms of Tender may be obtained at the Post Office of Lambeth and Howlett, and at the office of the Post Office Inspector, London.

Post Office Department, Canada.
Mail Service Branch, Ottawa, 26th March, 1915.
G. C. ANDERSON.



MAIL CONTRACT

SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa until Noon, on Friday, the 7th day of May, 1915, for the conveyance of His Majesty's Mails, on a proposed Contract for four years, six times per week over Byron (South) Rural Route, from the Postmaster General's Pleasure.

Printed Notices containing further information as to conditions of proposed Contract may be seen and blank forms of Tender may be obtained at the Post Offices of Byron and London, and at the office of the Post Office Inspector, London.

Post-office Department, Canada.
Mail Service Branch, Ottawa, 26th March, 1915.
G. C. ANDERSON.



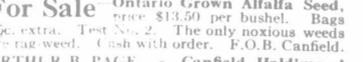
MAIL CONTRACT.

SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa until Noon on Friday, the 7th day of May, 1915, for the conveyance of His Majesty's Mails, on a proposed Contract for four years, six times per week over Delaware (South) Rural Route, from the Postmaster General's Pleasure.

Printed notices containing further information as to conditions of proposed Contract may be seen and blank forms of Tender may be obtained at the Post Office of Delaware, and at the office of the Post Office Inspector, London.

Post Office Department, Canada.
Mail Service Branch, Ottawa, 26th March, 1915
G. C. ANDERSON

FORD STARTER



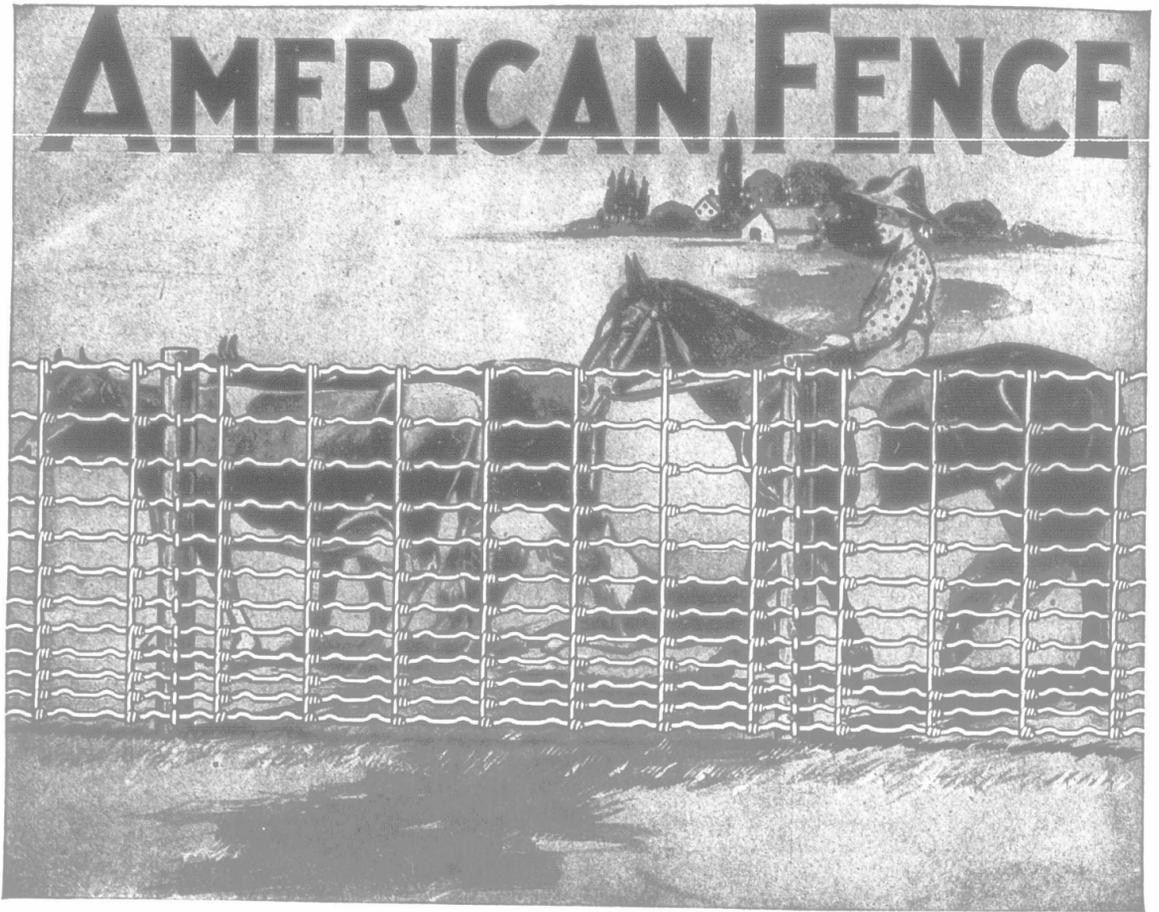
Throw away your crank, start from the seat with a Sandbo "Two-Compression" Starter. Differs from all others. Positively guaranteed to start. Write:

