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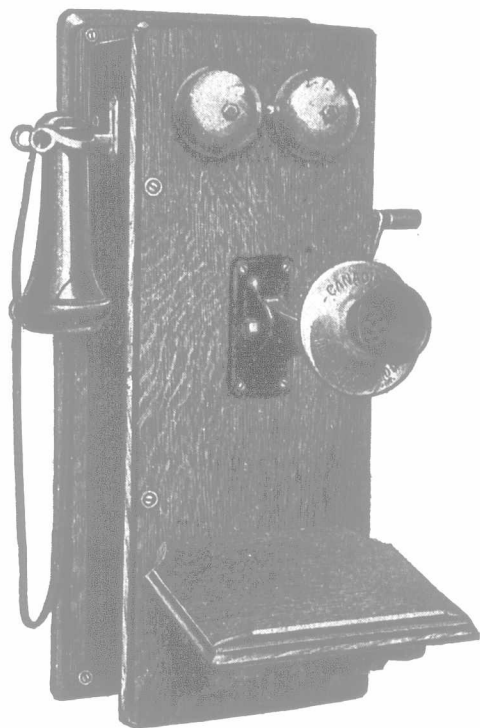
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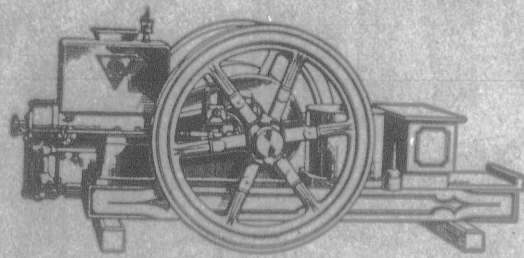
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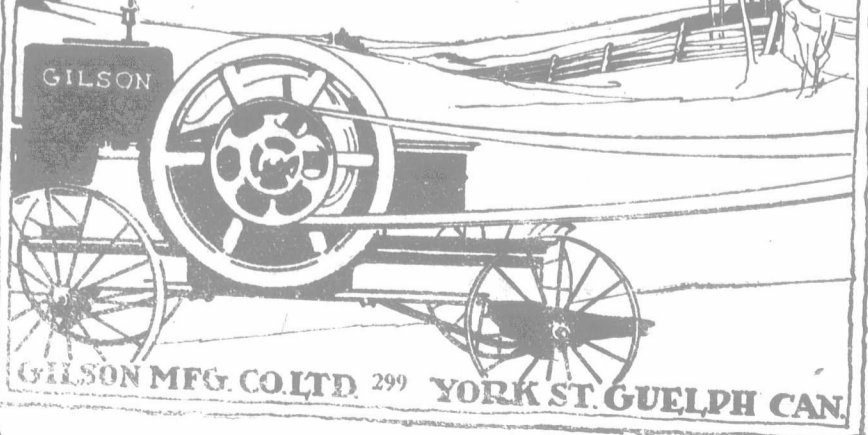
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LII.

LONDON, ONTARIO, JULY 12, 1917.

1294

EDITORIAL.

Keep the corn clean with the horses and cultivator.

Too many rains show the necessity for more drains.

Canada is in this war—not one political party in the Dominion.

The farmer's problem this fall will be one of getting plowing done.

Food is as necessary as fighters, and cannot be produced without men.

Keep up the supply of comforts for the soldiers. The need is still urgent.

Authorities on the subject are agreed that a scarcity of live stock will prevail in all countries after the war.

Here is the way the farmer puts it up to his neighbor: "You help me and I'll help you, and we'll get our crop off all right."

Indications point to the greatest need of increased crop in 1918, and from now until it freezes up this fall is the time to prepare.

If all Canada made such an effort to do its part as rural Canada is making, we would more nearly approach the real strength of the nation.

Those who think of setting prices should study the effects such a policy has had on Canadian cheese production and endeavor to avoid mistakes.

Prof. G. E. Day advises live-stock breeders to "carry on." This has been a good motto at the front, and is just as useful and needful here at home.

Some seem to think the farmer has no right to own an automobile. As a matter of fact, his is the business and life which can make the best use of a car.

There is some objection to the Conscription Bill in rural districts on the grounds that it gives no definite assurance that all farm help will not be taken.

The Dominion Government might well consider the removal of the duty on tractors coming into this country. If it is so necessary that our farmers produce why not make it as easy for them as possible?

Those who are trying to change Ontario's system of farming find the Ontario farmer somewhat of a business man. He has adjusted his operations to meet conditions of labor and market and cannot change very rapidly.

Dr. C. A. Zavitz, Prof. of Field Husbandry at the O. A. C., says Ontario should sow at least one million acres of winter wheat this fall. Now is the time to get the sod ready, to clean the summer-fallow, and to lay other plans.

One outcome for good in connection with the help-farmer propaganda has been that the general public have been brought to the point where they are beginning to give the farmer credit for knowing something about his own business.

Those who cut hay early in Western Ontario found considerable difficulty in finding any sun to make it. If the Ottawa Valley and the East could have had some of the rain Western Ontario has experienced things might have been a little better distributed.

Quality First.

Sales of pure-bred live stock are breaking records for high averages. All classes of pure-breds are in good demand. Stock for the block meets ready sale at a high price, and everything promises well in the live-stock business. Just now, however, is a good time to size up the situation. In another article the live-stock producer is advised to "carry on." This does not mean that any should rush pell mell into the breeding business in an endeavor to get maximum quantity at the expense of quality. Because good breeding stock of proven strains sells high and is in increasing demand, is no good reason why anyone should expect satisfactory results from the promiscuous mating of inferior individuals. Now is the time to breed for more quality. There is always a demand for the best. There is seldom much profit in the inferior grades. When sales go up to a high average some seem to think that quality does not count so much. But it does. It is the good stuff that sells, and in boom times as in any other the good stock is the only kind to buy and breed. The man who buys choice animals is the one who generally makes a success. But because one man pays a high price for the select individual with the choice pedigree is no reason why another should pay an exorbitant figure for a cull with poor papers. Now is the time to exercise judgment in buying and breeding. The future is bright for good stock. Be sure your plans are such as will produce it. Better a few of the right sort than many of the "so-so" kind.

Speed the Plow This Fall.

If those in closest touch with conditions read things aright, next year is going to be the trying time in the war. It is next year's crop that is worrying Britain most. It is next year's crop that we in America are now concerned with in so far as laying plans for an increased acreage is concerned. All indications point to a need of all that can be produced, and Canada has her share of the responsibility and effort. This year's crop is now in, and with favorable weather farmers will harvest it. Next year's effort depends largely on the progress of the cultivation work this summer and fall. Dr. C. A. Zavitz, of the O. A. C., says Ontario should sow one million acres of winter wheat this fall and a big acreage of winter rye. If this is to be done work must start immediately in preparation. There is a small acreage of summer-fallow this year which will doubtless go in to wheat. The rest must go on land plowed out of sod or stubble. It is estimated that in the last four years the increase of grass land in Ontario has been over one million acres yearly. Dr. Zavitz advocates plowing considerable of this land as soon as possible and getting it ready for wheat. The earlier it is plowed after the hay is off or after early pasturing the better. It should be well worked down before the wheat-seeding time approaches. Clover sod would be better for wheat than the old sod, but the latter, where the land is good wheat soil might be taken up to advantage. Barley stubble can be utilized, and top-dressing would help both.

Wheat is not the only crop. Fall plowing must be done for the next year's seeding of spring grains. If the land is not plowed this fall all the government tractors and propaganda in Canada cannot get in a big acreage next spring. Fall plowing is a big job. It comes in with corn and root harvest and with threshing. All these take time. Help to plow will not be plentiful from the cities unless men are conscripted to farm as well as fight. There is only one way out. Farmers will, as before, plan to do the work themselves. Use two-furrowed plows instead of the single plow wherever possible. If a tractor is available make use of it. Perhaps the authorities at Ottawa will show their sincerity of purpose by removing the duty on tractors

and encouraging farmers to buy if it is so necessary, as most of us believe, that production be brought up to the maximum. The man who gets his fields well plowed late this summer or early this fall and works the top will be in the best position next spring, and the effort is worth a new plow with two bottoms instead of one, and if available a tractor under certain conditions may help out immensely. Farmers will again have to plan to do the best they can, and we feel sure their effort will be for the best. Exhortation on the part of non-producers avails nothing. The farmer realizes the need and knows his help limitations, and he is forced to farm as a business not as a philanthropic undertaking to please the whims of those who know little of his trials. Agriculture in Eastern Canada is in safe hands when the men on the land are allowed to do their own managing. They could do with some good hired men, and they can do without the poorer kind of help. However, it is important to all that a big acreage be plowed this fall, and those who can and are willing to plow should find their way to the land, and no obstructions should be left in the way of the farmer getting machinery and implements at reasonable prices to carry on his fall work.

"Carry On" in Live Stock.

As the war drags on and more organization and greater correlated and concentrated effort becomes necessary to bring it to a successful and permanent end, the eyes of the Allies turn toward systematizing food production and distribution. Food controllers have been appointed in many countries, and we now have three in whom the Canadian, American and British people are greatly interested. Hanna, Hoover and Rhondda have a gigantic task in hand, for while they desire to do the best for their respective nations it is a rather difficult undertaking to very radically interfere with the recognized channels of trade and over-ride the law of supply and demand. Speculation in foodstuffs or dealing in futures can be, to some extent, controlled, but when it comes to saying what shall and shall not be done and setting the prices for goods, no one can foretell the effects. It would obviously be defeating the purpose of the governments in their endeavor to increase production and supply more food if arbitrary prices were set below the limit of profitable production at the present time. However, these are facts apart from what we set out to discuss, viz., live stock and the war, and yet any food-control measures must take live stock into consideration. It is a well-known fact that cattle, horses, pigs and sheep consume much food in the form of cereal grains that would go farther as human food. In other words the stock are uneconomic users of cereal grains which may become quite apparent if a country is faced with famine. But no one in touch with the situation would advise the slaughter of all live stock to increase the supply of cereals available for human consumption. In Britain efforts are being made to reduce the numbers of live stock kept in order to save grain, but at the same time an endeavor is being made to preserve the best breeding animals for quick recuperation after the war. In Canada there is no reason to cut down upon the live stock at the present time. There are some irresponsibles or would-be fixers of everything agricultural who would pass a law prohibiting the slaughter of all lambs and calves, no matter how small their prospects of ever growing into profitable beef or mutton. Perhaps it never occurred to these people that these young things would require the same kinds of grain to feed them as are eaten daily by the human race. It would be ridiculous for one group of people to be crying for a law to save the calves and lambs while others just as earnestly advocated killing wholesale. Prof. G. E. Day, of the Ontario Agricultural College, takes the sanest and safest view—"carry on." His advice is always sound, and this time

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as heretofore is being heeded by all farmers. Keep on producing is their motto. They are raising no outcry for increase or destruction of live stock. They know that the safest policy is to go ahead with their breeding operations as before, selecting the best to be kept for breeding purposes, fattening some as calves or lambs, and others in the mature state as feed and other conditions warrant. Farm business is in safe hands when the farmer does it himself. The country is not likely to benefit from too much interference with production from outside. The business of live stock production is in good hands, and there is no reason for anyone to become panicky. Keep the good stock. Discard the scrub. Breed for quality rather than quantity. In the meantime the food controllers in Canada and the United States might turn on a little light re the importance or otherwise of live stock in times of food shortage and explain just how our proportion of live stock to cereals works out. Canada is out for organized effort to win the war, but the lining up of all resources is a slow process. Our people must have meat. Soldiers cannot fight without it. We are told that a vegetarian diet does not make for efficiency. All indications point to a scarcity of live stock after the war. So "carry on"

Nature's Diary.

A. B. KLEGG, M. A.

One of the weeds for which a constant watch should be kept in localities in which it is not already present is the Field Bindweed, (*Convolvulus arvensis*), also termed the Small-flowered Morning Glory, as once established it is one of the hardest of all weeds to eradicate. This plant belongs to the Convolvulaceae, a family of plants which may be recognized by their twining habit of growth, arrow-shaped leaves, funnel-shaped flowers, and the fruit, which are spherical, cartilaginous capsules with distinct compartments. There is one genus in this family which does not exhibit the above characteristics, the genus *Cuscuta*, to which the Dodders belong, a group of degenerate parasites, without leaves and with small flowers.

The Field Bindweed is a deep-rooted perennial with extensively creeping, cord-like, fleshy, rootstocks. These rootstocks throw up numerous, slender, branching and twining smooth stems, which form thick mats on the surface of the ground and twist around any plant growing within reach, using them as support, and often climbing them up. The leaves are from one to one and a half inches in length and are shaped as shown in

the cut. The funnel-shaped flowers are pink and a little over an inch across. The seeds of this species are rather large, being one-sixth of an inch in length, dark brown, pear-shaped, one face being convex and the other being bluntly angled with flat sides. The surface is roughened with small projections, and the basal scar, the point at which it was attached to the inner wall of the seed-pod is a reddish depression at the lower pointed end. This species blooms from June throughout the summer, and the seeds begin to ripen in August.

The main method of propagation of this species is not by seed, but by means of the rootstocks, and it is this feature which makes it so hard of eradication, as when the rootstocks are broken up by the plow every little piece grows into a new plant, and since these pieces are dragged to various parts of the field the plant is spread rapidly in this way. The best method of dealing with this pest is a short rotation of crops, including late-sown roots or other cultivated crops. Frequent use of a broad-toothed cultivator will destroy new growths and exhaust the vitality of the plants.



Water Hemlock.

The careful inspection of seed, in order to ascertain that it does not contain the seeds of this species, is important, as it is in the case of all weeds.

A plant with which every farmer whose farm embraces any areas of swampy land should be familiar is the Water Hemlock, (*Cicuta maculata*), also known as Spotted Cowbane, and Beaver Poison. The root of this plant is extremely poisonous and the plant is consequently dangerous to stock, yet I find not one farmer in fifty, on whose land it is growing, knows the plant.

This species belongs to the family Umbelliferae or Carrot Family, a group which may be known by the characteristic shape of the flower clusters, these being that topped, and the flowers being borne at the ends of



Field Bindweed.

long rays, as shown in the figure. It is a native perennial with a stout, hollow jointed, widely branching stem from three to six feet in height. The stem is very smooth, pale green, dotted and streaked with purple. The flowers are small and white. The leaves are compound, that is, divided into leaflets, as are the leaves of most of the Umbelliferae. The underground portion consists of a bunch of fleshy, spindle-shaped tubers.

In the wet land in which the water Hemlock grows there are several other species of Umbelliferae, which have hollow stems, compound leaves and white flowers, and the points which discriminate this species from the

others are the purple-streaked stem and the leaves being shaped as shown in the figure.

It appears as if the stems, leaves and flowers of this plant may be eaten by cattle without injurious effects. The seeds are reported to be poisonous to stock and the tubers are certainly deadly. The active principle is the alkaloid Cicutine, and the tubers are so rich in this poison that it only takes one fair-sized tuber to kill a cow in fifteen minutes. The most prominent symptoms of cicutine poisoning are staggering, unconsciousness and frightful convulsions ending in death. In man there is violent vomiting and colicky pains in the early stages. There is no known antidote. Human beings, usually children, are not infrequently poisoned by eating the tubers. If there are comparatively few plants of Water Hemlock present in damp land to which cattle have access they should be pulled out and burnt. If they are left lying on the ground they may, of course, be eaten or trampled by the cattle in which latter case poisoning may result from the drinking of the water thus contaminated with cicutine. If the plants are too numerous to be pulled the place in which they grow should be fenced off.

Courage Brother Farmer, Keep Climbing.

BY ALLAN McDIARMID.

I remember wondering when I was a comparatively young chap why it was that some of the farmers that I knew were poor and some of them were what I then thought very wealthy. They all lived in the same community and had the same number of acres of land and were engaged in the same lines of production, as a rule. Why they weren't all poor or all rich was a problem to me, as it no doubt was to some of themselves.

But further thought and a little observation have led me to believe that I have discovered several possible causes for this condition of the people of the world in general and particularly of ourselves of the farming community. There isn't much of a question in the minds of most of us about poverty being evil. A man may be good in spite of it, but as a rule it is the result of lack of progress and general laziness. It isn't natural for man to be poor. All the instincts of the healthy individual lead him into a line of action that results in prosperity and well-being. The prosperous man has opportunities that do not come the way of the poor man. He can build up a character through the education that books and travel will give him, and his associations are, as a rule, on a higher level than is the case with the man who has been kept down by lack of means. It's just a case of having things that will promote our growth, or of being without them. And I don't think that there is any necessity for any man who is in a healthy state of body and mind to be in this latter condition. Poverty is a habit, a sort of second nature, that needs to be fought against and overcome like the habit of chewing tobacco, for instance. And in this fight with the poverty habit the first thing we will find ourselves up against is fear. Fear restricts enterprise in every direction and we'll never get very far along the road to success till we overcome it, to a considerable extent, anyway.

I can remember lying awake at night at a certain time in my life and thinking of debts I owed here, and others I owed there, and coming to the conclusion at last that I could never pay them this side the grave. And the effect was to discourage me in the effort to do so. Better thinking brought better conditions, but it might have easily turned out differently.

There is no lack of wealth on this earth. The trouble is that we are afraid to go out and gather it in. It has been estimated that there is enough building material in this country alone to provide a palace as large as the Parliament Buildings in Toronto, for every man, woman and child in the Dominion. If that is the case we don't need to worry about the supply, at any rate. It is more likely that the trouble is in ourselves. In our lack of knowledge of how to go about getting this wealth. We get to thinking that certain things are too good to come to us, but as a matter of fact nothing is, if we will only fulfill the conditions. The Creator who is responsible for our being here wants us to have all we can use that will help to carry us on towards happiness and perfection. The greater the amount of material things a man has, the faster he can progress. He must make right use of them, however, if his progress is to be continuous.

Some of us drive money away from ourselves by our mental attitude. We hate poverty, but we invite it to come and stay with us by continually expecting it. We are inclined to travel the dead-level road of the one where each step is a step upward. And nothing can keep us off this upward road but ourselves. We may get set-backs, but as I have heard it expressed, "every knock is a boost."

Courage is one thing the farmer, or any other business man, must have if he is not going to remain poor. Opportunity comes, not once, but hundreds of times to almost every man, but it does him no good if he hasn't courage enough to enable him to grasp it. We must have daring enough to risk investing something in our business if we hope to get more than a mere living out of it. This calls to my mind the case of a young man with whom I am acquainted, and who, in his earlier years on the farm was just about as poorly situated as the average beginner, at least. But he had more than the average amount of courage, and it made up, in the end, for all he lacked in other respects. His live-stock, horses, cows, pigs and hens, were scrubs of the worst description. But he started in to improve them without loss of time and invested what money he could gather up in several pure bred animals as the foundation of his

future herd. He had the usual run of luck on his way up, in fact at one time he had lost nearly everything but his courage. But he never seemed to have any idea of quitting and going back to the old line of farming and the outcome of his efforts was that two years ago, when he held a dispersion sale of his cattle, they were considered as being among the best individuals of the breed, and the herd as a whole, one of the best in that part of the country. He is building up another herd and his farm is in a state of cultivation that makes it worth practically twice what it was worth when he first began. He never hesitated to make an investment when his judgment told him that it was in the line of improvement and possible financial gain. He believes it is better to keep climbing, even if it leads to a few falls. And results are justifying his faith. What is the use of living at all if we are going to keep to the dead level from the start to finish? The man whose life is a succession of failures, but who dies trying, is getting more for the time he puts in here than the man who starts in on a higher level and is satisfied to remain at that. I know men who all their lives have been willing to forget to-morrow so long as they had enough to eat to-day, and they are exactly the same in character and thought as when I knew them first. If this world is a school, as they say, it's going to take several terms of it for their education. No man who realizes the object of life on this earth can be satisfied with getting a mere living. James J. Hill said that the man who hadn't saved any money was a failure, there was no way around it. There might be circumstances that would some time compel a person to qualify this statement, but as a rule it's true, for if we keep the mind fixed with enough determination on any object we can generally attain it. What we work for and expect has a way of coming to us. The old saying, "According to your faith will it be unto you," has more truth in it than some people seem to have noticed. Faith in our opportunity and faith in ourselves is a combination that will "move mountains." But, as one of our proverb-makers has said, "You can't achieve what you don't believe." By our thought we stand or fall.

