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AND HOME MAGAZINE

PERSEVERE AND SUCCEED

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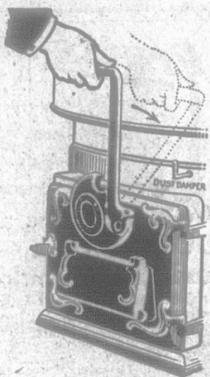
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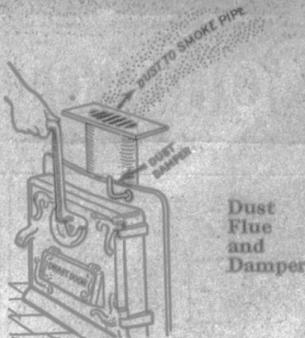
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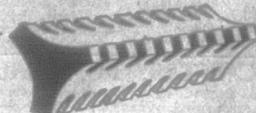
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1866

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LII.

LONDON, ONTARIO, JULY 19, 1917.

1295

EDITORIAL.

Democracy can be led but not driven.

Spray the potatoes for "bugs" and blight.

If the sun does not shine how can hay be made?

The farm very often reveals the personality of the farmer.

Some grumbling is heard but on the whole crops are good.

The man who farms for fun generally pays for his pleasure.

Dirty, late corn can only catch up by more frequent cultivation.

The Kaiser can still make his Bosches fight but he cannot make them win.

The Crown Prince recently tried to pick the scab off that old sore, Verdun.

A farm well fenced is not necessarily a farm with a large number of fences; generally the contrary.

Evidently there are some in high places who do not see the folly of feeding good grain to cull calves.

Better no fence at all than a tumble-down affair which simply coaxes the cattle to break into the next field.

Parliament voted to back up the boys at the front. The people expect a fair, efficient and immediate enforcement of the Bill.

The man who puts a sufficient amount of business enterprise into his farming operations usually reaps a financial reward for his extra effort.

Kerensky has developed sufficient strength in Russia to convince Mackensen and his followers that the Galician front is not a good place to fraternize.

No gate will hang well and swing clear on one hinge, neither will the country. We need development in rural districts to keep pace with that in urban centres.

Judging from the number of patches of beans this year and the scarcity of pigs, the piece of pork in the can of beans will be reduced in size if such is at all possible.

The Food Controller has a big problem. If he can stop undue waste and can put an end to dealing in futures in food products the rest of his troubles will be light.

Elaborate buildings add to the investment and make it that much harder to make satisfactory returns from the farm. Buildings just big enough, warm enough, light enough and well ventilated and clean can be put up without the frills and without the needless expenditure that frills involve.

The July 9th issue of a leading Ontario daily paper carried the advice from a city man that every farmer in Ontario should sow from two to forty acres of winter wheat immediately. Most farmers will think they have it sown in plenty of time if they get it in the ground by the last week of August and from then up to September 20.

The Bread to Win.

The war gradually resolves itself into a question of men and bread and at the present time the United States is considering asking the people to do without bread or any products of wheat for one day each week. In Canada those who have studied the situation are already advising the use of whole-wheat bread, rye bread, or what is known in Europe as dark or black bread. True, we are far removed from the scene of conflict and see very little evidence in this country of any approaching food shortage. However, statistics which we get show that there is a shortage of wheat products, and food material in the Allied nations of Europe is not too plentiful. If the war goes to the limit it may be won on the question of food alone and while we have plenty in this country, and are likely to have, the more we can save for export to our Allies in Europe, and particularly to Great Britain herself, the better are our chances for winning decisively and quickly. It would be better to do without white bread one day a week and substitute other things of which we have plenty, or it would be better to come to the use of dark bread and thus release one or two hundred million bushels of wheat to Britain and France rather than go on eating extravagantly, while our armies overseas were being defeated for lack of the very foods which we could spare. It is difficult to impress the need for economy in foods in a country like Canada where there is plenty and no apparent danger of a shortage, and where waste is still far too great. However, we believe that the campaign for economy in foods is having a good effect and investigation shows that garbage collected in some large American towns and cities has fallen off thirty to forty per cent. since the campaign began. Waste not, want not. The Allies can produce plenty bread on which to win.

Will Food Control Remain After the War?

Over in Britain the Government has seen fit to set a minimum price for certain food products to run for several years to come, possibly for many months after the war is brought to a final conclusion. In the United States and in Canada food controllers have been appointed, and the press of both countries is filled with articles exhorting those on the land to produce, and suggesting different means by which the food administrator may fight the so-called food pirate. Some speculation has been indulged in with regard to the effect of food control on the farmer, and a difference of opinion exists, some believing that the farmer should be guaranteed an adequate price, others that the agriculturist would rather have the nation's food supplies controlled by the Government than by the speculator. One thing is sure, the eyes of the people are turned towards farming and the important position the man on the land holds as they never were before, and if the food administrators succeed in so putting a stop to speculation that the consumer and the producer both benefit then why not have a continuance of the administration after the conflict has ended and something approaching normal world conditions again exists?

A Western United States paper says in reference to the Food Control Bill introduced in Congress: "When the Food Control Bill finally passes, the middle Western farmer will demand that it shall remain after the war as a part of our National Policy; indeed most of the Socialistic devices now coming into our institutions as war measures will remain as a part of our National Policy forever. There will be no going back and if the food gamblers and coal gamblers and steel and iron industries desire to restrict Federal control, now is the last call for dinner. Next year will be too late."

One thing is certain if the people both producers and consumers are convinced through the action of

our food administrators that speculation in food products can be combatted by their system, these same people are going to ask a continuance of the administration after hostilities cease. Most producers would, provided they get fairness from the system, prefer having food supplies controlled by the nation rather than by middlemen or speculators, and the consumer stands to benefit as well.

If it is good in time of crisis to stop speculation or dealing in futures in food products, it should be worth while trying when peace is restored. Of course it all depends upon the success of the efforts of the administrators. We have never been in favor of too much interference in the way of price fixing and food controlling, but we do believe that stopping speculation in food products would leave the law of supply and demand to work unhampered in the best interests of producer and consumer, and any system which will ultimately put an end to dealing in futures in food and make it easier for the producer to deal with the consumer should live long after the last cannon has ceased to roar on the battle fields of Europe.

Buildings Should Not Overload the Farm.

In Eastern Canada there has been a tendency in many cases for farmers to put altogether too much money into buildings and elaborate equipment. We do not wish to infer that the farmer should not have things clean, comfortable, convenient and sanitary, but it is a mistake to construct elaborate buildings altogether too large and expensive to meet the actual needs of those in the home or of the outside farming operations. Many a farm house in Old Ontario is twice as large as necessary, which means if not double the expense of the structure which would meet all the needs of the farmer and his family a very large increase in original outlay, and an unnecessary amount of work for the busy woman of the house. The farm house should not be larger than to comfortably meet the requirements of the family, and the builder should plan it so that every part is in use practically every day in the year. By cutting down on the size of the structure part of the money saved could very well be used in putting in modern conveniences, such as running water, bathroom, facilities for sewage disposal, an up-to-date system of hot-air or hot-water heating, plenty of light, an efficient ventilating system, and the various handy devices for wash-room, pantry and kitchen.

The same applies to the barn. It is much more difficult to make reasonable returns on a large investment in buildings than it is to get an annual profit from a smaller money outlay. Farm barns and outbuildings should be neat and sufficiently large to meet the needs of the farm, but cow palaces, pig parlors, and elaborate sheep pens and poultry plants are not always built on lines of strict economy. One reason that there is not more clear money in the live-stock end of farming in Old Ontario is that a considerable investment is necessary for buildings to house the crop and the live stock. But even though it is necessary to build suitable shelters for the stock and suitable barns to house the grain, it is possible to meet the conditions without unduly jeopardizing the financial returns from the farm. It is generally cheaper to keep the outbuildings as compact as possible, getting as much under one roof as is compatible with good farming practice. Stables may be light, clean, and well ventilated without being too costly. Simple devices may be constructed at little expense to aid in making them handy. It is not always the most attractive barns that are the most economical, but in the long run those built on good foundations of first-class material and well-roofed and in most cases kept painted will be found the best business propositions. Open sheds for a part of the farm machinery

The Farmer's Advocate

AND HOME MAGAZINE.

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JOHN WELD, Manager.

Agents for "The Farmer's Advocate and Home Journal,"
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and sometimes for feeding stock cut down expenses. In planning any of the buildings for the farm keep in mind the actual needs and figure out for yourself the possibilities of the investment paying satisfactory returns. As soon as the buildings become a load on the farm it is time to cut down on the plans.

Pasturing Roadsides.

In driving through the country, especially on long trips, one notices a large number of sheep and cattle grazing on the roadsides. Some there are who believe this good practice and others again think it is wasteful and dangerous. The opinion of the writer is that the roadside is not the place to pasture good stock. One of the chief values in live stock on the farm is in the added fertility which it brings to the land. If it spends half the year on the roadside just that much is lost to the land. True, sheep for instance will keep the roadsides fairly clean of weeds but rarely will they eat Canadian thistles and some other weeds and it becomes necessary to go over the roadsides and cut these to prevent seed blowing over the farms. In some sections we have seen the roadsides cultivated and planted with potatoes and such crops right out to the ditch. This looks like a better plan to keep them clean. It would not be impossible to run the mower along most farms now that straight fences, mostly wire, have replaced the old snake kind. A little work in levelling up in front of a place and clearing away any stones or other obstructions would leave the roadside so that the mower could be used right up to the fence. Cut once or twice through the season all weeds would fall and the appearance of the place would be improved and no danger of seeding the farm with noxious pests would remain. We would prefer this to pasturing on the road. Of course, roadside grass is cheap feed in a sense where a farm is carrying more stock than it can pasture and where that run on the road is really surplus stock, but neighbors usually do not like to be bothered with other people's stock, and there is some danger of loss through injury or straying and particularly as automobiles are becoming plentiful, injury to both man and beast is sometimes hard to avoid. On the whole we do not think that live stock should be allowed to run at large on the roadside and would favor other means of keeping the weeds and vegetation down.

Plow More or Graze More.

Increasing production with the help available on the average farm in Eastern Canada is not quite as easy as it seems to appear to many of those not familiar with farming and thinking possibly that the farmer is not doing all that he might for himself and for the Empire. Considerable labor is essential to maximum production in any branch of farm work and all branches cannot be pushed to the limit without one working to some extent against another. A case in point is that of increased live stock and increased cereal husbandry. It is obvious to those who understand the situation that there would be a danger, if live stock were increased rapidly, of the numbers of farm animals requiring a larger proportion of our cereal grains which could then be produced than would be in the best interests of the country at this time. On the other hand a wholesale increase of cereals would undoubtedly necessitate the cutting down of live stock numbers. We are told that in Ontario there are 400,000 more acres in grass this year than there were four years ago, and that in some cases at least, there is not enough stock to consume the feed produced on these acres. The problem then facing the farmer is whether he would be doing better for himself and his country to plow more or to graze more, or in other words to grow more cereals or more live stock. Professor G. E. Day, as pointed out in last week's issue, advises the farmer to "carry on" in his live-stock work, paying more attention to quality and maintaining at a high level his breeding stock. If we have more acres in grass than are necessary to feed the stock carried in this country, then it would appear that the best plan for this fall would be to plow more than usual. Indications point to the need of the greatest possible production of cereal grain in 1918, and keeping in mind the needs of the live stock on hand and of the nation to be fed it would appear to be sound doctrine to plow more this fall than has been done in any of the last four years at any rate. And to facilitate plowing use wherever possible four-horse teams and double-furrowed plows and get the land turned over as early in the season as possible so that there may be time, particularly with the sod, to do surface cultivation and produce the best possible tilth ready for the spring. Those on the land will have to depend upon themselves very largely, in fact almost entirely, for the help to do this work, and it is important then that the teams and plows be arranged so that one man can do practically the work of two.

Produce Now—Repair Later.

We believe that farmers are doing all in their power to maintain and increase production in Canada, considering the thinning of the ranks of skilled farm workmen. Each farm presents a problem in itself, and its maximum production is limited not alone by weather conditions, but also by finances and labor and uncertain conditions. These demand that farmers look to the future even to the period following the war. This uncertainty, and in view of the possible depressed conditions following the war—we say possible because we know not what conditions will result when peace is declared or even the possibility of peace at an early date—demands that the management of the farm must be safe. But under these conditions, with the high prices of all commodities prevailing, farmers should realize that this is not a time for extensive improvement to the farm, particularly in the way of building. This entirely apart from what such work would draw from the energy on the farm needed for production. The post war period will in all probability see such constructive work about the farm done at much less cost. Certain expenditure is absolutely necessary, so is the purchase of machinery and power, but all energy in the face of present food conditions can well be directed towards increasing the output of food from our farms.

Those who are worrying so much about Canada after the war would be better employed straightening out some of the country's immediate difficulties. Canadians overseas and at home will do their part in overcoming after-the-war obstacles. A real Canadian spirit is developing in this country.

If Britain's airmen could get as many enemy machines on their way to London as they do on the return journey the city would be little harmed and the Huns would soon have difficulty in persuading their murderers to try the task.

There is too much to be done on most farms this fall to permit of the extensive use of the old narrow-bottomed, single plows. Two furrows at a time and fairly wide at that should be the aim of all.

Sandy Proves That He's a Scot.

BY SANDY FRASER.

About sax weeks, or maybe a couple o' months back, one o' the correspondents o' the "Advocate", frae doon east the way o' Nova Scotia, undertook tae pass his opeenion on some o' us ither chaps that hae got intae the habit o' writin' a letter noo an' again tae the auld journal when we will be thinkin' the editor is in the richt humor tae let us unload oor troubles on him. An' one thing that this gentleman frae Nova Scotia said, when he turned his attention for a meenute on Sandy Fraser, wis that he wis not Scotch.

It has always been a rule wi' me whenever I get riled up aboot onything tae keep my thoughts tae mysel' till I hae had time tae cool doon a bit. Sae I hae let this matter o' my nationality stand for a while till I wad be able tae talk aboot it in a reasonable state o' mind, as friend wi' friend. Noo I'll admit richt on the start that gin a mon has tae be born in Scotland tae be Scotch, I'm no' Scotch. Wi'oot my permission I wis born in Canada. But what I maintain is that the place o' one's birth has naething tae dae wi' one's character an' natural tendencies. As auld Paddy said, "Supposin' a cat had kittens in the oven, would you be after callin' them biscuits?" Na, na, it taks mair than the accident o' birthplace tae mak' a mon. Ye've got to hae the richt ancestors for a guid mony generations back gin ye are tae stand the best kind o' a chance tae amount tae onything. An' the point is that gin enough o' these ancestors lived an' fought an' died in a country like auld Scotland it doensna' matter sae muckle supposin' a chap didna' happen tae be born there himsel'.

Another thing I'll hae tae admit, an' that is that I'm no' what ye'd say vera handy wi' the Gaelic. Owin' tae circumstances, this cross between one language an' another is the best I can dae, but sae far as my auld feyther wis concerned he saw the day when the Gaelic wis the only thing in the talkin' line he could use tae ask for his bread an' butter, an' na doot for his porridge as weel.

Noo, ye'll understand that I hae naething against Canada as a birthplace, or as a place tae live an' die in for the matter o' that. It's an unco' fine country, an' it will be finer yet in the coorse o' a few generations, but for some reason or ither, whenever I'm troubled wi' patriotic feelings or the subject o' hame an' country come up, ma mind aye turns tae "bonnie Scotland". I've never seen this land o' ma ancestors, but some way I feel it. I'm thinkin' I must hae been there a few hundred years back, maybe when Bruce wis leadin' his troops on the field o' Bannockburn. Some say we're only gaein' through this world once, but what dae they ken aboot it. I dinna' think the bag-pipes wad mak sic an impression on me the noo, gin I hadna' followed them intae battle at some time or ither in the past. They say that some o' the soldiers in France hae tae get a wee drap o' rum once in a while tae keep their courage up an' mak' them guid an' ready for a charge when the time comes. Tae my way o' thinkin' there's a scheme that's worth half a dozen o' that. Let them just get a few guid pipers tae gang on ahead, an' gin there's a trace o' Scotch blood or a particle o' spirit in the men, they'll gang through fire an' water tae get tae the enemy. Na doot ye've heard aboot the soldier in the hospital that thought he wad be sure tae get better gin he could only hear the bagpipes once mair. They managed tae get an auld piper tae come an' play a while for him ilka day, an' sure enough, the sick mon got better in a vera short time. The story gaes on tae say that the rest o' the patients in the hospital all died, but I canna' believe that.

One thing we ken onyway, an' that is that Scotland produced a lot o' great fighters. Maybe ye think that no' muckle o' a recommendation, but I want tae tell ye that gin a mon isna' a fighter, he's no' much o' a mon. It isna' necessary that his fightin' should be wi' his fellowman a' the time, or ony o' the time, but there's generally something that he's up against, an' gin he isna' ready to hae a scrap wi' it, an' beat it or dee in the attempt, he's na guid. That's one reason that I'm proud o' the fact that Scotland wis the hame o' ma forefathers. It wis there they learned tae stand up for the right o' free speech an' liberty o' conscience, an' everything else that made life mair worth livin' for those that came aifter them. Some o' the stories o' the wars that went on between the different clans sound bad enough, but it seems as though it had tae be pairt o' their education. I wis readin' no' lang since aboot the fight between the McPherson clan an' the clan Chattan, that Sir Walter Scott tells o' in one o' his books. It wis a great battle, but ye'll hae tae get the bookan' read the story for yersel' gin ye want tae realize it, for I'm no' gaein' tae try do it justice. All I will tell ye is that at the end o' the scrap there wis just seven o' the Clan Chattan left alive, an' not a single McPherson. It looks as though the virtues o' courage an' perseverance were pairt o' the mixture that went intae the makin' o' men in those days, onyway. I dinna wonder that Robbie Burns could write guid poetry when he had sae mony inspirin' subjects all aboot him. I ran across something o' his the ither day I'd like tae repeat for ye're benefit, gin ye hae time tae listen tae it. It's no' lang.

"O Scotia, my dear, my native soil,
For whom my warmest wish to Heaven is sent,
Long may thy hardy sons of rustic toil
Be blest with health and peace and sweet content.
And oh, may Heaven their simple lives prevent
From luxury's contagion, weak and vile.
Then, how'er crowns and coronets be rent,
A virtuous populace may rise the while,
And stand a wall of fire around their much-loved isle."

THE HORSE.

Favors the Farm Chunk.

EDITOR "THE FARMER'S ADVOCATE":

From time to time I have noticed articles in "The Farmer's Advocate" dealing with the best type of horses for the farmer. I note that you favor the heavier type of drafter, and while admitting that there are arguments in favor of such, for my own work I prefer a lighter animal, say of 1,300 or 1,400 pounds weight, or sometimes lighter, which requires less feed, is not as hard to handle, and can be used to better advantage where any road work or teaming is to be done. I find that these lighter horses will do almost, if not quite, as much actual work at most of the jobs on the farm, and it does not cost as much to feed them. They are a handier type of animal than the 1,600 or 1,800-pound drafter, and I find that, provided I can get the quality, colts from such mares are in fairly good demand. Of course, the transportation companies in the larger cities pay a premium for a heavier horse, but there is always a demand from farmers for farm chunks which can take their place on the plow, harrow, cultivator, drill or on the light or heavy wagon with light or heavy loads for road purposes. It is because of economy in feeding and for their excellence as a sort of heavy general-purpose horse that I like this lighter animal for the farm.

Middlesex Co., Ont. MIDDLESEX FARMER.

knife or severed with a chisel or other tool. The stub is then seared with a red hot iron to prevent bleeding. Here again a special iron is used but it may be done with a firing iron or soldering iron. This completes the operation, the twitch can be removed and the cord untied from the tail. As a rule no further treatment is required. An axe would be a rather crude instrument. If you choose to do the work yourself use a large knife or sharp chisel.

Boost the Colt's Growth.

It is advisable to keep the colt growing fast the first year. Many farm mares will be called upon to do third-horse work on the binder or to provide power for breaking up land for fall wheat, and to do other fall cultivation. The hot weather of late July and of August and September parches pasture. Feed is not as plentiful as earlier in the season. The mare's supply of milk will be falling off. Under such circumstances it is wise to begin feeding the colt. A few rolled oats from a box to which the mare cannot get will help immensely, and where the mare is worked the colt can be very easily taught to eat these. Try him with a few from the hand to begin with. Once he has a taste very little difficulty will be found in getting him to take a regular allowance from his feed box. Also remember that he should not be turned with his mother when she first comes from the field in a very warm or overheated condition. If extra rapid growth is desired and condition for showing, add a little oil-cake meal to the rolled oats in the colt's feed box. At any rate do not allow him to go back during the late summer and fall for want of a little extra feed.

Breeding and Docking.

1. I saw a few months ago in "The Farmer's Advocate" where a very fine Hackney stallion was mentioned, you said although he was recorded in the Hackney Stud Book he did not have any Hackney blood in him. Now how could he be recorded?
2. How old should a colt be when docked?
3. What is the best method of docking?
4. Is there any danger if cut with a knife or axe?

H. M.

Ans.—1. No doubt our correspondent refers to the report of the London Hackney show published in our issue of April 12. At that show a special class was put on for stallions suitable for breeding army and artillery horses. The winner was a big grey called Findon Grey Shales, really a Norfolk Trotter but registered in the Hackney Stud Book of England. Our correspondent did not say that he had no Hackney blood, but that he "has not a drop of modern Hackney blood in his veins." 2, 3 and 4. Docking may be done any time after the colt becomes strong and healthy, usually it is well to leave the youngster until at least two months old. As a general thing spring colts are docked in the fall about

LIVE STOCK.

Why Well-Stocked Farms are Most Productive.

"When our soils still retained more of their virgin fertility than they do to-day farmers were not so particular about the disposition of stable manure. It was left under the eaves of the barn, where rainwater from the roof would fall upon it and carry away the most valuable parts, or it would be left on a hillside down which the soluble ingredients would escape to the creek and river. In addition to the soil fertility carted from the farm in the form of grain, it was allowed to leach away from the manure pile while the prodigal farmer exhibited or experienced no feelings of guilt. While this folly is still in evidence in some instances, the importance of conserving soil fertility has been impressed upon the agriculturists of this country and they are now

making progress in the retention and conservation of all plant food. The war and the consequent difficulty of procuring commercial fertilizers, particularly potash, has demonstrated the fact that wonderful possibilities have been allowed to lie dormant and unexploited which a proper management of the farm would have rendered productive of much sustenance to the hungry acres. Ashes have been wasted, the growth of clover in short rotations has not received the attention it should, but most of all farm manure has been carelessly handled and farms have not been sufficiently stocked. More live stock means bigger crops, and bigger crops will feed more live stock. The last three seasons which have been unfavorable over the greater part of Old Ontario and exceedingly abnormal in some districts have taught a lesson and taught it well. From one end of the country to the other one thing has been outstanding, namely, that farms well-stocked and well-manured have stood the test far better than the lean, hungry holdings. Several farms where steers are annually fattened in winter came under the writer's observation last year. It was remarkable how well the

crops looked and how well the grain turned out. This we know, that some of those farmers put off more product, or value at least, this last spring in the form of cattle and hogs than ever before. They reaped, in good money, the reward of a sane policy while others were suffering disappointment as a result of no policy. The extraordinary value of manure in farming lies in the fact that heavy soils are made more open and workable by having manure incorporated with them, while light soils become more retentive of moisture and drought-resistant when manure is added. Then, too, the addition of available plant food in a very important factor in the production of farm crops. In addition to all this manure carries to the soil germ life, the activities of which render plant

I'm thinkin' that no mon but the son o' a great country could write like that. An' maybe ye will understand my feelin's noo, when oor friend frae doon East accused me o' no' bein' Scotch. As I said, time has cooled me off a bit, but I hope I'll never be tempted like yon again.

When the Campbells an' the Camerons an' the McDonalds an' the McDougalls an' a' the rest o' the Macs were battlin' for their country's liberty aboot sax hundred years ago, I'm willin' tae bet that the Frasers werna' vera far away. If they weren't in the front rank they were fightin' for a place in it.

Nature's Diary.

A. B. KLUGH, M. A.

A weed which I notice to be spreading a good deal of recent years is the Prickly Lettuce. It has become established in waste places in the majority of localities in Canada which I have visited, and from these waste places is invading fields, gardens and door-yards. It is now frequently to be found in clover fields and around the margins of grain fields, and while it cannot be ranked as one of our most pernicious weeds it possesses such good facilities for extending its range by means of the plume-like pappus with which the fruits are furnished, and which enable the fruits to be carried far and wide by the wind, that it should be checked before it becomes too prevalent.

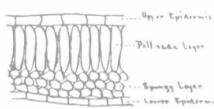


Fig. 1—Section of leaf of violet showing the usual arrangement of cells in a herbaceous leaf.

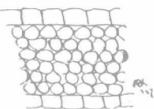


Fig. 3—Section of leaf of Prickly Lettuce from plant grown in shade.

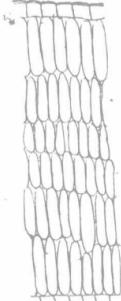


Fig. 2—Section of leaf of Prickly Lettuce from plant grown in direct sunlight.

The Prickly Lettuce is an easy plant to recognize, since it bears some resemblance to a plant of garden lettuce which has "run to seed", and because the leaves instead of lying with their flat surface in a horizontal plane, as in the case of most plants, stand in a vertical plane, thus being "on edge". The mid-rib of the leaf is armed with prickles beneath and the teeth at the edge of the leaves are also spiny-tipped, these spines giving it its usual common name. It is also sometimes termed Compass Plant from the manner in which the vertical leaves tend to twist round the stem and become grouped so as point in two directions instead of radiating in all directions. Such a position of the leaves as we find in the Prickly Lettuce, while it is rare among our eastern plants, is not uncommon among the plants of the western plains, and is considered as an adaptation to the intense sunlight which occurs in such regions, since when held thus vertically the surface of the leaf does not receive the full strength of the sunlight. Such leaves are termed "isophotic" or "equally illuminated" and when we examine sections of them under the microscope we find that their internal structure corresponds to their habit of growth. In the case of leaves which are borne in the usual horizontal position we find a layer of elongated chlorophyll cells (known as the palisade layer) just beneath the upper epidermis, and a looser layer of chlorophyll cells (known as the mesophyll or spongy tissue,) occupying the rest of the leaf from below the palisade layer to the lower epidermis. (See Fig. 1). In the case of the leaf of the Prickly Lettuce we find that all the cells are of one kind, there being no differentiation into two distinct layers. If the plant from which our section was taken grew in an open place, exposed to the full light of the sun we find that all the cells of the leaf are palisade cells. (See Fig. 2.), while if the plant from which we have taken our sections grew in the shade we find that all the cells are ordinary, rounded cells, such as make up the spongy tissue of most leaves. (See Fig. 3). From our little study of the sections of leaves of the Prickly Lettuce we see that there is a definite relationship between the amount of light incident upon a leaf and the development of palisade tissue, and when we consider that the chloroplasts, (the little bodies in the cells of leaves which contain the chlorophyll, and which are thus the vital factors in the work the leaf does in the manufacturing of food from the raw materials of the soil and air) are arranged close to the walls of the leaf-cells we can see that in an elongated cell, such as a palisade cell, the chloroplasts are much better protected from the too intense light than they are in rounded cells of the spongy type.

The Prickly Lettuce in the East attains a height of from three to five feet, while in British Columbia it reaches a height of eight feet. The flower-heads are pale yellow, about half an inch across and only a few open at a time. They are borne on a wide-spreading panicle. The seed of the Prickly Lettuce is about one-eighth of an inch long, of a dark greenish-gray, and in shape resembles the seed of the garden lettuce. In fields ordinary methods of cultivation will eliminate the Prickly Lettuce, and in waste places it should be kept closely cut, so as to prevent it from seeding, when it will disappear in two years.



Taking the Implements to the Shed after the Day's Work.

weaning time, but the operation may be performed at any age. We have seen many yearlings, two-year-olds and even older animals docked.

While an amateur is allowed to operate and often does very well it is generally advisable to employ a veterinarian, as he understands the operation thoroughly and has the proper instruments. The animal is likely to suffer much less at the hands of a competent veterinarian than if the operation is performed by one unfamiliar with the practice and who uses improvised instruments. The usual method of operation is as follows: The hair is parted at the seat of section, and a cord tied tightly above it to prevent bleeding. A twitch is applied to the horse's upper lip and the tail is severed with a dock knife, but the tail may be disjointed with an ordinary

food available that otherwise might remain locked up for years in some unassailable form. Instances are on record where muck soils, which contain a very heavy percentage of humus have been benefited by applications of barnyard manure, simply because the organisms, which usually assist in nature's laboratory changing minerals, organic matter, etc., into food for the plant were not present. These are a few reasons why farms heavily stocked are so productive.

Two Hereford Bulls That Have Made Good.

The two phenomenal sales of Hereford cattle held in the United States by W. T. McCray and O. Harris & Sons were possible only on account of the remarkable influence and popularity of two great sires. In 1908, Mr. McCray was looking for the best Hereford bull he could find to mate with his choicest breeding females. He liked the calves from Perfection Fairfax better than any others seen, and he bought him for \$5,000, when beef cattle were not realizing such enormous prices as they are to-day. This bull has made history in the Hereford world and is now known as "the king of Hereford sires." Last season, when Perfection Fairfax was 13 years old, 150 of his sons and daughters had been sold for \$150,000. Added to this is the sale of May 16, 1917, when 75 Orchard Lake Herefords averaged \$1,750, and Martin Fairfax, a son of the old bull, came to Canada at \$17,000. At that time, 25 bulls, sons and grandsons of Perfection Fairfax, averaged \$2,380 each, and not a single one sold for less than \$1,000. Apart from the animals sold out of the herd one must estimate the value of the impression left through his get retained as breeders. It has been rumored in Hereford circles that Perfection Fairfax has meant almost half a million dollars to Warren T. McCray.

The Repeater and Gay Lad Herefords that made up a large number of the O. Harris & Sons' herd were popular enough to realize an average of \$1,525 on 260 head, and Repeater himself, about 10 years old at the time of the recent sale, was bid in at \$13,000.

All Out for Championship.

In looking over the prize-lists of our larger exhibitions we note that the exhibitor is still not compelled to bring out his first-prize winners in championship classes. It has been pointed out in this paper, following past exhibitions, that it would be a good thing if the exhibitor were compelled to bring out all his first-prize winners to compete for championships. It often happens that the same exhibitor has first-prize animals in different classes, and sometimes the logical winner is not brought out because the exhibitor desires that some other animal in his possession should get the award for advertising and other purposes. This is misleading to the public who naturally, not thinking, believe that the animal awarded the championship is undoubtedly the best animal of its sex and breed at the show. One good point we notice, however, is that exhibitors are to place in a prominent position in the stall of the animal shown the prize won, and that prizes awarded at other exhibitions be not exposed in the stalls.

Handle Early.

The easiest time to accustom any animal to the handling necessary is when it is young. Too many of our calves and colts, particularly, and sometimes sheep as well, are permitted to grow up wild, nervous and often become unmanageable in later years because they did not get the necessary training in being handled when young. Every calf and every colt which is likely to stay on the farm as a breeder (all colts must be handled

anyway), should be carefully taught from birth that the attendant is its friend, and that it must submit to being led from place to place and handled as desired. Comparatively few calves are taught to lead, and much difficulty ensues in later years in attempting to handle the cows, particularly when it is necessary to lead them from place to place. The quieter and more accustomed young stock is to the halter and to the general handling such as would be given by a judge at a show or such as is necessary to properly show off the good qualities the better. Wet days and spare time could be well employed in halter-breaking the calves and in handling the colts, and any lambs which are to be shown at the fall fairs should be handled often to get them quiet and establish their confidence in the attendant.

A Flock for Every Farm.

This year an average fleece of wool is worth anywhere from three to five dollars, according to the time of sale and the quality of the fleece. Lamb is high in price, mutton is also on a high level with other meats. The sheep is a valuable animal for the farm. Taking everything into consideration, including the cost of care and feed, the minimum expenditure necessary in comfortably housing the flock and the returns which the flock will bring in annually, there can be very little reason why a large number, practically all in fact, of our mixed farms should not carry at least a small flock of this profitable class of stock. Many are afraid of dogs worrying their animals; others have no liking for sheep; and still others believe that they are hard to fence against and death on pastures. The dog nuisance has been real and many a flock has been ruined by useless curs, but Ontario municipalities reimburse the owner to the full extent of the actual damage, and it is worth taking a chance on owning a flock at this time. Sheep are not hard to fence against, in fact not as hard as some other classes of stock. They are close grazers and if a large flock were kept with cattle it might be hard on the pasture, but a small flock would pick up a good deal of their living from weeds and fence corners not grazed by other stock, and judiciously managed with other stock would turn in considerable found money each year. How about this for a motto: A flock for every farm?

The Economical Hog.

Profits in live stock bear a direct relation to the amount of feed required to produce 100 pounds of gain. There are other factors, however, which enter in, else all farmers would be keeping dairy cattle and hogs. The human race is just as variable as are the animals lower down in the kingdom, and so we have an even distribution of likes and dislikes. The man who knows and admires an easy-going, well-turned bullock has not, as a general rule, the qualifications for a successful dairyman; likewise, the shepherd whose flock knows and trusts him will often look upon swine as the lowest form of creation. If all farmers and stock raisers became fascinated with one particular class of animals, markets would become weak and draggy; remuneration for even the labor expended would cease. There would be no progress. In spite of the fact that this partiality maintains the equilibrium in live stock circles, different classes of animals respond in varying degrees to the amount of feed consumed. In this regard Prof. Henry in "Feeds and Feeding" says: "The cow easily leads all farm animals in her power to convert the crops of the field into human food, with the pig second, poultry following, and the steer and sheep coming lowest."

Jordan, one of the leading authorities in such matters, has analyzed the situation and expressed the results in the following table, which shows the amount of human food produced by farm animals from 100 lbs. of digestible matter consumed.

Animals, Feed Consumed and Production Therefrom.

Animal	Marketable product	Edible solids
	lbs.	lbs.
Cow (milk)	139.0	18.0
Pig (dressed)	25.0	15.6
Cow (cheese)	14.8	9.4
Calf (dressed)	36.5	8.1
Cow (butter)	6.4	5.4
Poultry (eggs)	19.6	5.1
Poultry (dressed)	15.6	4.2
Lamb (dressed)	9.6	3.2
Steer (dressed)	8.3	2.8
Sheep (dressed)	7.0	2.6

Elaborating on the foregoing figures, Jordan writes: "The most noticeable fact brought out by this comparison is the low relative feed cost of milk and other dairy products. The growth of a pound of edible beef solids requires a feed expenditure nearly seven times as great as is necessary for the elaboration of a pound of milk solids. On the other hand, swine are fed with nearly as great economy as are milch cows. In fact, when proper allowance is made for the period of growth of the cow and for the annual periods when she is giving no milk, she seems to have no advantage over the pig except in kind of product. Next in the order of economical use of feed comes the calf, when fed largely on milk. Poultry products stand next in line. Sheep and lambs do not differ materially from steers, meat products of these two classes requiring the largest proportional feed consumption of any form of growth here considered. The order of feed efficiency as related to the several animal products is, therefore, as follows: Milk, pork, veal, poultry and eggs, mutton and beef. The common claim that the feed cost of a pound of butter is no greater than that of a pound of dressed carcass is not borne out by these average figures."

The farmer who wisely markets his grain through the medium of live stock must give matters such as this very serious consideration. He will not sell his wheat at one elevator for \$1.50 per bushel when another is paying \$2.00. So it is when feeding the farm crops, the animal that gains one pound in weight for every 5 lbs. of feed consumed is a better feeding proposition than the one that requires 6 or 7 lbs. of grain to return a like gain. It is also a matter for the authorities to take into consideration in case it becomes necessary to curb live stock production in order to conserve cereals for human use.

One, usually, cannot disorganize the whole farm system and go in heavily for one class of stock or another. There is reason in all things. However, the business-like farmer will ever bear this information in mind and endeavor to market his product through the channels that return the greatest remuneration.

Recommended Sheep Dips.

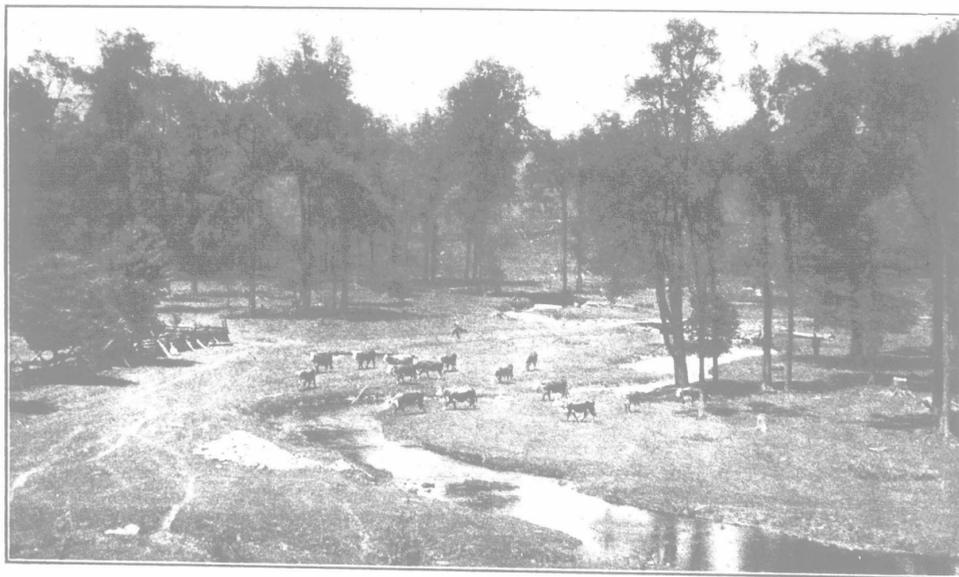
Leaflet No. 145, issued by the Board of Agriculture, of Great Britain and Ireland, deals with Sheep Dips. In some experiments conducted by Professor Winter, at the University College of North Wales, Bangor, sixteen dips were tested. The sheep were immersed in an ordinary swim-bath for a period of one minute, every sheep being carefully examined at the end of twenty-four hours, and again at intervals until shorn a month later. A brief summary of the principal dips employed is given below:

- (1) Two and one-half lbs. arsenious acid (ordinary arsenic), 1 3/4 lbs. washing soda, per 100 gallons dip-bath.
- (2) Two and one-half lbs. arsenious acid, 1/2 lb. good dry caustic soda, per 100 gallons.
- (3) As No. 1, with the addition of 4 lbs. of flowers of sulphur.
- (4) Combination of arsenic and sulphur, dip-bath containing 5 lbs. free sulphur per 100 gallons.
- (5) Soluble sodium compounds of sulphur, with free sulphur.
- (6) Twenty-five lbs. of sulphur and 12 1/2 lbs. of lime boiled in water until of dark red-brown color; strain and make up to 100 gallons.
- (7) Carbolic acid 3/4 gallon, soft soap 5 lbs. per 100 gallons dip-bath.
- (8) A fluid carbolic dip readily soluble in cold water.
- (9) One gallon of a mixture of 29 per cent. tar acid, 36 per cent. paraffin, 8 per cent. lanoline, 17 1/2 per cent. anhydrous soft soap, and 9 1/2 per cent. water, in 100 gallons dip-bath.
- (10) Extract of 35 lbs. finely ground tobacco and 10 lbs. flowers of sulphur per 100 gallons dip-bath at 110 degrees Fahrenheit.
- (11) Small proportion of tar acid in addition to tobacco and sulphur.
- (12) A tobacco, soft soap, and sulphur dip.