GEO. W. MacNEILL
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For Sale—Ontario Grown Alfalfa Seed,

25c. extra. Test No. 2. The only noxious weeds are rag weed. Cash with order. F.O.B. Canfield.
ARTHUR B. PAGE, - Canfield, Haldimand

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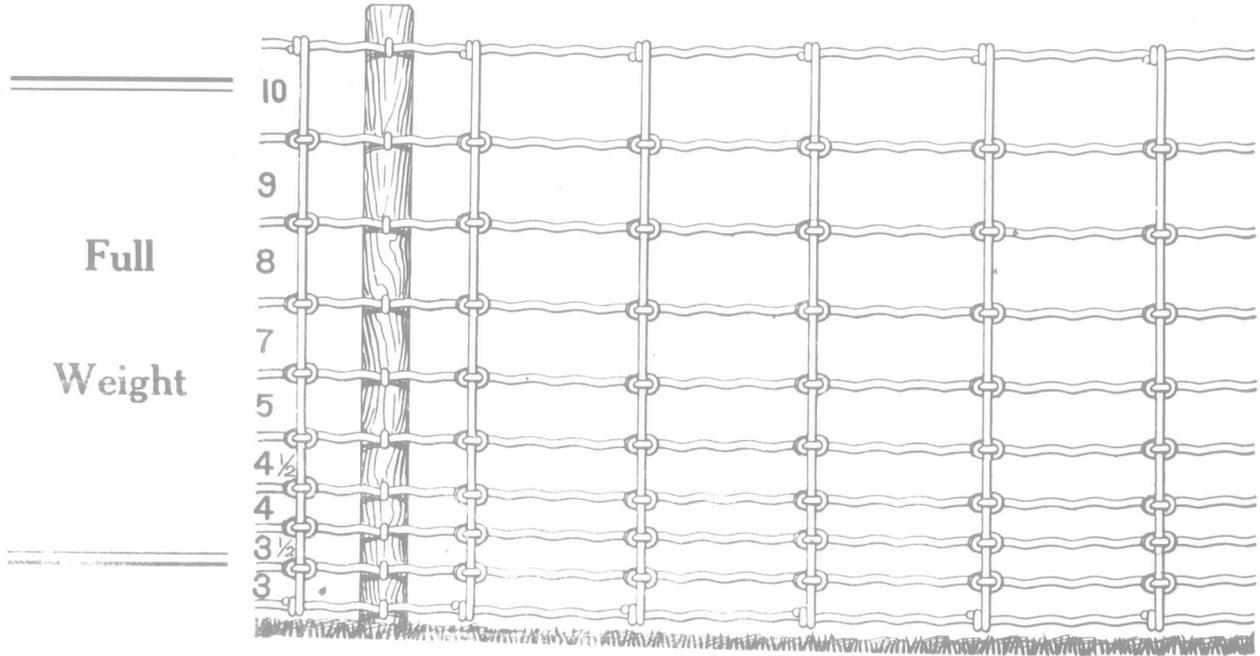


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