THE HORSE.

Itchy Legs.

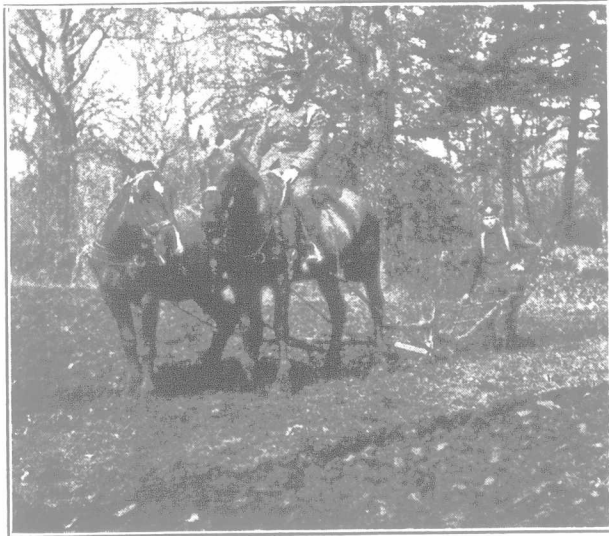
Draft horses, especially those of the Clydesdale and Shire type, are more or less subject to an itchiness of the skin of the legs, particularly in the region of the fetlocks and canons. This is much more noticeable in horses with bone and feathering of poor quality, commonly called round bone, or bone of the fatty or beefy type. It is seldom noticed in a horse with good quality of bone and feathering. In many cases there is, undoubtedly, a congenital predisposition inherited from sire or dam or both. While this predisposition exists to a more or less marked degree in all breeds of heavy horses, it is probably more marked in the hairy-legged classes. The trouble is more frequently noticed during the winter months than at other seasons, but is, nevertheless, frequently seen during warm weather, especially in horses that are kept in the stable and are idle, or practically idle a considerable part of the time. It is not common in horses while on grass.

As stated, the predisposition exists, and the exciting causes are ill-feeding, high feeding, lack of brushing and grooming, dirt, alternate wet and dry conditions of the legs, changes from heat to cold, etc. Whatever the cause, the legs become itchy, the horse stamps, bites the parts, rubs one leg with the shoe or foot of the opposite leg, etc. This continues until the legs become raw in places, small quantities of blood escape and adhere to the hair, collect dust, etc. If this be not removed the parts become foul and foetid, hence the trouble becomes aggravated. When warm water and soap are used for cleaning the parts, and the legs, instead of being rubbed until dry, are allowed to dry from the heat of the parts and the atmosphere, the reaction causes a more or less marked stagnation of the circulation, which tends to increase the trouble. Hence the accumulation of blood, dust, etc., should be removed by rubbing and brushing, instead of by the use of fluids unless the attendant has the time and inclination to rub the legs until dry, and this requires so much time and labor in heavy-legged horses that it is seldom properly carried out.

The question then arises, "How can we prevent the trouble?" Of course, the principal point is to procure horses with clean, hard, flinty bone, with fine feathering and well-marked absence of beefiness or roundness. This can be done only when mares of desirable quality are mated with sires of equal quality. The next question is, "Having horses in which the predisposition to itchiness exists, how can we prevent it?" This can be done only by taking care to prevent the operation of any of the exciting causes. Horses that are idle or partially idle, should be fed on easily digested and laxative food. The use of drugs or medicines as preventives is not advisable. Regular exercise, ordinary food of good quality, and in reasonable quantities, with an occasional feed of bran and a few roots or a little grass daily, according to the season, combined with regularly brushing or rubbing the legs, in order to prevent an accumulation of dirt, etc., and the removal of scurf and dandruff, goes a long way toward preventing trouble. We are aware of the fact that it is usually considered unnecessary to groom idle horses, and also of the fact that the legs of work horses seldom receive the attention they require. But experience teaches us that, while general grooming can probably be dispensed with in idle horses, if they be of the hairy-legged class the legs must receive regular attention, else trouble is very liable to appear. When the legs become covered with ice or mud they

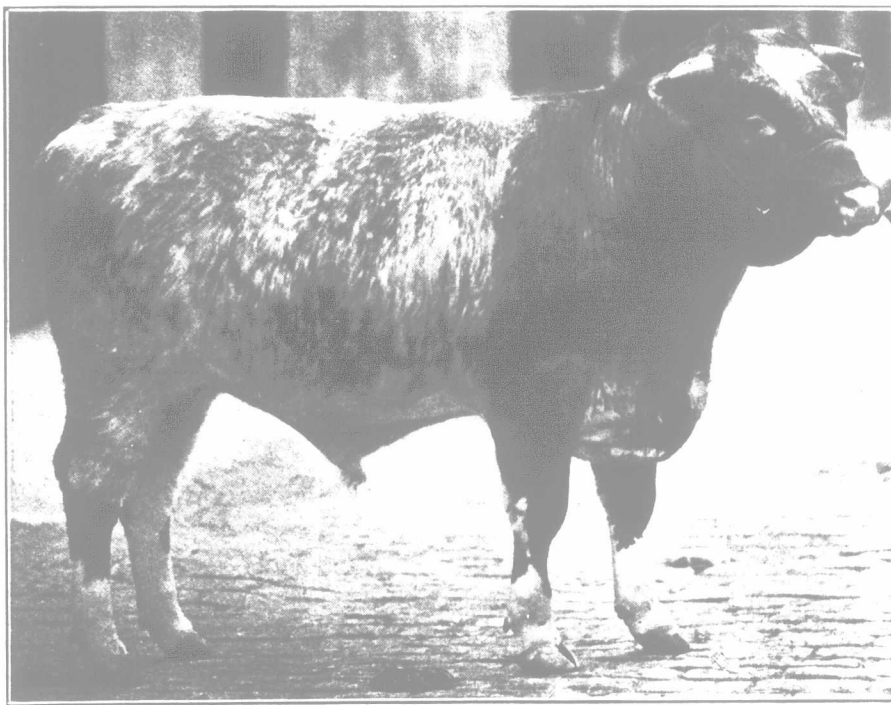
should not be washed, but allowed to dry and then be well brushed. All the exciting causes already mentioned should, so far as possible, be avoided.

Curative Treatment. When the trouble under discussion appears, of course curative treatment is necessary. In the first place the patient should be prepared for a purgative by feeding on bran alone for 18 to 24 hours; then a purgative of 8 to 10 drams aloes (according to the size of the animal) with 2 to 3 drams of ginger should be given, and bran alone fed until purgation commences. After the bowels regain their normal condition, alternatives, as 1 to 2 oz. Fowler's solution of arsenic, should be given twice daily for a week. This can be given mixed with bran or chop, or mixed with a



Canadian Soldiers Helping Farmers in England.

pint of cold water and given as a drench. Local treatment consists in good and regular application of something that tends to check itchiness. A solution of corrosive sublimate, 20 grains to a pint of water, heated to about 110 degrees Fahr., the hair parted, where necessary, and the liquid well rubbed into the skin two or three times daily gives good results. Some recommend a solution of Gillett's lye, about a teaspoonful to a pint of water, but the writer prefers the former. After applying it is good practice to rub with cloths until dry, but at all events, if the weather be cold, cold drafts must be excluded. If this treatment is well carried out it usually results in a cure, but if carelessly conducted it will not cause satisfactory results. When the trouble has reached the eruptive stage the treatment for scratches or mud fever must be adopted. WITT.



Caledonia (Imp.)

Sold for \$7,000 at the Carpenter & Ross sale recently held in Chicago, Ill.

LIVE STOCK.

Provide some shelter from the sun for pigs in paddocks or pasture.

Have the milk for calves at approximately the same temperature each feeding and keep the milk pails sweet and clean.

In these times of meat shortage, you can't keep a good hog down. The price has been soaring again, but it is usually up during the summer months. November is the month for sellers to shy clear of.

Individuality and performance in pure-bred live stock are the essential qualifications. A good pedigree

in addition to these attributes will ensure their transmission to the offspring. A "traffic in pedigrees" only without respect to the character of the animals is sure to injure the breed and eventually bring about a reaction.

At a well-attended meeting of the Southern Alberta Wool Growers' Association at Lethbridge last month, arrangements were made to ship about 100,000 fleeces to the Dominion Government wool storage warehouse in Toronto. This represents in the vicinity of three-quarters of a million pounds, and will probably be one of the largest shipments in the Dominion.

Co-operative wool grading and marketing is proving to be a success. Of course, the increase in price over that of two or three years ago is due largely to abnormal conditions, but comparing the receipts from graded wool with prices paid by local dealers at country points we find a distinct advantage in the co-operation method. Other lines of live stock and live-stock products might well be handled in a co-operative way.

An immense advantage accrues to any breeder of pure-bred live stock who is located in a district where the breed he favors is popular and breeders numerous. It is reported that several sales of Shorthorns took place by private treaty in the vicinity of Elora and Burlington at the time of the recent public Shorthorn sales at those points. Many feel that they should adopt some breed different from that produced by a neighbor. This is an erroneous idea which is altogether too common, for one helps rather than injures the business of another. Community breeding is the most remunerative policy.

Grain Rations for Swine.

In a pamphlet on "The Feeding of Swine," issued by the Dominion Department of Agriculture, G. B. Rothwell, of the Central Experimental Farms, recommends several different grain rations according to the district, or the method of feeding. Following are excerpts from the pamphlet.

After weaning start grain feeding as follows: Daily ration for the two or three-months pig, weighing about fifty pounds: 1 pound of a mixture of barley, 3 parts; shorts, 3 parts; linseed oil meal, 1 part; with 5 pounds of skim-milk daily. Soak for 24 hours and feed. If in pen, add to this some dry grain, oats or corn, scattered in the litter. This is not necessary if they are on a grass paddock. As pigs increase in age, gradually increase the grain to three pounds or more daily, as needed, increasing also the proportion of ground barley or oats in the mixture, until at six months of age the ration consists of ground corn or barley, 6 parts; shorts, 3 parts; linseed oil meal, 1 part. Shelter the

pasture or paddock-fed pig either with a portable cabin or a light, open-sided shed. Avoid, particularly, turning the weaned pig outdoors to a shadeless paddock, sunburn, skin trouble, temporary and often permanent stunting ensues. Have natural shade if possible and supply clean, fresh water.

Other Good Growing Rations.

1. Ground barley, 4 parts; shorts, 4 parts; gluten feed, 2 parts; skim-milk, 3 parts.

2. Ground oats or barley, 4 parts; shorts, 4 parts; ground peas, 2 parts; skim-milk, 3 parts.

3. Ground wheat or shorts, 2 parts; barley, 2 parts; ground peas, 1 part; skim-milk, 3 parts.

Numbers 1 and 2 would be applicable to Central and Maritime conditions, while number 3 would be more adapted to Western needs.

Meals and Mixtures for Use in Self Feeder.

From a mechanical standpoint practically any mixture of whole or ground grains or other millfeeds may be successfully fed. Corn, for example, is frequently fed along with clover or alfalfa pasture, for short-finishing periods. For young pigs or shotes any of the following rations will be found suitable, provided all hulls are fairly finely ground.

1. Shorts, fine ground oats, fine ground barley or corn, equal parts.

2. Shorts, 1 part; any of the above grains, 1 part; ground peas, 2 parts.

3. Shorts or wheat, 2 parts; barley, 2 parts; peas, 1 part.

With any of the above rations fed to young pigs skim-milk may be most profitably fed. Where such cannot be obtained the addition of tankage, meat or

blood meal is recommended, say at the rate of 1 pound of tankage to 6 pounds of any of the afore-mentioned mixtures. Where whole corn is used, one pound of tankage could be added to every eight of corn.

Wool Grading and Sales in Quebec.

EDITOR "THE FARMER'S ADVOCATE":

The wool grading and sales recently completed in Quebec by ten associations have once more demonstrated the benefits of co-operation in the marketing of farm products. The average price obtained for the total output this year, including all grades, was just 11.57 cents higher than the average price received last year, which was 41.7 cents a pound. The first sales were made when 40 to 45 cents a pound was the ruling price in country districts.

The entry of the United States into the war had a great tendency to inflate the price of domestic wools, and the withholding of the wool embargo enabled American buyers to compete on an even footing for Quebec wool, while the shortage of bottoms for carrying the Australian product assigned by the British Government for the use of Canadian mills had a tendency to place a new value on home-grown wools for home manufacture, and made competition keener than it otherwise would have been.

Through their associations the farmers have received the full benefits of the advances in wool prices. Without the associations the greater part of the wool would have been in the hands of the local dealers before the farmer was made acquainted with present market conditions, and he would have received little benefit from the present market.

In the matter of sale six of the associations in Quebec made a joint offering of 136,686 lbs. at Lennoxville on May 26. At this sale lots varying from 5,000 to 30,000 lbs. in extent were offered, and although one firm eventually secured the entire offering there was nothing to hinder the smaller purchaser from securing the amounts desired. The remaining associations sold their offerings individually with hardly as good results as those who sold collectively. At the Lennoxville sale the following prices were received:

Medium clothing.....	56¼ cents
Medium combing.....	56¼ "
Low medium combing.....	55¼ "
Coarse combing.....	52¼ "
Black and gray.....	43¼ "
Rejections.....	43¼ "
Tags.....	5 "

Prices for the other associations ranged between the following figures:

Medium combing.....	55 to 52¼ cents
Low medium combing.....	54 to 51 "
Coarse combing.....	53 to 48¼ "
Rejects and black.....	40 to 35 "
Tub washed.....	70 to 63 "

With perhaps one or two exceptions the associations have shown considerable improvement in the preparation of their wool for market. One new association was organized during the winter, and the other associations, with one exception, have increased their membership and the amount of wool marketed.



Britannia.

The Chicago-winning show heifer that sold at the recent Watt-Gardhouse Shorthorn sale at \$2,025.

Statement of Wool Grades.

Name of Association	Med. Clothing	Med. Combing	Low med. Combing	Coarse Combing	Black and Gray	Rejections	Tags	Miscellaneous (washed)	Total
Pontiac		21,230	17,362	5,916	362	761	266	405	46,302
Richmond	162	2,615	8,418	19,827	335	3,634	57	Damp 119	35,048
Compton		11,389	11,984	9,137		2,013	44		34,686
Sherbrooke	75	11,442	6,117	1,438	196	754	231		20,253
Stanstead		8,411	8,461	1,374	101	1,373	131		19,851
District of Bedford		6,616½	8,908	1,62½	246½	352½	159		18,521
Argenteuil	612	1,400	6,278	5,299	349	1,365	26		14,717
District of Beauharnois		1,771	5,147	4,699		224	73		11,914
Megantic		232	2,967	4,903	121	104			8,327
Ottawa		805	1,277	808		189		(washed) 1,000	4,079
Totals	849	65,911½	76,919	55,027½	1,710½	10,769½	987	1,524	213,693
Per cent of totals	.04	30.87	35.9	2.57	.82	0.5	.04	.75	

Statement of Membership, No. of Fleeces, Average Weight and Price per Fleece and Total Value of Wool Marketed.

Name of Association	No. of members	No. of fleeces	Ave. weight fleece	Ave. price per fleece	Total value
Pontiac	348	6,166	7.5 lbs.	\$3.80	\$23,441.07
Richmond	253	4,545	7.7 "	4.00	18,200.90
Compton	373	4,923	7.002 "	3.80	18,720.04
Sherbrooke	196	2,779	7.28 "	3.97	11,037.91
Stanstead	166	2,816	7.04 "	3.85	10,767.07
District of Bedford	182	2,454	7.5 "	4.11	10,098.89
Argenteuil	130	1,980	7.4 "	3.74	7,410.82
District of Beauharnois	117	1,394	8.55 "	4.38	6,115.80
Megantic	94	986	8.44 "	4.51	4,453.41
Ottawa	17	372	8.2 "	4.40	1,636.17
Totals and averages	1,876	28,415	7.66 lbs.	\$4.05	\$111,882.08

The accompanying tables give a detailed statement of the grading for each association:
Macdonald College, Que. A. A. MACMILLIAN.

THE FARM:

A Political Miracle.

EDITOR "THE FARMER'S ADVOCATE":

A political miracle has been wrought. Members of parliament have "broken with their party," have failed to "follow their leader." The situation has been pathetic. Eyes have filled with tears and "voices have choked with emotion," because differences of opinion have arisen where, for years, apparently, no differences have existed. A local paper puts it thus touchingly:

Such a gratifying result, from a government point of view, has only been made possible through the splendid patriotism of so many Liberal members, in deciding

not to follow their leader on an issue of this kind. Nor must the generosity of the leader himself be forgotten, because he has of his own accord freed his followers from party allegiance in order that they might follow the dictates of conscience.

"That they might follow the dictates of conscience!" The leader has, for once, "freed his followers from party allegiance in order that they might follow the dictates of conscience!" Most singular! As this local paper remarks:

There has been no such display of independence of party since Confederation, the Conservative revolt at the time of the Pacific scandal, or the Liberal revolt against reciprocity, fading into insignificance in comparison.

It is, therefore, a most unique condition that the "member of a party," the "follower of a political leader" should be free to follow the dictates of his conscience! Yes; "there has been no such display of independence of party since Confederation." Fifty years have passed; fifty stormy sessions of parliament have deliberated long into the night, and have "divided" in the "wee small hours," and now, as never before, members have been free to "follow the dictates of conscience."

What a commentary upon the mockery, insincerity and demoralizing influences of "The Party System!" In this time of emergency the "System" has broken down, and for almost the first time in fifty years members of parliament, at least on one side, have followed the dictates of their own consciences. For once allegiance to truth has risen above allegiance to party. May God help Canada if, when the present crisis is over, those who make our laws should again regard loyalty to party as the supreme obligation!

Brant Co., Ont.

W. C. GOOD.

Prosperity in Leeds County.

EDITOR "THE FARMER'S ADVOCATE":

I have been taking an auto trip over a portion of Leeds County, and it might be interesting to your readers to hear how the prospects are. The crops look fine, but corn is a little backward. The roads on the whole are pretty fair. It is a pleasure to see the interest farmers are taking in keeping their homes and yards in a tidy and clean condition. There isn't much building going on. If one was to judge by the number of automobiles on the road, you would come to the conclusion the manufacturers were working night and day to keep orders filled. It appears to me from the fine crops of potatoes and garden truck one sees, such stuff will be lower in price next fall and winter. Everywhere you go, no matter on what road, farmers are taking more pride in making "home" more attractive. It was also pleasing to see the attractive appearance of the rural school buildings and grounds. From what I could see I think old Leeds County is keeping pace with neighboring counties.

Leeds Co., Ont.

D. F. ARMSTRONG.

Fewer Bugs and Less Disease Mean More Potatoes.

The failure of the potato crop in many sections last year, resulting in abnormally high prices for this article of diet, has led many land-owners to increase their acreage this spring in spite of the extra expense for seed. A few more rows than usual on the farms together with the idle land within city and town limits devoted to this crop will make a vast difference in the supply next fall if the crop is an average one. As supply and demand govern the price of potatoes, perhaps more than with less perishable products, it is comparatively safe to prophesy that if favorable weather conditions prevail the price will be within the reach of all next winter. However, the crop has just nicely started growing in many sections, and there are several things which might happen between now and fall to prevent a heavy crop being harvested. Dry weather will check development; excessive wet causes rot; hot, damp weather during the latter part of July and August may start late blight which exacts a heavy toll; numerous other diseases may work towards reducing the yield, and the potato bug is ever ready to defoliate the plants. Consequently, it is not advisable to count the number of bags per acre until nearing the end of the growing season.

As with the root crops potatoes respond to proper cultivation. From the time the rows can be followed until the vines meet and fill the rows the cultivator should be used at intervals of a week or ten days. At first the implement used can be run quite deeply to loosen up the soil and give the tubers an opportunity to expand. As growth advances run the cultivator a little shallower with the object of destroying weeds and maintaining a dust mulch which goes a long way towards conserving the moisture in the soil for use by the plants. On light land where the seed was planted from three to four inches deep it is doubtful if molding up the potatoes should be resorted to as this practice exposes more ground surface to the drying effects of sun and wind resulting in loss of moisture. Many successful growers practice level cultivation throughout the season. On clay soil where seed is planted near the surface it is necessary to bank up to prevent sun-burn. This method also gives an excessive amount of water a chance to drain away quickly. The potato plant will not do well if its feet are kept wet.