The dippers should be instructed to pay particular attention to the upper region of the neck, which often escapes saturation when the swim bath is used. It is advisable to swab this region with dip as the sheep swim through.

Before dipping, all dung-bound wool should be removed by clipping.

Too much care cannot be exercised in keeping the bath free from gross impurities, both by skimming floating particles off the surface, and by changing the fluid at intervals. An old and dirty dip laden with manure encourages rather than retards the attacks of insects.—Live Stock Journal, England.



A More Beautiful Scene than Skyscrapers and Tiers of Brick and Mortar.



A Beautiful Stretch of Country in York Co., Ont.

The Theory of Flushing Breeding Ewes.

Good shepherds and live stock men of mark have long recommended that breeding ewes be flushed in the autumn before mating with the ram. The great percentage of single lambs dropped throughout Ontario last spring is conclusive evidence that the practice of having the female in a gaining condition when they mate is based on experience and results. The pastures were dry over a large part of Ontario from mid-summer on, and the ewes were not so thrifty and well fleshed when the mating season came as they should have been. Reports on the lamb crop from all quarters of this province indicate a large percentage of single lambs, and sheepmen attribute such to the dryness of the season and the condition of the ewes last fall. One good single lamb is better than two weaklings, but a ewe that has been handled properly should raise a couple of normal lambs without difficulty. A good average for a flock is one and one-half lambs per ewe or a 150 per cent. increase; this is nothing exceptional and should result after the natural losses have been taken into consideration.

The theory of flushing ewes is that by turning them on a good field of rape or clover about the middle of September a thrifty and gaining condition is induced and more twin lambs result. If this green feed is not available some oats and bran will have a similar effect in conditioning the ewes and making a larger lamb crop possible. Flushing is simply stimulating the genital organs. Flushed ewes come in season earlier and the lambing period the following spring is usually of shorter duration.

Now is the time to prepare for some forage crop in the fall. A promising field of clover should be spared for September feeding or the ewes might be given access to a patch of rape which is now coming on. Failing such accommodation one-half pound of oats, or oats and bran, per day prior to and during the breeding season will be a good investment.

THE FARM.

The Farmer's Independence.

EDITOR "THE FARMER'S ADVOCATE":

My friend, have you heard of the town of Yawn,
On the banks of the river Slow
Where blooms the Wait-a-while flower fair
Where the Some-time-or-other scents the air
And the soft Go-easys grow?

It lies in the valley of What's-the-use
In the province of Let'er-slide,
That tired feeling is native there,
It's the home of the listless I-don't-care
Where the Put-it-offs abide.

I don't live in that town but I'll admit that it possesses attractions that, at present, strongly appeal to me, for I have been loading manure all day, a fact to which an aching back, and a very fine blister eloquently testify.

Now this manure business is not exactly a lady's job, nor is it one that our noble profiteers would engage in, but it is, at least, a very honorable and necessary affair, though I have never come across any reference to it in the soul-inspiring lines of the poets. Possibly if I were poetically inclined I might write a few lines myself, but I fear they would not be in accordance with that long-suffering, docile spirit a Christian is supposed to possess. I will say, however, that it does away with any yearning for early morning, dumb-bell exercise, and that it would be rather nice if the spirit of independence would slip along at times, and throttle that eternal conscience which impels a fellow to work when he doesn't want to. Speaking of conscience, I'll confess that once during the day I did assert myself, and ordered it to "Get thee behind me" for a few minutes while I watched a couple of pugnacious "roosters" settle a little affair

of honor, but then, under like circumstances, anybody would have done that.

For some time after the "rooster" episode I got along like a house on fire, until the sight of an automobile passing by on the road interrupted my progress. Of course, there was really no need of me ceasing operations, but then as a good law-abiding citizen it was my duty to see that the speed law was not being violated. Sad to relate, however, while I was doing my duty my thoughts inadvertently steered me into a head-on collision with the tenth commandment and, though there was no particular damage done, it set me to wondering at that queer streak in human nature that causes a man to be forever wanting something he hasn't got, but which his neighbor has. Not that said streak is unduly prominent in my case, but I sometimes have an uneasy feeling that things are not just as they should be in this old world, or why should I have to elevate enormous forkfuls of manure skyward all day while Mr. So-and-so of the town of Doolittle drove about in his "Little old Ford, buzzing here, buzzing there, like a blue bottle fly in a meat shop. Wasn't I a free man in a free country, and, as such, entitled to a large chunk of independence?

Thinking along this line, one thing leading to another, I finally arrived at the conclusion that it would be a grand thing to be a wild man; not a domestic one, whom you may see any time when he hits his thumb with a hammer, or the stove pipes won't fit together, but a real out-and-outer like one of those prehistoric old chaps who lived in a cave, and kept body and soul together by means of nuts, berries, edible roots and an occasional choice dinosaur cutlet. Boots he didn't need, nor socks; and the sight of a pair of trousers would probably have sent him into hysterics. Moreover, the question of providing adequate shelter for a family that wouldn't stay small, presented no great difficulty to him. It merely imposed upon him the necessity of rising before the sun some fine morning, and sauntering over to some dwelling-place he had previously settled on as possessing the necessary qualifications, where, with his little bit o' blackthorn poised at a suitable angle, he would wait till the owner thereof should, like a "ground hog," pop his head out to view the weather, when—whack, thump! That was all there was to it, and he would strut home to his wife, flourish his club to the tune of, "Git a move on you," and it was moving day.

Now, though there might have been some drawbacks to our prehistoric friend's manner of life, there is no doubt he could lay a fairly real claim to independence. He did not need a doctor to assure him that his victim was as dead as could be, nor did he need a lawyer to convince a stubborn-looking jury that there was not sufficient evidence on which they could decently condemn a man to cross life's boundary with a rope round his neck. He didn't have to listen to the clap-trap of scheming politicians. Banking institutions, insurance companies, armies, navies, were not in his line of business. He had nothing to lose but his life, and when he lost that he was past worrying about it.

I have heard it said that a farmer is the most independent man on earth, but, in the light of the foregoing illustration his independence looks as if it needs to undergo a process of renovation, and for the life of me I can't imagine where the idea started from, unless it sprouted in the days of the pioneer farmer who hewed himself a home in the forest and reared a lusty family without the aid of grape-nuts, shredded wheat biscuits, postum, baby's own soap and tablets, dustbane, blue jay bunion plasters, Eaton's catalogue and other little conveniences.

Since those days, however, insatiate progress has been busy, and sad is the farmer's lot. Wherever he turns he's confronted with the word *Must*. Each morning, each evening, he must tune his vocal organs, and croon soft lullabys to a scrawny lot of cows that, at unexpected times, show their appreciation of his efforts to charm an extra pint of milk from them by giving him a fearful wallop in the eye with their respective fly-swatters. He also must scratch pig's backs to put them in that contented frame of mind which scientists assert is necessary to the profitable assimilation of the soothing mixtures he administers thrice daily. He must pay frequent visits to the poultry house, and lecture a bilious looking flock of hens on the sin of clucking when it's eggs they should be laying. He is the motive power that must propel cream separators, wheelbarrows,

lawn mowers and sometimes washing machines. He must rock cradles, and fill wood boxes, and otherwise play a meek second fiddle to a dearly-beloved who yields her dominion over him only at brief monthly intervals when the milk or cream check arrives.

It must not be thought, however, that the good man is deprived of all liberty; he enjoys a few privileges. His ancient right to grumble at the weather has, as yet never been questioned, and, to give him his due, he makes a good job of it; for he growls when it's sunshiny, growls when it's rainy, and when it's neither he gravely shakes his head and gives an extra grunt or two for luck. He also enjoys the right to conduct his farming operations according to the light of his own good, bad or indifferent ideas. He may, if it so pleases him, when one of his horses "cuts up on him" show it where it "Gets off at" by means of a barrel stave or handy piece of scantling. The same process serves when he lets a pail of milk slip from between his knees, and he blames the cow for it. To see him at his best, though, when he musters all his privileges into one grand exhibition of sound and action, be near when he is trying to persuade a few pigs for market to walk up a gangway into his wagon; but as you value life keep out of his way and on no account whatever offer advice.

Seriouslyspeaking, it's a wonder our farmer is not of a more violent disposition than he is, considering the manifold vexations of the spirit he suffers, and the somewhat doubtful quality of his little privileges, but, as a rule, he manifests a spirit of fatalistic resignation to circumstances that would do credit to the most devout follower of Mahomet. Of course, he indulges in a little desultory grumbling and uses some flowery language at times, but he generally ends up with a sigh of "What's the use, let'er slide."

As an example of the kind of thing he bumps up against take when he, with dreary visions of to-be-paid rents, taxes, wages, promissory notes and other little bills, ventures out with wheat into the wide, wide world of big business where merry millers are waiting eagerly for him.

It used to be in the good old days, so I am creditably informed, that a farmer could take his wheat to the mill and have it ground for himself on the done-while-you-wait plan. For every five bushels the miller exacted a toll of one-half bushel, more or less. Probably it would incline to more, but no matter, the farmer got all the rest in the shape of flour, bran and shorts. He also enjoyed a holiday and a good healthful gossip. Now that is what I call a good, honest business-like deal, with no cards up anybody's sleeve.

The farmers and millers of to-day are still doing business with one another, only a little differently, with the difference going into the miller's capacious pocket. The miller says: "Bring on your wheat," and the farmer thinking of some voracious creditor he must satisfy, quits looking at his pet "wait-a-while," flower and says, "Guess I'll have to." And so there is an exchange of wheat for cash, which on the face of it is sound business. But the farmer at times needs flour, needs bran, needs shorts; of course, he can get them but he must pay cash for them. Well what, say you, can be better than that, business on a cash basis. But it so happens in this case that the cash is all on the miller's basis, the farmer has nothing to do with it; he accepts whatever price the miller sets on his wheat, and buys his flour, bran, shorts to the same tune; in short, he sells for what he can get, and pays his own expenses, and buys at a price that pays the other fellow's expenses, a most beautiful arrangement for the merry miller, who grins cheerfully as the dollars pile up in his profit pail.

I suppose, though, even when I have proved to my own satisfaction that a farmer is a dependent, there will be some contrary beggar who'll wink, significantly tap his forehead, and pityingly murmur, "His parents must have been crazy too." But, take no notice of him, for it's more than likely he's one of those enthusiastic back-to-the-landers whose soul has been fired by some real estate agent's glowing account of the independence of a man who owns five acres, a Jersey cow, ten hens and a bee. He would laugh scornfully if I were to advise him to take a walk by the banks of the river "Slow" where soft "Go-easys" grow, and stay there till his mind became adjusted to the fact that the only independent farmer on earth is the arm-chair one who smokes, and nods, and dreams in the town of "Yawn." York Co., Ont.

R. WATERMAN.

Potatoes and Beans.

Judging from appearances some of the propaganda regarding an increased planting of beans and potatoes must have had the desired result, for on almost every farm in Old Ontario one sees if not more acres at least more rows of potatoes than usual, and farms which never grew beans outside of the garden patch before have this year a few acres or a few rows of field beans. Besides this, nearly every house in village, town and city where any ground at all is available has its backyard garden, and many are the excellent patches of potatoes and small garden stuff which have resulted either from the increased call for greater production, or from the high prices which have obtained for these products during the past months. Whether for patriotic reasons or for their own selfish benefit or for both, the Ontario farmer and the Ontario villager and townsman has evidently put forth every effort this year to grow beans, potatoes and garden truck, and to their credit be it said that for the most part they are looking after their plantations very well, and with anything like favorable weather potatoes should be particularly abundant, beans more so than usual, and all kinds of the smaller garden truck produced in un-heard-of quantities. This will have an effect on food supplies. While most of these are perishable products good only for a season, they will release for export or for carrying over cereal grains and other food products which may be kept. No one can estimate the value of the extra rows of potatoes, the extra rows of beans, and the extra garden truck put in on the farm and in the back-yard gardens this year. At any rate a large percentage of our population will have a plentiful supply of garden vegetables, where if they had not grown them they would have done without in many cases rather than buy. Let us hope that from year to year gardens and garden crops become more popular.

Four-Horse Teams and Tractors.

Reports from the various districts Canada over show that the season is in the neighborhood of two weeks late from one end of Canada to the other. Unless something unforeseen in the way of unfavorable weather with intense heat and drouth follows very closely upon the protracted wet weather we have had, harvest will be a little later than usual, and unless the weather continues open later in the fall a correspondingly shorter time will be left for the after-harvest cultivation and plowing in preparation for next spring's crop. If the effort put forward is to accomplish all that is hoped for, more tractors and more farm power will be necessary this fall. Where farms are not so situated as to be able to employ a tractor to advantage more horses will have to be used in the teams to get the necessary power to pull two-furrowed plows and wider implements. We have always favored plowing two furrows at a time, and only under special conditions will it be at all advisable to use single plows this fall. Of course, where a man has a small farm and can do the work he has with a single plow the case is different, but even then he might get his own done more quickly by the use of the two-furrowed implement and give the land a thorough top cultivation, in many cases where land is heavy, ridging up late in the fall. At any rate he could plow his land twice where he might only get over it once with a single

plow. Four-horse teams and farm tractors will be easier got than extra hired men this fall, and at least the teams with the wider implements will be more profitably used.

An Abused Implement.

The farm wagon is about the most abused implement on many farms. From the time the snow begins to go off in the spring until it is put away early the next winter many a wagon is not under cover, and too many neglect to grease their wagons as they should. It is hard enough on the running gears to have to carry heavy loads when well greased, but it is much worse on both wagon and team to have the axles dry. Tires also are very often allowed to become too loose, and the whole wheel or wheels are in danger when such is the case. Loading wagons with loose tires heavily is a big strain on them. Every farm has a barn, if not an implement shed, and after using the wagon it should be placed under cover. We have seen wagons which had been painted yearly for many years and run nearly two decades and still good, while others just as satisfactory in the beginning have gone to pieces in a very few years through neglect.

Let the Hay Fork Help Mow Back.

About the time this reaches our readers haying will be in full swing. Most barns are now equipped with rods and hay-fork outfits. The problem of mowing back the hay is not as difficult to solve as it was in the old days when it went back small forkful by forkful. As a general thing, there is plenty of time in the winter to get the hay out of the mow, and, such being the case, most farmers are not so particular about putting it in so that it will be easy to get out when feeding time comes. To facilitate matters in harvesting the crop as much of it is generally pulled in as possible without any mowing back, and then the big bundles from hay forks or slings are rolled down from the center to outside of the mow. If a man can be kept in the mow when the bundles are going up and after the centre has been filled up pretty well, he can so swing them with a pitch fork before they are tripped that they will very often roll to the extreme outside of the mow. It is necessary to have hay fairly dry to put it in this way else some heating will take place where it drops, but for the sake of speed in harvesting where help is scarce this method is a good one. Of course, if grain is to go on top of the hay it should be levelled off at the finish, else it will be difficult to get out at threshing time.

Pull or Smother Twitch.

One of the worst weeds the farmer has to combat is twitch grass, and it seems to be gaining yearly. Cultivation and smothering crops are the only means of getting rid of it, and even then a few of the running root-stocks may remain to start new patches of the pest. The disk harrow and the broad-shared cultivator are not the best implements to fight this pest. We prefer the spring-toothed cultivator with the narrow teeth, as it is better to pull out the roots rather than cut them out or cut them off in any way. Frequent cultivation is necessary at any time, and in a wet spell the roots should be

stirred up and pulled out after each rain. Where the grass is thick and the roots have spread thickly through the soil after a thorough cultivation a horse rake is sometimes used. Where this system is followed always take the precaution to burn the root-stocks when dry. Buckwheat is very often used as a smothering crop, and it is not too late to sow it thickly for this purpose and to plow in later in the fall, particularly where time will not be available to continue thorough cultivation throughout the summer. Rape sown at the rate of 1½ pounds per acre in drills is also effective in combatting this weed, which also must be fought with a short rotation of crops.

Use a Skimmer.

Indications point toward the sowing of an increased acreage of winter wheat this fall, much of which will go on sod land. Remembering the difficulties of getting wheat in last year and also keeping in mind that any land prepared for wheat, and particularly sod, generally gives the best results when plowed early and thoroughly cultivated before sowing, our advice is to plow the sod as soon as the hay is off and work it down immediately. A better seed-bed will likely result if the skimmer is used on the plow and the furrow turned a fair depth so that sufficient soil is loose on top to thoroughly cover and mulch the wheat. The skimmer is an attachment which does not get the wide use which its importance warrants that it should have. Much sod requires a great deal extra after-cultivation, because it is only turned over, sometimes carelessly and without the use of the skimmer, and press of other work leaves it as the plow turned it for some time before the disk and harrow can be used and the seams grow up with grass. The skimmer, well set, would avoid this and would turn under not only grass but all weeds and undesirable vegetation. It will make the plow draw a little harder but put on the horse-power and do the work right.

A Road Supervisor Necessary.

One of the biggest drawbacks to the making and maintenance of good roads under the statute labor system is the changing of pathmasters from year to year, and yet in some places all the work would go on one strip of road where the pathmaster is not changed, for there are still many who would, year after year, put all the road work of the beat as close to their own places as possible, or at least on those parts of the road which they themselves travelled most. If all those living on the beat had the same selfish disposition and the job of pathmaster started at one end of the beat and went from farmer to farmer annually until the other end of the beat was reached, and then started back over the ground again, all the road would be sure of getting some work done upon it. No such uniformity of system and selfishness could be worked out however, and if it were, probably no two of the pathmasters would have the same idea as to the proper methods of road construction and maintenance. There seems to be only one solution of the whole problem, and that is to have a permanent road supervisor in each township with power to plan construction and maintenance and say where it should go in each beat.

Canada's Young Farmers and Future Leaders.



A Well Graded and Attractive Country Road.

The sod shoulders are removed, giving a gradual slope toward the ditches.

Departmental Farming.

EDITOR "THE FARMER'S ADVOCATE":

Many farmers succeed financially and steadily enlarge their business until middle life is reached, then meet a serious difficulty. The members of their family are approaching maturity, and are beginning to map out their own careers. The boys have been the chief standbys in the farm work, but now they are considering leaving the farm, and more or less uncertain hired help must take their place. The father realizes that his responsibilities and cares will be much increased at a time when he would like to decrease them by placing part of them on younger shoulders. The boys, too, have fairly earned a portion of what he holds, and are in justice entitled to a portion, as they start for themselves on other farms or in some other line of business. The usual result is that either a division or a sale is made. The father either retires or continues on a smaller scale, with less enthusiasm and with less incentive to improve.

Would it not be wiser in such cases to continue the natural development, and to increase its speed? It is human nature to wish to improve. Not many boys worth sand, are willing to simply fall into step with father and travel at his pace for the rest of their days. To be simply a workman on father's farm does not appeal to them. Most boys, if they are to remain, desire to feel that they are adding some new element to the farm.

If, while the boys are still young, the father studies the preferences of each, carefully educates each along the line of his natural bent, and leads their minds in the right channels, he will, in most cases, be able to commit the care and oversight of one department of the farm business to each of his sons as they reach maturity, and instead of selling out or dividing up he can enlarge his business, adding new lines and having less care as to details resting on him. In one case one of the boys

has a natural taste for dairying, though dairying was not formerly followed. This boy was encouraged to start while quite young on a small scale; though the profits were common property in the family he felt it was his venture, and taking an interest in it, it is easy to lead him to learn all he can about dairying, and if he looks forward to having full charge of an up-to-date dairy plant on his father's farm he is not likely to wish or to plan to leave the farm for anything else. As soon as his work is enough to occupy all his time he should be released from other occupations and allowed to devote himself to his chosen line and given every chance to perfect it. If in the course of time his plant becomes large enough to need an assistant he should be given such help as far as possible under his own direction without complication with other farm activities.

Or it may be a hog business is preferred, or poultry, or horse breeding, or grain growing, or possibly he wishes to combine two or more of them, or where there are several boys in a family they are likely to select different departments, and a little judicious suggestion and leading by the father during his sons' boyhood will mean that in a few years he will have an expert at the head of each department of his farm work, each assuming the care of the routine while the father, as general manager, keeps an oversight over all.

The term mixed farming is dangerous. What we want is departmental farming. The term "general store" suggests a little one horse affair run on the lines of the

business of 50 years ago. A "department house" suggests something larger, but more particularly up to date. Our farms should not lag behind. While our boys see with the instinct of youth, which perceives but does not analyze, that the town is ahead of the country, they want to go to town. When, however, the boy has a chance to become a partner and a department manager in a farm business more strictly up to the minute than any other business he knows of, you could not chase him from the farm with a club.

No farmer can excel equally in all departments of his business. If each son goes farming for himself each may excel along one line, but none of them in all. Even in the same family they are more likely to excel along different lines than for all to have the same preference. If among three brothers one is pre-eminently a grain farmer, one a dairyman and the third a hog raiser, how much more economical would their production be if they combined, and each took charge of that part for which he had most talent, and let others look after what was less congenial to him but important to them.

Alta.

S. NICHOLSON.

A Good Investment.

On a trip through the country one day recently we passed a farmstead where three calves were tethered to trees in an old orchard. It was early in the morning, just about the time the average farm calf is fed, and

we were pleasantly surprised at seeing three quite small children, two boys and a girl, busy feeding the calves. Each had a pail, and to all appearances each had his or her own calf. Up bright and early, dressed and ready for the day, the first job was tending to the calves. These were the children's own calves. They were as interested in them as the farmer himself was in his well-kept farm. They were competing one with the other in an effort to produce the best calf and win a premium of \$5 which their father had promised the one of the three who succeeded in having the best grown and thrickest calf in the fall. The father knew and understood the child mind. He had not forgotten the days of his boyhood when a five-cent piece looked like \$100 to him. He understood also that defeat might bring discouragement, so he made prizes of \$3 and \$2 respectively, as second and third premiums for good work. And besides each child was to permanently possess the heifer calves so raised. It was not to be a case of Johnnie's calf and father's cow. The children knew their father would allow them to keep their calves until mature, and after if they wished, or if they chose to sell to have the money their very own. The father called it a good investment. For three calves he had built up an interest in cows, dairying and general agriculture in three young minds. He figured that it was well-spent money. He advises the children to hang on to their heifer calves. They are learning as they go. Is he right?

Automobiles, Farm Machinery and Farm Motors.

Controlling the Power.

Even the veriest tyrant knows that momentum is secured from an automobile by power developed through the engine and transmitted to the wheels which, in spinning, push the machine along; but perhaps it is not a matter of common information that a power plant cannot be started under a load without disastrous results. It is, therefore, necessary that in order to move your automobile, the engine should first be started, and having been gotten in operation, connected by a simple system, with the rear wheels, at a time when it has given sufficient energy to undertake the responsibility attached to moving the car and its contents. Hence it is necessary to have what is known as a clutch, and for the purpose of this article, we shall refer to the cone type of clutch which is usually built with a leather facing that operates against a conical surface in the fly wheel. The mechanism is under the guidance of the driver through a pedal projecting through the foot board. The cone of the clutch is equipped with small springs around its face, and these press the leather out at their respective points by the use of coil springs. The clutch is brought into contact with the flywheel, and when they have been properly engaged the clutch and flywheel turn as if integral, or, in other words, as a unit operating in such a manner that they send the power to the rear axle and through it to the wheels. You can now see that by engaging the clutch you connect up the force of the engine and that by slipping the clutch you break what might be called the circuit. It is well, when you are driving your car, to always keep your foot upon the clutch pedal in order that in a case of emergency there may be no inaccuracy about your movements or any clumsy work. A good cone clutch does not demand a great deal of attention, but we would strongly urge you to bear this in mind constantly that no oil or grease should be put into the clutch housing. There is nothing there that requires lubrication, and as a matter of fact, both oil and grease cause a clutch to slip. Should you make this mistake, however, a little Fuller's Earth will remedy the difficulty. It is also well to remember that when the clutch leather becomes stiff and dry, some Neats foot oil will soften it and add greatly to its gripping qualities.

The transmission is vitally associated with the clutch, because it is through the change gears of the former that the latter is able to work. Before going any farther, we should make it plain that an internal combustion engine develops power in direct ratio to its speed. This may be made very clear by stating that if a power plant gives five horse-power at two hundred and fifty revolutions, it will give double the amount at five-hundred revolutions. Such a condition means that the harder you speed up your engine the more power you are going to develop up to a certain point. Of course, you will understand that you cannot go on indefinitely increasing the number of revolutions, because if the speed became terrific the construction of the engine would not stand the strain for any considerable length of time. Manufacturers usually state, if asked to do so, the limit which their output can attain. The perplexing problem, in connection with an engine, rests upon the fact that sometimes a great deal of power is required to get a high speed, and upon other occasions, just as much to move very slowly. You can easily grasp the idea that asphalt is much preferable to a deep, rutty mud hole. In order to be able to deliver the power of the machine to the rear wheels in such a manner that great power can be given for low speed or for high momentum, it is essential that there be change speed gears built on what is called a transmission. This word transmission comes from two Latin words, "trans"—across, and "mitto"—to send. By these change speed gears, the power is regulated in its delivery. In the selective sliding type transmission, there are usually two shafts, one above the other, in an oil-tight casing. The lower, or counter shaft, contains four gears and the upper two, the lower

ones revolving as a unit and upper ones working independently. With these two shafts and gears it is possible to develop the three speeds ahead and the reverse. The transmission gears are made of the very strongest alloy steel known to the automobile business and the teeth are beveled. Both these precautions have been taken in order that the gears may be able to mesh readily and noiselessly. It is essential, for easy operation of the gears, that the clutch be handled with precision. You can easily believe that it is going to be dangerous to have the edges of the teeth grind each other before becoming engaged.

AUTO.

Mower Troubles.

Heavy draft may be caused by: (1) poor lubrication; (2) dull knife; (3) non-alignment.

The first two are easily understood, but the third is often overlooked. The sickle and pitman should work in a straight line. If the outer end of the cutter bar has dropped back, power is consumed by increased friction. Non-alignment is caused by wear in the hinge joints between the cutter bar and the mower frame. Some mowers now carry special aligning adjustments so that they change the position of either the inside shoe in relation to the yoke or the yoke in respect to the drag or push bars. Such adjustments change the angle between the cutter bar and the pitman at the hinge joint; if they do not change this angle they are not true adjustments.

Uneven Stubble and Side Draft.

Such troubles are very common and are due to poorly adjusted cutter bar parts. Think of a pair of scissors. If the blades are held close together they cut well and a

clean cut is easily made. Loose shears will allow the material to wedge with the result that it is chewed off. The same thing applies to the cutter bar parts of the mower. When the sickle sections are held down close to the ledger plates of the guards, the stalks are easily cut, but the moment the sickle is forced away from the ledger plates the grass begins to wedge and trouble results. Bend the blind section up to hold the knife down against the ledger plates. Failure to do this causes extra draft as well as side draft, because the cutter bar is kept dragging. The remedy is up to the farmer when necessary to replace badly worn clips.

Causes for uneven stubble and side draft are: (1) guards out of alignment; (2) badly worn clips; (3) loose sickle sections; (4) sickle not centering (not "timed").

If a guard is bent down, its ledger plate is carried away from the sickle, if it is bent up, it forces the sickle off the adjacent guards and the shearing action is affected. The guards are malleable and will not break when hit with a hammer. If a clip has been hammered down too far, it can be easily brought back with a cold chisel. New clips are the surest method of clip repair. If the sections of a sickle have become grooved by the clips, it may be necessary to bend down new clips after they have been placed. Of course, this cannot be done on cutter bars using both old and new sickles, they have to be adjusted for the newest sickle. Emphasis must be placed on the necessity of preventing binding. The extra draft due to the sickle binding may very easily become more objectionable than side draft.

Uneven stubble and side draft resulting from a loose sickle or guard, can be detected easily by long and ragged stubble left at any particular point along the bar or by the rattle of the loose parts. The remedy is obvious.

The sickle not centering is a cause of uneven stubble which is often misunderstood or overlooked. At the end of the sickle's "out" and "in" stroke, the points of the



Soldiers Do Harvesting in Europe.

sickle sections should come to rest in the centre of the guards when the sickle is said to "register".

Two common causes for this trouble are: attempts to align the cutter bar by lengthening or shortening the drag bar will throw the sickle off centre and conversely, it can be centered by this adjustment. By replacing the pitman by one of a different length. Some pitmans are easily adjustable.

Undue wear on the outside clips and the centre wearing plates is caused by the cutter bar arching in the centre due to the lifting spring being too tight. These are some common mower troubles.

THE DAIRY.

The Dairy Cow and Greater Production.

EDITOR "THE FARMER'S ADVOCATE":

War times emphasize the importance of food production—how many people can we feed from an acre of land? Looking at the problem from this angle many are apt to become panicky and think only of food in terms of wheat, potatoes, beans, etc. True there is a certain degree of efficiency in such a course if only followed for a year or two, but any farmer knows there is a limit to it. If he is to preserve a proper balance as to labor, fertility and permanency of production it is essential that at least, a part of the crops grown be animal food products. For instance, there is no better avenue for this purpose than the dairy cow. Three-fourths of the feeds consumed is returned to the land in the form of fertilizing materials, while she produces many times her weight in highly nutritious and easily digested food products. Milk is nature's most perfect food. In food value, one quart is equal to eight eggs, three quarters of a pound of beef and four fifths of a pound of pork. Moreover if the consumer takes the trouble to compare the cost of these commodities he will find the milk he uses is by far the most economical material that comes to his table. The same principle holds good in regard to other dairy products such as butter, cheese, ice cream, etc. A dairy cow giving 8,000 pounds of four per cent. milk in a year, produces as much food as will four 1,250-pound steers in two years plus a heifer calf to replace herself. This meritorious performance she stands ready to repeat for a decade or more. In what better way can the patriotic farmer answer the call of more production than by building up and giving careful attention to a herd of high-class dairy cows?

The quality of the animals will, however, avail but little if close attention is not paid to the many little details. At this time the rich luxuriant pastures that have kept up a heavy milk-flow may be getting tough and unpalatable. If a drought occurs, which may reasonably be expected, the trouble will become more pronounced. I doubt, if farmers generally, realize what a strenuous time the cows have trying to exist in the brown, bare fields during late July and August. It is claimed that to get her fill, a cow will consume upwards of a hundred weight of grass. Suppose the owner tried pushing a lawn mower until he had accumulated that amount. It would be an eye opener that ought to induce him to make some sort of provision to help the cows out if more production is what he is after. The man who has been long-headed enough to have reserved a few feet of silage for the occasion will reap the returns of his forethought. There is no supplementary feed to which the cows will respond more readily. Last summer was the first time that I was fortunate enough to have a generous supply on hand, and the appreciation of the cows was certainly reflected in the milk cheques. Previous to this we had tried pretty nearly every kind of soiling crop, including

clover, alfalfa, peas and oats, millet and corn. All were good but required an immense amount of labor. With recruiting as the order of the day, the hired man is more interested in getting the Kaiser's goat than in getting feed to the cows. Lacking the left-over silage, a very good one-man system is the annual pasture of oats and sugar-cane, provided, of course, one has such a crop coming on. Personally, I found this the best milk-producing combination of the whole lot. It is surprising how many head of stock such a field will carry and how long it will last.

The fly nuisance is another plague. No matter how effectually the drouth has been checkmated, these two evils go together and each requires its own remedy. You may feed a cow to the limit, but if something is not done to chase away the flies she will fall below par in her milk yield. If you want apples you must spray your trees; if you want all the milk a cow is capable of producing she must be similarly treated. The trouble is an effective spray material is too expensive. The cheap brands are no good. A smearing of tar and grease, while more troublesome to apply, gives good results. Fish oils answer the purpose very well and may be substituted, if desired. Tar used alone is a little too hot in summer, and is disposed to scald when the sun is on it, but one part of tar and two of thick oil or one of a thinner kind is all right. This mixture will keep the flies at a respectful distance, and they will soon be glad to pass on to a more savory victim.

One of the best methods of increasing cow comfort during the hot, dry days of late summer is to put them into a cool, darkened stable during the day and turn them into the pasture at night. By thus escaping the flies and the heat the milk is maintained to a much greater extent than would otherwise be possible.

Free access to water and salt is also essential for the best results.

Of course all this means some trouble, especially with the existing scarcity of labor. It is however, a "win the war" necessity and a patriotism that stands for economic betterment.

J. H. MCKENNEY.

Elgin Co, Ont.

Cream Tests Vary.

Everyone familiar with the farm separator must acknowledge that it is one of the most highly perfected pieces of farm machinery in use. But it is expecting too much from even such a perfect machine to think that the same tests will result week after week and season after season, when there are so many variable conditions which will cause differences in richness of cream.

Aside from any differences that will be caused by change in cream screw or skim-milk outlet, from wear or mechanical adjustment, any one of the following factors will influence the resulting test from a comparatively low to high percentage:

Variation of the temperature of the milk when separated.

Variation in the test of milk.

Changing speed of bowl.

Rate of inflow of milk into bowl.

Amount of skim-milk or warm water used in flushing the bowl.

Neglect to keep separator bowl and working parts thoroughly clean.

With these many influences continually changing to a greater or less degree, constant tests are more to be feared as results of inaccurate work than are varying tests.—R. McCann, Colorado Agricultural College.

New Chief Inspector of R. O. P.

The Minister of Agriculture, Hon. Martin Burrell, has promoted C. S. Wood to the position of Chief Inspector in the Canadian Record of Performance to suc-

ceed the late Dan. Drummond. Mr. Wood has been an Inspector on the staff of the Canadian Record of Performance since 1911. He is a veteran of the South African War, having served with Brabant's Horse, a Colonial Corps. He returned to Canada in 1901, and has occupied the position of dairy herdsman for three years on the farm of Robt. Reid & Co., Hintonburg, for four years at the Ontario Agricultural College, Guelph, Ont., and for six months at the Central Experimental Farm, Ottawa, Ont. He took the Short Course in Dairying at the Ontario Agricultural College, and for three and a half years was permanent Official Tester in the Dairy Department of the College, during which time he acted as Inspector on the Record of Merit work for the Holstein-Friesian Association. Mr. Wood is a thoroughly practical dairyman, and in connection with his public work has gained a recognized reputation as an expert judge and feeder of dairy cattle, and as a specialist in matters pertaining to milk testing. The qualifications he has exhibited in these and other directions since his employment in the Federal Service have commended him to the Minister in connection with the appointment to his present position.

POULTRY.

Cull the Flock.

The urgent need of conservation demands that all poultry not paying its way in either eggs or growth be killed for eating. The present high prices of feed also make the keeping of such classes of poultry decidedly unprofitable as well as unpatriotic. Therefore, for your own good and for the good of the country, kill them. There are in every poultry yard birds that have outlived their usefulness and others that will never pay their way, these might profitably be finished and marketed, not necessarily all at once but as soon as practicable, taking into account the market, etc.

In these classes might be mentioned, in the order in which they should be disposed of, the following:

1. MALE BIRDS.—The breeding season being over, all males should be culled and killed. It will cost \$2.00 or over to keep each male until next breeding season, therefore, get rid of them, it will also be better for the layers, the eggs and the growing chicks.

2. TURKEYS AND WATERFOWL.—Toms and turkey hens, geese and ducks, not absolutely needed for next year's breeding should be disposed of.

3. HENS.—All hens of the heavier classes that are 2 years old and over might better be marketed now. In even the light classes many of this age ought to go. Others that are laying but that are not worth keeping for another year should be kept until the egg yield does not pay for the feed. Better still keep culling out those that show signs of early moulting as you go along.

The best of the one and two-year-olds of the lightest breeds might pay to keep all summer but only the year-olds should be kept over winter and even these will stand culling fairly closely.

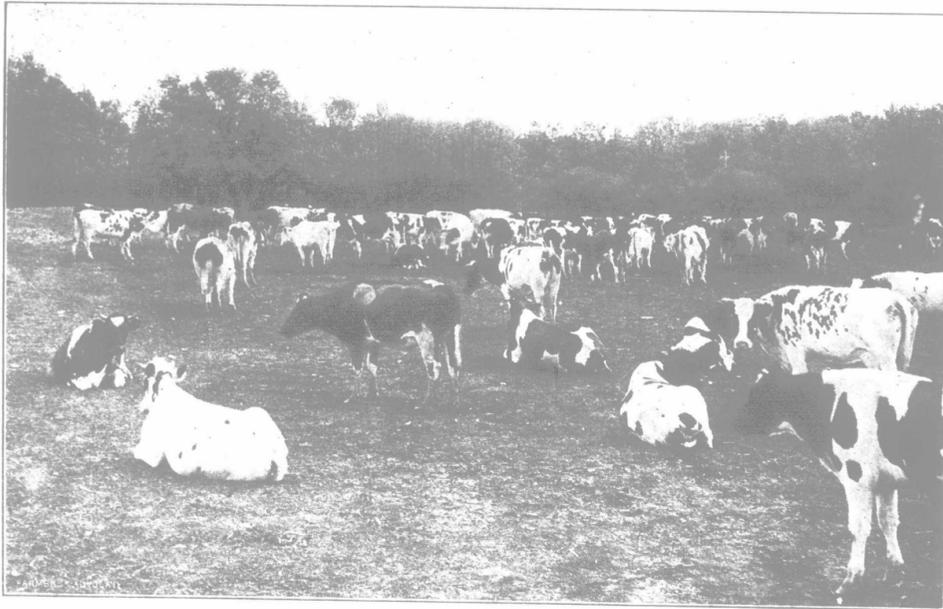
4.—BROILERS.—If broilers are early it pays best to sell the cockerels when two or three pounds in weight rather than to keep till heavier. This is especially so when the sexes cannot be separated and where the runs are small, the pullets will soon require all the room and green feed available.

Light-breed cockerels should be sold early; it seldom pays to feed them to maturity.

5. ROASTERS.—Don't leave the marketing of all roasters till late in the fall. Distribute this sale over as long a period as possible. Never market without finishing.—Experimental Farms Note.

Take the Chicks to the Corn Field.

In farm poultry work too little attention is very often given to the young stock. While they have plenty of free range in most instances the best use is not made of the farm for raising chicks. No better place is available than the farm for raising young chicks but too often they are placed on the same ground year after year, while better land more suitable for their rapid growth is left unused. Every farm should have a few colony houses which would make it far easier to obtain rapid growth in the chicks. These houses which have been described many times in this paper, cost little and can be drawn from place to place, and at this season of the year should be found at the edge of the corn field. Many farms could grow several times the number of chicks now produced if a colony-house system were followed in the summer. Hatch the chickens either by incubator or with hens and put them with a hen in the colony house, fastening the hen in and leaving the chickens have free range. When the corn is large enough move the hen and her brood to the edge of the field. The youngsters will pick no inconsiderable part of their living for the remainder of the season from the freshly cultivated soil and the corn will produce shade necessary to rapid growth in hot weather. To facilitate feeding, hoppers such as that recently described in this paper can be used. These filled from time to time with the regular grain used for growing chicks on the farm permit of the chickens very largely feeding themselves, the whole making for rapid growth and cheap returns. The colony houses can be pulled up to the buildings in the fall and used for feeding cockerels, special matings in breeding stock and even for wintering over some of the pullets or year-old hens if necessary. They do not need to be expensive, may be built of matched lumber, or of rough lumber covered with a building paper. If used for winter some glass or



It Costs No More to Pasture Pure-breds than Scrubs.

cotton is necessary for light which in some houses only used in summer is obtained only through a wire door. Plan to try the colony house next year if you have not already done so, or perhaps you can hasten the growth of the chicks from now until fall by putting them in one at the edge of the corn field. Remember that it is necessary to keep the hen with the chicks until they have feathered out and have become accustomed to going to their own colony house to roost.

More Hens for the Farm.

Every farm should have a profitable flock of hens and most farms should have a larger flock than they now carry. As a general thing too little attention is paid to the hens by the busy farmer, and his wife often have little time to devote to their care. We believe that the average Ontario farm could well carry from 100 to 200 hens, and to make the most of the venture they should be pure-bred. Some would keep about 100 hens of a recognized general-purpose breed, preferably of a bred-to-lay strain, and at the same time would have another pen of White Leghorns or some other non-sitting breed. This would necessitate two pens, but these would not be costly if built on the 20 by 20-ft. plan recommended by Professor W. R. Graham. In the neighborhood of 100 hens could be kept in each and the two breeds kept separate in the breeding season. As a rule the non-sitters are the heaviest summer layers and the bred-to-lay strain of the general-purpose breed would likely be found the most profitable producers of winter eggs. However, neither would be a bad investment summer or winter for both would lay fairly well the year around if the proper care were taken in selecting and breeding, as well as in feeding and raising. Too many farm flocks are composed of a large percentage of old hens. On many farms a hen is allowed to remain in the pen until she dies of old age, which means a distinct loss in feed and care, for the average hen will produce the maximum number of eggs in her pullet year, a few less in her second year, and never should be kept beyond that time unless under special conditions as a breeder. By keeping the two classes in equal numbers a high-class, commercial egg trade could be worked up and a supply guaranteed the customers the year round. This would necessitate the early hatching of chicks so that winter production of pullets would be at the highest point. The Leghorns would look after the production in summer very well, and if early hatched are very good winter producers as pullets. More dependence however, would be put in the bred-to-lay strain of the general purpose breed for winter eggs, and for summer eggs the lighter breeds of non-sitters would produce maximum numbers.

We would have both pens pure-breds of a high order as far as egg production is concerned. This we would favor because it would give us a chance to raise our own stock each year from the best laying hens of the respective breeds and so to improve the stock as years go by. Also, from this kind of stock there would be a demand for eggs for hatching and possibly some day-old chicks. However, this latter business would not be advisable for the farmer only where sufficient help was available within the family to properly look after incubators and brooders on a fairly large scale.

Poultry under such conditions should be made a very profitable sideline on the farm. The demand for high-class eggs is good the year round. Hens on the farm have free range available, plenty of green feed is within reach the year around at minimum cost. Poultry-house construction is cheaper than anywhere else because the farmer can draw his own materials and very often with the type of house recommended practically put up the building late in the fall or early in the winter when the rush of other work is past. With two hardy breeds selected, with emphasis on the commercial side of the business, (specializing in eggs) a ready and continuous market is available and maximum returns are assured with a minimum outlay.

Egg Preservative.

EDITOR "THE FARMER'S ADVOCATE":

One pint freshly slaked lime; ½ pint salt; 3 gallons boiled water. Stir till all is dissolved. Then pour liquid into a large stone jar and when it has stood over night or is cold place in the eggs. Eggs may be removed from the liquid any time with impunity for breaking the crust on the liquid does no harm. It soon forms again. We find this an excellent way to keep eggs. Eggs will keep well for a year and more. Just now in July we are using eggs thus preserved for poaching and frying and the flavor, texture and appearance is not impaired at all. I commend it to you for a trial.

The kind of eggs to pack:—

(1) Only infertile ones should be used. A fertile egg adds nothing to the food value but rather detracts and may result in most untoward conditions. Separate the roosters from the hens while collecting eggs for preservation.

(2) Wash all dirty eggs and remove straw stains from shells before putting into the preserving liquid. Here is a case where it does not injure them to wash them.

(3) Choose eggs of uniform size.
Lincoln Co., Ont. F. M. CHRISTIANSON.

Last Week's Egg Situation.

The egg market last week gathered strength daily. Export enquiries combined with the rapid falling off in receipts gave a firm tone to the market. Buyers are again becoming active. It is reported that more business is being transacted on local account than was the case two weeks ago. The export outlook is quite encouraging and conditions generally are being reflected in the increased prices now being paid at country points.

Reports week before last and over the week end showed quite a wide spread in price at country points. The lowest price reported was at Madoc, Ont., where producers were only able to obtain 23c. a dozen, and that in trade. Producers obtained as high as 32c. some Ontario points, the general range, however, was from 27 to 30c., with 25c. at some points. The tendency was for 30c. to become general toward the latter part of the week. Last week dealers were offering from 31 to 32c. f. o. b. country points. It is reported that in some instances more is being paid in order to obtain supplies. In Western Canada 25c. is the prevailing price in Manitoba and Saskatchewan and 25 to 30c. in Alberta. British Columbia shows a wider range, eggs retailing on Victoria market from 40 to 45c. a dozen, stores at 45c. to 50c., while in some outlying points eggs may be obtained as low as three dozen for a dollar.

The recovery in price at this time is most fortunate, the effects of the depression of the past two or three weeks having become quite noticeable in some districts. Farmers were becoming discouraged and the tendency was to reduce flocks. Considerable movement of live fowl has been reported from some points although in the aggregate receipts of live fowl at larger centres have not been running as large as for the same time last year. This may be accounted for by the fact that poultry flocks last fall received a pretty thorough cleaning up, a large proportion of the old, aged and mongrel stock being disposed of. Laying stock in farmers hands, generally speaking, is younger as a rule than that usually kept, and with encouraging prices from now on producers may be inclined to carry over a larger proportion of this stock than ordinarily. This condition of affairs, however, should not preclude culling. Loafers and non-layers are expensive to keep at any time. With feed at present prices they should be sold off without delay. Careful culling should be followed, however, and in no case should live fowls be sold indiscriminately.

It is said consumption has improved considerably in the larger centres. United States market continued firm. It is reported some uneasiness developed since the American Warehouse Report for July 1st has been published. This report shows 662,300 cases in excess of the same time last year in the 56 houses reporting.

There is no improvement reported in the frozen poultry situation. Demand is anything but satisfactory and stocks are said to be large. Dealers holding stocks in storage claim that they will have to carry over a considerable quantity to next season. This is unfortunate from the producers standpoint as such a condition is bound to have a bearing on prices obtainable for live and fresh-killed poultry this fall.

The market for live fowl is easier as the result of increasing arrivals. Broilers and spring ducks are also coming more freely. A few more old cocks are reported in the receipts and the prices have been shaded to move them.

The U. S. A. poultry situation is easier under heavier arrivals and the unsatisfactory demand for frozen stock, prices of which have been considerably reduced for some varieties without having any appreciable effect on the demand.

The export outlook is encouraging. Not much movement was reported during the earlier part of last week, but toward the end several cars of eggs were reported on the way to the seaboard. More cars are said to be rolling this week. No difficulty is reported in obtaining space and with the falling off in production in England and Ireland the British market should be able to take all of the surplus Canada has available for immediate shipment. Having in mind the difficulties experienced in exporting hot weather States eggs last summer, exporters would do well to take every precaution to safeguard the quality of the Canadian product going forward.

HORTICULTURE.

An Experiment Testing Pruning Methods.

One of the most practical and interesting of the experiments being conducted at the Horticultural Experiment Station, Vineland, Ontario, is that of testing summer-pruned against winter-pruned young apple trees, and these checked against trees that receive practically no pruning at all. For years it has been taught that summer pruning will encourage fruit bearing, while winter pruning will induce wood growth. This doctrine has been accepted almost universally, not because it was amply proven but because it sounded reasonable and, in many cases, ordinary farm practice seemed to bear out the contention. In no other line of agriculture are we asked to accept so much for granted as in fruit growing. There has always been plenty of information, but experimental data to verify the facts (so accepted) have been lacking in too many cases. The tree-pruning test at Vineland is still young, but it is to be hoped that in time some actual results will be published indicating the effects of different pruning methods.

As reported by E. F. Palmer, Director of the Station, the apple orchard at Vineland, in which the pruning work is being conducted, consists of 646 trees of both standard and filler varieties. The orchard was planted in the spring of 1911, and the pruning experiments started in the spring of 1914. Three systems of pruning are being followed: winter pruning, summer pruning, and little or no pruning.

Winter Pruning.—The trees in the winter-pruning test receive the usual treatment as practiced in Ontario, being severely cut back and thinned out in March or April. The object is to form a framework that is pleasing to the eye, and at the same time will carry a maximum load of fruit without damage when the tree comes into bearing.

Summer Pruning.—The summer-pruned trees are well thinned out in August and cut back only enough to keep the tree within bounds, which usually involves simply pinching out the terminal buds from the higher branches. The object is as much as possible to admit a maximum of sunlight and air, to develop as many fruit buds and fruit spurs as possible, but at the same time not to sacrifice the shape of the tree any more than is necessary. Early bearing is the object in view.

Little or no Pruning.—The trees in the no-pruning part of the test receive no pruning whatever except that a few cross and broken or otherwise injured limbs are removed. They are left as much alone as is conveniently possible.

Careful records are made of the size and vigor of trees, blossoming dates, number of fruit spurs and fruit set, quantity of fruit harvested, and comparative size, color and keeping quality of the fruit.

Summary of Fruit Produced in 1916.

Method	Number of trees	Weight of fruit		Average weight of fruits	
		Lbs.	Number of fruits	Lbs.	
Unpruned.....	207	3,260	14,416	.2261	
Winter-pruned....	228	227	781	.2906	
Summer-pruned...	209	1,820	7,169	.2538	

In commenting on this the Director writes: "There appears to be no doubt that summer pruning will bring the young orchard into profitable bearing much quicker than the plan usually followed of heading back severely each year. The unpruned trees, of course, have given similar results, but due to this lack of pruning the trees are not in as good condition for future bearing. They are more straggly and have too many branches, thus not allowing of as free circulation of air or as much sunlight as is desirable for the control of insect pests and disease and the production of best-quality fruit."

Taking the average diameter in inches of the trunks of two standard and two filler varieties as a means of judging the growth made, the evidence is in favor of the unpruned and summer-pruned trees. The trees receiving this treatment are, in all cases, larger than the winter-pruned trees. No conclusions at present have been drawn with regard to the probable results of this experiment. It is now nicely under way, but in a few years' time, when the trees are all bearing heavily, it should be possible for the Director to make some definite statements in regard to these three methods of pruning.

General Notes on the Fruit Marks Act.

The season is approaching when contracts will be entered into regarding sales and packing of fruit. While the majority engaged in the industry have a working knowledge of the Fruit Marks Act, there are those who may be a bit hazy in respect to the meaning of some clauses. Fruit Branch Bulletin No. 1 contains some general notes for the inspectors, growers, packers and apple operators, which help considerably in the interpretation of the Act. These general notes follow:

(A) FOR INSPECTORS.

Inspectors will not examine particular lots of fruit at the request of buyers and sellers. When not under specific directions inspectors will use their discretion as to where they can best employ their time within the district assigned them. Inspectors will avoid anything which would delay unnecessarily the movement of fruit, or which would interfere with the interests of those concerned in the fruit trade, except in so far as action may be necessary to prevent violation of the Act.

Packages which have been inspected are to be closed by the inspector and left in marketable order after examination, unless the owner prefers to take charge of such opened packages.

(B) FOR THE GROWER.

If the grower sells his fruit unpacked the Act does not apply to him in any particular.

If he sells his fruit in uncovered barrels or boxes the Act requires only that the top of each package shall be no better than the fruit throughout the package.

If the grower packs his own fruit he accepts the responsibility of the packing as described in the following paragraph.

(C) FOR THE PACKER.

Section 320 of the Act requires that the person who owns the fruit when it is packed in closed barrels or boxes must mark plainly on each package:

1. His name and post office address, preceded by the words "Packed by."

-2. The name of the variety of the fruit.

3. The grade of the fruit, whether it is "Fancy," "No. 1," "No. 2," or "No. 3." If he marks the package "Fancy," the fruit must be practically perfect as described in section 321 (b) (1).

On reading subsection (b) (II) carefully, it will be seen that the packer should aim in packing grade No. 1 to discard every injured or defective fruit, and not to deliberately include ten per cent. of inferior specimens. This margin is meant to make the work of grading easier and more rapid than if absolute perfection were exacted. Ten per cent. is presumed to be the margin within which an honest packer can do rapid work, using every endeavor to make each specimen conform to the general standard for the grade.

Even the twenty per cent. margin in grade No. 2 must be composed of specimens not less than nearly medium size, including no culls.

The Act makes no restriction as to the quality of fruit which is marked "No. 3."

The packer is responsible if the face of each package does not represent the contents as required by section 321, subsection (e). Over-facing is an offence against the Act, which is most severely dealt with by the courts.

(D) FOR THE FOREMAN OF THE PACKING GANG.

Whether he is putting up his own fruit or that of another person, the man who does the packing is required by section 4 of the Order in Council, printed on page 10, to pack the fruit in accordance with the law. He should read the whole Act carefully, but should give section 321 special attention. If he violates these requirements he is liable to the fine specified in section 5 of the Order in Council.

(E) FOR THE APPLE OPERATOR.

The apple operator for his own protection should see that his workmen are familiar with the Inspection and Sale Act, part 9. Section 4 of the Order in Council is a special protection for the apple operator against carelessness or fraudulent work upon the part of his packers. Where the apple operator buys apples already packed he should note particularly that the fruit is marked as required by section 320.

To avoid possible complications in case of fraudulent packing, all contracts should stipulate clearly whether the apples are purchased packed in barrels or whether they are purchased to be packed by the buyer.

Apples should not be bought or sold with the stipulation "subject to Government inspection." There is no such thing as Government inspection, meaning a "certificate" or "report," guaranteeing the quality of a particular lot of fruit.

The Fruit Crop and the Market.

The war alone is not responsible for many problems in connection with marketing fruit that growers must realize require their serious consideration. The British embargo will not interfere with the movement of tender fruits in this country to any considerable extent because their market is here, but if Nova Scotia, Eastern Ontario and British Columbia have a fair crop of apples and other districts in Eastern Canada somewhere near enough to satisfy their own wants, the situation will be grave. Growers should realize this and prepare at once to meet the problem when the proper time comes. There has been a tendency on the part of authorities and leading fruit growers to under-estimate the significance of the approaching serious situation in the fruit industry. They have been inclined to sit down and say, "It will adjust itself in time." True, it will but this readjustment will mean the neglect of many orchards, the utter abandonment of others and the financial ruin of those small operators who have invested their all in high-priced land and equipment, but through lack of further capital or ability to make the thing go must give up when they expected returns would begin to come in. Even now when driving through the country one can see young orchards set in districts that suffered from the fruit boom about seven to ten years ago ready to be pulled out, root and branch. They have been neglected for the last three or four years. This is the readjustment. While it was to be expected that a large percentage of the acreage planted by professional men and those not actively engaged in any branch of agriculture would never reach maturity, a portion of such plantings have become fruitful. Some of the best small fruit farms in many districts are owned by professional or business men who have followed modern teachings to the letter and, so far as climatic and other conditions over which they have no control will allow, are making progress. However, it is doubtful if these holdings in Eastern Canada at any rate influence the complexion of the market very much. As a general thing, the absentee method of fruit growing has not been remunerative. Fruit growing does not lend itself to such management and branches of the various governments or fruit growers' organizations cannot be blamed for these failures, unless their over-enthusiastic representatives encouraged the indiscriminate setting of trees. This foreign element, as it might be called, in the industry created an abnormal condition which has been partially rectified, and it is now the duty of all

to see that markets are adjusted. The producing end of the business has undergone readjustment enough.

The Small Fruit Situation.

In 1915 approximately 100,000 tons of fruit were shipped out of the Niagara District. Owing to its location as well as climatic and other conditions it will ever remain the leading and predominating small and tender fruit-growing section of Canada. British Columbia has immense possibilities in respect to all kinds of fruit, but the marketing problem is greater there on account of their remoteness from the larger industrial centres of the Dominion. The Western States also provide a very keen competition. There are counties in Ontario, outside of the Niagara Peninsula, where the tender fruits can be produced in considerable abundance, but growers must be particular there in regard to the selection of site, character of soil, protection for their orchards and other considerations upon which they have learned success relies so much. In spite of certain limitations, young orchards and vineyards are coming into bearing throughout the southwestern part of this Province, as well as in the Niagara Peninsula, and if our consuming population does not increase considerably there will have to be very efficient distributing agencies built up in order to avoid over-loaded markets and decreased returns.

Another factor which appears to be viewed in a rather complacent manner by fruit growers, is the ever-growing trade in citrus fruits and bananas and the immense volume of same coming into this country. That our native fruits are being displaced no one doubts, but the extent to which they are being displaced only a few seem to realize. Oranges and bananas lend themselves to the retail trade better than do the more perishable kinds of fruit produced at home, and our growers must depend upon moving their product rapidly while in season and getting it done down in the form of preserves, jam, etc. Some spasmodic efforts have been made in the direction of advertising but it has not been persistent, and, therefore, less effective than a well-planned policy would have made it. The chief reason is, the growers are not behind it wholeheartedly, and until they give support to such a campaign the burden will fall upon a comparative few, while all reap the same benefit. Anyone knows this system will not work. Of course, proper organization would remedy this evil and that, after all is said and done, is the starting point.

The Chief Difficulty.

The bulk of the fruit grown in the Niagara District is not sold through the co-operative associations, of which there are several. An effort has been made to organize on a more extensive scale so as to cover the business done by the co-operative association, the dealers, and the large growers which dispose of their own product. This very commendable plan has not been carried to fruition and probably will not be till the co-operative associations themselves all unite to reveal the way and cease competing one with another. Practically everyone agrees that a central distributing agency is the proper idea, but the trouble is to establish it. As for the present year no very serious situation should develop in respect to the marketing of tender fruits. Money seems to be flowing freely, the strawberry crop was not large, so a greater quantity of peaches, plums and pears will be preserved. The apparent tendency is to fill the larder for winter, a capital idea and one that will help conserve food supplies. On the other hand, if apples should be cheap they may constitute a barrier between some of the later fruits such as plums, peaches and pears and high prices. However, the cost of packages, high-priced labor, and increased transportation charges will all tend to elevate the cost of a barrel of apples to such a plane that it is not likely to interfere very materially with the price of basket fruit.

The pinch will be felt during that period just subsequent to the cessation of hostilities, and before our population begins to grow in company with the increase in prosperity that is sure to come after our recovery from war and post-war conditions. This is when fruit growers should be mobilized and thoroughly organized to meet foreign competition, to reach every available consumer, to prevent the overloading of some markets and the neglect of others, to reduce the number of forwarding agencies so as to ensure more even and less expensive distribution.

In Respect to Apples.

As previously stated, if Nova Scotia, Eastern Ontario and British Columbia have a good crop of apples there will have to be some efficient marketing methods evolved. Western Ontario's apple production will likely be small. If the British embargo is still in force this fall the three exporting Provinces will have to meet on the Prairie with their surplus product. Last year that market consumed 1,443,600 boxes distributed as follows:

From British Columbia	648,000 boxes
From United States	388,000 boxes
From Ontario	369,000 boxes
From Nova Scotia	37,800 boxes

It is too early to estimate the probable crop anywhere. The season in Nova Scotia is two weeks later than usual, but with a good crop on which to draw she could supply the whole Prairie market alone, if the varieties covered the season. Anywhere around 1,000,000 barrels would be normal production in the Annapolis Valley. They have got as high as one and three-quarter million barrels, but last year exports dropped to around 500,000 barrels. Latest reports

intimate that British Columbia will have more apples than usual; prospects are good in the Western States, but Ontario may not find it necessary to export many apples if she supplies her own and neighboring markets properly. The foregoing explains the apple market situation as near as it is possible to do so at this time. At the best we should expect that Canadian markets will have to take care of an extra quantity of apples this coming fall and winter, amounting approximately in volume to the number of barrels exported to Great Britain last season. Growers need not become disheartened over these figures. Statements regarding the crop are estimates only at this season of the year. During the months between now and harvest something may transpire to bring about very fair returns for all fruit of good quality.

The Way Out.

In the first place the apple situation should be analyzed by representatives from the various Provinces, and a thorough study made of the possibilities and limitations of the market. Our population of around 7,000,000 people will only consume so many apples. Their appetites are not so elastic as to make use of large volumes without preparatory treatment in the form of education and judicious advertising or persuasion. The maw of the Prairie market is not over capacious, but upon it must depend British Columbia, Nova Scotia and probably Eastern Ontario to some extent. New Ontario could handle a few carloads, and there are other non-producing sections that should constitute a fair market if properly handled.

In the second place more adequate storage facilities will be imperative. It will be disastrous to rush too large a volume of fruit on the market during the fall months. It usually happens that over-loaded markets in the autumn recover later on and pay quite handsome prices for fruit in January, February and March, but that product is too often imported. The Annapolis Valley is equipped with large frost-proof warehouses, but long hauls westward during weather of low temperatures constitute an obstacle. Ontario growers, as a general thing, have poor storage facilities and must rely on space contracted for in the towns and cities. Probably all the apples produced this year can be marketed to good advantage if the product is spread over the season, and some guiding hand or body exerts an influence in this respect. If there is a large crop of apples this year the returns will depend very considerably on the way it is spread over the season.

In the third place there should be some understanding amongst producers in regard to the price. A large crop will be moved much more satisfactorily if the price is moderately low at first. Consumption will be encouraged and the product disposed of. On the other hand, if things are allowed to drag at first a recovery will be very uncertain. It is not possible to suggest any range of prices at this season of the year, and we should be loth to do so if it were. However, if growers will allow their memories to journey back as far as 1912 they will be better able to grasp the meaning of our words. In that year Canada had a bumper apple crop. Producers, dealers or someone set the price too high, with the result that approximately 240,000 barrels of apples were shipped in from the United States for which the forwarders received around \$2.50 per barrel. At the same time we sent almost 1,000,000 barrels to Great Britain and received an average of \$1.50 per barrel.

Again, the consumption of apples should be increased as much as possible. Two factors which will act as an impetus are moderate prices in the fall and advertising. If these go arm in arm people can be induced to put barrels of apples in their cellars. This done the problem is partly solved, for a more extensive use will be made of the fruit if there is plenty of it in the larder. Of course, all urban dwellers do not have a cellar but the majority of them do, and even flat dwellers often have cool storage in the basement. The object of the apple growers should be to fill these storerooms during October, November and December. What product there is left over will be needed before spring. It is surprising how many more pies are made, how many more puddings, and how many more dishes of sauce, when the housewife or cook gets the apples from a barrel or box, rather than from a paper bag containing only a quart or a peck.

Advertising should tell the people that apples are worth the price they are expected to pay for them, and, furthermore, show them the numerous ways they can be used as wholesome food. There is need also of urban people knowing more about varieties. It is a waste to use Spys, McIntosh Reds or Snows in cooking. Baldwins, Greenings and dozens of other varieties are far cheaper and will answer the purpose. Urban people are very much uninformed on this point to their own disadvantage and that of the producer.

The majority of these recommendations will apply in any season, but they should be considered this summer by a duly appointed body of men representing the various fruit-growing sections of Canada. The problem that confronts the grower now is marketing. Storage, transportation, prices, advertising, and a general education of the buying public are matters that require discussion and serious thought on the part of apple growers.

At the recent exhibition of the Massachusetts Horticultural Society the peony was the predominating flower. A West Newbury exhibitor sent the largest display consisting of no less than 5,000 blooms, representing more than one hundred varieties.

FARM BULLETIN.

Some Observations in Oxford and Norfolk.

Recently the writer enjoyed a trip through the eastern part of Middlesex County, through the southwestern part of Oxford, and south to the lake through Norfolk County. An outstanding feature of the country was the uniformly good fields of grass and vigorous fields of spring grain which never presented a better color. Corn was backward and quite generally somewhat dirty. The condition of things during the seeding made it very difficult to handle the corn land properly. Grass got a start, and when the land was fit to plant too much time was not spent in getting it in. Frequent harrowings after the corn was planted would have helped, but then again the land was often too wet to permit of such. However, it was being cultivated and with some hoeing will be all right. In the vicinity of Delhi and Simcoe, where corn is grown more for factory purposes on lighter land, it was further advanced and gave very good promise of yielding fair returns.

Frequent fields of fall wheat were observed and, as a general thing, they gave promise of a good crop. There appeared to be very few bare places in the fields, the straw was a good length, and it was heading out nicely. Spring grain showed a very good length of straw indeed for the time of year. Barley was shooting and the color was exceptionally good. There is a danger, however, of the growth being somewhat tender and likely to go down if the soil does not have a chance soon to lose some of its excessive moisture. If moderately dry weather is experienced during the latter part of July, spring grains, through the districts traversed, should be exceptionally good. In spite of the lateness of the season many splendid fields of grass were observed. Clover and timothy seemed to be growing abundantly, but in some instances it was noticed that red clover had not stood the winter and alsike predominated. This demonstrates the advisability of mixing a couple of pounds of alsike clover seed with timothy and red clover. The alsike appears to be more immune to unfavorable conditions, and if the red clover does not survive one is still likely to have a very good quality of hay. Haying was in progress on quite an extensive scale in Oxford and Norfolk Counties, but no doubt it was very much retarded by the dull weather which prevailed during the latter part of last week.

Another interesting feature which one could not fail to observe was the different lines of agriculture popular in the various sections of the different counties. As one journeys eastward in Middlesex County and into Oxford he will meet during the early part of the forenoon wagon-load after wagon-load of loaded cans en route to the factory. Further evidence of this being a good dairy district is to be seen in the fields, where whole herds of cattle graze and which conform very closely to breed type. On one side of the road one would observe a herd of Holsteins, very uniform in markings and dairy conformation. On the other side will be seen a herd of Ayrshires having the same qualifications. As one journeys into Norfolk County the land becomes lighter, mixed farming is at first common and then canning-factory crops and fruit become the rule.

Increased Entries in Live Stock at Calgary Exhibition.

The exhibition in the West opened in Calgary on June 28. From that date until July 5 there was assembled on the Calgary exhibition grounds a great array of excellent herds and flocks from the Western Provinces, together with a number of herds from Ontario. The exhibition was well attended by Alberta people, who were amply repaid for the time spent in viewing the products of field and stable, to say nothing of the special educational features put on by the Dominion Experimental Farms of Lethbridge and Lacombe. Alberta as a Province is becoming noted for its production of high-quality butter. The butter exhibit at Calgary was claimed to be the best ever held in the Dominion. Butter from practically every Province was entered in competition, but out of a total of thirty-two prizes Alberta carried off thirty of them.

There were 696 entries of cattle, which was an increase of 60 over last year. The quality was also superior to anything previously exhibited at Calgary. There were 922 entries in horses, 265 in hogs, and 514 of sheep. All classes were stronger this year than last.

There was keen competition in all classes of Clydesdales. The high-quality, draft stallions attracted a good deal of attention and rightly so because they all showed to splendid advantage with their clean, flinty-boned legs and frisky action. The championship ribbon went to Ben Finlayson on Edward Garnet, and the reserve to A. D. McCormick on Castor. J. K. Eckert secured the Canadian-bred championship on Count Ideal. The mares brought into the ring were in excellent bloom and the championship went to Thornburn and Riddle, on Nell of Aikton, with Maggie Fleming, a stablemate, as reserve. The champion Canadian-bred female was Royal Maud, exhibited by Thomas McMillan, of Okotoks.

There were seven exhibitors of Percherons who brought out excellent representatives of the breed. The champion stallion was Nelson, exhibited by George Lane, and Melissa from the same stable was the champion mare, with her stablemate, Nellie Bell, as reserve.

In the cattle classes Ontario animals were to be seen,

and in many cases they were successful in carrying away the championship honors. The Shorthorns were of excellent quality which made competition keen in every class. John Miller, Jr., of Ashburn, was the only Ontario exhibitor of this breed and was successful in carrying off second prize with the three-year-old cow, Roan Duchess, and fourth with Lady Rose. In the junior yearling class Crimson Lass 3rd, and Duchess of Gloster won fifth and sixth respectively for Mr. Miller. In the junior calf class Countess of Lancaster, exhibited by the same breeder, secured fourth place. Senior and grand champion honors in the male classes went to Yule and Boves on Missie's Wonder Jr., and Junior championship to J. G. Barron on Fairview Chief. In the female classes J. G. Barron secured the senior and grand championship prizes on Fairview Baroness Queen, while the junior champion female was Clipper Girl, exhibited by Yule and Boves.

The display of Aberdeen-Angus cattle was of high merit and the top honors were divided between J. D. McGregor, of Brandon, and James Bowman, of Guelph. The latter secured the senior championship on Beauty's Leroy, with Young Leroy as reserve, but the grand championship was lost to the junior champion, Black Cap, an entry from the McGregor herd. In the female classes the championship prizes went to the Brandon herd, McGregor winning senior championship on Majesty Queen and the junior and grand championship on Pride of Glencarnock 3rd.

There was the greatest showing of Herefords ever seen in Calgary. Every class showed quality and numerical strength. George E. Fuller's \$17,000 bull, Martin Fairfax, won over Clifford's Bonnie Brae 31st, in the aged-class, and Beau Perfection 48th., from the Curtice Land and Cattle Company's herd, won over Collicutt's \$11,000 Gay Lad 40th in the two-year-olds. When it came to awarding the championships the Curtice Cattle Company secured the grand championship on Beau Perfection 48th, with Lord Fairfax 5th, the junior champion from the Clifford herd, as reserve. There was a splendid array of females and the Ontario herd secured the lion's share of the honors. Senior and grand championship ribbons went to L. O. Clifford, on Miss Armour Fairfax, but George E. Fuller had the junior champion female in Beauty Fairfax. The Ontario herd also secured first in the classes for junior herd, and for three calves under one year, and second in the classes for three, the get of one bull, two, the progeny of one cow, and for the herd.

In the dairy classes Holsteins and Ayrshires were well represented, but there was only one herd of Jerseys and one of Guernseys. The grand champion Holstein bull was Korndyke Posch Pontiac, exhibited by J. H. Laycock, while the grand champion female was Princess Holdenby DeKol, from the same herd. Roland Ness had the grand champion Ayrshire bull in Burnside Masterman. Birdie of Lone Spruce, exhibited by Mr. Ness, was the grand champion female.

Salt a Cure for Bindweed.

We have tried various methods of eradicating bindweed. Throughout one summer we plowed the patches regularly, but the more we plowed the thicker the weeds grew. Rotation with cultivated crops likewise failed. Plowing through the patches only spread this noxious plant. Hogs pastured on the bindweed removed the surface vegetation and pulled out some of the roots, but the following spring the bindweeds appeared again and flourished in increasing numbers. Sheep also are of no value in killing this weed.

In the fall of 1911 we bought two carloads of salt and spread it on land affected with bindweed, as an experiment. The results proved so satisfactory that during the past three years we have scattered about 1,500 tons of salt on bindweed patches. The salt used for this purpose is called "crushed rock salt No. 4." It was shipped from Kanopolis, Kan., and is now quoted at \$2 per ton f. o. b. Kanopolis.

The following methods were used: During the summer when the weeds were visible we located the extreme limits of the patches, marking them with a plowed furrow. Early the following spring the surface of the ground was cleared of all grass and weeds, and salt was applied by broadcasting directly from the wagon, with flat shovels. Wheat drills do not completely cover the ground, and manure spreaders are not properly built for the handling of fine salt. The salt was applied at the rate of twenty-three tons per acre, making a uniform layer over the entire area of at least three-eighths of an inch in thickness. Some seem to think that a smaller amount of salt is adequate, but I have realized from experience that it pays to put on a sufficient amount the first time and avoid repetition of the operation. I prefer to allow the salt to remain undisturbed on the ground until the third year. I then fertilize and plow deeply.

The number of years required for salted ground to return to a productive condition depends upon the amount of salt used, the amount of moisture received, the artificial means used to restore it (such as fertilizers), and the method of cultivation. The ground salted in 1911 grew a fair crop of wheat in 1915, and a good crop in 1916. To me the question of how many years before the ground will return to its former condition is of minor importance, for ground covered with bindweeds is wholly worthless, and the danger of the spreading bindweeds permanently ruining the surrounding land is so great that it is necessary to adopt drastic measures.

To the man who is at present unable to salt all the bindweeds on his farm I have this suggestion to make: That he purchase enough salt to cover a strip about ten feet wide around the extreme edge of each patch,

so that the roots of the pest cannot spread over more land. The patch inside the circle should then be plowed regularly so that the flowers can not mature and the vines develop seeds. This will act as a check to the weed, but the ultimate purpose should be to use salt over the entire patch.

Trials at Dodge City Agricultural Experiment Station have led the experts in charge there to believe that salt at the rate of ten tons per acre is the most economical means of eradicating bindweed. This amount does not completely destroy the pest, however, and later applications in small amounts are generally necessary in disposing of the remaining weeds.—Martin G. Miller, Russell Co., Kansas.

The Farmer and His Paper.

I doubt whether there is any profession to-day against which so much criticism is directed, or any business about which the public is so woefully ignorant. And few men walk the streets who do not believe themselves competent to run the paper better than the editor runs it. These reflections have been recorded, because I wished to lead gradually to the idea I have in mind—the idea that every farmer ought to know something about what a farm paper is, and how it is made. To know how to write is a laudable ambition, a fine accomplishment, but to know how to put the writing into type and then make it into a presentable paper is quite another thing.

I have long had an idea that if our farmer readers knew just a little about how the paper is made, and some of the editor's vicissitudes, they might very much more graciously accord him justice, and at least admit that he is doing his best.

Obviously no publisher would print a paper if he had no advertisements. The money received from subscribers would scarcely pay for the soliciting. Indeed, the subscription price very often does not cover the expense of getting it. If the circulation department pays its own way we are happy. This means that farm papers must carry at least 50 per cent. advertising, and that the reading matter ought to bear some relationship toward the businesses represented. I do not mean to infer that the editorial columns should carry any free reading notices, mention trade names, or otherwise crook the knee to the influence of commercialism; but what every editor should remember is the educational value of every line he prints. White paper is too expensive—it is too scarce at any price—to be wasted. The properly conducted farm paper can educate its readers to buy the goods advertised in its columns, can keep them in a mood to buy, by teaching them the way to better living, higher ideals.

The staff of a farm paper is made up nowadays of specialists. No mistakes can be permitted in articles treating of a subject so important as scientific farming. To avoid them we have men and women trained by education and environment to handle departments for every specific branch of agriculture and of the farm home. We must have a live-stock editor, a field man or two, a dairy editor, a poultry editor, a woman for the home pages and one for the children; and finally a man to supervise the whole outfit—not necessarily a scientific expert in anything except the making of papers. The smooth operation of the business, the proper assembling of the pages into an attractive product; the tact needed to direct a man in touching delicate subjects in just the right way; the giving of advice without appearing to give it—all these things make the editor of a farm paper a diplomat or a dismal failure.

You know, being farmers, that few of your kind like advice. I suppose no human beings on earth ever had more of it, or paid less attention to it. What you do like, however, is interesting reports showing results and how these results were brought about. That is what the careful editor will try to give you.

Women have a large part now in making up a good farm paper. The old-fashioned, roll-the-hoop department kind of paper had the family pages relegated to the live-stock section. Just how the editors figured out this arrangement as being wise is too much for me. The women renew the paper—not father.

The editor of a farm paper must have the wisdom of Solomon, the patience of Job, and the good temper of Lincoln. No state or national problem, no marital discord, no ailing cow or pig, no line-fence dispute, no altercation between A and B should appall the editor. "One and all," as the showman would put it, he decides the trials and troubles of his readers.

One of the interesting peculiarities of the editing business, in a farm paper office, is the absence of letters about farming. A farmer will write in to ask about his cow or pig, but he seldom writes about his crops. However, his reticence in this respect is amply made up in the liberal attitude he assumes toward the discussion of taxes, matters of religion, socialism, politics.