Several destructive diseases can be prevented if the proper material is applied at the right time and the work is done thoroughly. Once disease has become established, spray material will not eliminate it, although it may check further spread. Paris green, arsenate of lead or some of the commercial preparations applied at the right time will destroy the bugs and insects which work havoc on the foliage if unmolested. As a rule an effort is made to control the bugs, but few, other than those growing potatoes on a commercial scale, bother using Bordeaux mixture to prevent the blights. They take the risk and sometimes their crop is healthy, but at other times it is lost. It is impossible to tell whether or not disease will be in the crop this year, but why gamble with the crop when there are means of eliminating the risk of failure.

So far Canadian growers are fairly free from diseases which not only destroy the crop but infect the soil rendering it unfit for potatoes for several years. Every effort should be made to keep the crop clean. One way of doing so is to go carefully over the field a couple of times during the season and destroy diseased or weak plants so that they cannot produce tubers which might be carriers of disease. By taking this precaution several diseases will be prevented from becoming established in this country.

The importance of the potato crop warrants every effort being put forth not only to prevent disease, but to increase the yield and quality of the tubers. The latter can be done to a large extent by selection in the field during the growing season and at digging time. The danger of a potato famine in any district would be lessened if the growers would pay a little more attention to the quality of seed sown and to the preparation of the soil, besides adopting methods to prevent insects and disease injuring the crop.

Insects Attacking the Potato Crop.

There are a number of insects which attack the potato crop, the chief of which is the Colorado potato beetle. This insect is known to all potato growers in the older districts. The adult or hard-shelled beetle does not do so much damage to the leaves as do the larvæ. If methods are not adopted to destroy the larvæ, or at least check the adults from laying eggs, the potato vines are soon stripped of their leaves, which hinders the development of the plant. The adult beetle hibernates during the winter, but is generally on the job when the first potato growth shows above the ground. Eggs are laid on the under side of the leaves, or on grass and weeds. They hatch in seven days, and the young larvæ soon devour the tender foliage. Where only a few rows of potatoes are grown the adult beetles may be destroyed, but this is not practicable where a large acreage is under cultivation. Consequently, some form of poison must be applied. Paris green is commonly used, although some growers are now using arsenate of lead. The green may be applied dry to the plants when they are covered with dew. One pound of Paris green to 50 pounds of slacked lime, or other dry powder, are the proportions which give good results. It can be applied with a can in which a number of holes have been punched in the top, or a special apparatus for dusting the dry powder may be secured.

It is necessary that this be applied early in the morning in order that the moisture on the leaves will hold it.

Eight ounces of Paris green dissolved in forty gallons of water is also effective in destroying the potato-beetle larvæ. The solution may be applied by a watering-can, knapsack sprayer, or large spraying outfit which will do four or more rows at once and apply the liquid to the sides and top of the plants. There is apt to be a little free arsenic in the Paris green which if not neutralized may burn the foliage. A few ounces of lime added to the solution will correct the burning effect. When using the arsenate of lead three pounds to forty gallons of water is sufficient to destroy the bugs. One objection to this material is that it is rather slow acting, but it has



Black Leg as it Appears on the Potato Plant.

the advantage of sticking to the leaves and being effective for a longer time than the green. On this account it is preferable in a wet season. If the bugs are bad one-half the regular quantity of Paris green and arsenate of lead may be mixed in the forty gallons of water.

One spraying with the poison solution is seldom sufficient for the season, as the eggs are not all laid at one time. Two applications are generally necessary and sometimes it is found advisable to spray the third time.



Late Blight Getting Started on the Foliage.

It will take about forty gallons of the solution to spray an acre. At the prevailing price of Paris green and lead the expense for material for controlling the beetle may easily be figured out.

In some districts the flea-beetle is particularly bad this year. This insect causes damage by eating tiny holes in the potato leaves. The adult beetle also feeds on other plants and weeds related to the potato. As it feeds on the under side of the leaves it is rather a

difficult insect to keep under control. In the first place, it is advisable to prevent weeds upon which these beetles feed from growing in the vicinity of the potato patch. It is unfortunate that the sprays mentioned for the Colorado potato beetle are not very efficient in controlling this other pest. It has been found, however, that Bordeaux mixture serves as a repellent and if frequently applied so as to keep the new leaves covered the flea-beetle will not have an opportunity to do much damage. If this insect is very troublesome the spray should be applied with considerable force to the under side of the leaves. The leaves are the manufacturing establishment of the plant, consequently, if they are destroyed, or eaten full of holes, their work is interfered with and the crop is reduced accordingly.

Sometimes when applying arsenical poisons for the destruction of insects there will be a dying of the leaves in spots. This may be caused by the arsenic burning. To offset this use a little lime with the Paris green or arsenate of lead. In early July the young plants sometimes appear wilted. This may be taken for a disease and cause alarm. However, the weather is largely responsible and the plants recover quickly when the weather turns cloudy. A long spell of hot weather causes the tips of the leaves to curl and die. This does not cause very serious loss although it has a tendency to weaken the plant somewhat. As it is largely due to lack of moisture, a good deal can be done by having the soil in good condition at planting time, and then keeping the surface stirred to conserve the moisture.

Potato Diseases.

There are a number of diseases which attack the growing crop and either reduce the yield or entirely destroy it. The early blight is one of the first to be noticed in the field. This is caused by a fungus which appears in July. While it is not so destructive as the late blight, it causes death to a large number of leaves, thus interfering with production of the tubers. This disease is identified on the leaf by concentric markings. They may start at the tip or margin of the leaf and gradually spread, sometimes involving the entire leaf. If this dying back is not checked the plant dies prematurely. It is very often prevalent in dry seasons. Spraying with Bordeaux mixture controls this disease, and at the same time checks the late blight. The poison used for the beetles may be mixed in the Bordeaux so that one operation serves two purposes.

The late blight can be quite easily distinguished from the one previously mentioned. It also commences at the margin of the leaf and spreads rapidly if weather conditions are favorable. The areas affected have a water-soaked appearance with a purplish tint, but there is absence of definite markings. Not only are the leaves attacked but the disease follows on down the stem and may lodge in the tuber, causing immediate rotting, or else lie dormant and cause decay after the tubers are placed in storage. The loss directly due to this disease is exceptionally heavy some years in certain parts of the country. Warm, moist weather the latter part of July and throughout August is particularly suitable to the rapid development and spread of this disease. If the weather is suitable a whole field may become infected in a very short time. An offensive odor is generally detected where the blight has gained a foothold. As the leaves are destroyed the crop is greatly reduced if not entirely destroyed.

The disease winters over as a fungus in the tuber, which, if planted the following spring, produces a weak growth which may bear the fruiting spores and be the means of starting the disease in the field. At any rate these weak plants are susceptible to the blight. Owing to the development of blight, depending considerably on weather conditions, there may be heavy loss one year and hardly any the next. However, the grower who does not take preventive measures is running a great risk of losing his entire crop. In the first place healthy seed should be planted and in the next, the plants should be sprayed with Bordeaux mixture from the time they are five or six inches high at intervals of about two weeks, depending on weather conditions, until danger from attack is past. Spraying with this material will not kill the fungus, but it will prevent the spores gaining entrance to the tissues of the leaves. As the leaves continue increasing in size it is necessary to spray frequently. As many as six applications may be necessary in a wet season; in others, two or three application may be sufficient. There is no guarantee that the potato crop will be free from blight this year, therefore although bluestone, the principal ingredient in Bordeaux mixture, is rather expensive and help is scarce, the potato grower should not take any chances. It has been proven that the crop can be saved from destruction by blight by the use of Bordeaux, which not only prevents the blight but apparently stimulates the leaves, resulting in increased production.

While late blight is considered to be the most serious disease of the potato crop at the present time, care must be taken that other diseases are not allowed to gain a foothold. Some of them are more difficult to control than the blight and not only do they destroy individual plants, but the germs infect the soil, rendering it unfit for potato growing for a number of years. The only way to avoid this condition of affairs is to pay strict attention to seed planted, and then watch the crop during the growing season and remove diseased plants. The Little Potato, or Rhizoctonia, has been found in a number of places in this country. In some sections it causes considerable loss. The leaves curl and the tops have a compact appearance. Small, green po-

tatoes are sometimes produced in the axil of the leaves, which tend to interfere with the proper growth of the tubers. Small, dark spots are to be found on infected tubers. These contain the fungous spores by means of which the disease is spread. Field treatment is not effective in controlling the disease, consequently if infected plants are noticed they should be pulled out and destroyed. Seed treatment as for ordinary scab destroyers the fungus.

Blackleg is another disease which is spread by the seed tubers. While it is not prevalent as yet it has been found in several districts in this country and is believed to be spreading. No doubt it has been introduced to our potato districts on infected seed. The tuber rots quickly after it has been planted, consequently a rugged growth is not produced. The plants have an unhealthy appearance and frequently die prematurely. This is a disease which should be rigorously guarded against by potato growers. While seed treatment will go a long way in preventing its spread, diseased plants should not be left in the field until digging time.

There are several wilts which infest potato fields, causing a rolling and wilting of the leaves thus interfering with the development of the crop. Not only this, but the disease follows down the stem to the tubers causing rot to develop in storage. In some tubers the disease remains over winter in a dormant stage and is the means of spreading it the following season. The diseases mentioned are all indicated during the growing season by unhealthy or unnatural growth of the foliage. There are several other serious diseases of the potato, such as canker, powdery scab, etc., which affect the tubers only.

How Bordeaux Mixture is Made.

Bordeaux mixture is the material used in preventing the development of blights. This mixture is made by dissolving 4 pounds of copper sulphate and 4 pounds of lime in 40 gallons of water. It is rather unfortunate that the copper sulphate is high in price at the present time. However, rather than run the risk of having the yield reduced by late blight, it will pay potato growers to give at least two or three applications of Bordeaux to the crop. Where there is only a small patch to be treated the solution can be made up fresh each time. However, copper sulphate does not dissolve very readily and time can be saved by making a stock solution before the spraying season is on. In making the stock solution dissolve the copper sulphate at the rate of one pound to one gallon of water and slake the lime in the same proportion. Then when using the solution one gallon would represent one pound of the material. In making up the forty gallons, four gallons of the copper sulphate solution and four gallons of lime water would be used. If the receptacle used in spraying does not hold the amount mentioned the quantity of spraying material could be reduced accordingly. Care should be taken when using the stock solution to dilute the copper sulphate and lime separately. Use a wooden pail for the copper sulphate, as it will destroy tin, and iron affects the quality. When making up forty gallons for immediate use the sulphate should be dissolved in a vessel which would hold about twenty gallons and the lime solution made up in a receptacle that would hold a similar quantity. When both are thoroughly dissolved the two solutions can be poured together. The proper results could not be obtained by dissolving the sulphate and slaking the lime in the

same solution. Arsenate of lead or Paris green can be added to the Bordeaux for killing bugs.

There are different outfits manufactured for spraying the potato crop and whatever kind is used the nozzles should be arranged so that the spray or solution will strike underneath the leaves as well as on top. It is necessary to apply plenty of pressure as the greater the pressure the finer the spray, which results in the work being done more effectively than when a coarse spray is applied. Cases have been known of the potato field being carefully gone over with Bordeaux several times in the season and yet the blight was quite bad, while the same number of applications of the same kind of material on a neighboring patch controlled the disease. The only difference that could be found was in the application; on one about 150 pounds pressure was used and on the other barely 75 pounds. This was with a large outfit which sprayed four rows at a time.

Experiments have been conducted to find out whether or not the copper sulphate and lime on the leaves gave beneficial results other than controlling blight. In fields where on blight was seen the yield was materially



Bad Hill Road Making.

increased where the solution was applied, in some cases as high as sixty bushels to the acre. The theory advanced was that the Bordeaux stimulated leaf development and kept the plants fresh and green later in the season, thus lengthening the growing season. It is generally noticed that vines sprayed with Bordeaux have a darker green and a more healthy appearance in the fall than those untreated.

It is more imperative this year than usual that every effort be put forth to stimulate the potato yield, and also to guard against disease. When it cost fifty dollars per acre for seed the yield must be considerably above the average to make the crop a paying proposition if

marketed at the usual price. Then too some seed was not of the highest quality and some was imported, thus increasing the danger from new diseases. Give the crop proper cultivation, spray with Bordeaux and poison and destroy diseased plants in the field.

Mis-Called a Road.

EDITOR "THE FARMER'S ADVOCATE":

The other day in my rounds I chanced upon a stretch of the King's highway known as the "Hamilton Road". Its condition as disclosed herewith by the tell-tale camera is a lamentable reflection upon the name which the ambitious city at the end of Lake Ontario will likely want repudiated forthwith. If His Majesty were compelled to motor over it a few times he would certainly throw up his job and conclude that the good road movement was a delusion and a snare. Catalogued as a "county road", the administrative fathers of Middlesex have there a horrible example of how not to do it, that might be mistaken for a bit of Vimy Ridge after the high explosives had got in their work. I surmised that it was maintained in this condition to harmonize with some of the streets in the city of London a few miles further on. It looks like a conspiracy to prevent any truck or trade between city and county, but autos and a few other vehicles manage to elude the boulders making a run-way at the side. This road has a history, by the way, I am told it was a pre-railway wilderness route from Hamilton to London with a spur to Port Stanley. Parts of it are evidently in the pioneer stage yet. Motorists describe it as one of the worst roads in the country. Once it was coated with beautiful pine planks that would almost make a millionaire lumberman now-a-days. It was gloriously smooth for a while, but the ending was worse than the beginning. The only thing about the experiment that endured was some of the long pine stringers the ends of which were seen sticking up at the lapse of over a half century as late as last season. After that the gravelling era set in and it will likely outlast the war. The bit of road illustrated is up along a moderate hill and is typical of several others having a wide, flat road bed and no ditch to carry off the water. A carriage is in view navigating through the deep coating of soft Thames gravel and sand, so flux that even a steam roller would hardly pack it into a passable bed. Every heavy rain that comes starts a torrent down the middle of the road washing away the finer material leaving the unbroken stones and rocks to shatter tires and ruin horses' feet. It is a near approach to perpetual, municipal motion in a three-year circuit, gravel dragged on one season, washed back to the river the next and then hauled on again. This is what the patient rural tax-payer has endured so long that he has become calloused and half insensible to the injustice perpetrated upon him by inefficiency. Nor can it be blamed upon want of knowledge for tons of road construction literature have been thrown broadcast in every county, and enough of good roads speeches blown into the air to carry a fleet of Zeppelins. Neither is it due to lack of funds because under the procedure described sufficient money is wasted many times over to properly drain and crown the road at the outset. To put it plainly, the results in evidence are the direct consequence of a policy of drift and it is up to the authorities to give the people something better for their money.

ON THE WING.

Canada's Young Farmers and Future Leaders.

Recreation for the Farmer and His Family.

The summer season is the time of year that city and town dwellers plan to take two weeks' holidays or more at some summer resort in order that they may recuperate for the tasks devolving upon them during the other fifty weeks of the year. This cessation from regular daily toil is considered by city people to be a necessity from a health standpoint. However, the rural population as a rule must labor on during the heat of the midsummer sun in order to garner the crops that go to feed the world. At a time of year when nature is looking its best the farmer and his family must continue to toil. This is the rush season. But at every season of the year there is always a certain amount of work that must be done, and the impression seems to be abroad that the tillers of the soil do not require holidays.

While a week or two weeks' continuous vacation in midsummer might be out of the question, it is believed that by careful planning every member of the family could be spared from the work to enjoy a few days in quiet rest, or else spend the time travelling if they so desired. "All work and no play makes Jack a dull boy," and it also makes farm life more or less irksome and monotonous for father and mother. Toiling day after day and month after month, year in and year out, at the same round of work, sooner or later tires a person physically and mentally. Those wresting a living from the soil require a change from their regular work as much as do the city workers. A few days spent in the city will be a change and may prove restful to the man or woman from the country. The summer resort is enticing to some. However, it is not always necessary to go from home in order to have a pleasant and profitable vacation.

Between haying and harvest and again after harvest, work may not be quite so pressing as usual, and one or more members of the family can be spared at that time.

If it is impossible to leave the farm, only work that is absolutely necessary need be done for a few days and the time spent reading, resting or visiting. Even a short vacation of this nature will be found beneficial, but it is better to get entirely away from the regular work.

Automobiles are becoming quite common in the rural districts and their use tends to eliminate distance. There is possibly no better way of spending a few days away from the daily routine than for members of two or three families to club together and motor through various sections of the country. By carrying a supply of good things to eat the party can picnic along the way and spend the nights at a hotel. This will be a change; new sights will constantly be coming in view, especially if the trip leads through sections of country not previously visited. A vacation of this kind gives an opportunity of seeing the lay of the land, the kinds of crops grown, the breeds and quality of stock kept, the architecture of the buildings, the farm and home improvements, etc., all of which are of interest to the traveller. The trip may tire the body but it will rest the mind and will possibly lead to the conclusion that the home farm with its crops, stock and buildings is not so bad after all. It is necessary to see how the other fellow is living in order to fully appreciate home. There are many beautiful parts of the country through which a motor trip might be planned.

In some homes the young people always come first when a pleasure trip is under consideration. Parents sacrifice themselves for their children. While this is an admirable trait it is doubtful if it is always in the best interests of all concerned. Parents require a change even more than the boys and girls, and the young folk of the right stamina will insist on father and mother having an outing first this year so that if anything turned up to prevent all having a vacation it would be the young folk, not the parents, who would forego the pleasure.

The holiday season is always a busy time on the farm and farmers have deprived themselves of recreation on the plea of being too busy. Yet they are oftentimes obliged to entertain city folk for several weeks during the hottest weather and this necessitates extra work, especially in the house. An over strain results in inefficiency and too often breakdown in health. We only go through this world once and the farmer and his family earn and has as much need of a holiday as the city folk. Take a few days off this summer. It will do you good and we believe the work will be as far ahead by the time winter sets in as if you had been constantly on the job.

Profit in Feeding Pigs.

EDITOR "THE FARMER'S ADVOCATE":

In the winter of 1916 I wanted some pigs to feed, so on the 27th of January I bought three at 10 cents a pound. They weighed as follows: on January 27, 1917, 66 lbs. each; on February 24, 1917, 97½ lbs. each; on April 5, 1917, 156 lbs. each. When sold on May 4, 1917, 190 lbs. each.

I got \$16.05 per cwt. for them, which came to \$91.50. The feed bill was as follows:

400 lbs. middlings	\$ 8.40
631 lbs. chop	14.42
100 lbs. shorts	2.15
100 lbs. hog feed	2.60
Feed consumed by three pigs	28.77
Feed consumed by one pig	9.59
Pigs and feed cost	48.57
Selling price on three pigs	91.50
Cost price on three pigs	48.57
Gain on three pigs	42.93
Gain on one pig	14.31

I fed the pigs twice a day, also I tried to have the feed to soak about one day before using.
Essex Co., Ont. HAROLD J. PETERSON.

Automobiles, Farm Machinery and Farm Motors.

The Speedometer.

The most intricate mechanism in connection with an automobile is the speedometer, and so the greatest care must be exercised in any operations looking towards its maintenance. The speedometer head itself is as delicate as a watch, and do not, under any circumstances, tamper with it any more than you would with an expensive timekeeper. When the head leaves the factory it has been adjusted very minutely, and before being adjusted has been built on special calibrating machines. Every part that requires lubrication has been oiled, and the mechanism prepared for operation as long as its life is figured to exist. The most important part of this article is to give a suggestion as what not to do rather than an indication of what operations to follow. Should you, however, be positive that the head of the speedometer is at fault, the best course to follow will be to detach the head and send it to a service station of the company which manufactured it. Do not, under any advice, allow a repair man in a garage, or even a jeweler, to attempt a re-adjustment, because these people, no matter how willing they may be nor how certain of their own ability, will not effect a perfect job, and furthermore, the manufacturers of speedometers do not allow anyone to tamper with the heads of their machines under penalty of cancellation of the guarantee.