The paper that comes to you every week is no haphazard affair. It is thought out months in advance. Every article, except, of course, the news of the week, was prepared in accordance with a schedule in the managing editor's desk. Year after year the same subjects must be touched upon in a farm paper. Certain reminders must appear. Nothing can be left to chance. And, finally, every page you read must pass through the hands of the editor, the foreman of the composing room where the type is set; the linotype operator, the proof-reader, the editor, the foreman of the composing room again, the make-up man, the foreman of the electroplating room, the press room, the elevator boy, the mailing room, the postal clerk, the postmaster, the rural-route carrier, and finally yourself.—Charles Dillon.

Toronto, Montreal, Buffalo, and Other Leading Markets

Week Ending July 12.

Receipts and Market Tops.

Dominion Department of Agriculture, Live Stock Branch, Markets Intelligence Division

CATTLE						CALVES						
Receipts			Top Price Good Steers (1,000-1,200)			Receipts			Top Price Good Calves			
Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending		
July 12	1916	July 5	July 12	1916	July 5	July 12	1916	July 12	1916	July 5		
Toronto (Union Stock Yards)	4,263	5,036	4,751	\$11.50	\$ 9.75	\$11.60	1,016	718	1,019	\$15.00	\$12.50	\$15.00
Montreal (Pt. St. Charles)	1,120	408	892	11.75	9.50	12.00	1,612	1,128	1,390	12.50	10.00	12.50
Montreal (East End)	1,470	888	885	11.50	9.50	11.50	1,112	1,039	784	12.50	10.00	12.50
Winnipeg	2,577	1,397	2,153	11.00	9.00	10.50	142	217	207	12.50	9.50	13.00
Calgary		1,186	636		6.75	8.50					8.00	11.20

HOGS						SHEEP						
Receipts			Top Price Selects			Receipts			Top Price Good Lambs			
Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending		
July 12	1916	July 5	July 12	1916	July 5	July 12	1916	July 12	1916	July 5		
Toronto (Union Stock Yards)	7,406	7,347	7,375	\$16.75	\$11.35	\$16.75	1,148	2,470	923	\$17.00	\$16.00	\$16.00
Montreal (Pt. St. Charles)	1,839	950	1,127	17.25	12.00	17.00	506	549	306	*10.00	* 8.00	*10.00
Montreal (East End)	1,080	1,087	850	17.25	12.00	16.75	669	872	331	*10.00	* 8.00	* 9.00
Winnipeg	6,406	5,586	6,097	15.50	10.00	15.50	89	116	232	10.50	10.60	12.00
Calgary		2,042	2,840		10.00	15.35		797	8		11.00	13.00

*Quotations off cars.

*Quotations per head.

Market Comments.

Toronto (Union Stock Yards.)
 Twenty-six hundred cattle were on sale on Monday and trading was active at last week's closing quotations with everything sold at the end of the day. On Tuesday trading was strong and steady, and was followed by an advance of 10 to 25 cents per hundred on butcher cattle on Wednesday. On Thursday a light supply was rapidly bought up at quotations fully 25 cents per hundred higher than the prices of a week ago. While one heavy steer sold on Thursday at \$12.00 per hundred and a few head sold during the week at \$11.75, the top price recorded for a straight load was \$11.65, with the bulk of the heavy steers selling from \$10.75 to \$11.50 per hundred. Heavy butcher steers of one thousand to eleven hundred pounds sold as high as \$11.50 for a good load, with the bulk of the finished cattle of this class bringing from \$10.75 to \$11.25. Light butcher steers and heifers of good quality sold from \$9.75 to \$10.75 with common grades bringing from \$8.75 to \$9.50. Choice bulls reached \$9.50 in a few instances but the bulk of the best butcher bulls sold from \$8.00 to \$9.00, and bologna bulls from \$6.25 to \$7.50. A few choice cows were weighed up at \$9.50, but the bulk of the offering sold from \$8.25 to \$9.00 with medium cows bringing \$7.00 to \$8.00 and canners and cutters from \$5.25 to \$6.00 per hundred. Stockers and feeders were moving at about last week's level with only limited numbers going back to the country. Calves were in good demand all week with choice veal realizing up to \$15.50 on Wednesday and Thursday, but most of the sales were made between \$14.00 and \$15.00, with common calves selling from \$9.00 to \$12.00 per hundred. Lambs are not moving very freely as yet, and prices made strong advances during the week. From \$16.25 to \$16.50 per hundred was paid for top lambs on Monday and by Wednesday those of choice quality were bringing \$17.00 with most of the sales being made between \$16.00 and \$17.00; these prices will not prevail however, if very liberal supplies come forward. Hogs on Monday's market sold at \$16.25 to \$16.75, but on Tuesday \$16.25 was the prevailing quotation for selects. This was the ruling price during the remainder of the week, although a few lots changed hands at figures a trifle higher. Packers state that a further cut in prices will follow next week. Of the disposition of live stock from the Union Stock Yards for the week ending July 5th, Canadian packing houses purchased 561 calves, 109 bulls, 158 heavy steers, 3,481 butcher cattle, 7,585 hogs and 648 sheep. Local butchers purchased 203 calves, 282 butcher cattle, 273 hogs and 287 sheep. Shipments back to country points were made up of 54 calves, 89 milch cows, 429 stockers, 53 feeders and 11 lambs. Shipments to United States' points totalled 164 calves, 55 stockers and 27 feeders. The total receipts of live stock from January 1st to July 5th, inclusive, were: 116,867 cattle, 28,239 calves, 16,286 sheep, and 250,349 hogs; compared with 122,991 cattle, 25,934 calves, 20,670

TORONTO (Union Stock Yards)					MONTREAL (Pt. St. Charles)				
CLASSIFICATION	No.	Avg. Price	Price Range Bulk Sales	Top Price	No.	Avg. Price	Price Range Bulk Sales	Top Price	
STEERS heavy finished	203	\$10.75	\$10.65-\$11.50	\$11.75					
STEERS good 1,000-1,200	614	10.62	10.50-11.25	11.50	109	\$10.90	\$10.75-\$11.20	\$11.75	
STEERS common 700-1,000	45	9.75	9.25-10.25	10.50	36	10.00	9.75-10.25	10.40	
STEERS good 700-1,000	703	10.43	9.75-10.75	11.00	52	10.75	10.50-11.00	11.25	
STEERS common	241	9.26	8.50-9.75	9.75	234	9.25	9.00-9.50	9.90	
HEIFERS good	533	10.59	10.00-11.25	11.25	22	10.50	10.25-10.75	11.25	
HEIFERS fair	258	9.47	9.00-9.75	9.75	67	9.39	9.00-9.70	9.70	
HEIFERS common	56	8.56	7.50-9.00	9.00	48	8.41	8.25-8.75	8.75	
HEIFERS good fair	445	8.74	8.00-9.00	9.25	46	9.00	7.75-9.25	9.75	
HEIFERS fair	656	6.93	6.50-7.50	7.50	261	7.81	7.00-8.25	8.50	
BULLS good	58	8.49	7.75-9.00	9.25	5	9.75	9.00-10.50	10.50	
BULLS common	47	7.09	6.50-8.00	8.50	122	7.52	6.00-8.75	8.75	
CANNERS & CUTTERS	75	5.75	5.25-6.00	6.00	85	6.22	5.25-7.00	7.00	
OXEN					5	6.30	5.50-6.50	6.50	
CALVES	1,106	14.15	13.50-15.00	15.00	1,612	10.91	8.00-12.50	12.50	
STOCKERS good 450-800	195	8.12	7.50-8.50	8.75	9	8.00	8.00-	8.00	
STOCKERS fair	64	7.25	6.50-7.75	8.25					
FEDERS good 800-1,000	58	9.47	9.00-9.75	9.75					
FEDERS fair	14	9.00	8.50-9.25	9.25					
HOGS selects	6,937	16.37	16.25-16.75	16.75	1,492	16.97	16.50-17.20	17.25	
HOGS heavy	39	16.34	16.25-16.75	16.75	44	16.52	16.25-16.75	16.75	
HOGS lights	150	15.94	15.25-15.75	15.75	95	16.55	16.25-16.75	16.75	
HOGS (fed and watered) stags	19	11.38	11.25-12.25	12.25	1	11.00	11.00-	11.00	
HOGS (fed and watered) sows	261	13.55	13.25-14.25	14.25	207	13.90	13.50-14.25	14.25	
SHEEP heavy	18	7.65	7.00-8.50	8.50	22	9.00	8.75-9.25	9.25	
SHEEP light	290	9.00	8.00-9.50	9.50	56	9.32	9.00-9.50	9.50	
SHEEP common	149	6.74	6.00-7.50	7.50	150	8.49	8.00-8.75	8.75	
LAMBS good	586	16.12	15.00-17.00	17.00	93	8.82	8.00-10.00	*10.00	
LAMBS common	105	14.58	13.50-16.00	16.00	187	7.03	6.00-8.00	* 8.00	

sheep and 224,619 hogs, received during the corresponding period of 1916.

Montreal.

The supply of cattle for Monday's market was almost double the usual run, and in consequence the prices declined from 50 cents to \$1.00 per hundred on all grades of butcher cattle with the exception of canners and cutters. Several hundred cattle remained unsold at the close of Monday's market, but these were all bought up later in the week at prices on a level with Monday's quotations. One lot of choice heavy butcher cattle sold at \$11.75 per hundred, but the bulk of the sales of good cattle was made from \$10.50 to \$11.25. Butcher cows sold mostly between \$8.00 and \$9.00 with a few above the latter figure. A few choice bulls brought from \$9.75 to \$10.25 per hundred, but the majority sold from \$8.00 to \$9.50. Canners and cutters held steady as also did bologna bulls. Calves were in fair demand early in the week, but were slightly easier toward the close. Sheep and lambs were steady to firm and in liberal supply throughout the week. A few choice heavy lambs brought up to \$10.00 each, but the bulk of the offerings sold between \$7.00 and \$9.00 each. A few hogs contracted for previously, changed hands on Monday at

\$17.50 per hundred for selects, off cars, but the bulk of the good hogs brought \$17.00 to \$17.25. Prices declined later in the week and closed at \$16.75 on Thursday, although several loads of late arrivals had been contracted for at \$17.25. Sows are \$3.00 per hundred lower in price than selects.

Pt. St. Charles.—Of the disposition of live stock from the Yards for the week ending July 5th, Canadian packing houses and local butchers purchased 1,319 calves, 63 canners and cutters, 98 bulls, 715 butcher cattle, 1,127 hogs, 67 sheep, and 239 lambs. Shipments to United States' points were 268 calves. The total receipts from January 1st to July 5th, inclusive, were: 18,343 cattle, 38,408 calves, 6,465 sheep, and 35,025 swine; compared with 21,010 cattle, 28,511 calves, 8,006 sheep, and 48,492 hogs, received during the corresponding period of 1916.

EAST END.—Of the disposition from the Yards for the week ending July 5th, Canadian packing houses and local butchers purchased 784 calves, 861 butcher cattle, 850 hogs, and 331 sheep. No shipments were made to United States' points. The total receipts of live stock from January 1st to July 5th, inclusive, were: 17,717 cattle, 30,290 calves, 6,781 sheep,

and 22,560 swine; compared with 16,686 cattle, 28,775 calves, 9,577 sheep, and 28,730 swine, received during the corresponding period of 1916.

Winnipeg.

A liberal supply of butcher cattle was on hand during the week, consisting mostly of medium and unfinished grass-fed cattle, and while the market opened steady on Friday it developed a weaker condition later in the week, closing on Thursday from fifty to seventy-five cents per hundred lower on all grades of butcher cattle, with the exceptions of bulls and oxen. Choice stall-fed, weighty steers sold from \$10.00 per hundred and upwards; four head averaging eleven hundred and eighty pounds brought \$11.00. Light unfinished grass-fed butcher cattle sold from \$7.50 to \$8.50, while the bulk of the sales of butcher heifers was made between \$8.00 and \$9.00 per hundred. Stockers and feeders were in liberal supply and in fair demand, the best selling from \$6.50 to \$7.25 per hundred during the week. Nine hundred head of stockers and feeders were returned to western country points and of this number, one shipment of three hundred and sixty head was made to Alberta. About four hundred sheep were on hand during the week, eighty of these

THE ROYAL BANK OF CANADA

Capital Authorized - - - \$ 25,000,000
 Capital Paid Up - - - 12,900,000
 Reserve Funds - - - 14,300,000
 Total Assets - - - 270,000,000

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Accounts of Farmers Invited
 Sale Notes Collected

Savings Department at all Branches

being billed through to the East, the remainder selling at from \$7.00 to \$8.00 per hundred.

The receipts of hogs were heavy and while the market opened steady on Friday at \$15.15 per hundred for selects, the liberality of the supply on Monday brought a recession of 25 cents per hundred. This level was maintained until Thursday when the market developed further weakness and closed 15 cents per hundred lower at \$15.10 for selects, \$11.00 to \$12.00 for heavies, \$14.00 for lights, \$11.00 for sows and \$10.00 for stags.

Of the disposition of live stock from the Yards for the week ending July 5th, Canadian packing houses purchased 27 calves, 657 butcher cattle, 5,782 hogs, and 102 sheep. Local butchers bought 333 butcher cattle, 201 hogs, and 152 sheep. Shipments back to country points were made up of 123 calves, 419 stockers, 148 feeders, and 77 hogs. Shipments to United States' points totalled 203 butcher cattle, 28 stockers, and 25 feeders.

The total receipts from January 1st to July 5th, inclusive, were: 52,748 cattle, 3,130 calves, 1,046 sheep and 148,657 hogs; compared with 29,410 cattle, 4,069 calves, 1,937 sheep and 189,843 hogs, received during the corresponding period of 1916.

Buffalo.

Cattle.—Another pretty good supply was offered last week—175 loads or close to 4,500 head. Canada contributed about thirty cars, half of which were shipping steers. Altogether there were around thirty-five loads suitable for the shipping demand and trade in this division was strong, and in some cases ten to fifteen cents higher. The best native steers on the market took \$13.50 and about nine loads brought this price. On Canadians the top was \$13.00 and they were grassers at that, this price being the highest recorded in this country for grass cattle out of the Dominion. Canadian grassers running from 1,200 to 1,300 pounds ranged from \$11.25 to \$12.50 and the top load which brought \$13.00, weighed little better than 1,400 pounds. Yearlings made a new high record, when the tops sorted out of two loads made \$13.35. It took a choice class of yearlings, however, to sell around \$12.90 and \$13.00. In the handy steer line one load that weighed around 1,050 pounds took \$12.65; however, the choice dry-fed kinds were scarce and other sales ranged downward from \$12.00, according to flesh and quality. Females of all descriptions, except canner cows, which were lower, sold steady with the week before. In the stocker and feeder end of the trade the feeling was a little better and they sold strong, common to good culls ranging from \$6.50 to \$8.50. Good bulls looked steady and the common ones were a shade easier, and fresh cows and springers also brought full last week's prices. Receipts last week were 4,750 head, as compared with 5,975 head for the week previous and 4,225 head for the same week a year ago. Quotations: Shipping Steers.—Choice to prime natives, \$13.25 to \$13.70; fair to good, \$12.25 to \$13.00; plain, \$11.00 to \$11.50 very coarse and common, \$10.50 to \$10.75; best dry-fed Canadians, \$12.75 to \$13.10; fair to good, \$11.50 to \$12.00; common and plain, \$10.25 to \$10.75; grass Canadians, \$12.00 to \$12.50.

Butchering Steers.—Choice heavy, \$11.50 to \$12.00; fair to good, \$10.50 to \$11.25; best handy, \$11.00 to \$11.50; fair to good, \$10.25 to \$10.75; light and common, \$9.00 to \$9.50; yearlings, choice to prime, \$12.00 to \$13.00; fair to good, \$11.00 to \$11.75.

Cows and Heifers.—Best heavy heifers, \$10.00 to \$11.00; best butchering heifers, \$9.00 to \$10.00; fair butchering heifers, \$8.00 to \$8.75; light and common, \$7.25 to \$7.75; very fancy fat cows, \$9.50 to \$10.00; best heavy fat cows, \$8.50 to \$9.00; good butchering cows, \$7.25 to \$8.00; medium to fair, \$6.50 to \$7.00; cutters, \$6.25 to \$6.50; canners, \$5.00 to \$5.50.

Bulls.—Best heavy, \$9.00 to \$9.50; good butchering, \$8.00 to \$8.75.

Stockers and Feeders.—Best feeders, \$8.00 to \$8.50; common to fair, \$7.00 to \$7.50; best stockers, \$7.00 to \$7.50; common to good, \$6.50 to \$6.75.

Milchers and Springers.—Good to best, in small lots, \$90.00 to \$115.00; in car loads, \$75.00 to \$85.00; medium to fair, in small lots, \$60.00 to \$70.00; in car loads, \$55.00 to \$60.00; common, \$40.00 to \$50.00.

Hogs.—Prices were lower the first half of last week, increased receipts and the department of agriculture's July report of the big crop of corn being responsible for the bad break. On Monday the top was \$16.40, and while a few scattering sales were made from \$16.25 to \$16.30, bulk sold from \$16.00 to \$16.20. Tuesday no sales could be made above \$16.00 and bulk sold \$15.85 to \$15.90, prices being a quarter to thirty-five cents lower than Monday. Wednesday the trade was held steady with Tuesday. After Wednesday the market reacted and before the week was out, or on Friday, good hogs sold up to \$16.35 and bulk of Friday's sales were made at \$16.25 to \$16.30. Throwout lights and pigs from \$15.25 to \$15.50, roughs, \$14.00 to \$14.50 and stags \$13.00 down. Last week receipts were 18,200 head, as against 16,333 head for the week before, and 22,500 head for the same week a year ago.

Sheep and Lambs.—Supply was very light, not over 2,300 head being marketed last week, as against 3,279 head for the week previous and 3,150 head for the same week a year ago. Receipts at Buffalo proved short of the demand and prices showed a big margin over all other American markets. Top spring lambs sold up to \$16.50 and \$17.00, culls went downward from \$14.50, as to quality, yearlings sold up to \$13.75 and \$14.00, wether sheep reached \$10.50 and ewes went from \$9.50 down.

Calves.—Market occupied a very favorable position last week. At no time of the week did top veals fall below \$16.00 and Friday, which was the high day, choice lots moved at \$16.00 and \$16.25. Handy cull grades reached as high as \$15.00, and weighty, rough, fat calves, which proved the most unsatisfactory sale, were not worth within \$1.00 to \$2.00 per cwt., of the good handy culls. For the past week receipts were 3,059 head, as against 2,764 head for the week before, and 2,000 head for the same week a year ago.

Toronto Produce.

Live stock receipts at Union Stock Yards, West Toronto, Monday, July 16, were 184 cars, 3,545 cattle, 282 calves, 783 hogs, 744 sheep and lambs. Active market, all classes of cattle selling at last week's prices. Calves and sheep steady, lambs one dollar lower, hogs steady. Packers quote hogs fifty cents lower balance of week.

Breadstuffs.

Wheat.—Ontario, No. 2, winter, per car lot, \$2.36 to \$2.40; No. 3, winter, per car lot, \$2.33 to \$2.38, (according to freights outside). Manitoba track, bay ports.—No. 1 northern, \$2.44; No. 2 northern, \$2.40, nominal.

Oats.—Ontario, No. 2 white, not quoted. Manitoba oats, No. 2 C. W. \$2 1/4c.

Barley.—Malting barley, nominal.

Peas.—According to freights outside; No. 2, nominal.

Corn.—American (track, Toronto), No. 3 yellow, \$1.97, nominal.

Rye.—No. 2, \$2.05, nominal.

Flour.—Manitoba first patents, in jute bags, \$12.40; second patents in bags, \$11.90; strong bakers', in jute bags, \$11.50. Ontario, winter, according to sample, in bags, \$10.20 to \$10.30.

Hay and Millfeed.

Hay.—Track, Toronto, extra No. 2, per ton, \$12 to \$12.50; mixed \$9 to \$11. Straw.—Car lots, per ton, \$9, track, Toronto.

Bran.—Per ton, \$33. Shorts.—Per ton, \$38 to \$39; middlings, per ton, \$42. Good feed flour, per bag, \$2.80 to \$2.90.

Hides and Wool.

City hides.—City butcher hides, green flats, 22c.; calfskins, green, flat, 27c.; veal kip, 22c.; horse hides, city take off, \$6 to \$7; city lamb skins, shearlings and pelts, 60c. to 90c.; sheep, \$2.50 to \$3.50.

Country markets.—Beef hides, flat, cured, 20c. to 21c.; deacons, or bob calf, \$1.75 to \$2.50 each; horse hides, country take-off No. 1 \$6 to \$7; No. 2, \$5 to \$6. No. 1 sheep skins, \$2 to \$2.50; horse hair, farmers' stock, \$37.

Tallow.—City rendered, solids, in barrels 13c. to 14c.; country solid, in barrels, No. 1, 12c. to 16c.; cakes, No. 1, 15c. to 17c.

Wool.—Unwashed fleece wool, as to quality, fine, 58c.; coarse, 56c.; washed wool, fine, 70c.; coarse, 65c.

Country Produce.

Butter.—Butter was again a little easier in price on the wholesales during the past week, selling as follows: Creamery, fresh made pound square, 37c. to 38c. per lb.; creamery solids, 36c. to 37c. per lb.; dairy, 30c. to 37c. per lb.; separator dairy, 33c. to 32c. per lb.

Eggs.—While new-laid eggs remained stationary in price on the wholesales they were quite scarce, and are expected to advance shortly, they are now selling at 36c. to 37c. per dozen.

Cheese.—The cheese market kept about stationary. Old cheese selling at 30c. per lb.; new at 23c. to 24c. per lb.; and new twins at 24c. per lb.

Poultry.—Fowl of all classes kept practically unchanged being quoted as follows (live weight) spring chickens 20c. to 25c. per lb.; spring ducks, 15c. per lb.; roosters, 14c. per lb.; fowl under 5 lbs., 18c. per lb.; fowl 5 lbs. and over, 20c. per lb.; turkeys, 18c. per lb.

Beans.—The bean market is very slow at the present time, very little being sold—the prices, however, kept high at \$9.50 to \$10.50 per bushel, according to quality—Lima beans selling at 18c. to 19c. per lb.

Honey.—There is very little on the market to offer; prices remaining unchanged.

Wholesale Fruits and Vegetables.

Strawberry receipts were fairly heavy at the beginning of the week, but were lighter towards the end; the good berries selling at 12c. and 13c. per box; poor ones going at 9c. to 11c. per box.

Cherries were shipped in heavily and the bulk showed waste, especially the sweet white variety—sour cherries sold at 25c. to 40c. per 6 qts.; 65c. to 85c. per 11-qt. flats; \$1 to \$1.25 per 11-qt. lenos; sweet white ones at 30c. to 50c.; per 6 qts.; 60c. to \$1.25 per 11 qts., sweet blacks at 75c. to \$1.25 per 6 qts. and \$1.75 to \$2.25 per 11 qts.

Gooseberries varied greatly in quality; some being so small it was almost impossible to get rid of them; the medium and large sized fruit sold at 50c. to 65c. per 6 qts., and 65c. to 75c., and \$1 to \$1.35 per 11-qt. basket.

California fruits arrived freely and sold as follows: apples at \$2.75 to \$3.25 per case; plums at \$2.50 to \$2.75 per case; apricots \$2.25 per case; cherries \$2.75 per case; peaches \$1.50 per case; cantaloupes, \$4.50 to \$5 per case.

Georgia peaches also came in freely and sold at \$3.75, \$4 and \$4.25 per six-basket carrier.

Bananas were a little easier, selling at \$3 to \$4 per bunch.

Lemons kept firm at \$5.75 to \$6 per case for Californias, and \$6 for Verdilli.

The orange market was a little easier at \$4 to \$4.75 per case.

Tomatoes have been a little more plentiful; the imported selling at \$1.85 to \$2.25 per 4-basket carrier. Hot-house at 25c. per lb, and outside grown \$1.50 per 6 qts.

Watermelons arrived in large quantities selling at 60c. to 85c. each, according to size.

Asparagus is just about over for this season selling at \$1 to \$1.75 per 11-qt. basket.

Beets came in freely and sold fairly well at 25c. to 30c. per dozen bunches. Cabbage declined in price, it was so

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plentiful, selling at \$2.50 to \$3.25 per crate, and \$1 to \$1.25 per bushel-hammer. Carrots were generally so small, they were almost unsalable, going at 10c. to 25c. per dozen bunches.

Cauliflower was not of such good quality the past few days—it sold at 75c. per 11-qt. basket; \$2 per bushel-hammer, also at 50c. to \$1.75 per dozen. Kalamazoo celery came in during the week and sold at 50c. to 60c. per dozen bunches.

Leamington hot-house cucumbers were not very plentiful and sold at \$1.50 to \$1.75 per 11-qt basket. Green peas came in so freely they declined to 35c. to 60c. per 11-qt. basket.

New potatoes showed a firming tendency—No. 1's selling at \$7.50 to \$8 per bbl., and No. 2's, \$7 per bbl. This was caused owing to the difficulties of transportation and labor.

Montreal.

Horses.—It is stated that several horses have been shipped to New Brunswick, lately, and that Nova Scotia has also been a buyer. Prices were little changed, being: Heavy draft, weighing 1,500 lbs. to 1,700 lbs., \$225 to \$275 each; light draft, 1,400 to 1,500 lbs., \$175 to \$225; small horses, \$150 to \$200; culls, \$75 to \$125 each; choice saddle and carriage horses, \$200 to \$250 each.

Dressed Hogs.—The market for dressed hogs was easy again last week and prices declined fractionally below recent quotations. Sales took place at 23c. to 23 1/2c. per lb., for abattoir, fresh-killed hogs, selects.

Potatoes.—Dealers in a large way say that the supply of old potatoes is practically exhausted save for what remains in retail hands. American potatoes sold freely and were recently down to about \$6.50 per bbl., it is claimed, though \$8 is now quoted. Prices vary considerably from time to time, according to arrivals. The net weight per bbl. is about 165 lbs.

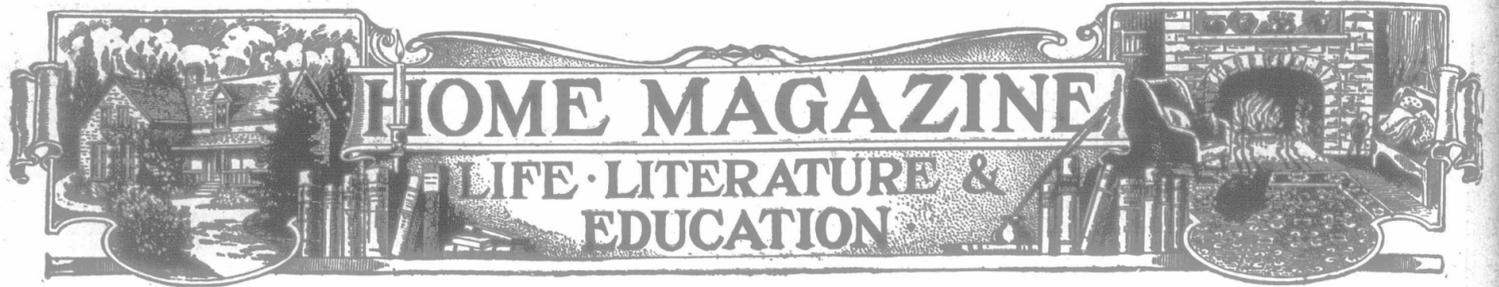
Honey and Maple Syrup.—The trade is looking forward to the arrival of the new honey crop. Meantime trade was slow at about 15c. per lb. for white clover comb, 13c. for brown comb and white extracted and 12c. for white extracted. Buckwheat honey, 13c. Choicest maple syrup was \$1.65 per gal. tin, \$1.40 to \$1.55 for good to fine and \$1.30 for lower grades. Sugar was 15c. per lb.

Eggs.—The market for eggs was firm, particularly for the new laid, which were 40c. per doz. Selects were 37c.; No. 1 candled were 33c. to 34c., and No. 2, 28c. to 30c. Demand was excellent for all grades, but the general run of quality leaves considerable to be desired.

Butter.—The market for creamery continued active and consumption large. The butter now arriving is not of the best keeping quality and suffers in price because of this. The market strengthened somewhat and was quoted at around 36c. to a fraction more for finest and about 1c. less for fine. Dairies ranged from 29 1/2c. to 31 1/2c., covering best grades and down to 28 1/2c. for lower grades.

Cheese.—Official quotations by the Commission were 21 1/4c. for No. 1 cheese; 21 1/2c. for No. 2, and 20 3/4c. for No. 3. Lower grades were 20 1/2c. Country boards were clearing at about 21 1/2c.

Continued on page 1178.



The Country Faith.

NORMAN GALE.

Here in the country's heart
Where the grass is green,
Life is the same sweet life
As it e'er hath been.

Trust in a God still lives,
And the bell at morn
Floats with a thought of God
O'er the rising corn.

God comes down in the rain,
And the crop grows tall—
This is the country faith
And the best of all.

No Man's Land.

No Man's Land is an eerie sight
At early dawn in the pale gray light.
Never a house and never a hedge
In No Man's Land from edge to edge;
And never a living soul walked there
To taste the fresh of the morning air,
Only some lumps of rotting clay,
That were friends or foemen yesterday.

What are the bounds of No Man's Land?
You can see them clearly on either hand,
A mound of rag bags gray in the sun,
Or a furrow of brown where the earth
works run.

From the eastern hills to the western sea,
Through field or forest, o'er river or lea;
No man may pass them, but aim you well,
And death rides across on the bullet or shell.

But No Man's Land is a goblin sight
When patrols crawl over at dead of night;
Boche or British, Belge or French,
You dice with death when you cross the
trench.

When the "rapid," like fireflies in the
dark,
Flits down the parapet spark by spark,
And you drop for cover to keep your head
With your face on the breast of the four
months dead.

The man who ranges in No Man's Land
Is dogged by the shadows on either hand
When the star shell's flare, as it bursts
o'erhead

Scares the great gray rats that feed on
the dead.
And the bursting bomb or the bayonet
snatch

May answer the click of your safety
catch,
For the lone patrol with his life in his
hand,

Is hunting for blood in No Man's Land
—Captain J. Knight Adkin, in London
Spectator.

Through the Eyes of a Canadian Woman in England.

June 8th.

Now that June is here we look for warm, summer weather, but it has not come yet; however, we are thankful for frequent rainfalls, as vegetation is of the greatest importance to our country to-day. True, there have been some warm days, but they came most unexpectedly and were followed by cold, windy ones which made one long for the fireside more than anything else. In spite of them, all out-of-doors is beautiful. The flowers that belong specially to the month of May have vanished to be replaced by still more gorgeous ones in June. As often as my Canadian pal and I climb the hill between our nurses' cottage and the hospital, we never tire of exclaiming over the beauty of its country road. It is a veritable lovers-lane all the way, the pale green of its lines and beeches forming contrast to the dark red and brown foliage of its copper balsam. Mingling with these are double purple and white

lilacs peeping over brick walls, and most glorious of all its tall, graceful laburnum, commonly called "golden rain" with its long tassels of yellow loveliness. The modest for-get-me-not borders in the gardens have given way to a profusion of gaudy scarlet poppies and crimson petunias. Everywhere one looks there is a revel of color, and all growing things seem to be rejoicing and doing their bravest to bring cheer to the passer by. One has but to see the country in England in June to comprehend fully the reason for the British motto "What we have we'll hold." We are glad when the sun shines so our wounded Tommies can sit out on the grass or in the old-world garden with its sweet scented flowers surrounded by prim box hedges, at the back. They put newspapers over their heads to protect their eyes from the glare. Verandas were not known when the old mansion was built, nor are they common even in modern houses to-day. The Englishman's home is still virtually his castle, and he likes to sit in the retirement of a garden surrounded by a tall hedge or stone wall. These walls conceal many treasures, and where one is fortunate enough to be invited inside, many delightful surprises meet the eye. The open-handed hospitality such as we are accustomed to in Canadian country towns, is unknown here. To be asked out to tea is quite an event, though we have enjoyed several of such functions of late. We were invited days ahead (not by telephone!) by some of the pleasant girls who are also V. A. D's. When we arrived the whole family—or the female part of it—were sitting in state to receive us. They apologized for their father who was out rook-shooting on his seven-hundred-acre

estate, which is kept as a hunting ground. We enjoyed the conventional hot scones and real "butter," gooseberry jam and delicious tea—not too much of anything, but it was all so dainty and so attractively served in contrast to our hurried meals at the hospital, that we found it "frightfully nice," as English girls say. Afterwards we were taken through the lovely flower garden, past that to the vegetables where we saw heads of lettuce and other plants covered with huge glass globes to force them then on to the family's pride, the kennels—"there are only eight dogs, as it is war-time!"—and at last to the chicken and duck enclosures. There is great trading going on in chickens and ducks. One hears ladies discussing it wherever one goes.

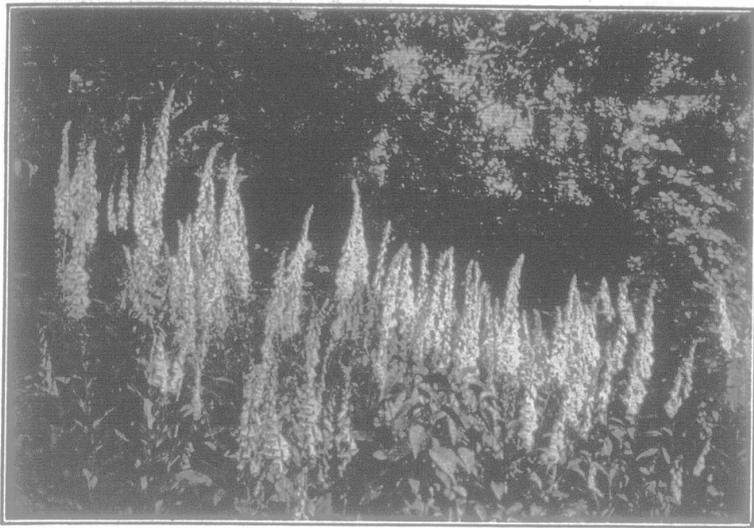
But to return to Tommy: when the sun is shining he sits out with his fancy-work. I have been admiring this morning some very lovely belts in cross-stitch with emblems of the different regiments embroidered in them, and panels to hang upon the wall that are really works of art. There is great rivalry in the fineness of the work. A clergyman's wife nearby comes in to teach them the stitches, and they are very apt pupils. They play billiards a great deal. Those whose arms are in bandages sit alongside to do the applauding (or otherwise), and there are many long tales told about Ypres and the Somme of which they never seem to tire. At present there are two lads who play the piano well, and nearly all of them sing. English voices are beautiful and everyone here loves music. I heard the air of "Sing Me to Sleep When the Shadows Fall," and paused at the door to listen. The voices blended exquisitely, but these are the words I heard:

Far, far from Ypres I want to be
Where German snipers can't snipe at
me;
Whiz-bang and shrapnel fall by the score,
O, take me back with you to Blighty
once more.

Since last writing, that fine resort on the coast which I told you about last summer in some of my letters from there, has been blighted by a visit from the Hun—not Zeppelins but aeroplanes carrying bombs which they dropped promiscuously. I cannot bear to think of the tragedy which took place in that beautiful avenue usually filled with happy throngs of pleasure-seekers, as well as the frightful scenes of blood-shed in the quaint, lower town. While there I saw Zeppelins pass over quite often but without doing harm, and we had all come to think that it was a favored spot; partly because Germans had always been so kindly treated there, and also from the fact that a great many still dwell unmolested along the water-front. In its quiet little "God's acre" around the old church near the training camp mangled bodies were found after the Hun had done his deadly work. There is now a great agitation to have all Germans deported from that town to an internment camp—a clearing out of spies which should have been accomplished many months ago. Since that there has been another raid with a squadron of eighteen machines which were reduced by ten before they got back home again. This last raid, over the Medway Estuary in the mouth of the Thames, provided a most spectacular and thrilling picture. Thousands of people whose curiosity prompted them to remain outside "to see the show" took their chances and were rewarded with something worth seeing. Special constables, everywhere alert, ordered women and children to take shelter, for, with the memory of the raid of a few days before fresh in their minds, nothing was left to chance. Bursting shrapnel from the first land gun fired—an "Archie" of Elephantine size and noise—gave warning of the attack of the Hun squadron. They came over the sea, 15,000 feet above it, in a curving swoop from the east, eighteen of them, led by a single pilot, and followed by two-and-two, evidently with little idea of the blistering pepper awaiting them. The shooting was most skilful. At first the land batteries had it all their own way, and the naval establishment (which they came to destroy) fell very much short in the performance, and still remains as secure as ever it was. Military damage was immaterial, while innocent people suffered. The main mischief occurred at a large shop where several people were killed, and a man walking in the street was instantly blown to pieces. But his death was almost immediately avenged by our guns, one of which hit a machine on the nose, cutting off its propeller which fell spinning into the sea. The aeroplane, its motive power gone, tipped over and came down describing circles in the air as it descended, at which soldiers, sailors and civilians cheered merrily. Then another was hit and fell into the water with a mighty splash. The pilot of it was drowned, but our tugs saved two others who were badly hurt, one turning out to be a clergyman and the other a schoolmaster. Leaving their two cripples behind them, the raiders decided they had better run for home, and disappeared in a maze far out to sea. The parting guests were speeded by one final shattering bang from a great British gun, and that was all—the firing ceased. At that final signal, in a clear sky, from across the water rose our own aeroplanes, one after the other in quick succession, swift in pursuit—with the final result which I have recorded above. Note their version (official) from the German admiralty: "One of our aeroplane squadrons dropped over five tons of bombs on the military establish-



Young Women in the United States who are Taking a Course in Aviation.
Underwood & Underwood



Foxgloves.

A flower that should be in every farm garden. From the eleventh annual report of the Horticultural Societies of Ontario.

ment of Sheerness (north of the Thames). Good hits were observed."—Not a word about the missing ones!

There are some very interesting articles appearing in an English paper by Professor Sefton Delmer, an Australian who was English lecturer at Berlin University, and was interned in Germany when the war broke out. He tells what masterhands the Germans are in deceiving the people as to the true state of affairs. Every week all newspaper editors are called together and instructed by a Major of the General Staff as to what they are to publish in their papers and what attitudes they are to adopt, so that the German press has become a meek flock and bleats loud or soft as authorities prescribe. One rather outspoken journalist broke loose on one occasion, but afterwards he cooed as soft as any dove, for his magazine had in the meantime been confiscated and he had been severely threatened for his independence. Professor Delmer tells of his visits to Cinemas, (which he attended entirely at his own risk, as an interned man is not supposed to go out in the evenings). The films showed the hypocritical Bosch as a philanthropist, sometimes sharing his dinner with some orphans in the occupied territory, or standing with bowed head in a ruined church, and even feeding a Belgian baby from a bottle. But just before he got away he witnessed the Möwe films (depicting the Atlantic raider at work). From a German standpoint they proved to be a gross mistake, for in their grim realism they brought home to the beholder the wholesale and wanton destruction of peaceful merchantmen, and showed the unspeakable horrors of the U-boat war, which the Germans had not yet grasped owing to the suppression practiced by their newspapers. They were horrible pictures, showing torpedoes striking ships and their writhing human cargoes struggle and finally sink to their doom. The effect on the spectators was far from what the military authorities hoped to produce, for they began to whisper "Schrecklich!" (frightful!), as if it had just begun to dawn on them why their terrible and cowardly hostilities by sea had made the German name so detested throughout the world. He thinks that in spite of misrepresentation and twisting of facts the Germans are beginning to feel that they are not winning. No official totals of casualties have been published there for many months, but they have private and expeditious ways of conveying the information to bereaved relatives. And now even the once idolized Hindenburg comes in for criticism. Soldiers and officers are heartily sick of the war (our Tommies tell us that so often of the enemy!) and letters are often picked up in the trenches headed with the words, "Noch am leben" (still alive). That expresses the state of Germany regarded as a whole, "In spite of everything, we're still alive." Compare that with the morale of our army who go into the fight willing because they are confident of victory. Sir Edward Carson said in the House recently, "We are going to stick it out." (Presumably he intends to be known as "the stickit minister") and

the storm of applause that came from every quarter of the House when Mr. Lloyd-George made the statement, "If everybody puts all he has into the common stock, then the submarine is not going to defeat us," showed the general feeling of the audience and the sympathy of British statesmen with their great leader.

Of course, you have read about the Investiture in Hyde Park on Saturday last. The sun shone on our heroes and the day seemed made for them. Not since Crimean days has Hyde Park witnessed such a spectacle—and then there were no battle planes whirling overhead like guardian angels, to protect our Sovereign and his Lady. Princess Mary, who seems to have grown up the last few months, and represents her mother on many occasions, was there too. She is very popular. People in the park remarked on her youth and beauty. Passing to the enclosure the princess smiled upon a veteran in the uniform of fifty years ago. The old fellow was highly delighted and said boastfully to some young officers near him, "Some of you youngsters wouldn't mind growing old for a smile like that."

There is a great agitation going on as to whether breeches or trousers shall prevail when peace comes again. Tommy of course, feels that he can never go back to trousers, after his neat and practical uniform. The newspapers have entered heartily into the discussion, and on Whit Monday, a great holiday here, the ever-growing army of men whose battle cry is the abolition of trousers for a more rational dress, were all out in full force. A well-known actor who was asked to give his opinion said that he was perfectly convinced "that it is only a question of time for breeches to be universally worn, and that trousers stand condemned." One infantry sergeant said they were "the most ungainly stove-pipe like garments ever foisted on mankind, and must have been invented by a fanatic." A prominent tailor on Regent St. has planned an evening costume which consists of velvet or satin breeches with a satin coat, lace ruffles, silk stockings, and shoes with buckles. How much more attractive than the funereal black now in vogue! I know a man who would look most handsome in such a costume. But the Scotchman steps in with his opinion in few but emphatic words, "Neither trousers nor breeches. Let us all get back to the Kilt!" We have become quite accustomed to "Scottie" since war began, but for all that he still attracts more attention by his picturesque garb than other men in ordinary uniform in a procession or "march past." Everybody loves the Kilties.

Economy in dress is becoming very important too. Woolens are very high in price. An appeal has been put forth for children to collect from the hedges the bits of sheep wool left by the flocks passing along our leafy lanes, and it has met with a ready response. The Minister of National Service, to whom all the wool is sent, has received scores of packets from all parts of the country. Some only weigh four ounces, but they bulk large.

The wool goes to make blankets and clothing for soldiers. One woman had written to say that she had knitted a pair of gloves from the hair of her Persian cat, and suggested that if all the Persian pussies in the country were shaved there would be a really valuable addition to the stock available for this purpose. Another proposed that all Pomeranian dogs should be shorn of their beauty for wartime necessities! Necessity is certainly the mother of invention!

In the meantime, dear Canada, keep on knitting. Have our soldier boys ever told you how many pairs they wear out in a month on the long marches. I am sorry we cannot send matches in the mails, for Tommy was telling me this morning that when anyone lights a match in the trench he is immediately surrounded—Tommy is always "out of matches." Parcels from home are more appreciated now than ever they were, so do not grow weary in well-doing.

SIBYL.

Hope's Quiet Hour

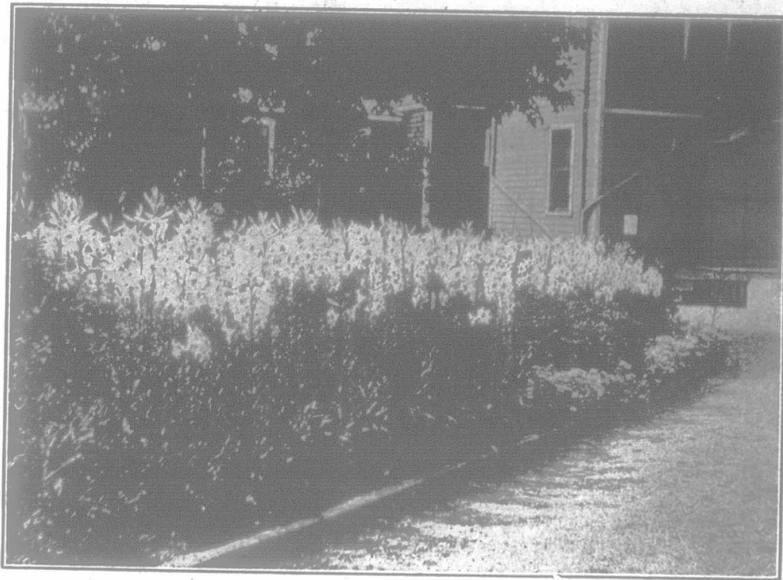
The Invincible Ally.

The patriarchs, moved with envy, sold Joseph into Egypt; but God was with him, and delivered him out of all his afflictions.—Acts 7 : 9, 10.

"Man's wisdom is to seek
His strength in God alone;
And even an angel would be weak
Who trusted in his own."

If God be with us we need not fear the might of any enemy. Of course it is not enough to claim God as our Ally. Germany has done that from the beginning; but it is impossible—by any number of prayers—to win God's sanction for injustice and cruelty towards the weak and helpless, or His approval for repudiation of solemn treaties. The judge of all the earth cannot be bribed by prayer and sacrifice to support a wrong cause. How sternly He refuses to accept the prayers of those who are oppressing the widow and the fatherless. Listen!—
"When ye spread forth your hands, I will hide mine eyes from you: yea, when ye make many prayers, I will not hear: your hands are full of blood. Wash you, make you clean; put away the evil of your doings from before mine eyes; cease to do evil, learn to do well; seek judgment, relieve the oppressed, judge the fatherless, plead for the widow."—Isa. 1: 15-17.

"These six things doth the LORD hate; yea, seven are an abomination unto Him.
A proud look, a lying tongue, and hands that shed innocent blood, an heart that deviseth wicked imaginations, feet that be swift in running to mischief, a false witness that speaketh lies, and he that soweth discord among brethren."—Prov. 6 : 16-19.



White Lilies.

From the eleventh report of the Horticultural Societies of Ontario.

Can any number of long prayers win the All-Holy God of the nations to support a cause like that? Yet there are many people in our Empire clamouring for "reprisals"—in kind,—for acts of terrible cruelty to the helpless. If our friends, who are in the hands of the enemy, are ill-treated, shall we defy the anger of God by punishing helpless prisoners for wrongs committed by other men? Because little children in England have been killed by bombs, dropped on undefended cities, shall we deliberately try to kill innocent children? It is impossible to overcome evil with evil—that is only like pouring oil on a raging fire. We cannot permit evil to go on unchecked; but we must fight it by fair means and never soil our hands or bring disgrace on our cause by foul deeds.

Arthur Gleason—who wrote of what he saw during his Red Cross work at the front—has declared: "An army of half a million men will return to the homeland with very bitter memories. Many a simple German of this generation will be unable to look into the face of his own child without remembering some tiny peasant face of pain—the child whom he bayoneted, or whom he saw his comrade bayonet, having failed to put his body between the little one and death."

But some men plead "necessity" as their justification for demanding cruel and unlawful reprisals. They have an idea—the idea which has been proved untrue numberless times in this war—that frightfulness helps forward a cause. Does it pay to war on women and children? How many new enemies did Germany make by killing a noble British nurse, and by sinking the Lusitania? Can you count them? Did those terrible deeds help forward their cause; or did they fall as sledgehammer blows on the nation that planned, executed and approved of them? Even as a matter of advisability let us remember that cruelty and wickedness invite destruction. "Righteousness exalteth a nation; but sin is a reproach to any people." God is an Ally to be greatly desired—but let us beware how we defy His laws and make Him our enemy. We need not think that sin will go unpunished; "For we know Him that hath said, vengeance belongeth unto me, I will recompense, saith the Lord. And again, the Lord shall judge His people. It is a fearful thing to fall into the hands of the Living God."

But I did not intend to write about the war to-day—it is not an easy subject to avoid. Let us look at our text. We see, as in a moving picture, the life-history of a man who prospered greatly because God was his Friend. At first he appeared to be helpless in the hands of those who hated him. Look at the gentle-hearted lad as he comes to greet his brothers. See him flung into a pit, then dragged out and sold as a slave. Everything seems to be against him. But wait! God is with him. Swiftly he rises to a high position in the house of his master until he is made overseer—a position of trust and responsibility. Then comes a strange and bitter change.

Falsely accused of a shameful sin he is openly disgraced and flung into prison. His feet are hurt in the stocks and the iron of undeserved punishment enters into his soul. But again we read: "The LORD was with Joseph". Look at the prisoner again and you will see that he is trusted by the keeper of the prison and given both responsibility and authority. "The keeper of the prison looked not to anything that was under his hand; because the LORD was with him, and that which he did, the Lord made it to prosper."

Look at this much-tired, yet greatly blessed, man again. See how his wise administration saves Egypt in time of famine. See how kindly he is in his behaviour; when the brothers, who had cruelly treated him, are at last in his power. See them falling down abjectly before him, and listen to those words which must have astonished them greatly: "Joseph said unto them, Fear not, for am I in the place of God? . . . Fear ye not: I will nourish you and your little ones. And he comforted them, and spake kindly to them."

What a glorious chance for reprisals and how Christlike the attitude of the conqueror! No wonder the statement:—"The LORD was with him"—is repeated over and over again.

If any man have not the spirit of Christ he is none of His. Joseph was patient in time of trouble, absolutely worthy of trust when the property of other men was placed in his hands, and he utterly refused to bear a grudge against those who had done their best to destroy him. God was his Ally—how could it be otherwise? God was with him,—therefore all was well with him. The troubles he had to endure were used by God to burn away all the dross, leaving his soul as gold refined in the fire. How clearly he saw this for himself, after the troubles were over. Listen to the mighty Prime Minister of Egypt, as he reassures his trembling brothers:

"As for you, ye thought evil against me; but God meant it unto good, to bring to pass, as it is this day, to save much people alive."

No evil can really injure one who has God for his Ally. If we are loyally on God's side,—obeying His orders, overcoming evil with good, refusing to bear a grudge and claiming kinship with all men,—He will be with us as He was with Joseph. The choice rests with ourselves. We may fight with God or we may fight against Him. Does He ever stand aside as a neutral?

Remember it is possible for a nation as a whole to be against God—and therefore doomed to lose in the end—while many members of that nation may be wholeheartedly serving God. Each individual must answer for himself. We are all influenced by public opinion; but we cannot shelter ourselves entirely behind that bulwark. Each of us must give account before God and before the bar of conscience—our own conscience, not the collective conscience of our nation. As unrighteousness is the worst possible policy for a nation—because it is fighting against God—so sin is the worst policy for an individual. It never did pay, and it never will. If God be against us, it will help us little to have all the world on our side. The final judgment is not on this side of death—but it will surely come. Will the King and Judge of all the earth uphold or condemn us? That is the vital question for both nation and individuals. We all have some influence, and must answer before God for our use of it. Life is not a pleasure excursion. We belong to the "church militant"—the fighting church—and

"He always wins who sides with God."
DORA FARNCOMB.

For the Needy.

Your gift of \$4.20, Mrs. H., went out at once on a mission of mercy. The man who benefited by your kindness has been ordered off to Muskoka by the doctor. His brave little wife is doing her best to be bright and hopeful, but she evidently finds it very hard to "keep smiling". The dollar, which Mrs. S. dropped into the Quiet Hour purse, went out yesterday to help a sick woman who is almost crushed under a very heavy load of trouble. My thanks go to you with theirs.

HOPE.

The Fashions.

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. 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.

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Eliminating Non-Essentials.

BY ELEANOR ROBBINS WILSON,
IN "AMERICAN COOKERY."

Every successful housekeeper who is a satisfaction alike to the inmates of her household and herself, in some early stage of the domestic routine, has experienced a great sifting process and thereby conclusively settled the perplexing operation of separating home-making essentials from non-essentials.

While each home is a law unto itself, and each home-keeper's problems are largely individual, all share the common desire for the best mode of procedure in dispatching their duties and crave the common reward of increased freedom. "A wide margin of leisure is as beautiful in a man's life as in a book," said Thoreau. Had these lines been penned during the last decade, they might have read,—"A wide margin of leisure is as beautiful in a woman's life as in a book;" and the heartiest feminine "amens" to the sentiment would come from the house-keeping contingent.

How, then, are we to attain this desired leisure?

Only by becoming efficient workers and managers. To be the first means merely living up to Grandmother's adage, "make your head save your heels," plus the intelligent use of twentieth century labor saving devices. To be the second means mastering the art of conserving all the good things which contribute to the artistic and material comfort of the home. Prominent among these good things are time, money, and the house mother's health.

Owing to the fact that the domestic woman remains at home while the husband, out in the fray of business affairs, is continually enlarging his mental horizon through new viewpoints, it often happens that the two grow apart and are more widely separated in later years than when they first came together. It, therefore, becomes the absolute duty of each housewife to arrange her household affairs so that each day she may be able to devote some definite period, however small, to the broadening of her interests. Prentice Mulford tells us that it is thinking the same thoughts that ages us most, and that new thought is new life. So brightening our prosy, household planning with fresh, recreative ideas becomes of paramount importance.

The only short-cut to this coveted leisure lies through system. In other words, it means an intelligent survey of each day's necessary duties, classifying them as regards relative importance and then performing them with a due regard to sequence.

I know of no more profitable undertaking for the average housekeeper than an occasional minute criticism of her methods. One by one, let her review her daily duties and find just where her waste energy is going. Each period of such concentration should bear fruit. And it is only by applying improvement that we can hope to lift the performing of common household drudgery to the dignity of a science, and the art of home-making to a profession.

Not long ago, an acquaintance of mine wore a pedometer during her morning

work and found, in an incredibly short space of time, that it registered three miles! It is needless to add that to-day finds her eliminating many non-essentials and the proud possessor of some worthwhile labor-savers.

So, my dear homekeeper, let me repeat the admonition to face your several duties and try to lay your finger on the weakness thereof. If you are making yourself foot-weary and uncompanionable through unnecessary steps, canvass the question thoroughly and see how it may be avoided. Perhaps, the answer lies in curtailing the dusting, by putting away superfluous bric-a-brac, silver, furniture, etc., in fact, everything that does not directly contribute to the comfort or well-being of the family. Or, may be, a separate set of working utensils for the upper floor, a re-arrangement of the kitchen furniture, or simply a large tray or "dish pan" for removing dishes from the table would obviate the trouble.

Perhaps you are spending too much time in ironing. Many young mothers are simply martyrs to pride. Babies certainly do look adorable in white, but there are innumerable times when dark frocks may be used to advantage and even when rompers should take the place of dresses. In the choice of fabrics, too, lies another means of time-saving. Seersucker, Japanese nets, and cotton crepes require no ironing, and the latter material is as desirable for undergarments as for gowns, and is the ideal underwear cotton for the home-abiding as well as the traveling woman.

Cooking and dish-washing are time-consumers. But even these may be simplified and performed in shorter periods by the employment of proper culinary implements. Doubtless there is no more valuable help for the cookery problem than the study of nutritive food values, and learning to serve a dietary appropriate to the season. During the summer months we shall gain in health as well as time by letting fresh fruit and plain ice cream take the place of rich puddings and pies, in discarding heavy meats and gravies for succulent vegetables, nut and egg dishes, and by partaking of an occasional picnic luncheon in the garden or on the veranda. The use of paper plates in the refrigerator is by no means a small help in the lessening of dish-washing. Size 6 x 7 sell at \$.40 a hundred, while those measuring 8 x 9 are \$.50 per hundred.

In planning her moments for recreation, the efficient housewife has, perform, become Janus-faced. She has learned that it is yesterday's lack of repairs that too often robs to-morrow of its play-hour. The gap in the screen that keeps her swatting flies, the refractory damper that takes extra time to coddle, the broken spring on the door that necessitates extra steps, the clogged pipe, etc., that are a drain on both time and money, cheat her of the moments which might richly be used in more advantageous directions. In the domestic realm, as elsewhere, it is "trifles that build the tomb of great things."

The modern housekeeper has no better yardstick for measuring the progress of her domestic ideals than a backward glance at out-worn methods; no better way of counting her riches than enumerating the thousand and one golden advantages that have blossomed in the place of her fore-mother's essentials.

One of the best housekeepers I know is a woman who has outgrown the semi-annual orgy of house-cleaning, and her shining panes and fresh window draperies are but an outward advertisement of the indoor cleanliness and order. This house is an average home, but the smooth-running of its domestic machinery makes it unusual in many respects.

The floors are of hard wood throughout this home. From week to week the rugs are given careful attention and, at regular intervals, like the mattresses, receive a thorough sunning and airing. Painting, papering, floor polishing, and general repairing are done at opportune moments and draperies are laundered as frequently as necessary. Thus the old-time cyclonic upheavals, dignified as spring and autumn housecleaning, are unknown disturbances in this ever-attractive abode.

All hail to the modern domestic science that is teaching the habit-bound housewife the value of efficiency—that intelligently directed endeavor in the home plays a colossal part in making the world over into a more satisfactory dwelling-place! It is an occupation of the most comprehensive scope, and we cannot separate it from any of the interests which enter people's lives.



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While few of us can attain to the idealism of Hamlet's words, "There is nothing either good or bad but thinking makes it so," we know the mental attitude which we bring to our labors has much to do with the quality of our work and, indirectly, in the effect of our work upon us. Home-making to countless women is still a labor of love.

To me, prevailing conditions seem to call for a firmer grounding in household economics, which is productive of inventiveness. And inventiveness, as we all know, leads to better and quicker ways of doing things. It develops a finer discernment of essentials and non-essentials, and alertness of vision wherein we learn "to keep the eye single" to the proper valuation of comfort. For the crown of home-making is happy living. We grumble much about being bound to the wheel of complex living, when, in reality, we are frequently only tethered by trifles. Let us begin to-day to ascertain the true essentials of home-keeping and into the limbo of discarded things we shall not only toss many inferior methods, but much of our false pride, our pseudo-hospitality and our slavery to "appearances."

A Letter From New Brunswick.

Dear Junia.—Here I come again! "Sybil's" letters are very nice, and I rather envy her her war-work. I was a trained nurse when I married nearly 25 years ago, but both the Boer war and this have come too late for me. Still, I do war-work as I am dairying and knitting, etc., and must be content. As to the ignorance of the English about Canada, we were introduced to a "very smart" Canadian about two years ago, and while talking to her of England and London she said, "Now, where is London, anywhere near England?" We live in a wooden house and had to build it too. We are having beautiful weather now, and garden stuff and grass are all growing well. We "took up" this lot four years ago and cut about 5 tons of hay last year, the first; I think there will be more this year. I was glad to know of the carbonate of soda for the rhubarb; it certainly does save sugar.

We called this "Brookwood" farm, as we came from Brookwood in Surrey. It is bounded on one side by the Juniper brook, and there is a belt of trees on another with woods all round. With kindest regards.

JOANNA M. HUDSON.
Brookwood Farm, Juniper, N. B.

Queries.

A nest was found on the ground of a bank, which is made like a sparrow's nest. The eggs are three, all white, blotched and thickly dotted with brown. By a bird-book it seems that the nest is a meadowlark's, but one egg is larger and rounder than the other two. The other two eggs are pointed. Is this extra egg a cowbird's?

Would kindly ask a recipe for the making of pineapple pie.
My little girl is eleven years old and has dark brown hair about to her waist. What would be a nice way to do it up?
Welland Co., Ont. ROSEBUD.

No doubt the large egg is a cowbird's. All cowbird's eggs should be destroyed. The bird is the worst pirate we have, so far as our native wild birds are concerned. It leaves its eggs to be hatched out by other birds; the young cowbird is larger than the other birdlings in the nest, and so reaches up and secures for itself most of the food the parent birds bring, with the result that the smaller ones are often starved to death.

I do not know a recipe for pineapple pie, but would imagine that the canned or chopped pineapple might be drained and mixed with boiled custard to make a very nice filling. Perhaps someone can send a tried method.

There is no nicer way to arrange the hair of a girl of from ten to sixteen years of age than in one or two long curls down the back, and fastened at the back of the neck with a barette or bow of ribbon.

Cure for Warts.

For Reta, Durham Co., Ont.—I do not know the cause of warts, but a cure is said to be to rub them night and morning with a piece of muriate of ammonia (sal ammoniac) moistened with water.

The Cookery Column.

Currant Pancakes.—Mash slightly 2 cups ripe currants. Beat the yolks of 3 eggs until light, add 1 cup rich milk, and stir in 2 heaped tablespoons finely rolled, dry breadcrumbs, then add enough flour to make the batter of the right consistency. Fold in the whipped whites of the eggs, and the currants mixed with a little sugar. Fry as usual and serve with butter and sugar.

Currant Pie.—Ripe currant pie made with plenty of sugar and a crust top and bottom is delicious. A more elaborate pie is made as follows: Mix 1 tablespoon flour in a cup of sugar and stir in 1 cup currants. Add the yolks of 3 eggs and 3 tablespoons water beaten together. Let the mixture come to a boil over hot water, stirring constantly. As soon as it boils fill the pie plates, which have been nicely lined with pastry, and bake. Whip the whites of the eggs stiff, adding gradually 1 tablespoon powdered sugar and a pinch of salt, with 1 teaspoon vanilla. Spread on top and brown in the oven.

Raspberry Filling for Tarts.—Mix together ½ cup sugar, a pinch of salt and a tablespoon of flour in ½ cup cold milk. When smooth add 2 beaten eggs and 1 cup scalded milk. Bring to a boil, stirring constantly, and let cook for 2 minutes. Remove from the fire and add 1 teaspoon vanilla and ½ cup cream beaten stiff. Put in the tart shells and pile crushed raspberries on top, sprinkle well with sugar and serve.

Green Pea Puffy Omelet.—Beat the yolks of 4 eggs until creamy, and the whites until foaming but not dry. To the yolks add 4 tablespoons water and one-third of a teaspoonful each of salt and black pepper. Mix and pour over the whites. Fold the whites into the yolks and turn into a hot pan in which a teaspoonful of butter has been melted. A rather small frying pan is best. Let stand on top of the stove for 2 minutes, then set into a moderate oven. While the omelet is in the oven melt 3 tablespoons butter. In it cook 3 tablespoons flour and one-third of a teaspoonful each of salt and pepper, stirring well. Add 1½ cups milk and stir until boiling. Add about 2 cups cooked peas and let become very hot. When a knife thrust into the omelet shows upon it no uncooked egg the omelet is done. Score it with a sharp knife, spread some of the peas on one-half of it and turn the other half over. Serve at once on a hot dish with the rest of the peas poured around. This will serve four people, and is delicious for breakfast or supper.

Bread-Crust Bread (A good way to use stale bread).—Use 2 cups of bread crusts dried and rolled or put through a food chopper. On this pour 1 cup scalded milk and 2 cups boiling water. Add 2 tablespoons shortening, 1 teaspoon salt, one-third cup molasses, and, if at night, ½ cake of compressed yeast mixed with ½ cup lukewarm water or milk. If made ready in the morning use a whole yeast cake. Mix all together, then add 1½ cups Graham flour and 5½ cups white flour, and mix to a stiff dough. The dough should be very stiff, as it softens on rising, so more flour may be required. Knead until smooth, cover and set aside to double in bulk. Shape into 2 loaves, and put in a place where draughts will not strike it to become light. Bake about an hour.—American Cookery.

Gooseberry Tarts.—Wash, clean and drain 3 cups gooseberries. Add 2 cups sugar and 1 cup boiling water. Bring to boiling point and let simmer until the fruit is soft, then add a few grains of salt. Roll pie paste and cover inverted patty pans with it, pricking each several times with a fork. Place the patty pans on a tin sheet or large bread pan and bake. Remove from the tins, fill with the sauce and arrange strips of paste in lattice fashion over the top. Return to the oven and finish baking.

Raspberry Washington Pie.—Bake a layer cake in two layers and split each layer. Put together with raspberries crushed and beaten with powdered sugar and the unbeaten white of an egg. Beat the mixture until creamy. Put whipped cream on top and garnish with whole berries. About 2 cups berries will be required for the filling.

Green Pea and "Greens" Soup.—Cook 1 cup green peas, drain and mash fine through a potato ricer. Add to cooked greens also put through a sieve. Melt ½ cup butter and in it cook ½ cup flour, 1 teaspoon salt, ½ teaspoon pepper, then add 1 quart milk and stir until boiling.

Add to this the peas and greens, 2 cups of hot cream and more pepper and salt if needed. Cut some bread thin, butter it, and cut in half-inch squares. Brown these in the oven, and put a spoonful on top of each plate of soup. Serve very hot.

Gooseberry Amber.—Put 2 tablespoons butter into a saucepan. When melted add 1½ lbs. gooseberries, 3 tablespoons sugar, and the grated rind of 1 lemon. Let stew slowly until soft, then press through a colander. Beat in the yolks of 3 eggs, and add ½ teaspoon ginger. Line a pudding-dish with good pastry and put a strip of it around the edge, pinching it into a fancy border as for pie. Put the gooseberry mixture into the dish and bake in a quick oven for half an hour. Cover with a meringue made of the whipped whites of the eggs and brown in the oven.

Spiced Currants.—Stem and wash 4 quarts currants. Add 2 lbs. sugar, 1 pint cider vinegar, 1 teaspoon cinnamon, allspice and cloves. Boil slowly for one hour. Grapes may be done the same way, only that a little more fruit may be added to the other proportions.

The Scrap Bag.

Use Water.

Remember that water, needful at all times to the body, is especially necessary in warm weather, when evaporation makes an extra amount necessary. Keep cooling drinks on hand, either pure cold water, lemonade, iced tea or thin gruel, which is liked by some men in the harvest field. It is better to drink small quantities often than large quantities at greater intervals.

Keeping Bread.

Cool bread very thoroughly before putting it away in a closed receptacle, as otherwise it is likely to mildew. A large earthen crock with a cover is the best place for storage, but usually on a farm the quantity baked at a time is too great for this, and a larger receptacle is needed. Whatever is used, whether box or wash-boiler, should be scalded and dried thoroughly at frequent intervals and should have fresh paper placed in the bottom at each cleaning. All left-over bread that cannot be used as toast should be dried and rolled into crumbs which are kept in jars to be used in making pancakes, croquettes, etc.

The Refrigerator.

To keep food in good condition the refrigerator should be kept perfectly clean, and if possible at the same temperature. Hot food should never be placed in it, and the door should never be left open except when cleaning and airing it.

Drying Colored Clothes.

Colored clothes should be wrung just as dry as possible from the rinsing water, and hung in a shaded, windy place to dry as quickly as possible. White clothes may be put on the line very wet, as they bleach better when wet. Always choose a bright, sunny day, if possible, for washing white clothes.

Fruit Juices.

After making jelly turn the fruit left in the jelly-bag into a saucepan, cover with water, and boil. Strain this through the bag again, boil a second time with sugar and seal in bottles or jars. This juice may be diluted with water to make summer drinks, or used for flavoring pudding sauces.

A Gooseberry Jam Hint.

When making gooseberry jelly or jam add a little vanilla before sealing. This makes a great improvement.

Banishing Ants.

A writer in "Good Housekeeping" says: "In the Nevada desert, where we live at our mines, there are more different kinds of ANTS than I knew existed. I find one thing that is absolutely dependable in driving them away. This is the recipe: into a three-ounce bottle of grain alcohol put half a teaspoonful of powdered corrosive sublimate. It will dissolve at once. Get a long-handled camel's hair brush that will go in the bottle, and paint a ring not quite half an inch wide around the sugar barrel, cake box, etc. One application suffices. Even if the druggist

has the three-sided poison bottle, put it out of reach of little hands."

To Clean Vases.

If vases for cut flowers have become discolored clean them with vinegar and salt or vinegar and tea-leaves, washing finally with clear, hot water.

Arranging Flowers.

Short-stemmed flowers, such as English daisies or pansies should be placed in a low dish. Little wire holders are now sold for placing in such dishes, but if you cannot get one easily you can make a substitute by cutting a piece of wire netting to fit the top of the dish. Put the stems through the meshes.

Cheap Work Apron.

Old cotton shirts may be made into very good work aprons. Use the backs for the main part of the apron and cut the bib and pocket from the sleeves.

Substitute for Ice.

If you have no ice a substitute may be made as follows: Take a box 3 feet square and put it in the cellar or partly bury it in a cool, shady place. Put 4 or 5 inches of coarse salt in it, and keep the salt slightly damp. Milk and butter placed in this will keep nicely.

Removing Taste of Weeds.

The following is said to be a good way to remove the taste of stinkweed from cream: Slice a raw potato and put into cream immediately after separating. In less than 24 hours (or even until it is churned) all disagreeable odor and flavor will have disappeared. If cold setting is practiced warm cream to blood heat and treat the same as from separation. This is too good to be kept a secret—sure and unailing in its results.

"No Burn" Kettle Bottom.

A simple invention to prevent burning when cooking is a second "bottom" for kettles, made of a disk of aluminum with a row of embossed buttons to prevent it from resting flatly on the bottom of the pan or kettle. This is very useful when cooking meat or vegetables. Only one is necessary, as it can be moved from one kettle or pan to another.

Silk Stockings.

Darn the heel and toe of silk-stockings well before wearing, and the stockings will last much longer. The darning cotton will wear off first, and may be pulled out and the places re-darned. Darn also at the place where the garter clasps.

To Remove Fruit Stains.

Pour clear cold water through fruit stains just as soon as possible, and very often the stains will be quite removed. Obstinate stains will usually yield to Javelle water. Add a cupful of the mixture to the boiler of water in which the clothes are boiled.

Caring for Tablecloths.

You need not stretch and pull tablecloths when hanging them on the line. Fold the selvages together evenly, then pin each corner to the line. Put in another pin at the center to remove the sag, then place pins all along 12 or 15 inches apart, shaking out any folds or wrinkles. A long, wide board covered with cotton and nicely padded should always be kept on hand for ironing tablecloths and sheets. They should be ironed lengthwise then across, keeping the linen squared. The starch used should be thin, and should have a little turpentine added to it.

Dried Peas.

Shell young peas and throw them at once into a kettle of boiling water. Boil rapidly for 2 minutes, then drain and spread in a thin layer on clean granite pans. Put in a moderately warm oven and shake the pans frequently. When thoroughly dry pack in boxes lined with waxed paper and keep in a very dry place. Before cooking soak at least one hour.

It Pays.

To buy new rubber rings for fruit jars each season. The price of a jar of fruit spoiled through a defective rubber



Your Friends Will Drive for Miles to Hear This Splendid Phonograph

First District Prize in Bread-Making Contests at School Fairs

IN this announcement we tell you more about the wonderful phonographs and other prizes that proud young girls are going to win this fall by competing at the Rural School Fairs in Ontario. Five splendid instruments and many other prizes are offered for the best

loaves of bread baked with Cream of the West Flour. Every girl between 12 and 18 years of age has a chance to win one of these magnificent phonographs. If you want to make your chances better, the way to do is to start right away to practise baking bread with

Cream of the West Flour

the hard wheat flour that is guaranteed for bread

At our big mills in Toronto we have many letters testifying to the superior qualities of Cream of the West Flour. It is to have more people try it, and thus always want it, that we put on this contest and offer such splendid prizes as the Pathephonographs, books, bread mixers, etc.

The Pathephone

Just imagine the fine times you can have with this splendid phonograph. Your friends will envy you, and gladly drive for miles to hear its wonderful music. Think of the fun you can have with it, how grandpa and grandma will enjoy the old songs, like "Annie Laurie"; how the fast band music may make grandpa's dancing feet wake up; how you can drive over to the concert and help the programme. What a fine thing for the winter evenings, too! Each of the Pathephones we offer (with twelve records) is worth \$150.

Just make up your mind to win the phonograph and practise—practise—practise baking with Cream of the West Flour. That's the way to increase your chances. Start right now.

We have selected five of the famous Pathephones as the leading prizes for the contest because we desired everyone to know at once that no ordinary phonograph is offered. This prize carries with it the reputation of the celebrated Pathe Brothers of Paris, France, whose names

stand for best quality all over the world in moving picture films and phonographs.

The Pathephone reproduces beautiful songs, band and orchestra music better than any other phonograph does. Besides that, you can do things with it that you could not do with most other instruments.

You know that most phonographs have a sharp steel needle-point that runs in the grooves of the flat record to get the music out. A new needle has to be put in for every record. Instead of the needle the Pathephone has a little round jewel called a sapphire. It never needs changing. Just think of all the trouble this permanent reproducing needle saves!

The hard steel needle of the ordinary phonograph digs and tears its way around a record. No wonder the record soon wears out, and the music gets spoiled. Pathe records can be played over and over again a thousand times and still give the same splendid music. The reason is that the round sapphire ball does not wear the record. And it is permanent itself—does not wear out as needles do.

The Pathe records that you get with this splendid phonograph prize—a dozen of them—are different from ordinary records, too. They make better music, because the wonderful little sapphire ball-point fits snugly into and over all the little hills and dales that fill the circular-shaped groove in the record, and draws out *all* the music. The sharp steel needle misses much of the

sound. The Pathephone always gets lovely, full, round tone—sweet as a flute.

Another reason for the Pathephone's splendid tone is that it has an all-wood sound chamber through which the sound comes. This makes the tone pure and sweet—not hard and metallic as it would be with the ordinary metal outlet. There is less scratching than in other phonographs.

Now you sometimes want to play records that are not like the Pathe records and require needles. To provide for this, there is a special reproducer given along with the Pathephone with which you can use any record requiring the needle-point reproducer. Thus with the Pathephone you can play *all* records.

Here is a splendid thing. By just pushing a little rod in or out, as required, you can make the music softer or louder. Thus you can put your own ideas into the music in the way that just suits your own moods.

Again we say, practise baking bread with Cream of the West Flour and build up your chances to win. You can get our flour! If your dealer does not sell it, just write us a letter (address below) and we will immediately reply telling you the nearest place to get it in your neighborhood.

See opposite page for conditions, and descriptions of the other prizes in this contest.

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

 Keep this announcement for reference.

 SEE OPPOSITE PAGE

Eight Hundred Girls May Win Prizes In Bread-Making Contests at Rural School Fairs

EVEN if you do not win the splendid phonograph described on opposite page, remember that, altogether, about eight hundred girls in the Province may win prizes. You see you have lots of chances to win. Any of these attractive prizes, described below, would make it well worth your while to compete. Even if you were to win no prize at all, your time will be well spent, for no young girl can learn too much about good bread-making. Be sure to read the conditions of the contest explained below if you have not already learned the rules of the contest.

On the opposite page we described the Pathephone to be given as first prize in each district. Now we come to the rest of the prizes.

SECOND DISTRICT PRIZE—SET OF DICKENS' WORKS

One of the eighteen books in this set is called "David Copperfield," the wondrous story of a poor lad's adventures facing the world. Another is "The Old Curiosity Shop," the story of Little Nell; another book is about "Oliver Twist," whose strange adventures with Old Fagin and other bad men are told in a manner that holds the reader spellbound. All the books of the set are like that—eighteen books, mind you, all beautifully cloth-bound, with gold titles and many pictures.

THIRD, FOURTH AND FIFTH DISTRICT PRIZES—CANUCK BREAD MIXERS

Instead of using a number of utensils, lifting and kneading the dough several times, all you have to do is to put the ingredients into the Bread Mixer. Then you turn the handle for three minutes. When you take out the dough, you find it is both thoroughly and evenly mixed. The Bread Mixer is as easy to clean as an ordinary pail. Besides taking the hard work out of bread-making, the Canuck Bread Mixer enables you to have a perfectly even texture of crumb in your bread when it is baked.

Prizes at your Local Rural School Fair



FIRST PRIZE—GIRL'S OWN ANNUAL

Fortunate indeed will be the winner of this splendid big 800-page book, whether she be 12 or 18 years of age, for it will intensely interest every girl. It contains dozens of fine pictures, and teems with just the kind of stories you like best. Besides, it tells how to do many things like crocheting, sewing and drawing pictures. It tells about famous people and about the war. And it gives all sorts of information about flowers, animals, curiosities—everything you want to read about. Remember, too, that the winner of this beautiful book also secures the chance of winning the phonograph. (See conditions below.)

SECOND LOCAL PRIZE—STORIES OF FAMOUS MEN AND WOMEN

The most interesting living beings in the whole world are people, especially famous women like

the late Queen Victoria; Grace Darling, the heroine who saved the sailors' lives; Florence Nightingale, who went to the Crimean War, many years ago, to nurse the poor wounded soldiers. This book tells all about these celebrated women; and, besides, there are many other famous people who did great deeds—all told about in the most interesting way in this fine book. There are many pictures, and the book is beautifully bound.