Of course, there are what might be called accessories in the speedometer, and these sometimes cause a certain amount of difficulty. If you find that your speed-registering machine is not giving entire satisfaction, there are a number of systems of diagnosing the troubles. In instances where the pointer is unsteady, you may find that the union connections, between the speedometer itself and the flexible shaft and between the swivel joint and the flexible shaft, are loose. They should be tight at all times. Then, too, the flexible shaft may have suffered an accident and become sharply bent, or the sprocket and pinion on the roadwheel may be meshing improperly. These cause movements that are far from uniform. The flexible shaft should be well lubricated and cared for at all times, and in fact, all parts leading from the roadwheel to the head of the speedometer should be given careful oiling at regular intervals. Sometimes the steering knuckle of the car is loose and prevents the pinion from meshing accurately with the sprocket.

If your speedometer fails to give any indications whatever of either speed or mileage, you may find the trouble in loose union or roadwheel clamp connections. Go well over the system from the head to the front wheel. Perhaps, too, the swivel joint gears may be

stripped, or the fibre wheel pinion minus a tooth or a cotter pin absent from its position of duty. It seems absurd to be going over these details, but nevertheless our words of advice will remind you that the parts of the speedometer arrangement which the average motorist can look to are very simple, and the complicated end of the installation must not, under any circumstances, be touched.

When the speed and mileage records are incorrect, you may find that a wrong swivel joint has been used. In other words, a high speed one does not give proper indications on a low speed speedometer, and the opposite is equally true. Furthermore, you cannot use a left hand swivel joint on a right hand wheel, or vice versa. Sometimes when the sprocket in the roadwheel has lost some of its teeth, the result is shown by improper indications. In most machines the sprocket should have double the number of teeth that there are inches in the diameter of the tire. If you will look at your instruction book with your car, you will probably find that this is correct, but if it is not, the ratio in all probability will be given, and you can then accurately determine when the sprocket is in right relation to the diameter of the tire. Of course, if you decide to put over-size tires on your car, you must realize that a change is necessary in the sprocket. This is sometimes a delicate adjustment, but if you are an atom or two out, the records shown on your speedometer will be close enough for all general purposes. If you are travelling over a measured distance, you will perhaps find that the speedometer registers differently upon every occasion. The difference will not be great and so you should not worry about any fault in the speedometer, because you must remember that perhaps you do not travel the road in exactly the same way, you may be dodging mud holes one day and running absolutely straight and true another. Furthermore, the inflation of the tires has a great influence upon a speedometer. Sometimes tires become so deflated that the speedometer cannot, of necessity, provide accurate records.

If you should decide that there is a noise in your speedometer back of the dial, do not, under any circumstances, determine in your own mind that it requires lubrication. This noise may be developing from some other source, and in any event, your attempt to lubricate the speedometer head itself, would prove disastrous in nine hundred and ninety-nine out of one thousand instances. We might just as well repeat what we have already said, that the speedometer head comes from the factory properly calibrated and lubricated to withstand all the wear that the mechanism is asked to provide during the lifetime of the machine.

The flexible shaft, when carefully installed, seldom gives any trouble if looked at say once every two or three months. It should not be bent or be too short or too long. There should not be any strain upon it, and do not, under any circumstances, allow it to rub against anything. Friction causes wear that sooner or later develops damage. When the shaft becomes noisy you can be certain that lubrication is imperative. A dry shaft also causes the pointer on the speedometer to vibrate. Some drivers have been foolish enough to put a shaft through the springs of the car, and when the latter was subjected to a great strain or broke, the shaft naturally crumpled up with results that could not fail to be obvious. It seems unnecessary to state that should the chain itself break, all indications of speed and mileage immediately cease. AUTO.

Careless Driving.

EDITOR "THE FARMER'S ADVOCATE":

It is well known that many drivers of motor cars are not cautious enough in giving half road, although the average driver has enough sense to turn far enough to one side to admit a team to pass. The other day something happened to me which I will never forget. Many drivers try to keep the centre of the road as long as they possibly can, and then on the approach of a rig turn sharply to the right. My driving horse is not afraid of cars and I was driving at a moderate gait when a motor car approached me. I gave a little over half of the roadway and stuck to the principle that the motor driver did not pay more for the road than I. The driver made no attempt to turn aside till he was within fifteen feet of my rig. The road was not in the best condition, but had ruts about three or four inches deep. A recent shower had made the road a little slippery and although the driver of the car had turned his front wheels almost diagonally in the ruts he could not get out of them and had I been a little slower than I was I would have had to take my buggy to the repair shop instead of home. The road was rather narrow and I was lucky that I did not upset. The driver of the car did not have enough respect to stop and offer a few words of excuse, but cowardly drove away as if he were king of the road. I wanted to catch his number but it was so splashed with mud that I could not tell one figure from the other.

Now a driver of a car should swing to the right at a reasonable distance when meeting another car or vehicle and in a case like this he should use the emergency brake.

Waterloo Co., Ont.

YOUNG FARMER.

THE DAIRY.

What is an Animal Worth?

Milk production is the gauge by which the value of the majority of dairy cows is measured. The larger the milk flow the greater the direct value of the animal. The indirect value is also considerable, as the progeny must be considered. For instance, Ormsby Jane Segis Aaggie, the world's champion milk producer, came into prominence through her ability to exceed all other cows at the pail. The revenue from her milk alone amounts to a high figure in a year, but the fact that she is a champion cow greatly increases the price her calves will bring, as was evidenced at a recent sale where her six-months-old son brought \$53,000. Of course, a certain portion of this must be credited to the sire, as his breeding was of the highest order. The calf is a splendid individual, but from appearances no better than hundreds of other calves of the same age. Then why the phenomenal price? Breeders know that an animal transmits its qualities to its offspring, therefore, if the calf in question transmits the milking propensities of his sire and dam to his progeny, the result should be something better than the present world's champion cow. Breeders take a chance, but in this way breeds have been improved. There are many who argue that no calf is worth the price paid. For King Ormsby Jane Rag Apple it does seem like an exorbitant figure and it is hard to see the value in the youngster, but it goes to show that breeders of high-class stock will pay the price to bring their herds to a high standard. For beef this champion cow might bring nearly \$100; as a milk producer she is worth about \$600 a year, but her value as a producer of stock is up in the thousands of dollars. While the individuality and conformation of a dairy animal is of importance, it is what the animal can do in the way of producing revenue that counts.

Too often the value of a good sire in the herd is not given sufficient consideration. When selecting a herd header it should be remembered that his progeny will inherit his characteristics, be they good or bad. Therefore, a few dollars should not stand in the way of securing a sire that possesses the qualities that will improve the herd. His influence is spread over a number of years and exerted on numerous individuals.

A female that gives milk to the value of \$100 in a year is generally considered to be a valuable cow. She at least returns a fair profit over feed consumed and cost of labor enacted in looking after her. This cow may give this return for several years in succession besides dropping a calf each year, but eventually her day

of usefulness ends and another female must be secured to take her place. Naturally her daughters will be her successors, but will they be as valuable as their dam? It depends a good deal on the breeding and character of the sire. The rich qualities of the dam may be counteracted in the progeny by the mediocre blood of the bull, so that her heifers will be worth only about three-quarters as much as producers as she was. The cow would still be as valuable as a milker, but indirectly her value would be lowered because her offspring showed no improvement. Improvement in stock does not come naturally, but by selecting and mating the best individuals. Some men are in a financial position to purchase the record cows and their progeny, but the average dairyman need not be discouraged. By using the right quality sire he can increase the average milk flow of the herd by several thousand pounds in three or four generations. True, bulls that are "top-notchers" are scarce, but there are many well bred sires on the market that would improve the average herd. Recently the writer was in a stable where a fairly good herd was kept and was surprised to see a very inferior looking bull in the pen. On inquiring what record his ancestors had the reply was, "I don't know, I had a chance of getting him at beef price so thought that he would do for a couple of years, and I can use the extra money it would have taken to buy one out of a good cow." It is regrettable that there are many who choose their bulls this way. Here were fifteen big-framed cows giving a nice mess of milk, but, with the sire used the heifers could not be expected to produce as well. The owner was saving a few dollars at the time but was reducing the value of his future herd.

Rather than breed to a scrub sire it would pay to secure a loan and purchase a richly bred bull to place at the head of the herd. By so doing the value of the herd would be increased directly as well as indirectly. Production would be increased in the next generation of heifers, which would raise their value above that of their dams and their offspring would command a higher price. The dairyman should ever be planning to improve the quality of his future herd. There is no getting away from the fact that breeding counts, and if a man is satisfied with using ordinary breeding stock he must be content with just ordinary returns. Money invested in a sire of the right quality and backed by ancestors that have proved their worth as producers as well as transmitters of those qualities will return big dividends. The present cash returns for milk are not the only thing to consider, there is the offspring and their progeny to take into account. The aim of every dairyman should be to breed so that the heifers will be more valuable to him, both as producers and in the sale-ring, than their dams. It can be done

through the sire. Some bulls are worth many times what they bring in the sale-ring, while others are dear at any price. Select the one that you believe will improve your herd, then plan a better one still to succeed him.

There is also a need for doing a little culling in the herd. On the basis of production many females would not be worth much. Such individuals only tend to lower the average of the herd and thus discourage their owner. Better to keep ten cows that will give 8,000 pounds of milk in a season than twenty that only average 4,000 pounds. There are many cows giving less than the latter figure, and their owner doesn't realize it. More careful selection of breeding stock and the use of better bulls will soon increase the value of Canada's dairy stock.

B. C. Dairymen's Association in Summer Session.

A large attendance, a two days' program full of practical and helpful suggestions, keen appreciation of the value of the meetings, generous hospitality, delightful weather and an urgent invitation to come again and often; these were the outstanding features which stamped everywhere the signs of success upon the first summer meeting of the B. C. Dairymen's Association held in the Okanagan, June 21 and 22.

Heretofore this Association has held but one regular meeting each year, and that has always been in the coast country. In fact, dairying has developed so markedly in the lower Fraser Valley and the Islands that these people feel they have a monopoly of the business and all the good things that go with it. But when the Kelowna Creamery Association took first prize for butter at the exhibit at the last annual meeting and then issued a most cordial Irish invitation to hold the next meeting in their town, the down-country people immediately began to study their maps and to rearrange their impressions of this hitherto far-famed fruit country.

Dairying in the Okanagan is a relatively new industry. Once the thousands of acres sloping away from the lake and following far up its numerous tributary streams were the grazing lands of large bands of beef cattle. But irrigation and development, taking full advantage of a glorious climate, made of the whole country a series of orchards, and canned milk and canned meat became the only representative products of the bovine race in most of the Valley.

Orcharding is a prime industry in the Valley. There are many large, beautiful, healthy orchards. But the people are learning that they must have a variety of crops; that the soil must be fed; that animals are needed

to do the work, to consume forage crops and to fertilize the land; that they require a steady income and immediate returns. And so they are becoming dairymen. Dairying is certain to become a prominent industry in the Okanagan Valley. Alfalfa does beautifully, giving three cuttings. Corn does exceptionally well not only for silage but maturing fully for grain production. Root crops do splendidly. What more could the dairyman ask for in a land of heart's desire? There are some pure-bred Holsteins, Guernseys, Jerseys, Ayrshires and Red Polls already in the country. The land is all high-priced, and as a consequence only good cows can be profitably kept. The years will see very superior pure-bred dairy herds developing in such a locality. But this is not the dairymen's meeting.

No time was left for loafing when the program was made. Friday's session was held in a beautiful grove on Mr. Dilworth's farm. The forenoon consisted of a judging demonstration and discussion, first on draft horses by W. T. MacDonald, Live Stock Commissioner, and second on dairy cattle by Professor J. A. McLean, of the B. C. University. After lunch a full speaking program occupied the afternoon. The feeding of dairy cattle, as discussed by Prof. McLean, was followed by the presentation of the various factors influencing the cream test by T. A. F. Wiancko, Dairy Instructor for B. C. In creamery sections where the separation is done at the farm and where the cream is transported for considerable distances this is a vital factor.

Prof. Stevenson from the Dominion Farm at South Saanich, in speaking on corn emphasized the importance of selecting a variety suitable to the locality. Minnesota Dent and Quebec 28 both do very well in the Kelowna District, getting good fodder growth and maturing splendidly. He emphasized the importance of the germination test of the seed, of buying seed corn on the cob, and of clean, thorough cultivation. In a later talk on alfalfa he outlined the proper method of handling the land in seeding, the proper time of cutting, and with silage and alfalfa he gave typical desirable feeding rations.

In British Columbia frequently the season of cutting the first crop of alfalfa and clover is so wet that good hay cannot be made. Out of this difficulty has grown the practice of ensiling the first crop. Peter Moore, when in charge of the Agassiz Experimental Station did much investigational work on the method of storing and the feeding value of such silage. His talk on this subject was highly valuable and much appreciated. In brief, he said to cut the clover short, put it in when it is raining, right after cutting or else run a good stream of water into the blower and tramp it in well. It makes a feed almost but not quite as good as corn silage—but it is somewhat difficult to get the best corn silage at Agassiz—and it is put up much cheaper. Such practice with clover or alfalfa gets it off the land at once thus not interfering with the second crop, and gives a better and more succulent feed than the hay would give when rained on.

The handling of tuberculosis, contagious abortion milk fever and bloat as outlined by Dr. Tolmie, contained many very helpful and valuable practical suggestions. Mr. Berry, an ex-school teacher, school inspector and now serious farmer, gave an all too brief outline of the work of the Frazer Valley Milk Producers' Association. The Association is one of farmers; it controls over 85 per cent. of the milk produced in the lower Frazer Valley. It was organized by the farmers to market their product. The organization, like every other co-operative effort by the men from the land, is the outgrowth of unfair treatment of the producer by the middleman. It has stabilized the market; it has already got fairer treatment and better prices for the producer without affecting the consumer. It is paying out over \$100,000 a month to its members. It has only started, but it is justified, is right, is going strong and is certain to live and grow much stronger.

"Root crops and how to grow them" received lucid treatment by Prof. P. A. Boving, of the University. He knows roots and he taught many older farmers new tricks that make for economy and greater crops. Amongst other things he emphasized the home growing of seed, pointing out the ease with which good root seed is grown, and the very poor quality of commercial seeds. He showed that feeding value could be produced cheaper and in greater quantities per acre in roots than in any other crop. He showed that it pays to seed early and to weed or thin early. Good cultivation before planting to kill weeds is much better than trying to beat the weeds later. Cross harrow the ground before the roots come up. About four days after they are up mangels may be cross harrowed again, and once still later. This helps to kill the weeds, conserve moisture and facilitate thinning. Carrots can and should be thinned with a garden rake; there is no need of stooping for them or hand thinning.

Mangels should be thinned to eight inches, Swedes and turnips to ten or twelve inches. On shallow, weedy, wet land seed in drills; on deep, rich, clean soil seed on the flat.

The swine industry received a real impetus through Mr. Harris' (Moresby Island) talk. He emphasized the importance of cleanness of forage crops, and of sane methods of handling swine, showing how well swine combine with a creamery business and how profitable they are.

A resolution was passed by the Association to the effect that the railroads continue to offer their reduced rate on pure-bred stock coming from the East.

Two days surely were well spent in the cause of dairying which is better farming in the Okanagan.

Feeding and Caring for Young Calves.

Many spring calves apparently come to a standstill in their development at this time of the year. The rush of haying and harvest monopolizes the time and too often the calves kept around the buildings are given little attention. This together with the heat and flies gives them a setback. Fall and early winter calves are large enough to be turned on grass, but the youngsters dropped from April on should not be expected to shift for themselves. At least if they are, their owner is the loser. It must ever be remembered that a stunted or unthrifty calf will not make as valuable a cow as it would have had it been fed and handled so as to keep it in a growing condition. Caring for the calves during the summer necessitates considerable work if they are looked after properly. On large establishments where there are herdsmen whose sole duties are to look after the stock, growthy, thrifty calves are usually to be seen. The average farmer cannot devote as much time to his young stock as he would possibly like to, but judging from appearances some calves are actually neglected.

In cheese factory districts where whole milk is marketed it is harder to give the calves a start than in creamery districts as there is no getting away from the fact that there is nothing equal to milk either whole or skim-milk for giving a calf a start. However, on some farms where there is a liberal supply of skim-milk the calves are not thrifty. There is a reason and it may be found in the management. A calf should have whole milk for a couple of weeks then be gradually put on skim-milk or some substitute. Unless the young calf is with its dam the pasture is no place for it as it is buffeted about by the older stock. Give the youngsters a clean, well-ventilated stall and if there is a shady paddock leading from it so much the better. Then,

darkened box stalls and judging by appearances their treatment agrees with them.

Slightly different methods of feeding will also give results. In circular No. 7 Dominion Experimental Farms, E. S. Archibald, Dominion Animal Husbandman gives the following methods of rearing calves: "Remove the dairy calves from the cow at birth. Do not allow them to suck, unless weak or unable to drink, or unless the cow's udder is severely caked. Mother's milk for the first four days, at the rate of 8 to 10 pounds divided into three or four feeds, is essential. Feed whole milk for the first ten days, then start replacing part of the same with skim-milk so that when the calf is one month of age, it may be receiving in two feeds daily, 12 pounds of skim-milk plus a tablespoonful of finely ground scalded flax-seed jelly. At three weeks of age feed a small quantity of whole oats in the manger. Fine clover hay and clean water might profitably be kept before them from this time on.

"During the next fifteen weeks gradually increase the skim-milk to 15 to 20 pounds daily. Add to the flaxseed jelly other constituents to make a cream substitute as follows: Fine ground flax 1 part, fine ground oats, 2 parts, ground corn, 2 parts. Feed in the milk divided into two feeds daily at the rate of one-eighth pound at the start and increase to 1 pound. Replace the whole oats at four weeks of age with a grain mixture of equal parts bran, rolled oats, and ground corn. Start the calves on one-eighth pound per day and increase gradually to 1½ pounds daily at twenty weeks of age when the skim-milk may be gradually cut off and this grain ration increased proportionately.

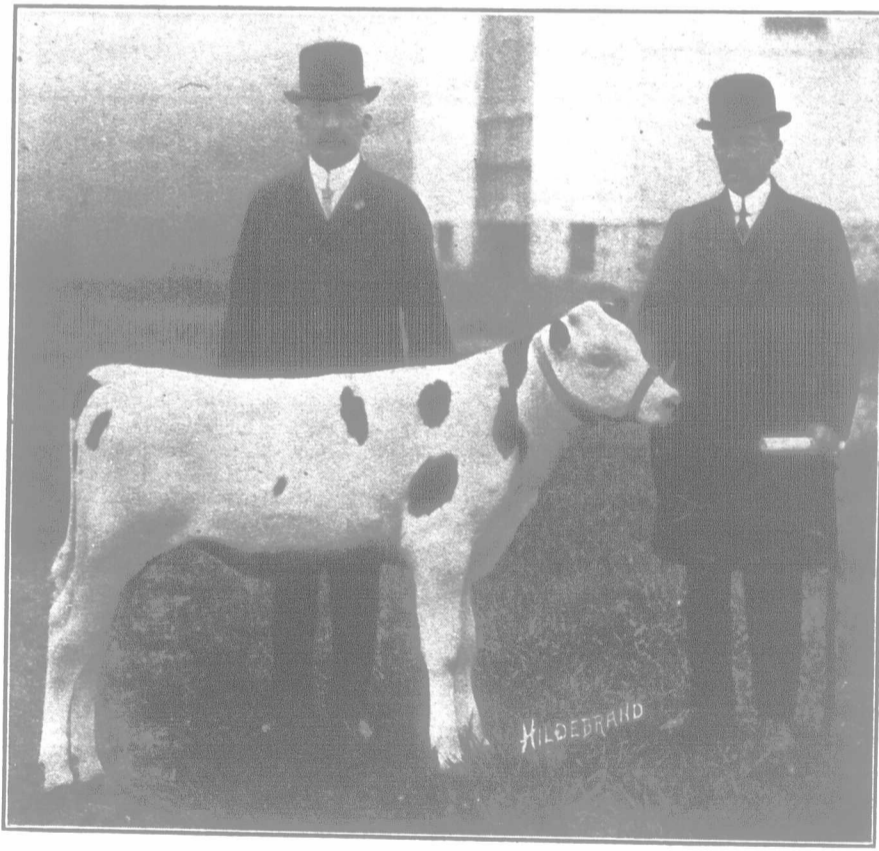
"Do not expose your calves to heat and flies but during extreme heat keep them in a dark cool box until four months of age after which they may have a night paddock. If fall-dropped calves keep in a clean, bright comfortable, warm box stall. Feed a limited amount of roots or a mixture of roots and ensilage. Feed salt in limited quantities regularly and water as required."