THIRD LOCAL PRIZE—BRITAIN OVERSEAS

The building up of Britain's world-wide empire was not done without many interesting adventures in strange, far-away lands, with curious people inhabiting them. What could be more interesting than the stories and pictures of the different countries and people that fill this splendid book?

FOURTH LOCAL PRIZE—QUEEN'S GIFT BOOK

Many of Great Britain's most famous writers and artists wrote stories and poetry and made pictures for this book. Queen Mary gets all the profits this book makes, and with it she helps disabled soldiers.



THE GUARANTEED FLOUR

"Each loaf must be accompanied by part of bag which shows the face of the Old Miller."

Here are the Conditions of the Contest—Read them Carefully:

This is the way we conduct the contest: We have divided the Province into five districts, each with several counties. (See the list of districts below.) In each district we give one of the five phonographs, one of the sets of Dickens' Works, and the Bread Mixers. These are called the District Prizes. To try for them you compete at your local rural school fair. If you win the first prize there, you then, without any further work on your part, automatically become a competitor for the Pathephone and the other District Prizes. Read these conditions carefully.

Every girl may compete at the rural school fair in her district, whether or not she attends school, providing that her 12th birthday occurs before November 1st, 1917, or her 19th birthday does not occur before November 1st, 1917. One loaf of bread must be submitted baked in pan about 7 x 5 inches and 3 inches deep, and divided into twin loaves, so that they may be separated at the fair. The loaf must be baked with Cream of the West Flour. One half will be judged at the fair. The other half of the prize loaf will be sent to Ontario Agricultural College, Guelph, to compete in the District Contests of Bread-making and Flour Testing. The judging will be done by Miss M. A. Purdy, of the Department of Breadmaking and Flour Testing. The local contest at the fair will be conducted under the same rules as all the other regular contests at your fairs.

THE STANDARD by which bread will be judged will be as follows:—

- | | |
|----------------------------|----------|
| 1. Appearance of Loaf..... | 15 marks |
| (a) Color..... | 5 marks |
| (b) Texture of Crust..... | 5 marks |
| (c) Shape of Loaf..... | 5 marks |
| 2. Texture of Crumb..... | 40 marks |
| (a) Evenness..... | 15 marks |
| (b) Silkiness..... | 20 marks |
| (c) Color..... | 5 marks |
| 3. Flavor of Bread..... | 45 marks |
| (a) Taste..... | 25 marks |
| (b) Odor..... | 20 marks |

IMPORTANT.—Each loaf must be accompanied by the part of the flour bag containing the face of the Old Miller, and an entry form must be signed by the girl and parents or guardian, stating date of birth, P.O. address, and giving name of dealer from whom Cream of the West Flour was purchased. The form will state that the girl actually baked the loaf entered in the competition. The forms will be provided at the time of the fair. The decision of the judges is final. Not more than one entry may be made by each girl and not more than one local prize will be awarded to the same family.

WHICH DISTRICT IS YOURS?—This list shows you which counties you compete against if you become a competitor for the District Prizes.—

DISTRICT No. 1.—Counties of Glengarry, Stormont, Dundas, Grenville, Leeds, Frontenac, Lennox and Addington, Carlton, Lanark and Renfrew.

DISTRICT No. 2.—Counties of Hastings, Prince Edward, Peterboro, Northumberland, Victoria, Durham.

DISTRICT No. 3.—Counties of York, Ontario, Peel, Halton, Wentworth, Oxford, Brant, Waterloo.

DISTRICT No. 4.—Counties of Welland, Haldimand, Norfolk, Elgin, Kent, Essex, Lambton, Middlesex.

DISTRICT No. 5.—Counties of Bruce, Grey, Dufferin, Simcoe; Districts of Muskoka, Parry Sound, Timiskaming, Algoma, Sudbury, Manitoulin.

THE RESULTS of the contests at the fair will be made known in the usual way, as in the case of all the other regular contests. The District results will be announced as soon as possible after the conclusion of the Rural School Fairs in the Province.

DO NOT MISS THIS GREAT OPPORTUNITY.—Every girl between 12 and 18 years should compete. What a splendid way to stir up increased interest in bread-making! Get a supply of Cream of the West Flour at your dealer's and practise using it as often as possible to increase the chances of winning. If your dealer cannot sell it to you, write to the Campbell Flour Mills Co., Ltd., Toronto, and we will tell you the nearest place to get it.

NO COMPETITION IN COUNTIES NAMED BELOW.—The competition is open to all parts of the Province where Rural School Fairs are held, except the Districts of Rainy River, Kenora and Thunder Bay. These districts are the only parts of the Province where school fairs are held by the Department of Agriculture in which this competition will not be a feature. There are no district representatives of the Department of Agriculture in the Counties of Huron, Perth, Wellington, Haliburton, Prescott, Russell or Lincoln, and no rural school fairs are held in these Counties by the Department of Agriculture. There are, however, a few local school fairs held in these seven counties, and we are opening the competition to these fairs. We will announce later the districts in which each of these Counties will be included.

Write for free folder, giving more fully the complete information about every feature of this great contest.

CUT OUT AND MAIL THIS COUPON:

CAMPBELL FLOUR MILLS CO., LTD.

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

Our dealer's name is.....

His Address.....

My name is.....

Address..... P.O.....

The Campbell Flour Mills Co., Ltd.

(SEE OPPOSITE PAGE)

(West) Toronto, Ontario



Even She Had Corns

Until a little while ago she thought them unavoidable. If you have corns don't blame yourself too much. Many an old person has had them fifty years.

YET they have done what you do—pared them and used old-time, useless treatments. But what folly it is when nowadays about half the world keeps free. The chemist who invented Blue-jay made corns forever needless. Last year some 17 million corns were ended in this simple, easy way. Just try one corn.

Apply a Blue-jay plaster in a jiffy. Then forget it. It will never pain again. In two days take the plaster off. The corn will disappear. Only one corn in ten needs another application. You will laugh at the old ways when you try Blue-jay. You will wonder why people ever let corns hurt. Please start tonight. You have suffered long enough.

Blue-jay
Stops Pain—Ends Corns
Instantly Quickly

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

For Sale by all Druggists. Also Blue-jay Bunion Plasters

EVERY CANADIAN SHOULD SEE THE COUNTRY'S CAPITAL AND THE BEST TIME IS DURING FAIR WEEK

CENTRAL CANADA EXHIBITION

OTTAWA SEPT. 8 to 17 1917

ENTRIES CLOSE AUG. 31st

REDUCED RAILWAY RATES

HOUSE OF COMMONS, BURNED FEB. 3RD, 1916 NOW BEING REBUILT TO FORMER BEAUTY

Great Industrial Exhibit \$25,000 IN PRIZES FOR LIVE STOCK

Brilliant and Varied Grandstand Performance Afternoon & Evening
NEW YORK HIPPODROME. VAUDEVILLE ACTS.
BALLOON ASCENSIONS AND LOOP-THE-LOOP AVIATOR.
\$9,000 FOR HORSE RACING.
PURE FOOD SHOW. GOV'T. EXHIBIT. DOG SHOW.

NIGHT SHOW Magnificent Spectacle and Fireworks—British advance on Mesopotamia—Destruction of the Forts at Kut-El-Amara.

Encourage Production of every Kind. Boost the Exhibition.

Don't Forget to See Ottawa Fair this Year

STEWART McCLENAGHAN, President. J. K. PAISLEY, Mgr. & Sec'y.

The Peerless Perfection Fence

Divides your stock and they stay where you put them. The fence that serves you for all time. Can't rust, sag or break down. Stands any weather. Each joint securely held with the Peerless lock, all parts heavily galvanized, the strongest, most serviceable farm fence made and fully guaranteed.

SEND FOR CATALOG of all kinds of fencing for farms, ranches, parks, cemeteries, lawns, poultry yards, ornamental fencing and gates. See the Peerless line at your local dealers. Agents wanted in open territory.

THE BANWELL-HOXIE WIRE FENCE COMPANY, Ltd.
Winnipeg, Manitoba Hamilton, Ontario

would purchase sufficient rings for a season.

It pays to sterilize fruit jars and to dry before filling, so that no germ laden drops of water may remain to develop plant mould.

It pays to invest in paraffin wax for covering jelly, jam, etc. The same wax may be used repeatedly by washing clean and re-melting.

It pays to use bottling wax for sealing ketchup and pickle bottles. A 10 cent tin may be made to last two or three seasons.

How to Avoid Bee Stings.

It is a mistake to suppose that every bee is constantly seeking some one to sting. Not one bee in thousands ever uses its sting. There is a difference in the temper of individual colonies. Sometimes it seems as if all the bees of an apiary were cross, when the whole trouble comes from a single colony. Replace the queen of that colony with one of better temper.

A bee will sting only in defense of its home or its life. If a bee chances to get into the house there is no need of alarm. It is more frightened than you are, and anxious only to get out. If the bee is at work on the flowers, it is as harmless as a fly. Close your hand gently upon a bee on a blossom, so as to hold it in a kind of box, and it will run about in its little prison, trying to get out, without ever offering to sting. But squeeze it the least bit, so that it feels that its life is in danger, and it will sting promptly.

Especially in a time of dearth, a cross colony, in defending its home, may think it improper for you to come within a rod of the hive. If very vicious, it may attack you while you are still several rods away. In any case, if a bee attacks you near the hive, it will follow you for several rods, if it does not sooner sting you.

Often the first notice you will have of an attack is when you feel the sting. But if the bee does not sting you at once, hold down your head and keep still, and after a little while it will probably leave you. If not, walk quietly away, still holding down your head; when the bee thinks it has driven you far enough away, it will follow no farther. Whatever you do, do not strike at it. That will only make it furious, unless you strike it with a stick so as to kill it. Bees resent quick motions, and the experienced bee-keeper avoids them while working at a hive. He may work rapidly, but he will work without quick, jerky motions.

As protection against stings, there are three things to which the bee-keeper may resort: veil, gloves and smoke—the first two so that the bees cannot sting him, the last so that they will not try. The beginner who is very timid will do well to use all three. Bees are not so likely to sting the hands as the face, especially about the eyes. You may get along without ever wearing a veil, if you have very gentle bees and can afford the time to work slowly. Most bee-keepers, however, wear a veil, if not all the time, at least when bees are a little out of temper. Smoke is used by practically all bee-keepers.

A bee will sting through an ordinary glove. A rubber glove gives entire protection, but is unpleasant to wear. A glove of heavy leather affords almost as good protection. Cotton "husking-gloves," that may be bought for ten cents a pair, do fairly well. A pair of such gloves to fit the hands, and then a second pair worn over the first, give complete protection. Some cut off the ends of the fingers, for bees seldom sting any one on the ends of the fingers.

Most gloves fail to protect the wrists. Take a pair of old shirt sleeves and sew the gloves to them at the wrists. The sleeves may be held on at the upper part with an elastic, or with a safety-pin; or a cloth strap across the back may hold them together.

A piece of mosquito-netting may serve in an emergency to protect the face and head, but it is better to have a good veil. It may be made of the inexpensive material called by milliners "cape lace" or "cape net." This is about twenty-one inches wide. Cut off a piece as long as the circumference of the brim of your hat, and sew both ends of the veil together. If the material is filled with starch, this should be soaked out. Into each end of this open bag shir a rubber cord.

Put on your hat, and then put the veil on over it. The upper rubber holds the veil tight at the hatband, while the lower one comes below the neck. A bee may

get in under it, but after it gets in, its only thought is to get out. It will not sting. To have a bee inside your veil, however, is annoying. So pull down the veil until the rubber cord is stretched very tight, and then fasten it with a safety-pin to the clothing in front. No bee can then get underneath.

A bee on the ground may crawl up your leg, and when pinched it will sting, no matter how gentle. The bottoms of the trouser legs may be thrust into the stocking legs, or tied about with a string. Better still, the legs of the trousers may be kept closed with a steel guard such as bicycle-riders wear.

Thus accoutered, you may bid defiance to the crossiest bees. But a defiant attitude is not always best. If you use the proper amount of smoke,—just enough, that is, to keep the bees under subjection, and no more,—the bees will have little inclination to sting.

Just a final caution. Bees do not like to find any one in their way as they go in and out of the hive. You are much more likely to be attacked when standing three or four yards in front of the hive than when close beside it or behind it, or even when sitting on the hive.—Youth's Companion.

How to Make Good Jellies.

BY MAUD FLICKNER, IN SUBURBAN LIFE.

Jellies are made of a combination of cooked fruit juice and sugar, usually in equal proportions. For very fine sweet fruits the proportion of sugar may be three-fourths of a pint of sugar to one pint of juice. When the fruit is poor, due to bad fruit weather, the proportion of sugar must be a trifle greater.

Do not gather fruit directly after a rain. It will contain too much water.

Select fresh, firm fruit, not over-ripe, preferably underripe.

Be sure to free the fruit of stems and imperfections.

Remove sand and dust by rapid washing of unhalved fruit.

Heat the sugar in a moderate oven. Use shallow pans for this. Stir frequently to prevent browning. Let the fruit simmer gently without stirring it, if possible.

Large fruits, as apples, peaches, pears, etc., must be boiled in water until tender. It is more difficult to make jelly from fruits to which water must be added than from fruits which can be cooked in their own juices.

Nearly all large fruits should retain the skins and cores. Quinces are an exception to this rule and should be cored and seeded.

Apples require half as much water as fruit; juicy peaches and plums will require a little less than half as much water.

The best fruits for jelly-making are currants, crab-apples, apples, quinces, grapes, blackberries and raspberries, and peaches last. Strawberries almost require the addition of a little currant juice to make a fine jelly.

Apples are very mild in flavor and are sometimes flavored with other fruits, as a small quantity of crab-apples, quinces, grapes, or with rose geranium leaves. Very fine acid apples require no other flavor.

Brighter jelly is obtained when the clear strained fruit juice is boiled without sugar, the hot water then added and the mixture stirred only long enough to dissolve the sugar.

In the preparation of jelly glasses, wash the glasses and put into a pan of cold water. Protect them from the bottom of the pan and from each other. Heat the water gradually to boiling point. As the glasses are needed, remove them, drain and place while filling on a cloth wrung out of hot water.

Jelly glasses may be covered by circles cut out of white paper just the size of the tops of the glasses. These circles may be dipped in brandy and placed on the jelly after it has set. Then adjust the tin covers, or, if there are no covers, prepare still larger circles of paper, place on top of the glasses, and paste down over the others. Or paraffin may be melted in a small saucepan and poured over the jelly when it has set. Cover to the depth of one-quarter of an inch. When the jelly is to be served, the paraffin can be pressed off unbroken, washed, put away and used again.

For straining, one can use two thicknesses of cheese-cloth laid over a colander, or a bag may be made of a piece of flannel (part cotton preferred) twenty-seven inches long. Fold opposite corners to-

gether and stitch up in the shape of a cornucopia, a little rounded at the end. Stitch twice for greater security. The top may be bound with tape and two or four heavy tape loops sewed on, by which it may be hung. To support the bag during the dripping, a pole may be laid across the backs of two chairs, the seats of the chairs weighted and the pole (an old broom-handle may be used) slipped through the loops of the bag. Or a handy man could make a small supporting frame.

Before using the bag, wash and boil in clear water, or, if clean and dry, dip it into boiling water just before using. For the best jelly, use no pressure to force the juice through. When the dripping seems about done, the bowl may be removed, another one placed in position and pressure applied to the bag. This will give a cloudy jelly, but one very nice for jelly-cake, sandwiches and many other purposes.

Do not allow jelly to boil very hard. No crystals should form on the sides of the kettle.

A test by which one may know when jelly is done is to put a small portion of the syrup on a cold plate or saucer. If it soon stiffens or wrinkles a little when pressed sidewise, the syrup may be taken off.

In filling glasses, it is a good plan to use a dipper or ladle to pour the syrup into the jelly-glasses. Or the syrup may be first transferred to a pitcher, from which it is an easy matter to fill the glasses.

The Beaver Circle

The Story of a Robin.

BY EVELYN GIBBONS (AGE 10).

The first thing I remember is when I was a little bird, very small, with not very many feathers on me. Then gradually a large number of feathers grew on me. My mother kept me very warm, which was nice on the cold days. She brought me worms and nice things to eat.

When I grew larger my mother taught me to fly. The first place I went was around the tree, and my mother came after me anxiously. Then next day I went out to fly, and when getting out of the nest I hurt my head and fell to the ground. My mother came crying out to me, then a little girl came along and set me gently into the nest. How glad I was and how glad my mother was too! I stayed in the nest for two or three days until I was better, then when I was better my mother took me out again. This time I got along all right. When I was able to fly, hunt worms and do everything as well as my mother could, I went away to make a home for myself.

When I had a nice nest made I laid an egg which was blue. I thought how pretty it looked. One day my mother came to see it. Then I laid an egg every day until I had four eggs laid. When I had four laid I started to hatch my eggs.

One day a boy came and looked into my nest while I was away and broke every egg. When I came back and saw my sad plight I sat up on a limb of the tree and started to cry. The bad boy ran away to get his gun. He came back to shoot me, and I fell to the ground wounded. A little girl came along and picked me up and took me home and put me in a cage. This is where I am telling my story.

Wingham, Ont.

Dear Puck and Beavers.—It has been ever so long since I wrote to our Circle, and I don't know if this will be printed or not. I have been going to school all spring until last week, when I stopped. I have two brothers and they are both in England now. One is in the 69th Battery Draft, and the other in the 240th Battalion, so now you see I have stopped school to help dad. I don't believe any of you Beavers could guess what I am doing, so I will tell you. I am drawing milk to the cheese factory. How many of you Beavers would like my job? I was intending to try my entrance exams this summer. I tried them last year but failed by eleven marks. This year I am getting my certificate and am working on the farm as many other Canadian boys and girls are doing.

Isn't this war terrible? I wonder if it will ever end. I hope it will soon, so my brothers can get back home again. We are having very wet weather for the last few days. I have got rather wet sitting up on the milk wagon, but I don't mind that as I am not sugar and wont melt.

I think I will enjoy this summer very much, as we have a car and I am very fond of riding in it. I cannot drive it myself yet, but I intend to learn. I wish some of the Beavers of my own age would write to me. It doesn't matter whether they are boys or girls. I would answer all letters. Wishing the Circle every success.

EVA BOYLE,
Watson's Corners, Ont. (Age 15.)

Junior Beavers' Letter Box.

Knitting Socks For Soldiers.

The following letter, sent us by the teacher of S. S. No. 3 and 10, London Tp., Ont., speaks for itself. The girls and boys here have surely done splendid work, and we should be pleased to hear similar reports from other sections.

Dear Puck and Beavers.—When making New Year Resolutions at our school, we resolved that we would try to do "Our Bit" for the brave soldiers.

Different ways were suggested but the one which has been followed along continually was "Learning to Knit". Practically all the girls have learnt, and a few of the boys can knit very well on the plain, while three knit whole socks with help over the difficult parts.

The work has been of a very fine quality and some of them have knit such a number. It has not put them behind in their school work either, for you know, if a person is enthusiastic and ambitious, he will conquer his studies and then attempt to show his loyalty to whatever extent he is able. I have found in nearly every case that those who would not take the trouble to learn to knit were the ones who are behind in the classes.

They have already finished and sent away thirty-eight pairs of socks. It seems to me that this will put a great many older people to shame. I think each school might have some such organization and help along the sock supply.

I am enclosing a picture which I shall be pleased to have you publish in your magazine. In it you will notice that some of my knitters are quite small. My youngest one is nine and she has knit two pairs of socks.

Hoping that others may take up the work.
Teacher, S. S. No. 3 and 10, London Tp.



Knitting Socks for Soldiers.

Busy girls and boys in Sections 3 and 10, London Tp., Ont., R. R. 2, Denfield.

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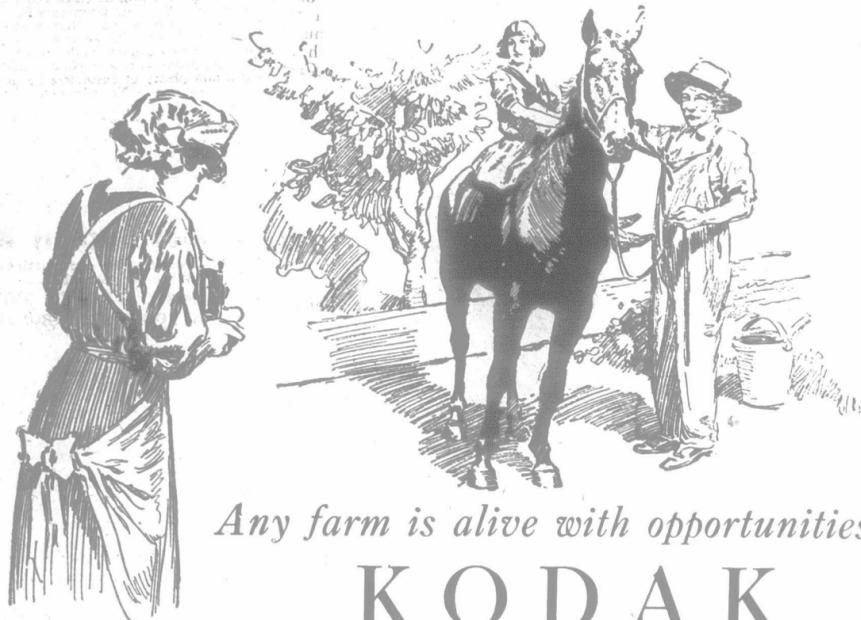
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Kodaks from \$7.00 up. Brownie cameras, \$1.25 up.



CANADIAN KODAK CO., LIMITED
TORONTO, CAN.

Dear Puck and Beavers.—This is my first letter to your charming Circle. This is a terrible war. I have a brother in the war, he enlisted in April, 1916. He is on the way overseas now. I have two more brothers. One is just home from the West about a month ago. I have read a few books; they are, "Alice in Wonderland," "Black Beauty," "Scotch Terrier." I have a mile and a half to walk to school. My letter is getting long. I hope the w.-p. b. is not hungry.

FERNIE LOUGHEED.

R. R. No. 3, Singhampton, Ont.

Dear Puck and Beavers.—This is my first letter to your charming Circle. We have been busy working for the Red Cross. I have knit one pair of socks for the soldiers at the front. I am glad the spring is here so we can go picking flowers and go fishing and play ball. Will close with a riddle.

A man went away on Friday and stayed a week, and yet he came back on the same Friday. Ans.—His horse's name was Friday.

ELSIE PARRY, (10 years old.)

R. R. No. 5, Tillsonburg, Ont.

Dear Puck and Beavers.—This is my first letter to your Circle. I go to school every day I can. I have about a mile to go to school. We have a school garden and expect two neighboring schools and ours to have a fair next fall. I will close hoping to see my letter in print.

MABEL E. SMITH.

Gadshill Station, Ont.

Dear Puck and Beavers.—This is my first letter to your Circle. For pets I have a nice little kitten; we call him Black Beauty. We used to call him Tiny, but he is too big for that name now. Also we have a calf just a few days old, but she has not received her name yet. My father has been taking "The Farmer's

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We are still in a position to handle butter and eggs. Get our prices and give us a trial shipment. We pay express charges and furnish crates on application.

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Advocate" for a long time, and I have been so interested in reading the letters that I have decided to write myself. I think my letter is getting long. Seeing that it is my first letter to your Circle I will close, wishing the Beaver Circle good success.

RAY JAMESON.

(Age 10.)

Balsam, Ont.

Dear Puck and Beavers.—My father has taken "The Farmer's Advocate" for quite a while, and I enjoy reading the letters. I would like to enter into your Circle. I read many interesting books such as Black Beauty, Beautiful Joe, Uncle Tom's Cabin, and the Finding of Nina, etc. Our teacher's name is Miss Robinson, and she just suits the trustees. As my letter is getting long I will close with a riddle.

What neither barks nor bites, yet it keeps you out of the house? Ans.—A lock.

It has neither eyes nor ears, yet it leads the blind. Ans.—A walking stick.

There are four brothers under one hat. Ans.—A table.

MARGARET ABBOTT.

(Age 9, Jr. III.)

Vaness, Ont.

Senior Beavers' Letter Box.

A Visit to the Woods.

BY HELEN WILKIE (age 11), Blenheim, Ont.

We walked in twos and threes
Beneath the grand old trees,
When with our chums we strolled
And our adventures told.

Here and there we darted,
And when the green leaves parted
We picked the violets blue
And on the banks sweet trilliums too.

Hurrying on in grasses damp we spied
A little snake with tan and brown pied,
While overhead the flicker gay
Paused on his onward way.

In swampy places cowslips bright
Were to our eyes a pleasing sight,
While at the foot of nearby trees
Hepaticas fluttered in the breeze.

So we filled our arms withal,
Then homeward on our way we sped
Up the lane which to the main road led
There we parted and each went his way.

Patriotism.

BY IRENE McDONALD, (age 12).

Patriotism comes from the Latin word "pater" meaning, "father". Patriotism is the love of people for their country, saving it from being destroyed or helping it to maintain its rights.

In this war we see a lot of patriotism by men who will give up their wives, children and homes, and sacrifice their lives for their country.

Here is an example: When the present European war began, a minister's son enlisted. He reached France safely, but alas! he was killed in fighting on the Western front. As soon as his father and his brother heard the sad news, they both enlisted. They are now in France helping to fight for liberty.

Women show their patriotism during these war times by giving most of their time to knitting; quite a number have knit seventy or more pairs of socks. They also give up their sons for their country's sake. However, there are other people who, you would think, didn't know a dreadful war was going on. They sacrifice little or nothing. People who have no sons to send as soldiers, give money. Even if it just a mite (as the widow's mite in the Bible), it counts anyway.

When soldiers are killed on the battle field, they are usually buried right near to where they have fallen. When a famous soldier, like Lord Roberts or Lord Kitchener, is killed or dies by any manner, the coffin is wrapped in the British flag, put on a gun carriage and taken to a famous burial place, where the soldier is buried with martial ceremony.

To have such brave and unselfish soldiers as Nelson, Wellington, Robert Bruce and many others in a nation is an example for everyone to be brave, courageous and unselfish.

R. R. 1. Belgrave, Ont.

The Story of a Fishing Rod.

BY RUTHMENZIES, (age 12).

The first thing I can remember is of seeing some other tall bamboo trees beside me and I thought that they were ten times larger than I was. One day when I was about two years old, a little boy came into the bush to get a limb for a fishing rod. I heard him say to himself "The other bamboo trees are too tall for me to climb up, so I think I will just take this little bamboo tree; it is just big enough and long enough for me". So he took out his jack-knife and cut me off short by the roots. He put me over his back and went up to the house. When he got to the house he got the drawing knife and he came out and put me straight up in the air and let me fall down on the ground with a thump. I was not broken but I got a shaking up. Then he picked me up and put me on the ground and took all the knots off me, took the plane off the window-sill and made me smooth. Then he went into the house and got some cord and put on a fish-hook. He came out and put the cord on the end of me and put the fish hook on the end of the cord. Then he twisted the cord around me and stuck the fish hook into me, and picked me up and started for the river. When he was going down to the river he came to a cherry tree and he flung me down on the road until he got some cherries. While he was getting some cherries a wagon came along and ran over me and broke me in two. The man got off after he was past and picked me up and threw me into the fence corner, and I am writing my story from here. The boy never could find me and this is the story of my life.

R. R. No. 5, Wingham, Ont.

Well-picked.—Aunt: "Your bride, my dear boy, is wealthy and all that, but I don't think she'll make much of a beauty show at the altar."

Nephew—"You don't, eh! Just wait till you see her with the bridesmaids she has selected."—Nashville Tennessean.

The Windrow.

Miss Mary U. Watson, of the Macdonald Institute, Guelph, has been appointed as one of the committee which will assist Food Controller Hanna in his work.

The palaces of the Czar and the nobility in Petrograd have been thrown open to the public.

The "Red Cross Drive" in the United States, asking for \$100,000,000, had been over-subscribed by the end of June by about \$15,000,000.

Anton Lange, who twice took the part of the Christus in the Ober-Ammergau Passion Play, and who is said to be remarkably like the pictures of Christ usually presented by artists, is now serving in the trenches. He is 42 years of age.

More than 10,000 young men have already applied for aviation service in the United States, where vast sums of money are to be spent for the establishment of an air-fleet on a colossal scale.

The Germans have taken from St. Quentin the famous collection of paintings by the St. Quentin, 18th century artist, Maurice de Latour, of whom the city has been so proud. Many of the pictures were portraits of celebrities of the day and beauties at the Court of Louis XV.

Last year 68,500,000 bushels of food-stuffs were used in the United States in the manufacture of fermented liquors. In consideration of this waste many of the American magazines are asking that the prohibition measures be extended to include beer and wine which, so far, have not been placed upon the list.

Major General William L. Sibert, who is in command of the first contingent of United States troops, now fighting in France, is the engineer who had charge of the construction of the Gatun locks and dam and the channel from Gatun to the Atlantic in the Panama Canal.

Pansies are now in bloom everywhere. It is interesting to note that early names for this flower signified "love-in-idleness", "jump-up-and-kiss-me", "call-me-to-you", and "three-faces-under-one-hood," Spencer called it "pawnee." The early Christians saw theology in its triple petals and called it the "Trinity flower."

The Ex-Tsaritsa and Her Influence.

(The "Manchester Guardian.")

The Russian papers which have arrived in this country since the revolution throw a singular light upon the part played by the ex-Tsaritsa in the political affairs of the State. A person who knew her and the Tsar closely, describes in the "Retch" the Tsar as a "weak, characterless individual, easily susceptible to the influence" of other persons, of whom the chief was the Tsaritsa, or the person whom she or Rasputin would appoint as the Tsar's adviser.

Alexandra Feodorovna had on the Tsar an overwhelming influence. In her presence the Tsar had no opinion of his own. The Tsaritsa would speak on his behalf, and he would silently agree with everything. What the secret was of this influence no man could tell. Even Marie Feodorovna (the Dowager Empress) was puzzled about it. The young Empress would often visit the Tsar's headquarters. In her rooms light would burn till late in the night, for she would be engaged on State affairs, drawing up drafts of decrees, appointing ministers and dismissing others. She was just as energetic, imperious, and independent as he was feeble. A woman of great character, of great strength of will, she took no notice of any obstacles in carrying through what she thought desirable. No minister could ever receive a portfolio without her approval. Protopopoff, Galitzin, and others, were all her candidates. Prince Yussupoff (at whose house Rasputin was killed), in an interview with a correspondent of the "Novoe Vremya," also says:—

The whole power at the Court lay in the hands of the Tsaritsa and her

ardent followers. I can only call it megalomania. The Tsaritsa imagined that she was a second Catharine the Great, and that on her depended the salvation and reform of Russia. Her entourage, consisting of such persons as Madame Vyruboff, Protopopoff, and Rasputin, only fanned in her this megalomania.

During last year the Tsar finally lost all independence of character, and came entirely under the thumb of the Tsaritsa and her friends.

Occasional stories in the papers confirm this characteristic of the late Tsaritsa. The Grand Duchess Victoria Feodorovna, the wife of the Grand Duke Cyril, tells an interviewer of the "Russkoe Slovo" how the Grand Duke Dimitri Pavlovitch (who was implicated in the killing of Rasputin) was arrested.

On Dec. 31, at one o'clock, General Maximovitch, commandant at the Tsar's headquarters, called at the Grand Duke's palace, and declared to him that he had come by order of the Tsaritsa to place him under house arrest. By order of the Tsaritsa—not the Tsar! The next day the Tsar came from the headquarters, and after having had a conversation with his consort sent Maximovitch once more to the Grand Duke to tell him that he had been arrested by order of the Tsar, and would be exiled to the Persian front!

Prince Vassiltchikoff, too, tells in the "Novoe Vremya" how his wife, unable to witness any longer the scandals at the Court, wrote an unconventional letter to the Tsaritsa on the subject. It was written in a simple, unassuming, and absolutely inoffensive, though passionate style, asking the Tsaritsa to abandon her ambitions and interference with the State affairs. On the receipt of the letter the Tsaritsa flew into a rage. "This is not the first letter of the kind that I have received," she exclaimed; "it is time to put a stop to such demonstrations. It is time to punish these persons with all severity." Just at the time the Tsar came home from headquarters. A family council ensued, and three days later the Prince received a formal reprimand and the Princess was exiled to her estates.

The Grand Duke Nicholas Mikhailovitch also tells to a "Retch" interviewer how he expostulated with the Tsar himself in November last year. He did so by means of a letter which he read out to the Tsar himself. The Tsar listened quietly, and even courteously, but when he afterwards read it out to the Tsaritsa, and came to a passage dealing with her interference in State affairs she "furiously seized the letter from the hands of her consort and tore it to pieces." And two months later, in the middle of the night, a special courier arrived at his palace with a message from the Tsar telling him to go to his estates for two months.

And, lastly, the Grand Duke Cyril tells in the Petrograd "Gazette" how, about the middle of last year, Admiral Grigorovitch, the able and popular Minister of the Marine, was designated by the Tsar to form a Cabinet, and after a short time brought to the headquarters for the Tsar's sanction a list of ministers, which included the names of such men as Prince Lvoff and M. Gutchkoff. "As soon as she heard this awful composition of the projected Cabinet the Tsaritsa employed every means to prevent its confirmation, and she ultimately achieved her aim. Thus collapsed a fruitful idea."

According to the "Novoe Vremya," the body of Rasputin was exhumed on March 22, by order of the Provisional Government from the tombs of the Church of Seraphim of Saratoff (a saint canonized a few years before the war by order of the Tsar), near Tsarskoe Selo. When the coffin was brought to Petrograd Town Hall the metal lid was removed and the body was carefully examined. Under the beard was found an ikon of the Holy Virgin having at the back the signatures of Alexandra, Olga, Tatiana, Marie, and Anastasia (the Tsaritsa and her daughters), and by the side that of Mme. Vyruboff, the favorite lady-in-waiting of the Tsaritsa (arrested on the first day of the revolution). The body was afterwards burnt.

The reason for the action of the Provisional Government in exhuming and cremating Rasputin's body is probably to be found in another piece of information vouchsafed now by the "Novoe Vremya," to the effect that a few weeks after the death of Rasputin a mysterious pamphlet made its appearance at Petrograd, and was circulated especially among the troops going out to the front, containing

a biography of Rasputin, under the title, "A New Martyr." The object of the booklet was to show that the dead adventurer had really been a miracle-working saint, as proof of which photographs were given showing Rasputin's body as it was when drawn out of the water, together with an explanation that the unnatural position of his hands must be understood in the sense that with one hand he was making a sign of the Cross, and with the other was blessing the people. The "Novoe Vremya" vouchsafes now the further information that the originals of these photographs were kept as relics by the Tsaritsa and by Protopopoff.

The Dollar Chain

A fund maintained by readers of The Farmer's Advocate and Home Magazine for the soldiers and all who are suffering because of the war. Contributions from July 6th to July 13th: Ormiston Stewart, Peterboro, Ont., \$2.00; "R. N.," Blyth, Ont., \$2.00; "E. D.," Baileboro, Ont., \$5.00; A Friend, R. 2, Hawkesbury, Ont., \$1.00; "Charity," Watford, Ont., \$5.00; Isabel McDiarmid, Lucknow, Ont., \$1.00.

For Byron Military Hospital: Mrs. John S. McDonald, R. 4, Appin, Ont., \$2.00; Norman McCully, R. 2, St. Mary's, Ont., \$4.00; Isabel McDiarmid, Lucknow, Ont., \$2.00; W. S. D., R. 2, Bluevale, Ont., \$1.00; Mrs. L. Mawhinney, Glencoe, Ont., \$5.00.—The \$500 required for the Byron Hospital for Tubercular soldiers has now been over subscribed by \$18.35. This amount will be used to buy some extra comforts for the ward. Those who have contributed so splendidly to this fund are thanked most heartily. It is hoped that many of the contributors will find it possible some day to visit this hospital when it is completed, and so see for themselves what their dollars have helped to do.

Total amount previously acknowledged.....\$4,760.00

Total to July 13th.....\$4,790.00

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

Armenian Relief.

Those who have contributed especially for the Armenians will be interested in reading the following letter, the last acknowledgement received from the Armenian Relief Department in Ontario:

The Canadian Bank of Commerce, Toronto, Ont., 9th July, 1917. Farmer's Advocate, London, Ont.

Dear Sirs: I beg to acknowledge receipt of your letter of the 3rd instant enclosing cheque for \$50.00, being further contribution to the Armenian Relief Fund from The Farmer's Advocate "Dollar Chain", which amount has been credited to the account of the Fund at this Bank.

Please convey our best thanks to the contributors for their generous and continued support of the Fund.

Yours truly,
D. A. CAMERON.
Hon'y. Treasurer, Armenian Relief Fund Association of Canada.

Auto-Knitter For Sale.

An auto-knitter which has given excellent service for the short time used is offered for sale. It has two cylinders and may be used for fine and coarse yarn. See the advertisement in another column.

The late Bishop Potter was a model of dignified efficiency in the performance of his official duties. In private life he was the charm and delight of his friends, who found him bright and intelligent and with a genial companionship that was most attractive. A somewhat inebriated individual, seeing in the Bishop's countenance a reminiscence of gleam of recognition, remarked to him: "Where in hell have I met you?" "I can't say exactly," was the Bishop's calm reply. "When were you there last?"

POULTRY AND EGGS

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

RINGLET BARRED ROCKS—PUREBRED, trap-nested, heavy winter layers, beauty and utility combined; setting \$1.50; 100% fertility guaranteed. Book order now. Particulars, F. Coldham, Barriefield, Kingston, Ont.

"1900" Gravity Washer

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

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PATENTS Trade Marks and Designs procured in all countries. Special attention given to Patent Litigation. Pamphlet sent free on application.

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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.

COLLIE PUPS FOR SALE, THREE MONTHS old A. B. VanBlaricom, Morganston, Ont.

COOK; HOUSEKEEPER; FOR COUNTRY residence, close to Toronto. Apply Mrs. Jos. Kilgour, Eglinton, Ont.

EXPERIENCED FARM HANDS—FATHER and son want situations on stock farm. Able to manage. Both good milkers. Free any time. Apply Box 2, Farmer's Advocate, London, Ont.

FARM FOR SALE ON TOWN-LINE, between Brock and Mariposa, near Cannington, 155 acres, choice clay loam, never-falling stream. Brick dwelling, 2 story, 22x32—16x44; bank barn, 56x112, as good as new. All modern conveniences. Implement house, 22x100. A rare chance to get a good home and money-making farm on a leading road. H. C. Shipman, Cannington.

FOR SALE—FOUR FOX PUPS. APPLY TO Francis O'Grady, R.R. 1, Indian River, Ont.

Smiles.

A negro servant, wishing to get married, asked his master to buy a license in the neighboring town. The master, being in haste, did not ask the name of the happy woman, but as he drove along he reflected on the many tender attentions that he had seen John lavish upon Euphemia Wilson, the cook, and, concluding that there could be no mistake, had the license made out in her name.

"There's your license to marry Euphemia," he said to the servant that night. "You're as good as married already, and you owe me only \$2.

The darky's face fell. "But, Mass' Tom, Euphemia Wilson ain't de lady I'se gwine to marry. Dat wa'n't nothin' mo'n a little flirtation. Georgiana Thompson, de la'ndress, is de one I'se gwine to marry."

"Oh, well, John," said the master, amused and irritated at the same time, "there's no great harm done. I'll get you another license to-morrow, but it will cost you \$2 more, of course."

The next morning the darky came out to the carriage as it was starting for town and, leaning confidentially over the wheel, said:

"Mass' Tom, you needn't git me no udder license; I'll use the one I'se got. I'se been t'inkin' it over in de night, an' to tell you de troof, Mass' Tom, de conclusion o' my judgment is dat dar ain't \$2 worth o' difference between dem two ladies."

"Mike," said Pat, "how do yee tell the age of a fowl?" "Oi can always tell by the teeth," shot back Mike.

"By the teeth!" exclaimed Pat, "but a fowl ain't got no teeth!" "No," admitted Mike, "but Oi have."

Important Notice to Breeders of Holsteins

Under the auspices of THE WESTERN ONTARIO CONSIGNMENT SALES COMPANY, there will be held at the FRASER HOUSE, LONDON, ONT., on

Wednesday, October 17th, 1917

A great sale of PURE-BRED HOLSTEIN CATTLE. Parties having stock to consign should communicate early with the Dairy Manager. Entries close August 15th. For entry forms apply to

D. CAMPBELL, Box 3, Komoka, Ont. Dairy Manager.

Current Events.

One of the first steps of the Committee appointed to assist Food Controller Hanna, will be to report on the feasibility of providing an ample supply of fresh fish to consumers in Central Canada, while still giving fair returns to fishermen.

A copy of Mr. W. F. O'Connor's report on the cause of excessive prices of certain food articles, including bacon, butter, and eggs, is to be sent to Food Controller Hanna for investigation and action. The report charges certain dealers, and three in particular—the William Davies Co., and the Matthews-Blackwell Co., of Toronto, and the P. Burns Co., operating in the West—with manipulating to secure over-large profits on foodstuffs bought and sold out again by them.

Venezelos is now in Athens forming a new Cabinet at the request of the new King, Alexander, while French and Russian troops are encamped in the vicinity of the Acropolis to forestall possible trouble with pro-Germans. Venezelos insists that Greece must receive, as her reward for entering the war, the southern part of Albania known as the Epirus.

The Monarchical upheaval in China, by which General Chang Hsun attempted to reinstate a Manchu Emperor in the person of the eleven-year-old Hsuan Tung, has apparently ended in failure. After a few days' reign the Emperor has been forced to abdicate, Gen. Chang having fled to the Temple of Heaven for safety, while Republican troops have completely surrounded Peking. During the disturbances the President, driven out by Chang and his forces, found refuge at the Japanese Legation.

Dutch workmen report that part of the Krupp works at Essen were destroyed recently by bombs thrown by French aviators.

It has been officially announced that the German Chancellor, Dr. von Bethmann-Hollweg, has resigned, also Gen. von Stein, the Minister of War. Dr. Georg Michaelis succeeds as Chancellor.

The chief war feature of the week has been the Russian advance, Gen. Brussloff's troops having captured Kalucz, while the division under command of Gen. Korniloff has taken the town of Halicz, one of the principal keys to Lemberg, advancing afterwards on a front of 150 miles. In both cases many villages and fortified positions have been taken. Much of the Russian success is attributed to the personal influence of Kerensky, the young Minister of War, who is himself remaining at the front, addressing and inspiring the soldiers and sparing himself neither fatigue nor fatigue. Kerensky, who has been called "the Lloyd George of Russia," is undoubtedly one of the great war figures of modern history. His military record as a soldier is said to be something to be proud of.

At the 100th anniversary of the American Revolution, the Government has issued a special 10-cent postage stamp. It is a 10-cent stamp, and is the first of a series of stamps to be issued in honor of the centennial. The stamp is a 10-cent stamp, and is the first of a series of stamps to be issued in honor of the centennial. The stamp is a 10-cent stamp, and is the first of a series of stamps to be issued in honor of the centennial.

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Markets

(Continued from page 1167.)

Grain. The market for oats showed quite a firm tone during last week and prices advanced about 1c. per bushel, making No. 2 Canadian Western \$21.2c. per bushel, ex-store. No. 3 sold at \$11.2c., as did also extra No. 1 feed, while No. 1 feed sold at \$0.2c. and No. 2 feed at 79.2c.

Flour. Very little change took place in the price of flour during the week. Manitoba spring wheat flour was still quoted at \$12.50 per barrel for first patents; \$12 for second and \$11.80 for strong bakers per barrel, in bags. Ontario winter wheat flour was steady at \$12 to \$12.30 per barrel in wood, and \$5.75 per bag.

Millfeed. The market for bran was firm and prices were slightly higher at \$33 to \$34 per ton, in bags, while shorts were firmer at 38c. to 39c. Middlings were steady at \$40 to \$42 per ton; mixed mouille at \$44 to \$45, pure grain mouille at \$47 to \$49 per ton.

Baled Hay. The season has been an excellent one for hay and the prospects for a large crop are reported to be excellent everywhere. In consequence of this and liberal offerings No. 2 hay sold at \$14 to \$14.50 per ton, while No. 3 baled hay, \$9 to \$9.50, ex-track.

Hides. Lamb skins advanced another 5c., owing to the longer wool, but otherwise the market was steady. Beef hides were 27c., 26c., and 25c. per lb.; calf skins were 36c. and 38c. per lb.; horse hides 87 each. Rough tallow 3c. to 6c. per lb., and rendered 11c. to 13c. per lb.

Chicago.

Cattle.—Beeves, \$8.30 to \$14; stockers, and feeders, \$6.25 to \$9.25; cows, and heifers, \$5.40 to \$11.90; calves, \$9.50 to \$11.50.

Hogs. Light, \$14.40 to \$15.65; mixed, \$14.45 to \$15.80; heavy, \$14.25 to \$15.85; rough, \$14.25 to \$14.45; pigs, \$11.25 to \$14.50.

Sheep. Lambs, native \$10 to \$15.75.

Cheese Markets.

Cowanville, Que., 20 1/2c.; Waterloo, Que., 20 1/2c.; London, 21c.; St. Hyacinthe, 21c.; Belleville, 21 1/2c.; and 21 1/2c.; Vankleek Hill, 21 1/2c.; Victoriaville, Que., 20 1/2c.; Iroquois, 21 1/2c.; Montreal, finest westerns, 21 1/2c.; finest easterns, 21 1/2c.; New York, specials, 23 1/2c. to 24c.; average run, 23 1/2c. to 23 1/2c.

Ground Wire Fences.

Wire fences increase the dangers of live stock during thunder storms, unless the fences are carefully grounded. See special issue at University Farm, St. Paul.

Such fences may be grounded by running a No. 8 or No. 10 galvanized iron wire, each strand of the fence into the ground. The wire should be twisted twice or three times about each strand and the twisted wire should be fastened to the ground. It should always be kept in mind that the ground is not a perfect conductor and that the wire should be fastened to the ground in several places.

As a rule, the wire should be fastened to the ground in several places. It should always be kept in mind that the ground is not a perfect conductor and that the wire should be fastened to the ground in several places.

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Gossip.

F. S. King, of Cheyenne, Wyoming, has recently imported through W. W. Chapman, Mowbray House, Norfolk St., Strand, London, eight registered South Devon sheep, said to be the first of the breed to come to America. They include two rams and six ewes. Rams of this breed shear upwards of 20 lbs. of wool annually, and the ten ewes from which the six were selected gave 15 lbs. 12.5 ozs. each.

The same boat which carried the Devons brought 50 choice Lincolns to the Knollin Sheep Commission Co., Chicago.

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

Galinsoga.

What is the enclosed weed? It is troublesome in gardens. A Middlesex County gardener finds it as troublesome as twitch grass.

Ans. This weed is galinsoga. It is a native of tropical America, and has wandered north probably as far as the railroads go. The flower is yellow in the same sense that ox-eye daisy is yellow, that is, it has a yellow disc and white petals which are few and small. I first observed it in this locality in 1902; now it is to be found along roads and in yards all about the city. Comparing it with twitch grass I should say that in respect to perniciousness it is about one-tenth of the latter.

Varieties of Alfalfa Cutting Sweet Clover and Alfalfa for seed.

Kindly explain through the columns of "The Farmer's Advocate" how to distinguish between Ontario Variegated and Northern grown alfalfa. I sowed both kinds of seed last year but I cannot see any difference between them at present.

2. Also explain how to cut the first crop of sweet clover when one wishes to save the second crop for seed. How is it threshed? Is the second the proper crop of both sweet clover and alfalfa to save for seed?

Ans.—1. There are several kinds and varieties of alfalfa and the Variegated is supposed to be a cross of two. In the first place there is the Common or Violet alfalfa. According to Dr. Zavitz's description in "Farm Crops" it is the species which has been grown extensively for centuries in some of the comparatively warm countries of the world. It is this type of alfalfa which is grown almost entirely in Central America, in Mexico, Texas, California, Utah, Colorado, Nebraska, Kansas, and in other Southern and Central States of the American Union. The plants of the Common alfalfa have an upright growth and numerous stems which grow from the crown of the roots. The flowers are violet in color, the coloring matter appearing in different degrees of density, extending from a comparatively deep to a very pale violet, the latter being almost white. On the other hand there is the Yellow Lucerne, or Yellow alfalfa which grows wild in some of the European and the Asiatic countries. It is considered to be very hardy. It generally has a prostrate habit of growth, the stems being somewhat woody, and the leaves rather broad. The flowers are yellow in color.

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duced in Ontario or the northern parts of Michigan or Wisconsin to be termed Northern-grown alfalfa, but so far as we can find out seedsmen are under no limitations as to the place of production of Northern-grown alfalfa. At the Ontario Agricultural College, the Grimm, the Ontario Variegated, the Sand, and the Baltic, which are different varieties of Variegated alfalfa have all given satisfactory yields. The Turkestan is a common or violet alfalfa. Perhaps if a small portion of these fields in mention come into bloom our correspondent can distinguish between the different kinds, but they may be both Variegated alfalfa.

2. There is nothing particular about cutting the first crop of either sweet clover or alfalfa when one wishes to save the second crop for seed. They should, however, be cut high, particularly the sweet clover, so as not to injure the young shoots coming on. This has been a very poor season for making the first crop into hay. It should not, however, be allowed to stand too long in one place or it will smother out the roots. Sweet clover should be harvested for seed when three-quarters of the seed pods become dark. Harvesting can be done with the mower but many growers prefer to use a table attachment. The self-reaper and binder are also used for this purpose with fairly good results. Handling should be avoided when the straw is very dry as the seed will shell badly at such a time. Threshing and hulling should be carried on, however, when thoroughly dry. The clover huller is used for the threshing. In general practice the second crop of both clover and alfalfa are saved for seed. However, it is just possible that where the wet season has rendered it impossible to cut and cure sweet clover this year before it has got too woody it might be wise to allow the first crop to mature well.

Animal's Insurance.

Could you tell me where and what is the best pedigree live-stock insurance as I have a pure-bred Hereford heifer I would like to insure? I. M.

Ans.—The General Animals Insurance Co., Montreal.

Violent Crossing.

If a pure-bred shire stallion were bred to a pure-bred racing mare, which parent would the foal resemble in size, shape, and characteristics? A SUBSCRIBER.

Ans. In violent crossing no one can tell which parent the offspring will resemble. It may run toward the heavy or the light or may be midway between the two a general-purpose. We never advise such crossing.

Turnip Seed.

Last fall I gathered up a lot of turnip tops in small piles, but did not get them all fed before the snow came, so this spring I spread them around and a lot of them grew. Can you or any of your readers tell me if it would be advisable to sow that seed next year? Will it produce turnips? Has anybody had the experience with seed of that kind? A. B. C.

Ans. If the plants produce seed and it matures properly and is well saved, no doubt it would grow and produce turnips next year if sown. It is however, not a good method of producing, as no selection is possible. However, save the seed and try it. It is better to select uniform roots for growing seed.

Manufacturers' Lien.

Last fall I bought a scuffler from a farmer who was leaving here, and this spring I was sending it out to my farm with hired man, and when passing implement agent's house he came out and took it off wagon and told man he would fix it up with me. That was on Thursday and I did not know until Sunday night. He was passing on Monday and I asked him about scuffler, and agent said it was his or the company's and there was \$10 against it. Can agent do this, and am I the loser of money? I need. Please advise what I should do about it.

Ans.—It is quite possible that the company may have been acting within their legal rights in retaking, through their agent, possession of the machine. It may be that when they sold it they retained a lien upon it for an unpaid balance of price. You should have a solicitor investigate the matter for you.

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Increased earning-power and valuation develop in spite of the increased

taxes, for the new taxes do not amount to a hill of beans alongside of the new values.

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The National Service Board of Canada,
 OTTAWA.

Questions and Answers. Miscellaneous.

Using Lime, Ashes and Manure.

1. Kindly explain the effects, manurial and mechanical, on the soil of applications respectively of slacked or hydrated lime and unleached wood ashes, indicating the field crops and garden plants most certain to be benefited.

2. Effect of applying lime and ashes in mixture or accompanied by a dressing of stable manure. State conditions under which best results would be expected.

Ans.—1. Lime has an indirect rather than direct manurial value. Mechanically or physically it loosens clay soils, making them more workable and less likely to bake. Sour or acid soils, of course, are neutralized or made alkaline by the application of lime. Wood ashes contain varying percentages of lime and potash. The latter is a plant food, while the lime itself will effect changes in much the same manner as though applied in the slaked or hydrated form. Leguminous crops are benefited very much by lime and ashes as are most garden crops. Scab on potatoes, however, thrives best under alkaline conditions, and lime or ashes might be detrimental to such a crop.

2. The effect of a mixture of lime and ashes should not be materially different from what we would expect if applied separately. Lime has a tendency to work upon organic matter causing disintegration, and thus rendering it available as plant food. Unless the plant

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food contained in the manure be desired at once it would be better to apply the lime and manure separately, for if in contact soluble ingredients might leach away before they could be utilized by the growing vegetation. Early-planted crops, however, are quite likely to use plant food as it becomes available in the spring, and one has little to fear when distributing the lime and manure as is common in farm practice throughout Ontario.

A Gold-Headed Cane for Lockie Wilson.

At the Ontario Agricultural College at Guelph several hundred Ontario Government Judges recently held short courses in Field Crop, Live Stock and Poultry judging. Before the close of the last day's session John Cardhouse stepped on the platform, and on behalf of the several hundred spectators, stockmen and agriculturists, presented Lockie Wilson with a beautifully carved, gold-headed, solid ebony cane, with the following inscription engraved thereon: "Presented to Mr. J. Lockie Wilson, the friend of the farmers, by Ontario expert Judges, Guelph, 1917."

Frank Johnston, of Mr. Wilson's staff, who acted as Secretary of the Judging Course, was presented with a stick pin.

Potato Excitement.

Stranger: "What's that man running so excitedly for?"
 Suburban: "Oh, that's Citycross, who has got a plot of land out here. One of his potatoes has come up and he's rushing for a photographer."

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All New Maxwell Cars Have Champion Regular Plugs

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Cures the lameness from Bone-Spavins, Side-Bones, Ringbones, Curbs, Splints, etc., and absorbs the bunched hair, absorbs the capped hocks, Bog-spavins, thick pastern joints; cures lameness in tendons, most powerful absorbent known; guaranteed, or money refunded. Mailed to any address. Price \$1.00

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Gossip.

Jerseys Sell Well in U. S.

At the recent annual auction sale of Jersey cattle held in U. S. some of the best animals have been purchased by Canadian breeders. The first of a series of auction sales of imported Jerseys was held by Edmond Butler, New York State. Messrs. B. H. Bull & Son of Brampton, Ont., were the heaviest purchasers, securing 11 head for which they paid \$5,035.00. Included in the number are 4 daughters of their celebrated herd bull, Bright Prince. Perhaps the gem of their importation was "Rover's Charm", a very promising three-year-old that was imported from Jersey Island last year and was first at National Dairy Show at Springfield last fall. They also secured "Golden Castor's Trixie", an imported daughter of "Golden's Castor". This cow has a milk record of over 50 lbs. per day.

The next sale was held by W. R. Spann of Kentucky. Joseph Harper of Alberta secured one of the best two-year-old heifers in the sale. At this sale Messrs. B. H. Bull & Son secured 5 animals, at an average cost of \$400.00 each. All purchased by Canadians at this sale are due to freshen before the fall fairs.

Two days after the Spann sale, the annual sale of T. S. Cooper & Sons was held in Pennsylvania. Among the Canadians present were: John Pringle of London, Ont.; Arthur T. Little of London, Ont.; Dr. Wesley of Newmarket; R. J. Fleming of Toronto, and D. O. Bull of Brampton. Mr. Fleming paid \$2,000 for a cow that is said to be a very high producer and will doubtless give a good account of itself. Dr. Wesley secured two animals, one a daughter of Golden Fern's Noble which was first at National Exhibition last fall, and that had been purchased by his present owner for \$25,000. The other cow was a daughter of Oxford You'll Do. Mr. Cooper has sold 60 of this bull's daughters within the past year at an average of over \$1,000 each. At this sale Messrs. B. H. Bull & Son secured a five-year-old daughter of Cowslip's Golden Noble. Many good judges say that this cow was the best in the sale.

In addition to animals mentioned, Messrs Bull & Son purchased in Virginia from J. T. Hall 91 head of Jerseys, the majority of which are descended from the Colleen Maid's Prince and Bright Prince families. The first twenty-five head of this purchase have arrived at Brampton, others will be shipped soon.

As a further evidence of the fact that Jerseys are in a growing demand it will only be necessary to state that Mr. Cooper sold about 90 head at an average price of over \$650 each.

Hints for Vegetable Canners.

In selecting vegetables for canning, use great care to get those as nearly perfect as possible.

Be sure that the vegetables used are fresh.

Grade carefully and avoid waste.

Do not scald or blanch longer than necessary. Over-scalding tends to make delicate vegetables, like asparagus, soft.

Fit all the covers to the jars before filling with vegetables.

Be certain that the rubbers to be used are new and elastic, and will stand long boiling.

Do not let vegetables remain in cold dip. Dip and pack at once.

Scald and dip only as much as can be packed immediately.

Add salt and boiling water as soon as the can is packed.

Place the rubber and adjust cover loosely and set the jar in the canner at once.

Be certain that the false bottom in the canner is at least 1 1/2 inches high.

When the water in the canner is boiling, keep the fire even, that the boiling may be continuous but not too violent.

Count the time for cooking from point at which water begins to boil.

Seal at once when taken from the canner.

Hold can upside down to see whether it is perfectly sealed.—Miss Mary L. Bull, Extension Division, University Farm, St. Paul.

Horse Owners! Use



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

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It's cheaper to raise colts than to buy horses. But it's costly if you lose the colts. Keep a bottle of Kendall's Spavin Cure handy. For thirty-five years has proved it the safe, reliable remedy for spavin, splint, curb, ring-bone, bony growths and lameness from many causes.

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Kennelworth Farm Aberdeen-Angus

At special prices, six young bulls sired by Victor of Glencairn. All are of serviceable age, and show individuals. PETER A. THOMSON, Hillsburg, Ont.

BEAVER HILL ABERDEEN-ANGUS AND OXFORD-DOWN SHEEP

Cows with calf at foot and bred again. Shearing rams and ram lambs. One Ayrshire bull calf for sale. Alex McKinney, R. R. No 1, Eria, Ontario.

Gossip.

The premium list of 39th year of the Canadian National Exhibition, to be held in Toronto Aug. 25 to Sept. 10, is to hand. Over \$60,000 are offered in prizes. All those contemplating exhibiting should get a copy of this prize-list.

Lakeside Ayrshires.

The majority of our dairy readers throughout Ontario and all of the Eastern Provinces need very little introduction in the way of lengthy comment, to the high quality of the Lakeside herd of pure-bred Ayrshires, owned by Geo. H. Montgomery, K.C., of Philipsburg, Que. For the past twelve years Lakeside Ayrshires have figured largely in the monthly reports of nearly all Record of Performance tests, as well as among championship awards at the Ottawa, Quebec and Sherbrooke exhibitions. The 1917 catalogue published recently, shows the strongest aggregate of breeding material Mr. Montgomery has ever had in the herd. The catalogue will be mailed to all on request, and in reviewing its pages it is interesting to note the number of great record sires that appear in every pedigree. Barcheskie Cheerful Boy (imp.), Howie's Conductor (imp.), Hobsland Bonnie Boy, Morton Mains Planet (imp.), and Auchenbrain Sea Foam (imp.), are sires that have all been used in the herd, and naturally the majority of the younger breeding females are got by these bulls. While their dams are, in nearly every instance, the good old imported cows that laid the foundation for the noted Ogilvie and Greenshield herds, from which Mr. Montgomery made his first selections. Auchenbrain Sea Foam by Lessnessock Good Gift, dam Auchenbrain Buntie 18th, is still in service in the herd. He has been a prominent winner, different years, at all of three shows mentioned, and by his get, is proving himself one of the greatest sires that has ever seen service in the Dominion. The majority of the young bulls advertised for sale at present are by him, and each is good enough to ship any distance on approval. Those who are in need of a young bull for the present season should write Mr. Montgomery at once for a catalogue and keep these youngsters got by Sea Foam in mind. His heifers, too, are showing wonderful promise. Several will soon be heard from in the R. O. P., and to use on these Mr. Montgomery has recently purchased the newly imported calf that won the grand champion ribbon for R. R. Ness at Ormstown when only four days out of quarantine. Mr. McArthur, manager of the Lakeside herd, reports the following recent sales: To W. C. Strong, West Brome, Que., a 7-months bull from Ardyne Pomona, a 10,370-lb. cow; to Mr. Green, of Athens, Ont., a 9-months calf from a 7,200-lb. 3-year-old; To Noel Pelletier, Ecole de Agriculture, Saint Anne de La Pocatiere, Que., a May calf from a 10,237-lb. two-year-old, and to R. B. Angus, Montreal, a November calf by Auchenbrain Sea Foam, and out of a daughter of Barcheskie Cheerful Boy.

Questions and Answers. Miscellaneous.

Sweet Clover. 1. What is the enclosed plant? I found it growing in my meadow. Is it a bad weed? H. D.

Ans.—The plant is yellow-flowered sweet clover. It is not a noxious weed. Some are growing it as a feed crop for both hay and pasture. It is a biennial, and if not allowed to seed dies the second year.

Patents.

1. Is it legal for a minor to handle his or her own invention? 2. Where could a person get information regarding the getting a patent and disposing of same for an invention? A. C.

Ans.—1 and 2. Write the Chief of the Patents Branch, Department of Agriculture, Ottawa, for full particulars.

An Irishman of our acquaintance, in conversation with a drover on the roadside recently remarked: "Bill, they say you're crooked, is that straight?"

How highly do you esteem the "Farmer's Advocate and Home Magazine"? Important announcement on the other side. We want your help and goodwill.

Our No. 4 All-Steel Self-Dumping Rake. will give absolute satisfaction under any and all conditions. The wheels are solid, strong, interchangeable. The rake teeth are made of finest steel, oil tempered, elastic. The points of the teeth run parallel with the ground, and are so curved and adjusted that they gather up every bit of hay without digging into the ground or stirring up grit and dust. The self-dumping device operates from either wheel and is adjustable for use in either heavy or light hay, also adjustable for fast or slow driving. Our New Rake is made in 8, 9 and 10 ft. sizes, for either one or two horses. Write for free descriptive folder. Peter Hamilton Company, Limited Peterborough, Ontario

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

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

WOODLANDS BROWN SWISS AND PONIES We have no Clydes. left for sale. Our special offering is Brown Swiss bulls out of high-testing and big producing dams. Strictly high-class. Also Shetland and Welsh ponies. R. BALLAGH & SON, GUELPH, ONTARIO

BURNFOOT STOCK FARM

Breeders of high-record, dual-purpose Shorthorns with splendid conformation for beef. S. A. MOORE, Prop. Farm one mile north of Caledonia CALEDONIA, ONT. Visitors welcome.

WILLOWBANK STOCK FARM SHORTHORN HERD Established 1855. This large and old-established herd has at the head the two great bulls, Imported Roan Chief =60865=, a Butterfly; and the prizewinning bull, Browndale =80112= a Mina. An extra good lot of young stock to offer of either sex. Splendid condition. Good families of both milking strain and beef. James Douglas Caledonia, Ontario

CREEKSIDE FARM SHORTHORNS We have for sale, at present, a number of young things by our former herd sire, Clan Alpine (the Claret-bred bull, by Proud Monarch). We like them—so will you. If it's young bulls, or a few females you need, we would welcome a visit from you. Write or phone. Visitors met by appointment. Geo. Ferguson, Elora Station, C.P.R., G.T.R. Salem, Ontario

IMPORTED SHORTHORN BULLS We have several newly-imported bulls of serviceable age. Cruickshank, Marr and Duthie breeding, as well as a number of choice, home-bred young steers, got by our noted herd sire, Proud Monarch, by Royal Blood. Get our prices before buying elsewhere. RICHARDSON BROS., Columbus, Ont.

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There are men that are trying hard to start improvement in their own herds and in their neighborhoods.

I have a suitable bull for each at a moderate price and I PAY THE FREIGHT. Business established 81 Years **Robert Miller - Stouffville, Ont.** One hour from Toronto

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Thirty-five imported cows and heifers, forward in calf to service in Scotland; also five imported bulls. Our 1916 importations are all choicely bred. Have also home-bred bulls and females. Farm half mile from Burlington Junction. Write or call and see us. **J. A. & H. M. Pettit, Freeman, Ont.**

SPRUCE GLEN SHORTHORNS

of such popular strains as Minas, Fames, Miss Ramsdens, Florences, Emilys, etc. Have still a few young bulls—thick, mellow fellows, fit for service. **JAMES McPHERSON & SONS DUNDALK, ONTARIO**

SHORTHORNS

Imported and Canadian bred. **A. G. FARROW, Oakville, Ont.**

SPRING VALLEY SHORTHORNS

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

Imported Shorthorns

Cows and heifers in calf or with calves at foot. Yearling bulls and bull calves. One of the best importations of the year. You will be surprised when you see them. **Will. A. Dryden, Maple Shade Farm, Brooklin, Ont.**

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Imported and Canadian-bred. More bulls to select from than any herd in Ontario, all of serviceable age; also a large number of females, which are bred right and priced right. All the stock for sale **JOHN MILLER, Ashburn, Ont. Myrtle Station, C.P.R. and G.T.R.**

OAKLAND---50 SHORTHORNS

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

SALEM SHORTHORNS

Herd headed by Gainford Marquis (Imp.), undefeated in England and Canada. Sire of the winning group at Canadian National, 1914, 1915 and 1916. Can supply cattle, both sexes, at all times. **J. A. WATT, ELORA, ONTARIO**

Glengow Shorthorns, Cotswolds

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

SHORTHORN CATTLE AND LINCOLN SHEEP

Young cows and heifers of the best Scotch families. Sire in service, Sittytton's Selection =86508= The winning pen of long-wool lambs, all breeds competing, at 1916 Guelph Winter Fair, came from this flock. Imported and home-bred rams and ewes for sale. New importation will arrive in July. **R. S. ROBSON & SON, DENFIELD, ONT.**

Co-operation, Cows and Pigs Have Made Denmark.

My purpose in writing this is to give the farmers of Canada a picture of conditions under which the Danish farmer is working, and how it has been possible for him to make that little kingdom known all over the world, and at the same time made its people prosperous.

A glance at the map of Europe will show that Denmark is a comparatively small country, occupying a rather exposed position, surrounded almost entirely by the North and Baltic seas. The kingdom consists of the peninsula of Jutland and the islands of Zealand, Fyen, Laaland and a number of other smaller ones. The entire country occupies an area of about 15,000 square miles, equal to one-fifth the size of Manitoba.

The soil is not rich, in fact, there is more poor than good land in Denmark, much of it being thin and gravelly, the so-called hungry soil. Of the total area eighty per cent. is productive, and of this, one-sixth is forest. Of the remainder less than half is arable, what remains being chiefly grass land.

The growing season is short and cool, and very often wet, so the farmers have some problems to solve. In average seasons only the early variety of oats ripens properly. The experiment stations have succeeded in developing a fall oat, but the farmers have to depend upon the early sorts of spring sown kinds. Fall rye, fall wheat and barley do well, and when to these are added oats, hay crops and roots the round of crops which the Danish can grow with advantage is about complete.

Denmark is not a grain exporting country, but millions of dollars' worth of grain and foodstuffs are imported every year.

Remembering that Denmark has to depend on its soil for prosperity, having no mineral or timber wealth, and remembering the size of the country, with its population of over two million five hundred thousand, the farmer of this country may well ask how the farmers of Denmark have been able to bring prosperity to the country, as they have done, and the answer lies in the two words, live stock and co-operation. The cows and the pigs are the wealth of Denmark, and system of co-operation the means by which the live stock is turned into wealth.

The crop rotation is managed with the view of growing feed, and many farmers have from 20 to 30 per cent. of acreage in roots, chiefly mangels, for the cows and pigs, except where there is a sugar factory located. Many farmers grow sugar beets almost entirely.

A farmer living in the locality of a sugar factory subscribes a certain number of acres on which he agrees to grow sugar beets every year, just like the farmer agrees to furnish milk from a certain number of cows when he joins a co-operative creamery.

The crop rotation in Denmark is as a rule:

- 1st year..... Rye or wheat
- 2nd year..... Roots
- 3rd year..... Barley seeded down
- 4th year..... Clover and grass
- 5th year..... Grass
- 6th year..... Oats
- 7th year..... Fodder plants, Lucerne, etc.

In the middle of last century Denmark was facing a crisis of stagnation, and, as mentioned before, being a country without mineral or timber wealth, the only way to save the country from ruin was to improve upon agricultural conditions, and made the land produce enough to make it possible to expand the export trade in the leading products of the farm, namely, butter, eggs and bacon.

Agricultural conditions in Britain at that time were such, that the land did not produce sufficient to supply the ever-increasing demand for farm and dairy products, on account of such a large proportion of the farm land being held by wealthy men, who did not farm it, but kept it for game and sport. Even to-day there is much land lying idle in Britain, which would create a new wealth

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Mills conveniently located in the south, in every cotton-growing State.

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Our new catalogue describes every kind of device for money-making and labor-saving on farms. Write to:

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Shorthorns; Shropshires; both sexes. Mail orders satisfactorily filled. **J. BAKER, R.R. 1, HAMPTON, ONT.**

SHORTHORNS

Pail-fillers for sale. Young bull and heifers out of high-record cows. A few young cows and bulls with extra good breeding and quality. **PETER CHRISTIE & SON, Manchester P. O., Port Perry, Ont. Co.**

PLASTER HILL HERD

DUAL-PURPOSE SHORTHORNS.

A few choice bull calves coming on; also a few heifers in calf to Butterfly Champion 110726. **F. Martindale & Son, Caledonia, Ont. R. R. 3.**

Glengow Shorthorns

Present offering—three bulls from 10 to 12 months. Nice, straight, smooth fellows. Prices easy. **Stewart M. Graham, Lindsay, Ontario.**

MARDELLA SHORTHORNS

Bulls, females, sires, quality; breeding dual-purpose cattle over 40 years. The Duke—dam gave 13,599 lbs. milk, 474 lbs. butter-fat—at the head. **Thomas Graham, Port Perry, Ont., R.R. No. 3.**

Dr. Bell's Veterinary Medical Wonder.

10,000 \$1.00 bottles FREE to horsemen who give the Wonder a trial. Guaranteed for Colic, Inflammation of Lungs, Bowels, Kidneys, Fevers, and Distempers, etc. Send 25c. for mailing, packing, etc. Agents wanted. Write address plainly. **Dr. Bell, V. S., Kingston, Ont.**

to the country if it was divided up into smaller farms and made productive. As it is to-day Britain gets most of her butter, eggs and bacon from outside, Denmark holding a leading place on the British market on account of the superior quality of her produce.

So it can be said that Britain's failure in making her soil productive, saved the situation in Denmark, and it is a question what will become of Denmark, if Britain some day takes up the question and says: Now we are going to grow our own bacon, and make our own butter, and by doing so improve conditions in rural districts, by dividing our farm land into smaller holdings, thereby giving the man with limited means an opportunity to get on the land and cultivate it. A three-fold purpose would be served by doing this. More people would settle on the land, and relieve the congestion of the big cities. A healthier population would grow up, out of the farming and out-of-door life, and last but not least, the economic benefit that would result to the country would be enormous, as the money now spent on farm produce would be kept at home. With the farm land Britain has, there is no reason why she should not be able to supply her own population, and at the same time be able to export considerable. Looking at the question from Britain's standpoint, the benefit arising to herself by cultivating and making all her land productive is undoubted, but as Britain has so many other industries, and so much wealth besides, she is really doing other not so fortunate countries a good turn by keeping her land unsettled and unproductive.

This war will undoubtedly change conditions in many respects, and especially will agriculture be affected, both in Canada and in Britain. If the time was ever ripe for Canada to get into the game and make herself famous along agricultural lines, it is now, while Denmark and other countries which supplied Great Britain almost exclusively before the war, are engaged in supplying other nations. But we need not think that the British market is secured merely by producing large quantities and sending it across; if quality does not go with it, we will strike in vain, and a reputation once lost is hard to regain. The first step towards success for Canada has already been taken, and it only remains to be seen if the farmers of this country have received the vision of co-operation and what it means.

We might ask the question: Where would Denmark be to-day if the farmers had not received the vision that co-operation is the only way to success? Not the spirit of co-operation in this country, a thing we can try for a while, and if success is not visible after a month's trial, quit. No, the spirit that gets hold of the people, that if we undertake an enterprise as a co-operative movement we will stay with it through good and bad times.

We often hear the argument set forth, that a co-operative association is of no value or use to a community, if the association is not able always to pay at least as high a price for the raw products as any privately owned concern. And here it is that so many people make a big mistake by not being farsighted enough; they sell their products through the association for some time, and are well satisfied. Then depression in market conditions happens, or some other obstacle has to be overcome, and the private business man or corporation steps in, and by offering a price slightly higher than the association is able to pay just at that time, he gets the farmer to believe that co-operation is all nonsense. This farmer not only loses money on such a deal, not at that particular time when the deal is made, but in the long run he is sure to come out at a loss, as business men and corporations are not doing business just for the fun of it. Such a farmer is working against the interest of his community and the country as a whole, for as soon as the farmer's support is withdrawn the society's strength is weakened. The secret of success in co-operation is, that if we begin, we stay with it through good and bad times, and after a few years the farmers are the people who set the price on their different products, and not the buyer as is the case at the present time in Canada.

Forty years ago farming was not carried on to any great extent in Denmark. Only a few cows were kept, enough to supply the needs of the family with milk, butter and cheese. When the milk was

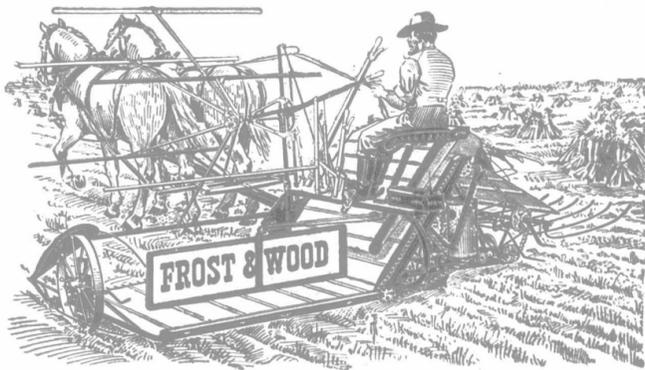
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Sure cutting--sure tying--easy levers--no choking or threshing

The high quality materials of which the Frost and Wood Binder is built—its design—its light draft and its satisfactory work are known and appreciated by every user. Don't waste valuable time and more valuable crop this year "fussing" with an old machine, when you can be sure of steady cutting and clean work with a new Frost & Wood Binder. The investment is small compared to the returns you will receive. Talk it over with our nearest agent.

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EVERGREEN STOCK FARM . . . REGISTERED HOLSTEINS

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A. E. HULET, Norwich, Ont.

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175 head to choose from. Special offering: bulls from one month to one year old Grandsons of Prince Aaggie Mechthilde. Visitors always welcome.

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Two bulls fit for service, sired by bulls with 30-lb. backing, and from R. O. P. dams with records up to 500 lbs. butter made as two-year-olds. We also offer three bull calves from three to 6 months. If you want a bull of like breeding, write quick. Priced reasonable so you can buy.

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Lyndenwood Holsteins

Present offering, a bull, 16 months, whose dam won 2nd, Ottawa Dairy Test, 1916. One 11-months bull from a 20-lb. 2-year-old cow. Some fine bull calves from 2 to 5 months; also some choice young cows and heifers with good official records and from R. of M. dams. Write for prices or come and see them.

W. J. BAILEY, Lyndenwood Farm, JARVIS, ONT.

HOLSTEIN BULLS—HOLSTEIN FEMALES

King Walker Pride is our present herd sire; he is a son of the great King Walker and the noted show cow Pride Hengerveld Lennox, 30.11 lbs. of butter in 7 days. We still have a few sons of his left, and all are from our own high-record dams. Could also spare several two-year-old heifers. Come and see our herd. Colver V. Robbins, Perry Sta., M.C.R., Fenwick Sta., T.H. & B., Wellandport, Ont.