W. J. Reid, Director of Agricultural Instruction, Prince Edward Island, has issued a circular on "Raising Dairy Calves" in which he claims that calves have been raised on skim-milk that were as good as those raised by their mothers. The poor results which frequently accompany skim-milk feeding can often be attributed to faulty methods rather than to absence of cream. It is possible to substitute the fat of milk by feeding certain concentrates, but it is difficult or practically impossible to get anything to take the place of the bone and muscle forming materials found in skim-milk. To show the economic value in calf rearing the results of a calf feeding test at Kansas Experiment Station are given.

"Three lots of ten calves each were fed on skim-milk, whole milk and nursed by the dam. The calves were fed 154 days from birth and the cost per 100 pounds gain in weight was noted. The calves fed on skim-milk cost \$2.26 per 100 pounds gain; those allowed to run with their dams, \$4.41 per 100 pounds, and those fed whole milk, \$7.06." The calves fed on skim-milk were strongest and went right ahead when put entirely on rough feed. Mr. Reid has found oat-meal siftings and linseed meal mixed in the proportions of six parts of the former to one of the latter to give good results with skim-milk. It is advisable to start with small quantities of grain, about two table spoonfuls, and gradually increase it along with the milk. At two and one-half months of age a calf will take one-half pound of grain and about fifteen pounds of skim-milk. Some prefer feeding whole oats and bran while others find ground oats more satisfactory. Stockmen are unanimous in declaring that young calves should be given shelter from the elements and flies during the heat of summer.

When there is no skim-milk calf rearing is a different problem. However, growthy calves have been raised after the first three weeks on gruels, commercial calf meals, hay and concentrates. Give the calf a good start on whole milk then as the quantity is reduced add a little linseed meal or calf meal together with the feeds previously mentioned. It is unreasonable to expect that the calf will be as thrifty as if it had been fed on milk for the first five or six months, but if given proper care it will do fairly well.

Care should be taken not to overfeed and there should be regular hours for feeding. The dairyman must study the individual needs and desires of each animal in order to achieve greatest success with his young stuff. The profit from the future herd depends



King Ormsby Jane Rag Apple.

The five-months-old Holstein bull which recently changed hands at Worcester, Mass., at \$53,200. D. W. Field, the buyer, and Oliver Cabana, the seller, are shown in the photograph.

hang something over the windows to partially darken the stable to keep out the flies. This is a small detail in the management, but it makes the calf more comfortable, consequently it will do better than if tormented throughout the entire day. There are a number of systems of feeding which give results when cleanliness and regularity are practiced. There are a number of feeds on which calves thrive and as some feeds are cheaper and more easily available than others, there is no arbitrary rule regarding the kinds of concentrates or roughage to feed at stated periods in the youngsters' life.

On the Macdonald College Farm, St. Anne, Quebec, where high quality dairy stock is raised the system followed by Prof. Barton is to "have the calves removed from their dams as soon as dropped and then fed whole milk for ten days to three weeks depending on the size and strength of the calf. Skim-milk gradually takes the place of the whole milk. A few ounces of oat-meal siftings and oil-cake meal is added to the milk thus making a gruel. Roots and hay are fed as soon as calves will eat them and later silage is included in the ration. If available skim-milk is fed until the calf is six months old. The concentrate part of the ration is made up largely of crushed oats and bran. As it is possible to over feed on milk the scales or measure is used in proportioning out each calf's allowance. From eight up to twelve pounds of whole milk are fed daily. At six weeks fourteen pounds of skim-milk is the usual amount given, but this is increased to a maximum of twenty pounds. The spring calves are kept in

on the quality of the calves, but improper rearing may offset anything gained by breeding. It is not uncommon to see well-bred calves that are stunted due to lack of proper care at the right time. If a profitable herd is to be built up attention must be given to rearing the calves as well as to breeding and selection.

POULTRY.

A Successful Poultryman's Advice and Experience.

EDITOR "THE FARMER'S ADVOCATE":

Poultry-raising, though a profitable asset to the operations of the farm, is a branch of agriculture that receives scant attention on many farms which no doubt is due to lack of interest. There are three graces in poultry culture—love, faith and work. If a man has love for his work he will be more apt to rightly manage it and more apt to notice all the details of the business. If he has faith he will not become discouraged, but will stick to it through thick and thin. What can we do with any business if our heart is not in it? To do things mechanically will never accomplish good results. We must be in the mood to see pleasure in our work, and not slight our attention. We may have all the love imaginable and we may have the greatest of faith, but if we do not get right down to hard work we will accomplish nothing. Poultry is not hard, muscular work so much as it is close application. Laboring for love with the belief that the reward will come later on, is always delightful work, but work without pay, and without prospect of pay, is what harasses the mind and gives one that "hope-begone" feeling. Remember if one has love for the work, has faith in the work, and will work, there is as much chance of an honest livelihood with poultry as with any other stock, or any other branch of farming.

To make a proper start in poultry as a side issue, the farmer should first of all purchase a pen of pure-breds of whatever breed best suits his taste and objects. If eggs alone are the object of the breeder I would recommend any of the lighter breeds such as—Leghorns, Minorcas, Anconas, etc. But if chickens for market as well as eggs are the object, as they should be, the heavier breeds will be found more profitable. Of these the most popular are—Plymouth Rocks, Wyandottes, R. I. Reds, and Orpingtons. Having selected your breed, remember that strain is even more important than breed. By strain we mean simply a family line of any breed of fowls that have been bred for some special purpose for a number of years, hence having their good qualities so developed that they will be transmitted to the offspring. There are bred-to-day strains of the general-purpose breeds, and these will be found to be most profitable for the average farm. The farmer should by all means secure the best stock obtainable and endeavor to improve through selection of the egg-laying qualities of the fowls of his flock.

Our next question is how shall we mate to get the best results? We read and hear much more about the introduction of fresh blood than we do about the quality of blood to be introduced; simply because it is new does not mean that it is any better. The quality is what we must look to. Many poultry-raisers look at the matter as a necessity to change blood in their flocks every year, and with some of them it makes very little difference about the kind of stock they are getting as long as it is new. I am quite in favor of using new blood once in a while, or when I see it is necessary to do so, but if the breeder handles and mates his stock as he should there will be no necessity of introducing new blood each year. Line-breeding can be carried on most successfully by experts, but should never be practiced to a large extent by amateurs. To the amateur poultry-raiser and the average farmer I would say better purchase new blood every two or three years, than to attempt line-breeding. And when you do buy birds for breeding purposes be sure that you obtain them from a flock that does not need new blood more than your own. Careless mating cannot be too strongly condemned. A strong, vigorous male bird is half the pen. And to obtain the best results both sexes must be in perfect health. I am a firm believer in size for both male and female. I do not mean extra large, but well-grown and well-developed. Development means strength, and strength in both male and female means strong healthy chicks. Selecting and mating breeding stock is a piece of work that requires experience and much study.

The subject of feeding both young and old stock demands the most careful attention on the part of the poultry keeper. The season of the year, quarters, feeds available and cost, all have an important bearing. But generally speaking a variety of feeds have given best results with us. Our method is to give them a drink of buttermilk when about twenty-four hours old, then for the first feed give a hard boiled egg, after this we change with dry bread crumbs or curds made from sour milk, giving what is best obtainable, a little chick grit should always be fed with the other feed, and buttermilk and fresh water should always be kept before them. When the chicks are about two weeks old they are gradually started on chick feed, which can be bought at any feed store. I prefer mixing my own chick feed which consists of 4 parts cracked wheat, 2 parts of cracked corn, 2 parts crushed oats with hulls removed, 1 part chick grit, a small amount of charcoal is also added. These parts are taken by measure not by weight. The chick feed is scattered in a litter of cut straw hence

the chicks get plenty of exercise scratching for their feed. Of course this is not so necessary when the weather is warm enough for the chicks to be outside. When about eight weeks old the chicks are given absolute free range, and when possible moved out in small, portable houses to the corn field or some other convenient place, and hopped fed. It is certainly surprising to notice the rapid growth when given free range. It is very necessary to get the pullets into their winter quarters early in the fall. Experience shows that winter egg production depends largely on the management of the pullets in the fall of the year. If they are left out too long and not fed properly they will go down in condition, and as a result there will be but few eggs until milder weather comes in the early spring. Our method of feeding laying stock has been to give a feed of 2 parts wheat 1 part corn and 1 part oats in the morning. This is buried in a deep litter, hence keeping the hens occupied most of the time which is very necessary for laying stock. Lack of exercise results in the hens becoming too fat which decreases egg production. At noon a green feed is given which varies. Cabbage, mangels, boiled potatoes, steamed alfalfa or clover leaves are preferred for the noon feed. In the evening a feed of 2 parts of corn and 2 of wheat is scattered on top of the litter but not buried. Poultry grit, oyster shell and charcoal are kept in a hopper before the hens all the time. For drink, fresh water and sour milk or buttermilk when available.

To make a success of the business the poultry-keeper must also give the housing problem due consideration. Our experience has been the smaller the flock the better will be the returns, but there are many different styles of houses recommended. The main points to consider in the construction of poultry houses are: firstly, have plenty of windows on the south side to let in the sunlight. Secondly, it must be well ventilated, but free from direct drafts. This is easily done by having three tight sides and ventilating by means of cotton screens on the south side or front of the house. Thirdly, it must be free from dampness. This is overcome by proper ventilation. Many farmers are of the opinion that hen houses should be warm. This is not necessary, usually hens in a well-ventilated house will lay more eggs than hens in a warm house because they are in a healthier condition. Over-crowding should also be avoided as hens will never do well when crowded. A safe rule to follow is to allow four square feet of floor space for each hen, or for example a house 10 by 12 feet should accommodate thirty hens.

Poultry work is clean work, and parents should encourage the boys and girls of the farm to have a little business of their own. For this nothing will be more interesting than a pen of pure-bred poultry. It is safe to start with a small pen; follow accepted practices of successful men; test untried theories in a small way; adopt the breed best suited to your own taste and to the market you wish to supply and stick to it. Study the business and stay with it and in a short time difficulties will be replaced by much pleasure and profit.

Waterloo Co., Ont. CLAYTON D. MILLER.

Cheaper Poultry Feed.

On account of the scarcity and high price of feed the poultry industry of this country is threatened by the prospect of the wholesale slaughter of laying stock and a serious falling off in the number of pullets to be mated.

The necessity for retaining for milling every possible bushel of wheat suitable for that purpose need not be emphasized. To provide poultrymen with feed for rearing their young stock without unnecessarily lowering the supplies of milling wheat, the federal Department of Agriculture has requested millers throughout Canada to put on the market the cracked and shrunken wheat removed from grain before it is milled.

In addition to small and broken wheat these cleanings consist chiefly of the seeds of wild buckwheat, a near relative of the cultivated buckwheat. The Poultry Division of the Central Experimental Farm has used wild buckwheat in feeding experiments and reports it to be a highly satisfactory poultry feed and has ordered two cars of buckwheat screenings for the Central and Branch Experimental Farms from Canadian Government Elevators at Fort William. Fowls used to good grain do not take to it at first but when they become accustomed to it they eat it readily and do well on it.

The mill cleanings from local flour mills also contain traces of many other weed seeds, including several kinds of mustards. These, however, would not as a rule amount to more than two or three per cent. of the cleanings in the case of the standard grades of Western wheat. This material is specially recommended for backyard, suburban and professional poultrymen. On farms the cleanings from yards and poultryhouses where it had been fed would have to be disposed of so as not to disseminate noxious weeds in grain fields.

Those interested in obtaining this class of feed should immediately arrange with local mills or feed dealers for a supply. The mills cannot be expected to keep this material for poultry unless it is demanded for that purpose and that rests with the poultrymen themselves. —Dominion Dept. of Agriculture.

Keeping Up.

EDITOR "THE FARMER'S ADVOCATE":

Tuesdays' mails are always welcome, for "The Farmer's Advocate" is still keeping up its material to an unusually high degree for a technical paper, and I read it with increasing interest each year. B. C. WALTER M. WRIGHT.

Poultry Feed and Egg Situation.

During the past week reports have been received from a wide range of points. The general consensus of opinion seems to be that plenty of feed is available but extremely high in price. One typical report from Nova Scotia reads: "Feed is high in price, but lots of it." Another from New Brunswick: "Feed is high and scarce. The tendency is to reduce flocks if eggs go lower and feed higher". Prince Edward Island reports feed moderately scarce. Eastern Ontario as a whole has plenty of feed but high in price. From reports it seems feed is scarcer in Western Ontario than in Eastern. New Ontario points have plenty of feed. British Columbia has feed, but very high in price, feed wheat retailing around \$4.00 per hundred. Considerable complaint has been raised as to the quality of the feed wheat obtainable in British Columbia. From samples submitted, it would seem to be better than that available in the East.

During the past week special inquiry has been made into the availability of poultry feed at Fort William. It has been learned that large quantities of screenings and other suitable poultry feed are being regularly separated by the elevators at that point. As a rule, however, very little of this is being utilized in Canada, practically all going to the United States. It is estimated that thousands of tons of this material are available each year. It is, for the most part sold on contract to large feed manufacturers. Canadians do not see the valuable by-products they are losing.

There are also other materials available at Fort William at times that would make excellent poultry feed, such as damaged grain of one kind and another. The value of this depends, of course, upon the nature and extent of the damage.

The firmer undertone for eggs on Eastern markets, first apparent about Friday before last, seems to have gathered more strength in Toronto than in Montreal, although as yet there has not been any material change in prices reported at country points. The situation reported from Montreal at the week end was not very encouraging. At least two additional cars of Western eggs had been received. These were being offered on the market at a low figure and it looked as if there would be a still further decline in prices offered for eggs last week. Last Tuesday, however, the situation looked better, the feature of the market being the improvement of prices in England, it being reported that at least one cable offer had been received which showed an advance of several cents a dozen over the prices offered last week.

Reports from various parts of the country indicate the flush of production is past and in consequence receipts are declining rapidly at consuming centres. Prices at country points last week showed quite a wide range, producers being obliged to take as low as 25 cents at some points, in others closer to large consuming centres, prices were better, ranging from 30 to 35 cents. Egg Circles in Western Ontario last week sold their eggs for the most part from 31 to 33 cents, the last named price being on the delivered basis. Prices in Eastern Ontario were lower, some circles selling as low as 29 cents.

Storage space for eggs in Montreal is practically unavailable, at least in the public warehouses. The same applies in Toronto, although the situation there is not quite as acute as in Montreal. The United States market continues firm specially so for the best packs which have become scarce owing to the effect of warmer weather. There is less difficulty in securing loans on eggs going into storage than in the earlier part of last month. Some nervousness on the part of holders of high-priced spring eggs is reported in the larger United States centres. There is, however, no disposition to force sales as yet. The United States Government Report issued June 15th, covering the first half of the month did not help matters any, as a considerable increase in holdings was reported as compared with 1916.

Many of the trade, however, have full confidence in the situation. Foodstuffs as a whole continue at an unprecedented high level. Great Britain and her Allies are largely dependent upon this continent for food, and the larger operators in the trade anticipate that even at the high price at which eggs went into storage, the surplus will all be required for export before the end of the year.

The heavy stocks and unsatisfactory demand for storage poultry still hang heavily over the market and are affecting prices of live and fresh-killed birds arriving. Receipts of old fowl are increasing, most of it alive. Prices have declined fully 2 cents per lb. during the week. Broilers and spring ducks are coming more freely, many of which are not in very good condition. Prices for these are unchanged. Old cocks are now coming on the market in larger quantities, but so far there is no change in price from previous report. Some laying hens are coming with the old fowl which shows lack of good judgment on the part of producers.

Live and fresh-killed poultry in the U. S. A. markets remain fairly steady with slight fluctuations in prices. The storage situation, however, is very much depressed and prices are gradually coming down to lower levels without any appreciable effect on sales. It is said holders are now losing money. Consumption will have to improve considerably if stocks are to be cleared before the new season's pack commences.

No movement of Canadian eggs for export has been reported during the past two weeks although with the recent advance it is quite possible some business may develop earlier than expected. Both English and Irish production is falling off and it appears that the British dealers are already beginning to look elsewhere for supplies.—From Market Report of the Dominion Department of Agriculture.

THE APIARY.

Preventing Robbing While Removing the Honey Crop.

EDITOR "THE FARMER'S ADVOCATE":

As far as the question of robbing is concerned, the average amateur bee-keeper is quite likely to say that he will be able to take away the surplus honey easily if he has only some to take.

It is, of course, a comparatively easy matter to open a hive super, take the frames or rather the filled combs out, shake and brush the bees off, using a little smoke now and then if necessary, and insert empty combs in their place. If a good honey flow is on this works pretty well, the bees seeming to get over their angry disposition in a short time. However, there is always a little loss of time this way, and I find it much better to place a super with empty combs on top of the other that is about three-quarters full. As soon as the bees are pretty well ahead with the sealing process of the lower super they will generally have started work in the upper story. After the honey is ripe enough the former super is taken away entirely, the honey extracted, and as soon as the bees have the other super a little over half full the super with the extracted combs is set over on top again, providing the honey flow has not, in the meantime, ceased.

Simple enough, is it not? Yes; but the complicated part comes in when one tries to take the honey away after the flow is failing or has ceased. Generally before the beginner suspects trouble the robbing nuisance will be quite under way, and he can be thankful if he finds out what the trouble is before the whole apiary is in an uproar. It is generally the weaker colonies that are robbed, and if one notices it in good time he will generally find only the weakest colony to be badly attacked. Sometimes the colony does not make good defence (especially if having a large entrance), most likely realizing that defence is useless. What is to be done must be done without delay. First of all, close the entrance so as to admit not more than one or two bees at a time. If this fails grasp a handful of grass and throw in front of the entrance, sprinkle on a little water and watch the result. It will not take long till a whole bunch of bees will hover around in front of the entrance. A little carbolic acid in the water gives better results in some cases. The grass should be kept wet till sundown and removed shortly after dark. If the colony sets up a good defence the next morning it is probably all right. Should, however, the onslaughts continue the wet grass is again used. The surest way to get ahead of the little criminals is to construct a robber trap and use it as described in the next paragraph.

To construct a trap it should be aimed to make it look as natural as the hives. An empty hive is taken and a wire cloth cone is constructed and tacked on the front board of the hive with the small end up. At this end is left a small hole so the bees can crawl through. The bottom or wider end should fit over the inside of the entrance so as to admit no bee any other way than through the apex of the wire cloth cone. A larger cone tacked over the smaller one makes the trap more efficient. The top is then covered with wire screen, after two or three combs, from which the honey has been extracted but are still wet with honey, are placed inside towards the side walls where the wire screen cones don't interfere with putting them in. A hive cover is put on top but slit back about an inch or so, so as to admit a little light. Next take the hive that is being robbed down cellar and open the window so as to let the robbers that should happen to be in the hive get out, after ten minutes it may be closed. It is best to let an attendant do this and go and place the robber trap on the same stand where the colony has been standing. The robbers will naturally nose around the trap, and, one after another, smelling sweets will pretty soon dart for the entrance. There are no guards there to stop them and they rush in pell-mell, crawl up the wire cones and out through the apex, prisoners. They will take a sip of honey and fly towards the light or top of the trap. The same thing happens to every one of the robbers and the chances are, especially if the double cones are used, less than one in a thousand would get back out through the wire cloth cones. After an hour everything will be quiet, but I generally leave the trap on the stand for the rest of the day. This makes fairly sure of every robber, and also gives a chance for the robbed colony to recover from the onslaughts. After dark the robber trap with the robbers is taken into a closed room and the colony set back on the stand, the entrance, however, is left contracted. After examining the prisoners it is generally surprising how small a number can make such a lot of trouble. If they number only a few dozen it is best to destroy them at once. They should never

be let loose again in the same yard, for no sooner are they out than they will be at their old tricks again. If robbing has been very bad, so that they would number into the thousands, I would take them away to a good friend of mine about two miles away and have them there, place them in the cellar, and introduce a good queen to them by the smoke or distress method. If it were not later than July 15 they would probably, providing combs, some containing a little honey, were given to them, work themselves up to be a fairly good colony for the next season. Thrown upon foundation they would be of little if any value. If, however, I had so many robbers trapped as late as August or September the only thing to do would be to take a weak colony, needing some more bees, away to the place not less than about one and a half or two miles distant, and after having caged the queen in a Benton introducing cage, dump the robbers in with the regular inmates; best results are obtained if all the bees are put into distress by the use of smoke as this would go a long way towards preventing fighting, which, if it took place, would result in more harm than if the robbers were killed in the first place.