Pioneer Farm Holstein Herd With big yearly records and high average butter-fat test, and headed by Canary Hartog, grandson of Royalton Violet at 10 years, 30.39 lbs. butter, 735 lbs. milk in 7 days; 29,963 lbs. milk, 1,300 lbs. butter in 1 year. Sire's dam, Royalton De Koi Fern, 34.60 lbs. butter in 7 days, 116 lbs. milk in one day. Bull calves for sale, born after Jan. 25th, 1917; dams over 11,000 lbs. milk up to nearly 16,000 lbs. milk in 1 year, at 2 years old. Walburn Rivers, R.R. No. 5, Ingersoll, Ontario, Phone 343L, Ingersoll Independent Line.



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Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

FLEMING'S SPAVIN CURE (Liquid) is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket Veterinary Adviser describes and illustrates all kinds of blemishes, and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.

75 FLEMING BROS., Chemists
Church Street, Toronto, Ont.



MAIL CONTRACT

SEALED tenders, addressed to the Postmaster-General, will be received at Ottawa until noon, on Friday, the 3rd day of August, 1917, for the conveyance of His Majesty's mails, on a proposed contract for four years, six times per week, over London No. 5 Rural Route, from the 1st of October next.

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 London (main office) and all sub-offices, and at the office of the Post Office Inspector, London.

G. C. ANDERSON,
Post Office Department, Canada. Superintendent.
Mail Service Branch, Ottawa, 22nd June, 1917.

Cream Wanted

Ship your cream to us.
We pay all express charges. We supply cans.
We remit daily. We guarantee highest market price.

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London, Ontario

CREAM

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ASK ANY SHIPPER

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Ask for Prices.

The figures of yesterday may be TOO LOW for to-morrow. We furnish cans.

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Harab-Davies Fertilizers

Yield Big Results

Write for booklet.

THE ONTARIO FERTILIZERS, LTD.
WEST TORONTO

A Better Separator for Less Money

VIKING

Cream Separators of Quality

Record Holsteins

We have the only 2 sons in Canada of the 46-lb. bull, Ormsby Jane King, only mature son of the world's most famous cow. One of them for sale. Also a 30-lb. calf, whose dam and 2 great grandams average 38.4 lbs. butter in 7 days. 11 bull calves of lesser note and females all ages.

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

drawn from the cow, it was distributed into shallow wooden pans, and put on a shelf, as a rule, as close to the ceiling in the living room as possible. The reason for keeping the milk in this peculiar place must be found in the fact, the people without having any knowledge of bacteriology, had found that a certain temperature was necessary in order to sour, or as we say nowadays, ripen the milk quickly, and get it ready for the churn, for it was a common practice to churn the whole milk in those days. On large farms where many cows were kept, the system of shallow pans was also used, but as a rule a special milk house was provided, and the pans were set on the floor, and every day the cream was skimmed from the milk with large, flat spoons. Later the deep setting system was found to give better results, and bring the cream to the top of the milk in a short time. The deep setting system then in use, was practically the same as is used on the farms in Canada to-day. The milk was kept in shot gun cans in cold water until the cream had risen to the top and the milk was drawn off at the bottom.

The prices received for dairy products were small, compared with prices to-day. The grocery stores handled the butter, eggs and cheese, and the result was unsatisfactory both to the producer and consumer, just as they are in Canada to-day where farmers sell the finished products to the merchants, instead of selling the raw products to some co-operative association, or central manufacturing plant.

The first co-operative creamery was opened in Denmark in the year 1882, and the number has increased steadily since then, so that Denmark has to-day about 1,500 co-operative creameries, or a creamery for each 10 square miles.

A mutual co-operative creamery association, as it is understood in Denmark, is an organization of dairymen organized for the purpose of jointly converting the raw products, such as milk and cream, into finished products, butter, cheese, ice cream, etc., the business of the association to be conducted on a purely mutual co-operative plan. The association may or may not be incorporated. If incorporated the business of the association is the same as that of a corporation, regulated by articles of incorporation and by-laws. The business of the association is also conducted by a board of directors, and officers are elected either by vote of the members of the organization or by its directors. The directors usually appoint or hire an agent who is responsible to the board of directors for the management of the business. The mutual co-operative creamery association differs from the corporation on the following points:

It is organized without capital stock, and, therefore, no dividend is declared. By this is not understood that there is no money required for financing a co-operative creamery, but such a creamery is of common benefit to the community, the same as a church. It should be common property of the people in the community, and the money required for establishing such a creamery should be subscribed by the producers in proportion to the amount of butter-fat produced by each.

In Denmark a person when joining a co-operative creamery association, must guarantee to furnish the milk from a given number of cows for a definite period consisting of several years. The most satisfactory method of securing money for the establishment of a co-operative creamery is by the association making a loan. This loan may be made from a bank, or it may be furnished as a loan by the members of the association. If the money is borrowed from a bank, or loan association, such institution will naturally demand security. This is given by the members of the creamery association in the form of individual notes, which are held by the bank as collateral. The interest and part of the capital is paid annually from the sinking fund, which is created by reserving a fraction of a cent or one cent per pound of butter-fat delivered by each patron, or it may be figured on the basis of each patron paying a definite per cent. on the money received for fat delivered. The amount to be paid varies in proportion to the total amount of butter-fat received by the association. A sinking fund should always be created by the co-operative creamery association regardless of whether the plant has been paid for or not. Such a fund is created for the purpose of keep-

MANOR FARM

Senior Herd Sire is

KING SEGIS PONTIAC POSCH

Sire, King Segis Pontiac Alcartra (the \$50,000 bull)
Dam, Fairmont Netherland Posch
7-DAY RECORD, 4 YEARS, 29 DAYS

Butter..... 32.54
Milk..... 511.50
% fat..... 5.09

Junior Herd Sire is

KING KORNDYKE SADIE KEYES

Sire, Sir Sadie Korndyke Segis

Dam, Lulu Keyes

7-DAY RECORD

Butter..... 36.05
Milk..... 785.40
Highest day's milk 122.80

What better combination can be had? I have no sons from my junior sire yet; there are just a few left from King, from good A. R. O. dams, and priced right to sell.

Gordon S. Gooderham

Manor Farm

Clarkson, Ont.

SENSATIONAL OFFERING IN 30-LB. BULLS

We have at present several 30-lb. bred bulls, all nearing serviceable age, that must go out to several of the country's best herds in the near future. They are sired by one of the three sires used in the herd during the past year. Pontiac Korndyke of Het Loo., Avondale Pontiac Echo, or King Segis Alcartra Spofford. Our herd contains more 30-lb. cows than any other herd of equal size in the Dominion. Extended pedigrees mailed on request.

ROYCROFT FARM

W. L. Shaw, Prop.,

NEWMARKET, ONT.

Hospital for Insane--Hamilton, Ont.

Present offerings are 4 grandsons of Dutchland Colantha Sir Mona, and high-testing, large-producing R. of P. dams of Korndyke and Aaggie DeKol breeding. Born during April and May, 1917. Apply to Superintendent.

HIGHLAND LAKE FARMS

SOME OF THE BULLS WE HAVE FOR SALE AT ATTRACTIVE PRICES.

1. Born May, 1917, two dams average..... 35.62 lbs.
2. Born March, 1917, two dams average..... 34.16 lbs.
3. Born March, 1917, two dams average (one at 3 yrs.)..... 34.23 lbs.
4. Born March, 1917, two dams average (one at jr. 2 yrs.)..... 33.12 lbs.

These are sons of Avondale Pontiac Echo, our herd sire (under lease) a son of May Echo Sylvia, the world's record cow. Only one other 41-lb. bull in Canada. Send for extended pedigrees and prices on these and others, a few of serviceable age, are from a 111-lb. cow. We guarantee satisfaction. Twenty-five females for sale.

R. W. E. BURNABY

(Farm at Stop 55, Yonge St. Radial)

JEFFERSON, ONT.

Sunnybrook Farm Holsteins

SELLING QUICKLY—A limited number of young bulls and heifers from approved cows, testing 18 to 30 lbs. in 7 days, and averaging from 7,000 to 12,000 lbs. milk per annum, sired by Sunnybrook Mercedes Natoye, whose dam is a 29.34-lb. cow, and Count Favorit Sylvia Segis, highly strained in blood of the world's record cow. DON'T MISS THIS OPPORTUNITY. Write—

JOS. KILGOUR, Eglinton, Ontario; or Phone Toronto, Belmont 184, Adelaide 3900.

Choice Young Holstein Sires

I am offering a few choice young bulls at bargain prices. These are growthy, healthy, and great individuals. While the bargains last is the time to purchase. Write for prices, extended pedigrees and full would require. Correspondence solicited.

Oak Park Stock Farm - R. R. 4, Paris, Ont. - W. G. Bailey

SUMMER HILL HOLSTEINS

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

D. C. FLATT & SON - R. R. 2, Hamilton, Ont. - Phone 7165

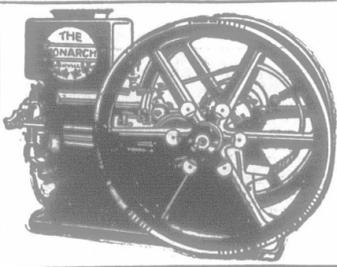
CLOVERLEA HOLSTEIN-FRIESIANS

Stock for sale, all ages, from choice, high-testing dams—75 head to choose from. Our special offering is a few choice heifers, due to freshen in September or October. Personal inspection is invited.

GRIESBACH BROS. L.-D. Phone COLLINGWOOD, ONT.

Low Banks Farm Holsteins K. M. Dagleish, Prop., Kenmore, Ont.

Pontiac Korndyke and May Echo Sylvia—strongest combination of milk and butter in the world. Present offering—3 beautiful, young bulls, sired by Sir Echo, from daughters of Pontiac Korndyke, with 2-year-old records of considerably over 20 lbs. each; also 4 sons of Fairview Korndyke, from dams with similar records, going as high as 30.14 lbs. All straight, good individuals at moderate prices.



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A few dollars saved on first cost looks very small when compared to valuable time lost because of an unreliable power plant.

The MONARCH Reliable and Economical

because of having in its construction all the features absolutely necessary to accomplish this result.

It will prove a friend indeed to those whose profits are being consumed because of unreliable power.

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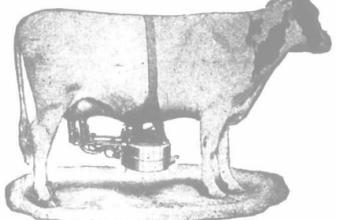
CANADIAN ENGINES, Limited Dunville, Ontario

Good Luck Feeds

Cotton Seed Meal, Oil Cake Meal, Gluten Meal, Digestive Tankage, Bran, Shorts, Oats, Crushed Oats, Corn, Cracked Corn, Corn Meal, Feed Wheat, Good Luck Baby Chick Feed, Scratch Feed, Poultry Mash, etc. Write for prices.

CRAMPSEY & KELLY Dovercourt Road Toronto

OMEGA MILKING MACHINES Efficient, Hygienic



The pail and teat-cups are suspended from the cow's back. The teat-cups cannot fall to the floor and suck up manure or straw. The Omega has no rubber tubes. The Omega milks as fast and as clean as is possible by hand. Leading dairymen in Canada, U. S. A. and Europe are using the OMEGA. It's a perfect milker. WRITE TO-DAY for free booklet describing the special features of the Omega. C. Richardson & Co. St. Mary's, Ontario.

Every farm should have an AYRSHIRE The Cow for Profit WRITE Canadian Ayrshire Breeders' Association W. F. STEPHEN, SECRETARY-TREASURER HUNTINGDON, QUE.

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

Choice Offering in Ayrshires At Special Prices. Several young bulls of serviceable ages. All from R. O. P. sires and dams. Come and see them. Jno. A. Morrison, Mount Elgin, Ontario

City View Ayrshires—For July sales: Senator 42110, four years old. Choice bull calves, all R.O.P. dams. Will exchange one. Must have quality and R.O.P. records. MES BEGG & SON St. Thomas, Ont.

ing the plant and equipment in repair, for buying new equipment, and for paying taxes and insurances. The amount accumulated for that purpose should constitute up to 20 per cent. of the cost of the building and equipment. All money received by the co-operative creamery association, from the sale of goods, belongs to the patrons of the creamery and should be divided between them in proportion to the amount of butter-fat delivered by each after all operating expenses have been paid, and the necessary amount deducted for the sinking fund.

Only patrons of a creamery may become members of the association. Each patron has one vote on all matters pertaining to the business. The fact that a party becomes a patron of the creamery makes him a member of the association, inasmuch as he, in paying his share of the sinking fund, is paying towards the maintenance of the plant. In case of dissolution of the co-operative creamery association, each patron, or former patron, has the right to share in proportion to the amount of business he has transacted through the association, in the amount that is left after the liabilities of the association have been paid. The co-operative creamery in Denmark is usually successful in communities where a sufficient amount of milk is produced, and where the people understand to work together in harmony. In such communities the advantage of the mutual co-operative creamery association over the individually owned company are many. First—Increased value of the raw product. This is due to elimination of dividends on capital stock, and also to less expense in securing raw material. Second—A definite supply of raw material is assured. Third—Greater interest is manifested in increasing the production from the herds. This is due to the greater profit obtained, as well as to the existing friendly feeling towards their own institution. Fourth—Better quality of raw products. The patrons of the co-operative creamery realize keenly the importance of care of the milk and cream on the farm, they realize that neglect along such lines results in direct loss to them. In a co-operative organization the producers pay closer attention to the quality of goods delivered by their fellow members, and the one who delivers raw products of inferior quality is liable to severe criticism.

We see here where the educative value of co-operation comes in, for after all, it is only a matter of habit if we do our work in our daily life as well as we possibly can, and once getting the good habit, we are, more or less, inclined to keep it up, first for the benefit of ourselves, as that is human nature, and also for the benefit of our fellow beings.

This is a brief outline of the mutual co-operative system, as it is worked out in Denmark, and this form of organization has proved itself a success under varying conditions in many countries in Europe. It has also been recognized that co-operative production, co-operative marketing and co-operative borrowing or credit are vitally inter-related.—S. P. Broby.

Questions and Answers. Miscellaneous.

Tractor Gear for Engine.

- 1. I have a 10-h.-p. Chapman engine which I operate on coal oil and water. Can I get a truck tractor gear by which I can plough and disk?
2. What would be the cost of such a gear?
3. Could you give me the name of a reliable firm who make such?
4. Do you think it advisable to invest in such a rig?

FARMER.

Ans.—1, 2, 3 and 4. We take it that your engine develops 10 h.-p. on the belt. That being the case it would not likely develop more than 5 h.-p. on the pull. Besides, we doubt the practicability of adjusting it to a tractor gear satisfactorily and know of no firm manufacturing such a gear at present. It would likely prove more profitable to invest in a tractor which could be used in the fields or on the belt. You might wish such a machine be able to dispose of the engine you already have. At any rate we would advise that you write the manufacturers of your engine re the tractor truck proposition before attempting to alter it for plowing and disking.



BUYING A DE LAVAL SEPARATOR NOW

Is real thrift and genuine economy

THRIFT means saving wisely. ECONOMY means spending wisely. There is no economy in going without money-saving and labor-saving equipment.

It is poor economy to try to do without a De Laval Cream Separator—a machine which would not only save a lot of time-wasting work, but would add from 15 to 25 per cent to your cream crop by putting a stop to your butter-fat losses.

This country is at war. The nation cannot afford, and you as an individual cannot afford to allow the present enormous waste of one of our most valuable foods—butter-fat, to continue an unnecessary day.

See the local De Laval agent to-day. Get him to explain to you how the De Laval saves butter-fat that is lost by gravity skimming or the use of an inferior or half-worn-out separator. If you do not know the De Laval agent, write to the nearest De Laval office for new catalog or any desired information.

Every New De Laval is equipped with a Bell Speed-Indicator

THE DE LAVAL COMPANY, Ltd.

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

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

Patriotism, Production and Profit

ARE COMBINED IN THE USE OF

SYDNEY BASIC SLAG

The Canadian farmer is asked to help in winning the war by producing more foodstuffs. To get a bumper crop of wheat the sure way is to apply SYDNEY BASIC SLAG. It costs twenty dollars per ton, the same as before the war. At this price no man can afford not to use fertilizer.

Send us your name and address, and our salesman will call and tell you all about SYDNEY BASIC SLAG.

If you have a little time to spare, perhaps you could distribute a car of twenty tons among your neighbors. You will be reasonably remunerated for your trouble, but above all, you will be doing your bit in helping to win the war by increasing food production.

The Cross Fertilizer Co., Limited Sydney, Nova Scotia

THE WOODVIEW FARM JERSEYS CANADA'S MOST BEAUTIFUL JERSEY HERD The foundation of this herd is made up of very high-class cows, imported from the Island of Jersey, most of them in the Record of Performance, and while we have, at all times, a few mature cows for sale, we make a specialty of in-calf heifers and young bulls. Write us your wants, or better still, come and see the herd. We work our show cows and show our work cows

Young BRAMPTON JERSEYS Bulls

For the next fortnight we are making a special offering on young bulls, bred from the highest producing families ever introduced into Canada. Brampton Jerseys and their descendants hold all Jersey R.O.P. records, save one. Females, all ages, also for sale. B. H. BULL & SON, BRAMPTON, ONTARIO

Edgeley Stock Farm The home of Canada's greatest producing Jersey, SUNBEAM OF EDGELEY, the Sweepstakes Dairy Cow at the recent Guelph test; is also the champion R. O. P. butter cow for Canada. Would a grandson or great-grandson of this famous cow improve your herd? We have them. Write for particulars. JAS. BAGG & SON, Woodbridge, C. P. R.; Concord, G. T. R. EDGELEY, ONT.

Glenhurst Ayrshires For 50 years I have been breeding the great Flos tribe of Ayrshires; dozens of them have been 60-lb. cows. I have lots of them get 60 lbs. a day on twice-a-day milking. Young bulls 1 to 10 months of age, females all ages. If this kind of production appeals to you, write me. James Benning, Williamstown, Ont.

FERTILIZERS

For Fall Wheat
and
Seeding Down

High Grade—Write for Prices

THE W. A. FREEMAN CO.
LIMITED
HAMILTON CANADA

Yorkshires

From choice stock on both sides. Several young litters. Also some young sows, ready to be bred.

WELWOOD FARM

Farmer's Advocate, London, Ont.

SPECIAL OFFER OF PEDIGREE Tamworth Breeding Stock

Young sows in pig, also males and females about to be weaned.

HEROLD'S FARMS, Beamsville, Ont.
(Niagara District)

Blue Pigs

If you are not satisfied with the growing qualities of the hogs you now raise, why not try the Blue ones? They are not expensive, but they are the best. Write for descriptive matter and booklet.

Blue Hog Breeding Company, Wilmington, Mass.

Cloverdale Berkshires and Shropshires—In Berkshires I can furnish boars or sows, all ages, pairs not akin. All breeding stock imp. or from imp. stock. In Shropshires can furnish rams or ewes, any age, from imp. stock. Prices reasonable. C. J. LANG, R. R. No. 3, Burkton, Ontario.

MEADOW BROOK YORKSHIRES
From the best strains of the breed. A choice lot of young pigs of either sex and almost any age. Also sows bred and others ready to breed. Prices reasonable. G. W. Miners, Exeter, Ont., R. R. No. 3, Huron Co.

Avonhurst Yorkshires and Collies
A choice litter of pedigreed Collie puppies, sable and white; both sexes. A few good sows pigs, 8 weeks. B. ARMSTRONG & SON, Codrington, Ont.

Morrison Tamworths and Shorthorns. Bred from the prize-winning herds of England. Tamworths, both sexes; 12 sows, bred to farrow in August and September. Young boars, from 2 to 10 months old. Shorthorns, males and females. Chas. Currie, Morrison, Ont.

Sunnyside Chester Whites and Dorsets. In Chester Whites we have both sexes, any age, bred from our champions of many years. In Dorsets we have ram and ewe lambs by our Toronto and Ottawa champion, and out of Toronto, London, and Guelph winners. W. E. Wright, & Son, Glanworth, Ont.

Polands, Durocs and Berkshires
Young stock at all times, both sexes and all ages. Can also supply anything in Dorsets or Southdowns. Everything priced to sell. Cecil Stobbs, Leamington, Ont.

DUROC JERSEY SWINE. My herd won all the champion prizes at London, Toronto and Windsor, 1916. Young stock for sale, pairs not akin. Come and see them, or write. Trains met by appointment. Culbert Malott, R. R. No. 3, Wheatley, Ont.

TAMWORTHS

Young sows bred for Fall farrow, and a nice lot of young boars for sale. Write: John W. Todd, R. R. No. 1, Corinth, Ont.

YORKSHIRES Sows 170 lbs. and under, not yet bred. Boars 2 and 3 months, 60 to choose from. Bred from prize-winning stock, Eldon Duke still at the head. Tell us your wants. Wm. Manning & Sons, Woodville, Ontario.

PROSPECT HILL BERKSHIRES
Young stock, either sex, for sale, from our imported sows and boar; also some from our show herd, headed by our stock boar, Ringleader. Terms and prices right. John Weir & Son, Paris, Ont., R. R. 1.

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.

Gossip.

The seven-year-old Ayrshire cow, August Lassie, owned by the Lawrence A. Reymann Estate, Wheeling, West Virginia, has completed an official yearly record of 19,582 pounds of milk, 831.50 pounds of butter-fat, test 4.11%. August Lassie was born August 8, 1910 and already has three official records to her credit. On February 1, 1915, she completed her first official Advanced Registry Record producing 10,047 pounds of milk, 398.24 pounds butter-fat. On March 13, 1916, she finished her second record with 17,784 pounds milk, 720.03 pounds butter-fat, test 4.05%, and her third record just finished 19,582 pounds milk, 831.50 pounds butter-fat, test 4.25%. The completion of this last record gives August Lassie a three-year cumulative average record of 15,791 pounds milk, 649.92 pounds butter-fat, 4.11% test.

Ayrshires on a Prize-winning Farm.

While making a somewhat hurried trip through the southwestern part of the Province of Quebec recently, our representative spent a most pleasant and profitable day at Sunnyside Stock Farm, the property of Jno. W. Logan, Howick Station, and the winner of the Dept. of Agriculture's Gold Medal for the best farm in the province for the year 1916. To command a score of 97.85 points out of a possible 100, Sunnyside must be almost as perfect as it is possible to get any farm. But in this short review it was not of the farm we started to write. However, nine pages are taken up in the judges' report as published by the Department of Agriculture, and Mr. Logan, as a thorough business farmer, would easily make another report of equal length, but the real specialty at the farm and upon which we wish to comment, is the splendid herd of pure-bred Ayrshires. Quebec, so often called the home of the Ayrshire cow in Canada, has but few herds in the province that measure up to a higher standard than does Mr. Logan's. At present the herd numbers, due to numerous recent sales, are somewhat reduced, but there are still upwards of fifty females, each showing the same choice quality and all round heavy production that have been leading features at Sunnyside for the past twenty years. Many of the mature cows in the herd have been careful selections from the best of the importations of recent years, while a large percentage of the Canadian-bred cows, particularly the younger ones, are daughters of the well-known and former herd sire Netheral Sir Douglas, one of the strongest bred Netheral Brownie bulls ever imported. It was a fortunate choice that brought him into the herd, and then again Mr. Logan was equally as fortunate when he followed him with the young sire, Sunnyside Masterpiece, the present sire in service. He stood second in a strong class at the recent Ormstown show, and no doubt inherits his great individuality from both his sire and dam. His sire was the renowned Hobbsland Masterpiece, while his dam, Auchencloig Lily (imp.), is a show cow, and a daughter of the great Scottish sire, Brae Rising Star. The first young bulls from Sunnyside Masterpiece are now just coming of serviceable age, and are as strong a lot of youngsters as were ever seen at the farm. He is lining up exceptionally well with the daughters of Netheral Sir Douglas. Visitors and correspondence are welcome at Sunnyside Farm at all times. In writing you will receive a prompt reply by mentioning "The Farmer's Advocate."

A Quaker had gotten himself into trouble with the authorities and the sheriff called to escort him to the lock-up. "Is your husband in?" he inquired of the good wife who came to the door. "My husband will see thee," she replied. "Come in." The sheriff entered, was bidden to make himself at home, and was hospitably entertained for half an hour, but no husband appeared. At last the sheriff grew impatient. "Look here," said he, "I thought you said your husband would see me." "He has seen thee," was the calm reply, "but he did not like thy looks and has gone another way."



Absolutely the one great convincing engine value of the day.

Fairbanks-Morse Quality at a Popular Price

That's the story in a nutshell. This new "Z" Engine puts dependable, efficient, economical "power" within the reach of every farm.

"More Than Rated Power and a Wonder at The Price"
Simple—Light Weight—Substantial—Fool-proof Construction—Gun Barrel Cylinder Bore—Leak-proof Compression—Complete with Built-in Magneto. Quick starting even in cold weather. Low first cost—low fuel cost—low maintenance cost. That's the "Z" Engine.

GO TO YOUR DEALER AND SEE THE "Z"

The Canadian Fairbanks-Morse Co., Limited

St. John, Montreal, Toronto, Winnipeg, Saskatoon, Calgary, Vancouver.

THE NEW

“Z”

1 1/2 H. P. \$65.

3 H. P. \$115.
6 H. P. \$205.

F. O. B. Montreal or Toronto

Important Dealer Service

When you buy an engine from your dealer you deal with a local representative of the manufacturer. He shares their responsibility. He stands behind the engine he sells. He's responsible to you. He's at your service to see that you are satisfied. And he's as near you as your telephone any time you want him.

FARMERS

SHIP YOUR WOOL DIRECT TO US

John Hallam Limited

TORONTO

FARNHAM OXFORD DOWNS

Flock established from the best flocks in England. Our initial importation was among the first in 1881. Having quit the showing, we now make a specialty of breeding animals. Special attention to flock headers. They will give a good account of themselves in the showing. Offering for the present season:—120 yearling rams; a few two-year-olds; 80 superior yearling ewes. A nice lot of ram and ewe lambs coming on. HENRY ARKELL & SON, R. R. No. 2, (Tel 355r2 Guelph,) GUELPH, ONT., CAN.

ELMHURST LARGE ENGLISH BERKSHIRES

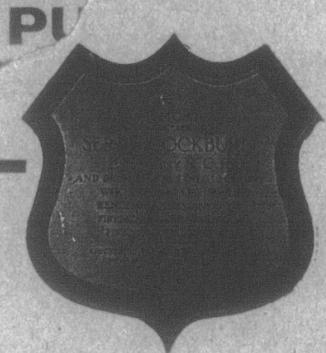
From our recent importation of sows, together with the stock boar, Suddon Torredor, we can supply select breeding stock, all ages. Satisfaction and safe delivery guaranteed. H. M. VANDERLIP, Breeder and Importer, R. R. 1, Brantford, Ont. Langford Station on Brantford and Hamilton Railway.

Duroc Jersey Swine Just home from quarantine; Brookwater Principle Orion, sired by that great sire, The Principle 4, the U. S., which we are using on a number of imported and home-bred sows for spring farrow. A few of the sows and young stock for sale at all times. Pairs furnished not akin. L. A. FARDO & SONS, R. R. No. 1, CHARING CROSS, ONTARIO

ENGLISH LARGE BLACK PIGS

We have for sale at present some young pigs of a breed new to Canada but standardized and very popular in England, from our pure-bred imported LARGE BLACKS. Stock excellent for cross-bred English Berkshires. Their English reputation is that they grow large and fast. Also for sale, pure-bred English Berkshires. Lynnore Stock Farm, F. Wallace Cocksutt, Brantford, Ont.

Berkshires My Berkshires for many years have won the leading prizes at Toronto, London and Guelph. Highcleres and Sallys, the best strain of the breed, both sexes, any age. Adam Thomson, R. R. No. 1, Stratford, Ont. Shakespeare Station, G.T.R.



"When shall their memory fade?"

TENNYSON'S line is as applicable to our heroes of to-day as when he penned his immortal verses. Families, friends, societies, churches and others feel it an imperative duty to fittingly perpetuate the memory of the noble fallen. Their wishes find adequate expression in the enduring brasses and bronzes produced by this company.

Write for full information on SHIELDS, TABLETS, etc.

The Dennis Wire & Iron Works Co., Limited London Canada



MAIL CONTRACT

SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa until Noon, on Friday, the third day of August, 1917, for the conveyance of His Majesty's Mails, on a proposed Contract for four years, twelve times per week each way, between Lucan, Clondeboye and Grand Trunk Station, from the 1st of October, next.

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 Lucan and Clondeboye, and at the office of the Post Office Inspector, London.

C. C. ANDERSON, Superintendent.

Post Office Department, Canada, Mail Service Branch, Ottawa, 22nd June, 1917.



MAIL CONTRACT

SEALED tenders, addressed to the Postmaster General, will be received at Ottawa until noon, on Friday, the 3rd day of August, 1917, for the conveyance of His Majesty's mails, on a proposed contract for four years, six times per week over Glencoe No. 4 Rural Route, from the 1st of October, 1917.

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 Glencoe, Alvinston, Appin and Newbury, and at the office of the Post Office Inspector, London.

G. C. ANDERSON, Superintendent. Post Office Department, Canada, Mail Service Branch, Ottawa, 22nd June, 1917.



MAIL CONTRACT.

SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa until Noon, on Friday, the 10th day of August, 1917, for the conveyance of His Majesty's mails, on a proposed Contract for four years, six times per week over Thorndale No. 4 Rural Route, from the 1st of October, 1917.

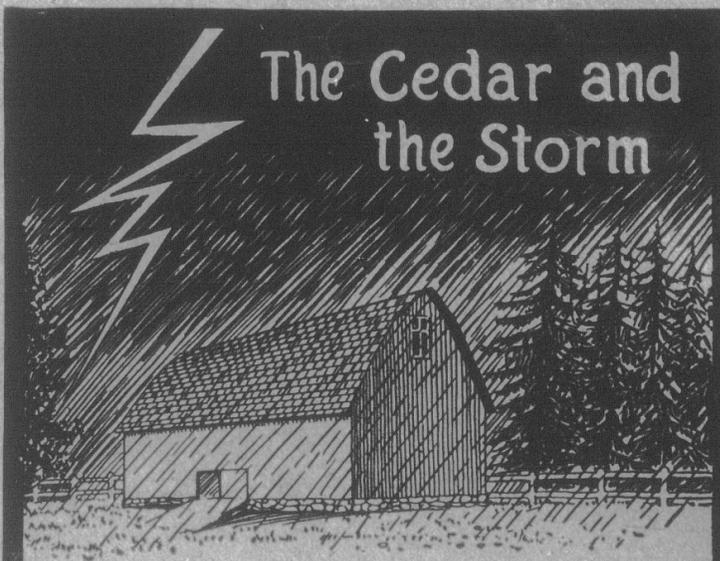
Printed notices containing further information as to conditions of proposed Contract may be seen and blank forms of Tenders may be obtained at the Post Offices of Thorndale, Belton and St. Mary's, and at the office of the Post Master Inspector London.

G. C. ANDERSON, Superintendent. Post Office Department, Canada, Mail Service Branch, Ottawa, 29th June, 1917.

There's nothing better for a light lunch than

McCormick's JERSEY CREAM Sodas

Sold fresh everywhere in different sized packages.



The Cedar and the Storm

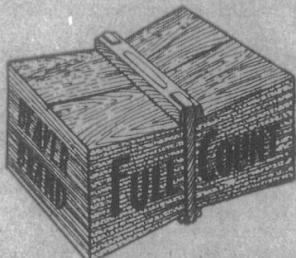
A BARN IS AS GOOD AS ITS ROOF

Watch the cedar in the storm—its toughness and resiliency resist all shocks.

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

BEAVER BRAND WHITE CEDAR SHINGLES

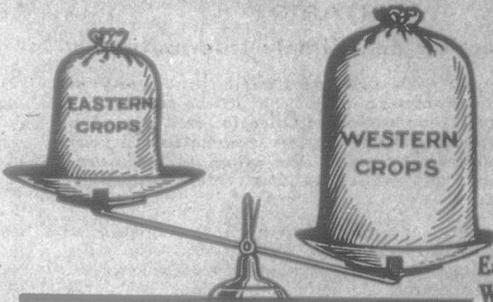
Beaver Brand Shingles are made from the best of the New Brunswick White Cedar. They hold down their job. They need no paint, are easily laid, and the very occasional repairs are simple, the only tool required being a hammer.



Ask Your Dealer

"THE SHINGLE ROOF THAT'S STORM PROOF."

BATHURST LUMBER CO. LIMITED BATHURST N.B.



Weigh this Yourself

The Average Yearly Revenue from all field crops of each Farmer:

Eastern Canada, \$490 Western Canada, \$1000

Why not double your earning power by taking up a Free Homestead in Western Canada along the lines of the Canadian Northern Railway? Low Homeseekers' Fares are in effect once a week, till October 31st, from Eastern points.

For full particulars and any of our descriptive booklets, "The Homeseekers and Settlers Guide," "Peace River Guide," or "British Columbia Settlers Guide," apply to Gen. Pas'gr Dept., Montreal, Que., Toronto, Ont., or Winnipeg Man.

CANADIAN NORTHERN RAILWAY

LIFT YOUR CORNS OFF WITH FINGERS

Tells How to Loosen a Tender Corn or Callus so it Lifts Out Without Pain.

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

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

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

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



HOMESEEKERS' EXCURSIONS



MAY 8th TO OCTOBER 30th

Every

TUESDAY

"ALL BAIL" - also by

THURSDAY'S STEAMER

"Great Lakes Routes" (Season Navigation)

Your Future is in the West

The fertile prairies have put Western Canada on the map. There are still thousands of acres waiting for the man who wants a home and prosperity. Take advantage of Low Rates and travel via

Canadian Pacific

Information from Canadian Pacific Ticket Agents, or W. B. Howard, District Passenger Agent, Toronto.

CHURCH BELLS

CHIMES AND PEALS MEMORIAL BELLS A SPECIALTY FULLY WARRANTED

McSHANE BELL FOUNDRY CO. BALTIMORE, Md., U. S. A. Chicago Office: 164 W. Randolph St. Established 1856



EASTLAKE STEEL SHINGLES WRITE FOR PRICES METALLIC ROOFING CO. LIMITED TORONTO, CANADA.

THE VETERINARIAN

A valuable book which tells you about the treatment of diseases of your live stock, given FREE with a trial ton order of

LINSEED OIL CAKE

"Maple Leaf" Brand

Write to-day for lowest prices. The Canada Linseed Oil Mills, Limited Toronto and Montreal

Post Holes Cost Money

You can save this labor and expense by using Standard Steel Tube Fence Posts. Write for prices

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

When writing please mention Advocate



Organized marketing on a business basis means increased profits for you

It can be done, too—that's certain, because **Ontario farmers are doing it now**

There are at present upwards of 200 GROWERS' BUSINESS ORGANIZATIONS helping in the MARKETING OF ONTARIO FARM PRODUCTS, besides scores of farmers' clubs, which buy or sell co-operatively. These associations and clubs now handle:

Fruit	Beans	Live Stock (for butcher)
Potatoes	Vegetables	Live Stock (purs-bred)
Onions	Seed Grain and Corn	Poultry and Eggs.

Here are some encouraging results of last year's operations:

Value of Products Sold.	Average Sold.
23 fruit associations..... \$442,775.70	\$19,251.11
14 egg circles..... 111,035.22	7,931.08
12 farmers' clubs..... 178,624.39	14,885.36

THESE FACTS EXPRESSED IN FIGURES SPEAK FOR THEMSELVES. They prove that an efficiently organized farmers' marketing association PAYS AND PAYS WELL. But again, this must be emphasized—the association must be efficiently organized.

THESE FACTORS MAKE FOR SUCCESS

Grading Comes First

Farm products are generally graded before they reach the consumer—and are sold accordingly. But they are seldom graded on the farm—too often they are sold ungraded and at a flat rate. That means that the high-class products command the same price as the low grade, while all are sold for what the medium product really is worth. This system is manifestly unjust—it discourages the good farmer and encourages the careless farmer. Only graded products sell at their real market valuation.

Then, Packing and Finish are Important

Consumers buy very largely what appeals to the eye. An attractive and suitable container, a neat pack, and the proper finish make for quick sales and increased prices. It is always good business to give the consumer what he wants, the way he wants it. Superior packing and finish bring the superior trade.



ONTARIO

Practical and Timely Information

If you wish full information upon any of these questions or upon any others concerning practical co-operation in Ontario, or if you wish assistance in organizing an association in your own community, write the office of the Commissioner of Agriculture, Parliament Buildings, Toronto.

For general information upon the subject of organizing a co-operative society, write the office of the Commissioner of Agriculture for bulletin No. 234—Co-operative Marketing Association.

Ontario Department of Agriculture

Parliament Buildings, Toronto

SIR WM. H. HEARST
Minister of Agriculture

G. C. CREELMAN
Commissioner of Agriculture



Continuous Supply—a Vital Factor

When the supply diminishes, prices increase and the demand lessens. Superior products will sell at this time profitably; besides they make for regular and permanent trade. As long as the demand lasts the customer should not be disappointed and the market lost for lack of supply.

Study Markets and Market Conditions

Markets are, in the final analysis, simply consumers, and they have their preferences and their dislikes. It is good business to study and to cater to these. Then, too, often the local market becomes glutted; a knowledge of more distant markets, their demands, the best and quickest means of transportation, and the most efficient methods of selling are essential for the profitable sale of the surplus products.

THERE IS NOT A DOUBT but the most efficient way of supplying these principles in the case of the vast majority is by CO-OPERATIVE SELLING, ORGANIZED UPON A ROCK-BOTTOM BUSINESS BASIS.

Working Together for Mutual Benefit

A Co-operative Marketing Association establishes the reputation of the district—the association's name and brand stand for quality.

It eliminates the low-grade product—successful egg circles, for instance, have already eliminated the 17 per cent. of bad eggs in their districts.

It encourages community breeding of live stock and community specialization generally in those crops best adapted to prevailing local conditions.

Because of this, it attracts buyers to the district and increases prices.

This in turn creates a greater interest in and a greater knowledge of markets, market demands, and conditions, and, in consequence, new markets are developed and products are sold that would otherwise be wasted. Thus, for instance, where no co-operative fruit association exists apples may waste on the trees or be fed to hogs while the consumers' demand is strong, and organized societies make ready sales.

Co-operation, in short, PAYS AND PAYS WELL, and despite all prevailing obstacles is being applied upon an increasingly important scale in Ontario. Is the time yet ripe to organize an association in your own district?