Another way for catching the robbers is with a small wire-cloth tent made to fit over the hive. This tent is placed over the hive and the robbers as they come out with their loads will crawl up to the top of the tent. After it is on for about ten minutes or a little less the tent is lifted up and the robbers that hover around the outside permitted to enter the hive; the tent is again placed over the hive to catch them as they emerge. The process should be kept up alternatively for from thirty to forty minutes, after which the tent containing the invaders is set aside and the entrance of the hive contracted to admit not more than two bees at a time. The robbers will cluster, probably in one upper corner of the tent, towards night, when they can be taken away and destroyed or dealt with as desired. A simple way, although a little cruel, is to let them starve in the tent, not bothering with them at all. I generally make short work with them, not considering them of much value.

We have now considered means of stopping robbing, but as prevention is better than cure let us consider it. First of all, never leave any bits of combs containing honey lying around in the apiary during a dearth of honey, neither any sweets exposed. This may do no particular harm during a good honey flow, but after

come by using wire cloth as part of the escape board, but there is still a vast difference between honey taken this way and that taken from the bees during the warmest part of the day. In the production of comb honey the escape is almost a necessity, but for extracting it is not practical to use it always. However, the trouble it takes to warm up the honey taken during a season when the flow is failing or has ceased, is by far outweighed by the trouble with robbers which it saves.

A beginner cannot be too watchful to prevent robbing, and it is this part of the inclination of the honey bee that annoys him perhaps more than anything else. Many a beginner has asked me how to know robbers from the regular inmates of the hive. A robber approaches the entrance cautiously, its legs spread in an unusual manner, hovering about in front before attempting to land and enter. Quite frequently it is met in mid air by one of the guards. They cling to each other and tumble to the ground. If this happens it shows that the colony makes a defence, and contracting the entrance is usually sufficient to stop the invader entirely. If on the contrary the colony makes no defence the robbers do not show their caution to so great an extent, especially if the entrance is not contracted. If in doubt about those going in watch one that comes out. It has a peculiar way of wiping its mouth much like a child does if it has taken some forbidden sweets. Generally it crawls up the side of the hive, realizing, probably, that on account of its load it better try to take wing from an elevated position. Now watch it taking wing; if it is a robber it has quite a load, and consequently takes a downward curve before its wings get the control of the weight. Next try to line it. If unable the first time, watch the next one. A bee that goes to the field comes out leisurely, takes wing right from the alighting board or crawls up a few inches in front of the hive. They never make that downward curve. Sometimes young bees during their play spells behave quite similar to robbers. However, the play spell will subside in about half an hour or so, while the robbers will keep up all day, the uproar getting worse the longer it is allowed to continue.

Waterloo Co., Ont.

BEEKEEPER.

HORTICULTURE.

What Will a Barrel of Apples Cost?

It is important as well as interesting to know what a barrel of apples costs, not the ultimate buyer or consumer but the man who produces it. If this information is available over a period of five or ten years then the grower knows what prices will return him an actual profit and whether his business is a remunerative one. When one settles down to operate a fruit farm it is not the easiest thing in the world to change over to some other line of farming, but, on the other hand, if the grower is not adapted for that particular line of work and the difference between expenses and receipts is not sufficient to yield a reasonable profit then his labor is, in part, wasted and a change would be in order. A compilation of costs and expenses very often puts one on the right track and helps to change a scanty balance into a handsome surplus. For this reason it is worth while to keep records of the orchard, as a dairyman would weigh the milk and record the performance of his herd. There is an element of business about it that leads to better methods and larger returns. Returning to the question direct, "what will a barrel of apples cost?" it may help some grower to answer this problem for himself if he knows what others think in regard to the same subject. The figures which follow are largely pre-war calculations and to them must be added a very liberal percentage to cover the increased cost of labor, machinery, equipment and material.

At the fourth conference of the Dominion Fruit Growers, held in Grimsby in September, 1914, R. M. Winslow, Provincial Horticulturist for British Columbia, stated that it cost between 70 and 85 cents to produce a box of apples. This includes the cost of the box but does not cover interest on investment. J. E. Reekie of the same Province placed the cost at 70 cents per box in his orchards and found that this figure coincided with those arrived at by his neighbors. At the Ontario Fruit Growers' Convention in Toronto, January, 1916, Mr. Winslow was obliged to add approximately 50 cents per box to the figures given out in 1914. At the Toronto Convention he said the cost of producing a box of apples in the Western States was estimated at \$1.06²/₃, while in British Columbia it was about 25 per cent. higher or ranged from \$1.20 to \$1.28 per box. Two seasons had elapsed between these two statements, during which time war had disturbed economic conditions. Western costs always range higher than in the East. At the Western New York Horticultural Society Convention, in January, 1916, J. A. Cahill of Maryland said that on a large scale they produced apples and delivered them at the shipping point for \$1.36 per barrel.

Several statements have been made in respect to production costs in Ontario. The late Robt. Thompson of St. Catharines told the Conference at Grimsby in 1914 that he had made calculations in several orchards and concluded that \$1.75 per barrel was very nearly correct. It has also been the prevailing opinion in certain apple growing districts of Ontario that it costs \$1 per barrel to produce apples on the tree and another dollar to pick, pack, barrel and deliver them at the railroad. Authorities have placed production costs in Quebec between \$1.12 and \$1.50 per barrel while in New Brunswick it has even gone lower than that amount. In Nova Scotia records go to show that the



At Work Among the Bees.

latter is failing it is quite sure to make trouble of some kind. Secondly, never handle bees, exposing combs during a dearth of nectar except under a robbing tent. If you have none and must on some occasion handle them do it by lantern light if convenient, for if done during day-time it is quite sure to cause robbing. Some work with them during rainy weather, which, although it prevents robbing, is not the thing to agree with everybody. Thirdly, feeding in open dishes in front of the entrance encourages robbing. This should never be done. Use specially designed entrance feeders or place an empty super in low comb honey super is better than a full depth one on top and put the dish inside and cover snugly. This must be done after dark. Chips or pieces of corn cobs or something of the kind should be used to prevent drowning of bees while feeding. Last of all, a weak colony with a wide entrance is generally in danger of being robbed. The only remedy is to contract the entrance of the hives, especially the weaker ones, as soon as the honey flow is failing.

I wish to direct the attention of the beginner to the value of the Porter bee escape to prevent robbing in removing the honey during times when robbing is to be feared. A board, containing one or two escapes set into it, is placed between the two hive parts towards morning without exciting any bees to robbing. The question might arise: "Why not always use the escapes and be more convenient?" As far as the work in the yard is concerned it would be more convenient, but the trouble is that the honey gets cold if taken away in this manner and has to be warmed before it can be extracted in the usual manner. This was partially over-

average cost per barrel has ranged between \$1.25 and \$1.50.

These pre-war figures, while they are not applicable entirely to present-day conditions, can be used as a guide. They also compare production costs in the different States and Provinces. Any estimate of costs should include interest on investment, depreciation on machinery and equipment, labor, a certain amount for management and all materials used in the business.

Clean up the Warehouse.

In some cases after the season is over the warehouse is littered with dirt, nails, broken staves or hoops, unsound fruit and other rubbish and remnants peculiar to a fruit-packing establishment. Frequently, commercial fertilizer is stored in the building and a quantity of the same is left behind when the material is removed. This leaves an unpleasant odor which is not so objectionable in its season but appears quite out of place when the fruit is being stored. Empty barrels, boxes, packages, etc., have been or will now be accumulated in preparation for the harvest and it is well that a general housecleaning take place before they are put in. Open the doors and windows for a few days and purify the place with fresh air and sunlight, after it has been swept clean. Many basements become damp and moldy. In such a case a fresh coat of whitewash will sweeten things up and help to purify the surroundings as well as the atmosphere. In Bulletin No. 44 of the Dairy and Cold Storage Series, the following recipe for whitewash is recommended. Slake half a bushel of lime with hot water, stirring continuously while slaking, strain it and add one peck of salt dissolved in warm water. The proper consistency for whitewash is a thin paste, and water will have to be added to secure this consistency after mixing the dissolved salt with the whitewash. To each 12-quart pail of whitewash composed as above, add a good, fair handful of cement and a teaspoonful of ultramarine blue. The cement and blue should be added only as the whitewash is being used and should be thoroughly stirred into the whitewash, otherwise, when applied it will be streaked.

If there are any pipes or other equipment in the rooms to be whitewashed that will rust, do not use salt in the mixture around the piping.

Don't put on too thick a coat—just enough to cover the surface in good shape—then allow from 1 to 3 days for drying. If you dry the whitewash out too quickly it will flake or brush off very easily; on the other hand a very slow drying will allow the water to soak into the wood and may cause unpleasant odors.

Whitewash containing cement must be used without delay.

High Color in Apples.

In that comprehensive bulletin, "The Apple in Canada", by W. T. Macoun, Dominion Horticulturist, are some interesting observations on the coloring of apples. We are taking the liberty of reproducing these remarks by Prof. Macoun, believing that apple orchardists will find in them interesting reading.

The cause of color in apples is not thoroughly understood, but it may be said that each variety of apple has a color or a possibility of a color or colors peculiar to itself and it requires the proper conditions and chemical changes to develop them and make them apparent to the eye. Certain conditions will intensify the color of a variety, and others will lessen it. Some of the principal apparent causes of the development of color in fruit may be considered. It is well known how important a factor sunlight is in the development of color in fruit. Fruit that is hidden by foliage is not as well colored as that exposed to full sunlight, hence the importance of thorough pruning and thinning. During the past few years it has become quite an amusement to cover part of an apple early in the season with a letter or letters or the profile of some person; underneath these letters or profile the natural color does not develop, and when they are removed the letters stand out in green and yellow in the surrounding red, to the wonder of the uninitiated, thus showing that sunlight is necessary for the development of high color. Heat is also an important factor in determining intensity of color. Each kind of fruit appears to have its optimum or best mean temperature in the growing season. In countries or districts with cool summers for the kind of fruit in question the fruit is not as a rule highly colored, and where the summer temperature is very high some varieties of apples are not as well colored as where the summers are a little cooler. Fruit on young trees growing vigorously and causing the fruit to grow late is not well colored. This leads to the conclusion that the degree of maturity of the fruit has much to do with the color. In Ontario late keeping varieties have the best color in the warmer districts where the fruit becomes most mature before picking. Early varieties, or those that mature in summer or early in the autumn, get sufficient heat in most places in Canada where apples are grown to reach their full development in comparatively warm weather, hence are highly colored which, where the season is relatively short and the autumn cool, do not reach their best condition. In warm, dry seasons fruit matures earlier than in seasons which are less so, and if well developed the more mature the fruit is before it is harvested the higher the color will be. The fruit in the dry districts of British Columbia, Oregon, Washington, California and some other states is noted for its high color. There the trees are irrigated and by stopping irrigation and causing a ripening of

the wood of the tree and a thorough maturing of the fruit the latter becomes highly colored. In orchards where the trees are in sod, winter apples are usually more highly colored though smaller than in cultivated orchards, evidently because the trees ripen sooner and the fruit matures more quickly, than in cultivated ground. This leads to the conclusion that moisture must play an important part in the coloring of fruit, as the relative amount of moisture and heat will determine to a large extent when the tree stops growing and when the fruit will mature. British Columbia, Oregon, Washington and other places where irrigation is practiced afford the best combinations of sunlight, heat, dryness and moisture, hence it is that some of the most highly colored fruit is produced there. What part, then, do soils or plant food in soils play in the production of highly-colored fruit? This is a question in which every fruit grower is interested. From the foregoing statement it can easily be seen that warm, well drained soils are most likely to produce apples of a high color, as on these soils the tree and fruit will mature earlier than on wetter soils.

Here is a suggestion as to the effect of climate on flavor which some one, however, may disprove. Where a variety matures thoroughly with a relatively low mean temperature for that variety, then one gets the best flavor in that variety. Where a variety matures thoroughly with a relatively high mean temperature then one gets the poorest flavor. Where the mean temperature is too low for full maturity, but where there is almost maturity there one gets a medium flavor. Where mean temperature is so low that the fruit is immature there one gets the greatest acidity and lack of flavor.

Propagating Bush and Cane Fruits.

It frequently becomes necessary or desirable to replace the old plantation of bush or cane fruits with young, vigorous growing stock. Disease in this way is more easily controlled, and a patch that has become very weedy is disheartening to many. New resolves are formed as the new plantations are set, and when cultivation is thorough from the beginning, weeds and grass should give little trouble. All bush and cane fruits can be easily propagated, so if any one has a start he can easily increase his plantation by observing a few rules in respect to the reproduction of each kind.

The common method of reproducing currants is by the use of cuttings, these take root very readily, and after one season's growth make good plants. The long-established time for making cuttings is in the autumn after the wood is ripened. Wood of the current season's growth is used. This is cut full length in the field, and heeled in for a time, or the cuttings are made about 6 to 10 inches long and planted at once in the nursery row. When making cuttings, cut just below

bushes should be severely pruned in the autumn to give a vigorous growth during the ensuing season. When the young wood has made a good growth, perhaps early in July, the earth is heaped up around and through the bush until only the tips of the young shoots are left showing. The soil is packed firmly at first, but a loose mulch is left on the surface to conserve moisture. Most of the American varieties will have become well rooted by the autumn, and the young plants may be transferred to the nursery row. English varieties usually take two years to root, and the soil must be left around them for that time.

When making cuttings of gooseberries, ripened wood is required, and they are handled much the same as currants.

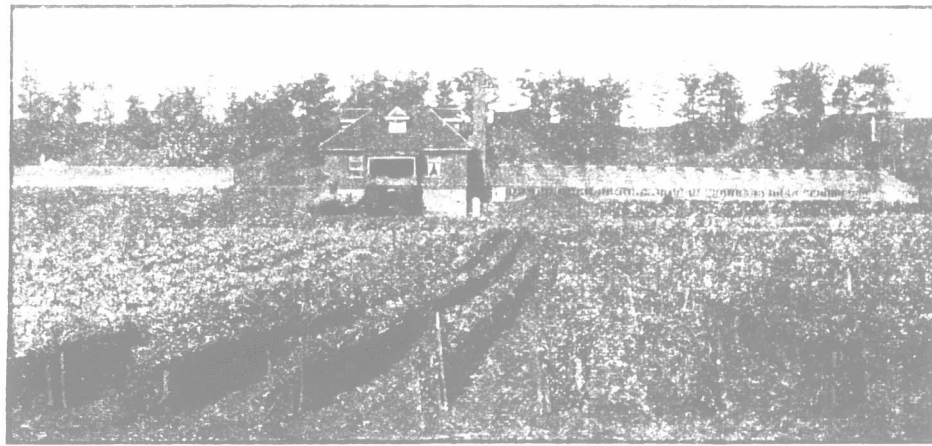
The blackberry is very easily propagated; suckers are produced in great numbers, and these may be dug up and planted. If this system is not speedy enough, the plant may be reproduced more quickly from root cuttings. Cut the roots into pieces two or three inches long, and plant them either in the fall or spring. They are set about three inches deep in the nursery row for one season. Good plants will be available after one year, if the soil is kept well cultivated.

When setting a new plantation of raspberries, the best plants to use are the young shoots that come up in the fall after the last cultivation, or those that come up early in the spring if they are strong and healthy. Care should be taken not to transfer any diseased or weak canes to the new plantation. Reproduction is from the healthy roots, not the canes. If old canes are transferred they will soon die down, and it is not advisable to transplant them. The transplanting may be done in early fall, but the majority of growers favor spring setting. Under favorable conditions this work may be continued up until June.

Blanching Celery.

In order to give celery a white appearance and a crisp flavor it is necessary to blanch or bleach it in some way. Any device that excludes the sunlight performs the function, but labor is usually an influencing factor. Earth, lumber, paper, field tile and patent bleachers are made use of in blanching celery, but on a commercial scale this list is reduced largely to earth, 12-inch boards or patent bleachers. In the celery fields near Theford, Ontario, earth is used exclusively because the Burwell Marsh, where the crops are produced, is black muck in some places to a depth of 15 feet. This is easily banked up about the plants, it holds the moisture there, and a flavor and crispness result that are hard to surpass anywhere. The amateur in celery growing will probably find the earth method of blanching as simple as any. The soil may be drawn up about the plant before it is fully grown. It is gradually mounded up until only the leaves are left exposed.

Perhaps the board method of blanching is more extensively used than any other. Boards 12 inches wide and 12 to 16 feet long are used, but the length is immaterial when operations are conducted on a small scale. The boards are pushed in close to the plants and secured there by stakes which should be 2 inches by 1 inch by 2 1/2 feet. One stake, driven securely into the soil, will hold both ends of two boards. After the season is over the boards are carefully



Blanching Celery with 12-inch Boards.

laid away with lath between each layer to allow for the circulation of air. The life of a celery board is from 5 to 7 years.

In a farmer's garden where only a limited quantity of celery is produced it may be blanched with brown or white paper. This is done by wrapping each individual plant and tying with a string. This method gives satisfactory results, but it is not economical on account of the labor involved.

Stiff paper boxes, wooden boxes or field tile can be utilized to good advantage on a small area. A convenient size for a box is 4 by 4 by 10 inches. It, like the tile, is simply placed over the celery plant which is allowed to grow up through.

A patent bleacher is now on the market which gives good results. It is 12 inches wide and comes in 100-foot rolls. The bleacher is held close to the plants by special clamps. It is light in weight and has many advantages to recommend it.

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Insects, diseases and German submarines are doing what they can to destroy available food. We can leave the disposition of the submarine to the Admiralty, but it is our duty to combat the other two enemies with Bordeaux mixture and arsenicals. Fruits and vegetables will be subjected to attacks throughout the season, but the grower should ever keep in mind that Bordeaux mixture is a good preventive of blight, while Paris green and arsenate of lead will destroy biting or chewing insects. Sucking insects which extract the juices from the plant must be combatted with a contact poison, such as Black leaf 40, kerosene emulsion or whale oil soap.

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FARM BULLETIN.

Just as You See It.

EDITOR "THE FARMER'S ADVOCATE":

It was seeding time and Smith was busy. Being a farmer he is busy at almost any time, but he was particularly busy just now. He got up at five a. m. to get an early start, and when he opened the barn door the first thing he saw was the Clyde colt down with the colic. Smith always looks for the worst first.

"Going to die, are you?" he asked, then hurried back to the house for the bottle of colic cure the Raleigh man had insisted on leaving. With it he brought a tablespoon, an empty beer bottle, some water and the hired man. They picked the colt up, tied his head to a 2 x 4 in the ceiling, measured out the dose and climbed up on the manger. At the very beginning the colt objected. To show them how much he objected he reared high and came pawing at them with his fore feet. Another halter shank was found and he was tied down as well as up, the bottle was jammed between his teeth and the contents poured into his mouth. And then he wouldn't swallow. Smith punched and pinched and poked at his neck and his "Adam's apple," but to no avail. "Hold his head high and I'll fix him," he commanded, and jumped down. A slab of wood was found and soon there was a resounding whack. During the excitement the colt swallowed the mouthful, which was the consummation desired. A good half hour, however, was lost—lost never to return. Two hours later in the field, the lever arm of the seeder broke. A little thing, but sufficient to put him out of business until mended. There was more hustling around, and not to be outdone by fate, Smith loaded his wagon with \$2.50 wheat and started for town. By this time he was sure the world was all against him and he was pretty sore. On the way in he met an automobile, and although there was room to turn out he forced the thing to take the rough ground. The auto retaliated by slipping right past the colt's nose and blowing a tremendous blast on its horn.

Nothing further happened until the load was weighed. Smith always puts a blanket in the rear end of his wagon and the elevator men always seem to do their best to destroy it.

"Just a minute and I'll help you with that end gate," said Smith. But there was no end gate to help with. It had dropped out somewhere and the wheat had bulged the blanket out to a precarious position. Smith was about to holler.

"That's nothing," said the elevator man; "a fellow that came in here yesterday lost nearly 40 bushels, and it was \$2.40 then, while to-day it's only \$2.10½." Luck was evidently running both ways. At the livery barn he asked the man to keep his eye on the colt a little. "Had the colic this morning before I came away," he told him.

"Horse died here this morning with the colic," said the man; "came in yesterday, and we did everything we could for it. Just hauled it out a few minutes ago."

Perhaps his luck wasn't so bad after all. The world was all right; it was the people. He went in the hardware store to buy something. The merchant was sitting crosslegged on his counter, busily talking. Yes, he had them, they were back in the corner there, Smith could find them and help himself. Smith wasn't in that frame of mind, however, so he turned around and walked out. The other hardware store didn't have the thing at all and the blacksmith couldn't make it so decided he would go home without it. The blacksmith had mended his seeder lever and condoled with him on the loss of his end gate. From somewhere he produced an end gate he would lend him for a few days. He assured him, however, he would find it on the way out. Smith knew better. Some goat would pick it up and carry it off. A half mile out on the road and he did find it. Some one had laid it carefully on the roadside. He marveled at that and at the blanket holding for so long. A half hour later he met another automobile. The road was a little rough, but he pulled off and shared it 50-50 with him. The owner saluted mightily and seemed pleased. As the miles rolled away, Smith's mood changed. Over and over in his head turned the words:

"Laugh and the world laughs with you
Weep and you weep alone."

When he got home he took a smile to the glass—and met a smile. A. E. ROBERTS.

Wanted, a Calendar That Will Work.

I got ten calendars last Christmas. All sorts. They are variously adorned with college buildings, pretty girls, poetical quotations, historical dates, scriptural texts, advice as to investments, flags of the Allies, first aid to the injured, and other useful and ornamental things. Some of them hang on the wall until they fall down. Some of them stand on a tripod until they tip over. Some of them I carry in my pocket until they drop out. Some are worth more. Some are worthless.

But not one of them is the sort of calendar I want. All I want is a calendar that will tell me what day it is. A clock tells you what time it is. A calendar only tells you what time it would be if you knew what time it was. If you know the day of the month it will give you the day of the week. If you know both the week and the day of the week it will give you the day of the month. But it is of no use whatever to the man who is wondering "Let's see, is this Thursday the twelfth or Friday the thirteenth."

This is a serious matter. A man may imperil his immortal soul by eating meat on Friday, carrying an umbrella on Saturday or fishing on Sunday, according to his faith. There is a lot of information on my calendars that I would trade off to get the one bit of information I want. I never cared whether the Old Man in the Moon faced one way or the other. I never had occasion to use the Dominical Number of the date of the battle of Bergen-op-Zoom. I never cared whether I was living under Leo or Virginia. But I have lost friends and dinners and lecture engagements and theater tickets because I made a mistake in dates.

I have a flopper calendar on my desk. But I forget whether I flopped it over the night before or left it till morning. Sometimes the wind flops it. Sometimes my wife does the flopping. Sometimes we all three do it, then I find half the week gone and nothing done yet. It ought to be easy enough to invent a calendar that would shed its leaves as regularly as a tree does but diurnally instead of annually. There are calendar clocks, but most of them never learn that simple rime. "Thirty days hath September," etc., and the best of them go crazy on Leap Year.

I wish that next Christmas my relatives and friends and the insurance, printing, and trust companies would club together and get me a calendar that will work.—Edwin E. Slosson in the N. Y. Independent.

A Special Crop Bulletin.

A special press bulletin issued July 5 by the Census and Statistics Office gives the following report on the condition of field crops throughout Canada at the end of June, as summarized from telegrams from selected correspondents, including the Superintendent of the Dominion Experimental Farms, by arrangement with the Department of Agriculture. The reports for Saskatchewan and Alberta are furnished by the respective Departments of Agriculture for those provinces:

In PRINCE EDWARD ISLAND the weather conditions have been favorable for maximum growth, and a heavy hay crop is assured in most districts. Cereal crops are sturdy and healthy in appearance, while early wheat is two feet high. Roots, corn and potatoes germinated well and are growing rapidly. Fruit of all kinds is most promising as no frost occurred since the bloom opened. In NOVA SCOTIA seeding was retarded by the wet weather; but crops since June 12 have been making rapid progress. Fruit prospects are good. In NEW BRUNSWICK a wet, cold May was followed by a wet June. The grain acreage is short and the stand poor. The potato acreage is probably above average, though below expectation, owing to wet and shortness of fertilizers. Large hay crop assured; pastures are luxuriant and the milk flow large.

Quebec.—Vegetation is very backward, and the crops have suffered from excessive rains during June, especially those on low lands and strong soils. Hay promises to be a big crop. Potatoes look well. In some parts seven inches of rain fell during June, and the acreage under field roots will be considerably increased owing to the failure of grain.

Ontario.—OTTAWA: The grain crops promise well, having a good stand and being even and well stooled. Hay is an average crop. Corn is good and roots are first class. All crops are from ten days to two weeks late. PETERBOROUGH: Fall wheat will average only half a crop. Early sown spring grains are promising, but from 10 to 15 days late. The hay crop is light; corn, potatoes and roots are doing well. WATERLOO, N. R.: Wheat crop small, just heading out, spring crops promise well. Corn shows poor growth. Potatoes look fairly well. HYDE PARK: All crops making great headway though six weeks late. Potatoes variable, bugs voracious. No apples. A great crop of strawberries. PETROLIA: Season late. Fall wheat and spring grains promise a heavy crop. Hay, clover and alfalfa average. Winter apples not over 5 per cent., fall apples 15 per cent., peaches only fair. JUNE WET. NEW LISKEARD: In Temiskaming District crops are slightly below average, and later than last year. Fall wheat, peas and hay are good, oats fair, spring wheat average, clover and pasture excellent. With good growing weather future prospects are good.

Manitoba.—DAUPHIN: Wheat two weeks later than last year, cut one-third by dry seed-bed, May frosts and prolonged dry weather, plenty of moisture now. Wheat very ragged. Much in shot blade and some just coming through. Oats good and barley very good. MILLWOOD: Since rains commenced on 19th all crops made good growth. Wheat uneven germination; 50 per cent. in shot blade. DOMINION CITY: Average wheat crop almost assured. With favorable weather for a late harvest there should be an abundance of coarse grains and fodders and a big yield of potatoes and vegetables. ELM CREEK: Grain crops in good shape. Light showers ideal for the formation of wheat heads. Hoed crops uneven and pastures very light. MANITOU: Not sufficient rain. Severe frost night of 21st, froze wheat and some oats in low lands. Early-sown wheat and oats very short and heading out. FRANKLIN: Crops two weeks late. Good showers lately, but lack of heat. A fair promise on present appearances. BRANDON: Only two-thirds of an inch rainfall before last week of June. Severe late frost and high winds make the crop conditions the worst in many years. Grain at least three weeks late and very uneven. Almost no growth of hay and fodder crops. Prospects improved by showers last week. BERES-

FORD: Crops two weeks later than average through repeated frosts and dry weather. Favorable rains have fallen recently, and prospects are for a good half crop. Hay light and pastures poor. PIERSON: Late frosts have done great damage, 75 per cent. of wheat frozen, coarse grains late. With best of condition may get 12 bushels per acre of wheat. Prospects better for barley, oats and flax. Root crops damaged by frost.

Saskatchewan.—The provincial Department of Agriculture reports that the crops are from seven to ten days later than last year. Some wheat is in shot blade. The straw will be short except on summer-fallows where abundant rains and warm days have caused rapid growth. About half the summer-fallowing is completed, and the acreage of new breaking and summer-fallows shows slight increase over last year. The Dominion Experimental Stations report that at ROSTHERN rains all the month have worked favorably for all crops. Hay crops not fully recovered from drought in May, but grain and hoed crops are excellent. At the SCOTT Station crops were injured by both frost and drought. The total rainfall for June was less than one inch. Hay crops promise to be very light and grain crops short in straw. Many vegetable gardens proving failures. At INDIAN HEAD the weather during June was warm and showery. Grain crops have made good progress.

Alberta.—The Provincial Department of Agriculture reports that the crop conditions during June were very encouraging. The first two weeks were cool and the late-sown crops appeared very backward. During the last two weeks the weather has been ideal over the whole province. Growing showers visited a large percentage of crop area, and heavy rains with warmer weather where most needed. Slight frost and hail first part of month, none since. The Dominion Experimental Farms report that at LACOMBE the weather during June will average below normal temperature. Wheat 35, oats 24, barley 22 inches high. Hay prospects good. At LETHBRIDGE the rainfall during June has been light, only about one-third of the average for the last fifteen years. All but late-sown grain is in excellent condition, but in imperative need of immediate moisture. The total area in crop is greater than last year, the largest increase being in flax.

British Columbia.—AGASSIZ: Most crops good, later than average, but earlier than last year. INVERMERE: Crops backward, but promise well. Root crops damaged by cutworms. SUMMERLAND: Apple crop 20 per cent. higher than last year. Grain making good growth. Hay good. SIDNEY: Hay crop about average, autumn cereals developing well, spring cereals, potatoes, roots and beans doing well. Orchard fruits except cherries abundant. Small fruits average, with strawberries excellent.

Conditions Favorable in Halton County.

EDITOR "THE FARMER'S ADVOCATE":

The crop outlook in Halton County is better than last year in most respects, although the hay crop may not be so bulky as it was in 1916, but it has the appearance so far of being more substantial in feeding quality, and will be of just as much value if not more than usual. The wheat crop outlook is not so good as the hay. In most places it was badly killed out in the spring, but, taking it as a general thing, it will average a half or two-thirds crop. A few plowed their wheat up and sowed spring grains, but I think that if they had left it it would have come all right. Our wheat looked very poor in the spring, but it is going to be a fair crop after all. The spring grain looks well and gives promise of a good crop. Although the seeding was late in this district, as in all others, the grain is coming on fast now that fairly warm weather has set in. We consider that in this district the season is from two to three weeks later than usual, which accounts for the backward state of the crops for this time of the year. The fall wheat is just coming in head, when it has been known to be as far advanced by the first week in June. Mangels and corn are coming fine, also some turnips, but most of the latter are not up at time of writing, whereas some are almost ready to thin. These latter were sown earlier than usual. Although the crop outlook is good many people around here have planted beans this year which give promise, if they are a good crop no lack of this kind of food next winter.

Halton Co., Ont.

FARMER.

Startling Prices for Herefords.

The 260 Hereford cattle, including many Repeaters and Gay Lads, dispersed by O. Harris & Sons, Harris, Mo., June 26 and 27, realized the grand total of \$396,375, or the remarkable average of \$1,525 each. The cows and heifers in this offering numbered 220, and they sold on the average for \$1,220. The males averaged \$3,198. There were nine head of show and herd bulls which were features in the sale, and these realized an average of \$11,140. The pick of the bulls was Repeater 7th, for which W. A. Pickering, of Kansas City, paid \$27,500. Gay Lad 16th sold for \$20,000, to George G. Moore, New York City. In females the choice was Princess 31st, the dam of Repeater 7th, with a bull calf at foot by Repeater. W. A. Pickering took her also at \$10,000. The old bull Repeater, which is now almost ten years of age and is the famous ancestor of many illustrious things, remains in the Harris family, being purchased by Wood Harris, Gird McCullough & O. H. Moberly.

Toronto, Montreal, Buffalo, and Other Leading Markets

Week Ending July 5.

Receipts and Market Tops.

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

	CATTLE						CALVES					
	Receipts		Top Price Good Steers (1,000-1,200)				Receipts		Top Price Good Calves			
	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending	
Toronto (Union Stock Yards)	4,751	4,783	5,158	\$11.60	\$10.25	\$12.25	1,019	877	1,135	\$15.00	\$12.50	\$15.50
Montreal (Pt. St. Charles)	892	870	628	12.00	10.00	11.80	1,390	1,711	1,920	12.50	10.00	13.00
Montreal (East End)	885	737	483	11.50	9.60	11.90	784	1,110	1,185	12.50	10.00	12.50
Winnipeg	2,153	1,521	2,006	10.50	8.75	11.00	207	190	118	13.00	10.00	13.00
Calgary		754	529		7.00	9.30			9		8.00	11.00

	HOGS						SHEEP					
	Receipts		Top Price Selects				Receipts		Top Price Good Calves			
	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Week Ending	Same Week	Week Ending	Same Week	Week Ending	
Toronto (Union Stock Yards)	7,375	9,006	5,696	\$16.75	\$16.00	\$16.50	923	1,422	1,413	\$16.00	\$11.50	\$17.00
Montreal (Pt. St. Charles)	1,127	1,305	1,302	17.00	12.00	16.25	306	1,126	134	*10.00	*8.00	*8.00
Montreal (East End)	850	768	840	16.75	11.90	16.00	331	765	187	*9.00	*8.00	*9.00
Winnipeg	6,097	8,249	5,815	15.50	10.55	15.25	232	329	82	12.00	10.50	11.50
Calgary		4,225	2,372		9.85	x15.20			39		11.00	12.00

*Quotations, off cars.

*Quotations per head.

Market Comments.

Toronto (Union Stock Yards.)

With thirty-four hundred cattle on sale on Monday, the bulk of them being off the grass, prices declined from 25 to 50 cents per hundred on choice butcher cattle, and from 50 to 75 cents on medium and common butcher cattle. Twelve to fifteen hundred head were unsold on Monday and were carried over to the following day, when prices weakened another 25 cents and held this level during the balance of the week, quotations being 50 to 75 cents lower on choice cattle, and 75 cents to \$1.00 lower on medium and common cattle, than the ruling prices ten days ago. A load of extra good heavy steers sold on Monday at \$11.90 per hundred with other sales being made at \$11.70, and several loads reaching \$11.50 per hundred. On Wednesday a load of steers averaging fourteen hundred pounds brought \$11.85 per hundred; these figures represented the best sale of the week and were paid on stall-fed cattle. The bulk of the heavy steers sold from \$11 to \$11.50 per hundred. Butcher steers of 1,000 and 1,100 pounds sold from \$10.50 to \$11.25 for the best loads, with medium quality bringing \$9.50 to \$10.25, while choice light handy butcher steers and heifers realized from \$10 to \$10.75, and medium quality \$9 to \$9.75. Common lots brought from \$7.50 to \$8.50. Good bulls sold from \$9 to \$9.75 per hundred with an extra good one reaching \$10.50, and medium and bologna bulls sold from \$7.50 to \$8.50 per hundred. Cows reached \$9.50 and \$10 in a few instances, but the bulk of the best ones ranged between \$8.50 and \$9.25, and medium sold at \$6.50 to \$7.50 per hundred. Under a fair demand, stockers were shipped back to the country at prices ranging from \$7.50 to \$8.50, and feeders from \$8.50 to \$9.50. Calves held about steady all week, with choice veal bringing from \$14 to \$15 per hundred, and medium veal from \$12 to \$12.50.

The supply of lambs on sale was scarcely up to expectations, and while Monday's prices were steady, by Thursday quotations were fully \$1 above those prevailing a week ago. Choice lambs sold from \$14.50 to \$15.50 for the bulk, with extra good lambs bringing \$16 per hundred on the closing market.

Hog supplies have fallen short of requirements and prices are advancing. On Monday \$16.25 per hundred was paid for selects, fed and watered, on Tuesday \$16.50 and on Wednesday \$16.75, the market closing Thursday a trifle easier with selects moving at \$16.50 to \$16.75.

Of the disposition of live stock for the week ending June 28th, Canadian packing houses purchased 675 calves, 113 bulls, 158 heavy steers, 3,691 butcher cattle, 5,460 hogs and 976 sheep. Local butchers bought 337 calves, 377 butcher cattle, 233 hogs, and 333 sheep. Shipments back to country points consisted of 47 calves, 55 milch cows, 326 stockers, and 63 feeders. Shipments to United States points totalled 23 feeders.

The total receipts from January 1st to June 28th, inclusive, were: 112,116 cattle, 27,220 calves, 15,363 sheep, and 242,974 hogs; compared with 113,208 cattle, 25,057 calves, 19,185 sheep and 218,613 hogs received during the corresponding period of 1916.

CLASSIFICATION	No.	TORONTO (Union Stock Yards)			MONTREAL (Pt. St. Charles)			
		Avg. Price	Price Range Bulk Sales	Top Price	Avg. Price	Price Range Bulk Sales	Top Price	
STEERS								
heavy finished	170	\$11.49	\$10.75-\$11.75	\$11.90				
STEERS good	536	\$11.05	10.50-11.50	11.60	58	\$11.30	\$11.15-\$11.40	\$12.00
1,000-1,200 common	55	9.88	9.25-10.50	10.75	5	10.60	10.25-10.75	10.75
STEERS good	605	10.64	9.75-11.25	11.25	48	10.90	10.75-11.10	11.50
700-1,000 common	284	9.34	8.50-9.75	9.75	168	9.71	9.50-10.00	10.50
HEIFERS good	570	10.89	10.00-11.25	11.50	18	10.75	10.50-11.00	11.50
fair	293	9.52	9.00-9.75	9.75	60	9.75	9.50-10.00	10.20
common	116	8.46	7.50-8.75	9.00	68	9.13	8.75-9.30	9.40
COWS good	796	8.91	8.00-9.50	9.50	42	9.75	9.50-10.00	10.25
fair	716	7.21	6.75-8.00	8.00	248	8.76	7.75-9.25	9.25
BULLS good	73	9.22	8.25-9.50	9.75	7	10.00	9.75-10.75	10.75
common	44	7.47	7.00-8.00	9.00	91	8.36	6.50-9.50	9.50
CANNERS & CUTTERS	96	5.90	5.50-6.25	6.25	63	6.14	5.50-6.50	7.00
OXEN								
CALVES	1,019	12.03	13.00-15.00	15.00	1,390	10.66	8.00-12.50	12.50
STOCKERS good	186	8.21	7.75-8.75	8.75				
450-800 fair	155	7.40	6.75-8.00	8.25				
FEEDERS good	38	9.25	9.00-9.50	9.75				
800-1,000 fair	18	8.75	8.25-9.00	9.00				
HOGS (Fed and watered)								
selects	6,492	16.54	16.25-16.75	16.75	959	16.76	16.50-17.00	17.00
heavies	41	16.47	16.25-16.75	16.75				
lights	564	15.50	15.25-15.75	15.75	59	16.40	16.00-16.75	16.75
stags	15	11.38	11.25-11.75	11.75	1	12.75	12.75-	12.75
sows	263	13.61	13.25-13.75	13.75	108	13.72	13.50-14.00	14.00
SHEEP								
heavy	19	7.82	7.00-8.50	8.50	8	9.25	9.00-9.50	9.50
light	301	8.88	8.50-9.50	9.50	26	9.75	9.50-10.00	10.00
common	168	6.57	6.00-7.50	7.50	33	8.79	8.50-9.00	9.00
LAMBS								
good	313	14.05	13.00-16.00	16.00	67	8.00	7.00-10.00	*10.00
common	122	12.79	12.00-14.00	14.50	172	6.57	5.00-7.00	*7.00

*Quotations per head.

Montreal.

Despite a heavy run of butcher cattle mostly of poor quality, the demand was good throughout the week and prices on the whole held about level with last week's quotations. A few lots of good heavy steers sold from \$11.50 to \$12 per hundred, but there were not many on the market of good enough quality to bring these prices. The bulk of the butcher steers and heifers sold from \$10.25 to \$11 per hundred. Canners, which are scarce for this time of the year, were in good demand during the week at \$5.50 to \$6. Calves held about steady under a good inquiry, the best quality selling at last week's top of \$12.50. Grass calves are coming in freely.

Sheep and lambs were unchanged. Lambs of fair weights were more plentiful than usual during the week.

Hogs opened the week at from \$16.75 to \$17.25 per hundred for selects, off cars, and have held steady all week. The bulk of the sales was made at \$17 off cars for long-run stock, and \$16.75 for stock from near-by points. The demand was good, and the market closed firm.

PT. ST. CHARLES.—Of the disposition of live stock from the Yards for the week ending June 28th, Canadian packing houses and local butchers purchased 1,646 calves, 50 canners and cutters,

86 bulls, 8 heavy steers, 459 butcher cattle, 1,320 hogs, 108 sheep, and 16 lambs. Shipments to United States' points consisted of 274 calves.

The total receipts from January 1st to June 28th, inclusive, were: 17,451 cattle, 37,018 calves, 6,159 sheep, and 33,898 hogs; compared with 20,140 cattle, 26,800 calves, 6,880 sheep, and 47,187 hogs, received during the corresponding period of 1916.

EAST END.—Of the disposition for the week ending June 28th, Canadian packing houses and local butchers purchased 1,185 calves, 469 butcher cattle, 788 hogs, and 187 sheep. There were no shipments made to United States' points.

The total receipts from January 1st to June 28th, inclusive, were: 16,832 cattle, 29,506 calves, 6,450 sheep, and 21,710 hogs; compared with 15,879 cattle, 27,665 calves, 8,812 sheep, and 27,962 hogs, received during the corresponding period of 1916.

Winnipeg.

The supply of butcher cattle on the market during the week, was quite ample to meet the requirements of the trade. Very few stall-fed cattle were on sale, and the bulk of the steers was of inferior quality, consisting largely of grass-fed steers in thin condition. As

the buyers show a preference for fat cows and heifers it would appear advisable to keep the lean stock on pasture until in fatter condition, as its presence on the market has a tendency to lower the prices on all grades. The market for butcher cattle opened steady on Friday, but the accumulation of receipts over Dominion Day proved too heavy for the requirements of the trade on Tuesday, and recessions in prices occurred, the market closing on Thursday from 25 to 50 cents lower than at the close of the previous week. The best sale made during the week was that of eleven steers averaging thirteen hundred and sixty pounds for which \$11.10 per hundred was paid. Good butcher steers sold from \$8.75 to \$9.75, and heifers and cows showed a range from \$8.50 to \$9.50. Bulls and oxen maintained a steady tone throughout the week. There were sufficient calves on the market to meet the demand, and prices held steady with a top price during the week of \$13 per hundred. Stockers and feeders met with a slow market as the outside demand was limited, and only two loads realized above \$8 per hundred, the bulk being sold at \$7.50. The present indications are for a lower market.

The market for hogs opened strong on Friday at \$15.25 per hundred for selects

The Molsons Bank

is always glad to assist farmers in any legitimate financial way to make their farms more productive.

State your requirements to our local manager and he will be glad to advise and assist you.

and despite heavy receipts during the remainder of the week, advances in prices were made on Wednesday and Thursday with the market closing on the latter day at \$15.50 per hundred for selects, and other grades steady. Prospects are for a steady to strong market for next week.

Of the disposition of live stock for the week ending June 28th, Canadian packing houses purchased 19 calves, 751 butcher cattle, and 5,323 hogs. Local butchers bought 57 calves, 382 butcher cattle, 170 hogs, and 20 sheep. Shipments back to country points consisted of 15 calves, 5 bulls, 638 stockers, 81 feeders, and 82 hogs. Shipments to United States' points consisted of 251 butcher cattle and 56 feeders.

The receipts of live stock marketed from January 1st to June 28th, inclusive, were: 50,595 cattle, 2,923 calves, 814 sheep, and 142,560 hogs; compared with 27,889 cattle, 3,879 calves, 1,608 sheep, and 181,254 hogs, received during the corresponding period of 1916.

Buffalo.

Cattle.—Offerings of cattle were fairly liberal at Buffalo last week, and the result was a lower trade by 25 to 35 cents on shipping cattle, while the better kind of butchering stuff looked a quarter to forty cents lower, the heaviest decline being on a medium class of butchering steers. Females of about all classes sold in quantities under a week ago. Best native shipping steers sold from \$13.50 to \$14.70, with best Canadian selling at \$13.10. Best heavy steers ranged \$12 to \$12.25, and yearlings ranged from \$11.50 to \$11.75. In the lot toward better line yearlings, females of about all classes sold from \$11.50 to \$14.70. The market for calves was very quiet, with a few offerings of about 25 to 30 head. Best Canadian calves sold from \$12 to \$12.25, and yearlings ranged from \$11.50 to \$11.75. In the lot toward better line yearlings, females of about all classes sold from \$11.50 to \$14.70. The market for calves was very quiet, with a few offerings of about 25 to 30 head. Best Canadian calves sold from \$12 to \$12.25, and yearlings ranged from \$11.50 to \$11.75.

Sheep.—Offerings of sheep were fairly liberal at Buffalo last week, and the result was a lower trade by 25 to 35 cents on shipping cattle, while the better kind of butchering stuff looked a quarter to forty cents lower, the heaviest decline being on a medium class of butchering steers. Females of about all classes sold in quantities under a week ago. Best native shipping steers sold from \$13.50 to \$14.70, with best Canadian selling at \$13.10. Best heavy steers ranged \$12 to \$12.25, and yearlings ranged from \$11.50 to \$11.75. In the lot toward better line yearlings, females of about all classes sold from \$11.50 to \$14.70. The market for calves was very quiet, with a few offerings of about 25 to 30 head. Best Canadian calves sold from \$12 to \$12.25, and yearlings ranged from \$11.50 to \$11.75.

to \$8.50; common to fat, \$7 to \$7.50; best stockers, \$7 to \$7.50; common to good, \$6.50 to \$6.75.

Milchers and Springers.—Good to best, in small lots, \$90 to \$115; in carloads, \$75 to \$85.

Hogs.—Prices showed an upward tendency last week. Monday the top was \$16, and other sales ranged on down to \$15.75, as to quality; Tuesday the range was from \$15.75 to \$16.15; Thursday top was \$16.35, with bulk selling from \$15.90 to \$16.15, and Friday the top was \$16.40, and but few fell below \$16.25. Pigs also shared in the advance, as did roughs. Monday the general price for lights and pigs was \$14.50, and before the week was out, on Friday, these grades sold mostly at \$15.25. Roughs jumped from \$11 on Monday to \$14.25 on Friday, and stags went downward from \$13. For the week receipts were 16,400 head, as compared with 21,011 head for the week previous, and 22,000 head for the same week a year ago.

Sheep and lambs. Prices continued on the decline last week. Monday, which was the high day, top springers sold up to \$17, and before the week was out buyers got tippy lots down to \$15 and \$15.50. Yearlings dropped to \$13 for the best, with sheep, although no choice ones were here, were quoted around \$10 and \$10.25, and while top for ewes was \$10, after Monday these could not be quoted above \$9.50, and it took a handy kind to sell better than \$9. Receipts last week were 3,350 head, as against 3,735 head for the week before, and 2,750 head for the same week a year ago.

Calves.—Receipts last week were 2,750 head, for the week previous there were 3,374 head, and for the same week a year ago receipts were 2,100 head. Monday the general price for top veals was \$15.50; Tuesday bulk went at \$15.25; Thursday the range was from \$15 to \$15.50, and Friday best lots reached up to \$16 and \$16.25, with one bunch as high as \$16.50, the latter price equalling the former big mark for the local yards. Cull grades sold within \$1 to \$1.50 of the tops, and weighty, rough, fat calves were not worth within \$1 to \$2 per cwt., of the good handy culls.

Toronto Produce.

Receipts of live stock at the Union Stock Yards, West Toronto, on Monday, July 2, comprised 112 cats, 2,622 cattle, 256 calves, 1,281 hogs, 314 sheep, and lambs. Butcher cattle, cows and bulls, and sheep, sold with last week's low standards and below 25 cents to 50 cents lower. Steers and yearlings, and calves 25 cents to 50 cents lower. Hogs, lambs, and piglets, \$16.25 to \$16.50, and \$16.25 to \$16.50, and \$16.25 to \$16.50, respectively.

Breadstuffs.

Wheat.—The market for wheat was very quiet, with a few offerings of about 25 to 30 head. Best Canadian wheat sold from \$12 to \$12.25, and yearlings ranged from \$11.50 to \$11.75. In the lot toward better line yearlings, females of about all classes sold from \$11.50 to \$14.70. The market for calves was very quiet, with a few offerings of about 25 to 30 head. Best Canadian calves sold from \$12 to \$12.25, and yearlings ranged from \$11.50 to \$11.75.

Hay and Millfeed.

Hay.—The market for hay was very quiet, with a few offerings of about 25 to 30 head. Best Canadian hay sold from \$12 to \$12.25, and yearlings ranged from \$11.50 to \$11.75. In the lot toward better line yearlings, females of about all classes sold from \$11.50 to \$14.70. The market for calves was very quiet, with a few offerings of about 25 to 30 head. Best Canadian calves sold from \$12 to \$12.25, and yearlings ranged from \$11.50 to \$11.75.

Hides and Wool.

Hides.—The market for hides was very quiet, with a few offerings of about 25 to 30 head. Best Canadian hides sold from \$12 to \$12.25, and yearlings ranged from \$11.50 to \$11.75. In the lot toward better line yearlings, females of about all classes sold from \$11.50 to \$14.70. The market for calves was very quiet, with a few offerings of about 25 to 30 head. Best Canadian calves sold from \$12 to \$12.25, and yearlings ranged from \$11.50 to \$11.75.

Tallow.—City rendered, solids, in barrels, 11c. to 11c.; country solid, in barrels, No. 1, 12c. to 12c.; cakes, No. 1, 15c. to 17c.

Wool.—Unwashed fleece wool, as to quality, fine, 53c.; coarse, 49c. Washed wool, fine, 68c.; coarse, 63c.

Country Produce.

Butter.—Butter was slightly weaker on the wholesales during the past week, selling as follows: Creamery, fresh-made pound squares, 37c. to 38c. per lb.; creamery solids, 36c. to 37c. per lb.; dairy, 32c. to 33c. per lb.; separator dairy, 31c. to 35c. per lb.

Eggs.—Eggs remained nearly stationary selling at 35c. to 36c. per dozen, wholesale.

Beans.—The bean market is very quiet at practically unchanged prices, selling at \$9.50 to \$10.50 per bushel, wholesale.

Poultry.—Poultry again declined a little, selling as follows: Live-weight prices; spring chickens, 20c. to 25c. per lb.; spring ducks, 20c. per lb.; roosters, 14c. per lb.; light fowl, 16c. per lb.; heavy fowl, 17c. per lb.; turkeys, 18c. per lb.; squabs, dressed, \$3.50 to \$4 per dozen.

Cheese.—Old, 30c. per lb.; new, 23c. to 24c. per lb.; new twins, 24c. per lb.

Honey.—Honey is practically off the market.

Wholesale Fruits and Vegetables.

California Red Astrachan apples proved a ready sale during the week at \$3 per box.

Bananas remain quite firm in price at \$3.25 to \$4.50 per bunch.

Cherries.—Canadian eating cherries arrived in small quantities, and sold at 65c. to \$1.25 per 6-qt. basket, and \$1.25 to \$2.25 per 11-qt. basket; a few sour ones of poor quality going at 50c. to \$1.25 per 11-qt. basket.

Gooseberries.—The bulk of the gooseberries received were small fruit, and the price materially declined; the 6-qt. baskets selling at 25c. to 65c., and the 11 qts. at 50c. to \$1.25, according to size.

Lemons remain firm. Californias selling at \$5.50 and Verdills at \$6 per case.

Oranges.—The orange market advanced late Valencia's selling at \$1.50 to \$2 per case.

Peaches.—Both California and Georgia peaches were offered, the former selling at \$2 per case, and the latter at \$3.50 to \$4 per six basket case.

Strawberries.—Strawberries came in in a few quantities, but were at present scarce, and sold at 12c. to 15c. per bushel, and 14c. to 15c. per bushel.

Apples.—The market for apples was very quiet, with a few offerings of about 25 to 30 head. Best Canadian apples sold from \$12 to \$12.25, and yearlings ranged from \$11.50 to \$11.75. In the lot toward better line yearlings, females of about all classes sold from \$11.50 to \$14.70. The market for calves was very quiet, with a few offerings of about 25 to 30 head. Best Canadian calves sold from \$12 to \$12.25, and yearlings ranged from \$11.50 to \$11.75.

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Cheese Markets.

The market for cheese was very quiet, with a few offerings of about 25 to 30 head. Best Canadian cheese sold from \$12 to \$12.25, and yearlings ranged from \$11.50 to \$11.75. In the lot toward better line yearlings, females of about all classes sold from \$11.50 to \$14.70. The market for calves was very quiet, with a few offerings of about 25 to 30 head. Best Canadian calves sold from \$12 to \$12.25, and yearlings ranged from \$11.50 to \$11.75.

Montreal Produce.

Horses.—Continued purchasing of horses for military purposes is having a strengthening effect upon the market. Local dealers, while not personally interested in buying and selling, state that the British Government is paying from \$190 to \$220 for artillery and cavalry horses, while the French Government is in the market at \$125 to \$180. Dealers report a dull demand, but are making some shipments of horses to outside points, such as the U. S., and the Maritime Provinces and are experiencing some demand from pulp and lumber concerns. Prices were rather higher as follows: Heavy draft weighing 1,500 to 1,700 lbs., \$225 to \$275 each; light draft, weighing 1,400 to 1,500 lbs., \$175 to \$225 each; small horses, \$150 to \$200 each; culls, \$75 to \$125 each; choice saddle and carriage horses, \$200 to \$250 each.

Potatoes.—New crop American potatoes were obtainable at lower prices, the supply being larger. Prices were \$11 to \$13 per barrel. Old crop Canadians sold generally around \$1.50 per bag of 80 lbs., ex-store. Consumption is running in the direction of new stock.

Honey and Maple Syrup.—The market for honey was dull and prices steady at 16c. per lb. for white clover comb; 11c. for extracted; 13c. to 13.5c. for brown comb, and fractionally less for the extracted. Buckwheat honey is 11c. per lb. Maple syrup was in moderate demand and was quoted in gallon tins at \$1.75 for choice; \$1.55 for fine quality, and \$1.40 down to \$1.30 for the lower grades. Maple sugar was 15c. per lb.

Eggs.—No change took place in the market for eggs during the week. The quality was rather better than usual at this time of the year owing to the absence of really hot weather. Production continued fairly and selected stock was quoted at 37c. to 38c. per lb., No. 1 candled being 4c. below these figures, and No. 2 candled being around 29c. to 30c. per doz.

Butter.—The quality of butter arriving continued fine and as the supply was liberal, the tendency of prices was to fall. Last week finest creamery could be had at 35c. per lb., and sometimes at fractionally less. Fine 48, 34c., whole dairies sold 29c. to 31c. for best, and 27c. to 28c. for ordinary.

Cheese.—The export value being fixed at 21c. per lb., country brands will likely show little change.

Grain.—The market for oats held firm and No. 2 Canadian Western changed hands at as high as \$1.10 to \$1.15. No. 3 and extra No. 1 feed sold at 80c., No. 1 feed at 70c., and No. 2 feed at 77c. per bushel, ex-store. Manitoba feed wheat was in fair demand at \$1.15 per bushel, ex-track.

Flour.—Prices of flour were lower all the way round. Ontario 90% patents were \$12 to \$12.50 per barrel, in wood, and \$5.75 to \$5.90 per bag. Manitoba spring wheat first patents were \$12.50, second being \$12, strong bakers' \$11.80, per barrel, in bags.

Milled.—The market for bran was about steady at \$33 per ton. Shorts were \$38, middlings \$40 to \$42, mixed meal \$41 to \$45 and pure grain meal \$47 to \$49 per ton, including bags.

Baled Hay.—This was almost the only market to show a decline, non prices which were already low. No. 2 hay was quoted at \$12.50 to \$13 per ton, and No. 3 at \$10.50 to \$11, ex-track.

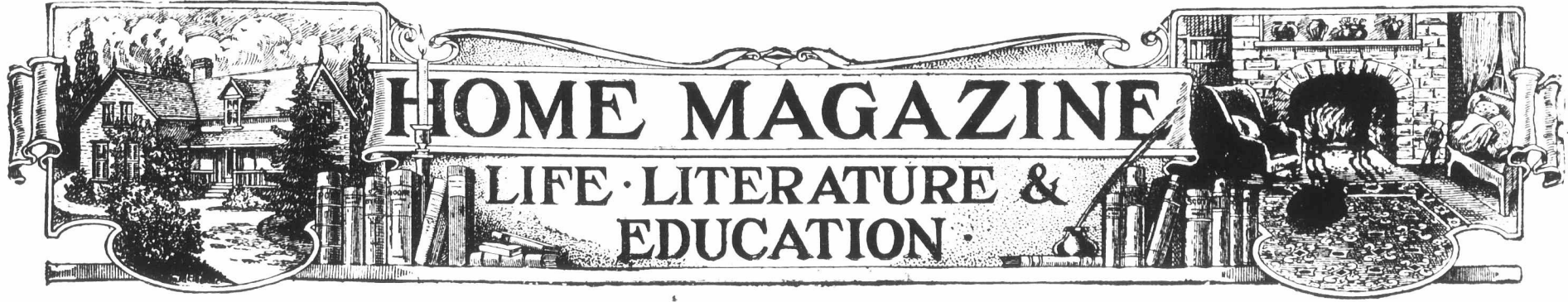
Hides.—Lamb skins were almost unchanged in price last week at 70c. each, but beet hides jumped 1 1/2c. at 27c. for No. 1, 26c. per lb. for No. 2, and 25c. for No. 3. Calf skins were very firm, having advanced to 36c. for No. 2, and 38c. for No. 1. Horse hides were steady at 87c. each. Tallow was 3c. to 6c. per lb. for rough and 11c. to 12c. for refined.

Chicago.

Cattle.—Buyers, \$8.50 to \$12.00; stockers and feeders, \$6.50 to \$9.50; cows and heifers, \$5.10 to \$11.75; calves, \$10 to \$14.75.

Hogs.—Light, \$11.10 to \$15.70; mixed, \$14.50 to \$15.95; heavy, \$11.15 to \$15.95; rough, \$11.15 to \$14.69; pigs, \$11.75 to \$14.20.

Sheep.—Lamb, native, \$9.75 to \$16.50.



Open Thy Doors.

BY EDWARD ARTHUR WICHER.

Open thy doors, O my soul,
To ocean and sky and plain,
To shelving shore, and breakers' roar,
And the mountains that shout again.

Open thy doors, O my soul,
To the scent of the climbing rose,
To the meadow's sweep, and the drowsy
sheep,
And the woodland's deep repose.

Wider, wider, my soul,
The winds through the pine tree blow,
'Tis the Word of God that moveth abroad,
And deep to deep will go.

Open thy doors, O my soul,
And the fret and pain of care,
And the futile stress and the pettiness,
Will vanish into air.

Among the Books

"Romany Life."

BY FRANK CUTTRISS.

Mills & Boon Pub. Co., 49 Rupert St., London W., England.

One would like to quote much from Mr. Cuttriss's book, *Romany Life*, reviewed in part in last week's issue, but perhaps the following extracts will serve to illustrate both the manner of the book and something of the mind-working of the Romanies:

"There are gypsies of my acquaintance," says Mr. Cuttriss, "who own land and expensive living wagons, and have the best of everything, undoubtedly they work hard but have a good time generally. There, be it understood, are not 'show' folk, but Tachey Romanies, whose skins are dark as may be seen, and who upon marriage would spend a sum of three figures upon their wedding van. I know others whose entire worldly possessions would probably not fetch half a sovereign at a humble sale. One fellow told a friend of mine that he got married on sixpence, but added, as a kind of mitigation of his rashness, that he had a tent. Yet, among them all rich, poor, richest and poorest alike, there is that splendid and pervading spirit of sympathy, amounting to a compelling desire to share to the last penny with those whose need is greater than their own. One of them once said to me: 'P'd, you know the gypsy law - if I have a loaf of bread and you are in need half of that loaf is yours; and you, being a tatcho pal (true brother) and a Romany mish (man), I know you'd do the same.'"

The following is a description of one of the dances which often close the hopping-picking season in Kent, towards which, each year, long lines of Romany caravans make their way. The night is the last spent at the hop-fields:

"Some of the audience (a concert had been in progress) had come from another camp at a little distance, and as the night was very dark some one voiced his desire for a lantern. Fortunately I was able to procure an oil torch designed for outdoor use, so with this flaming merrily, I led the way at the head of a band of Romanies. We were a merry party and a good deal of jesting was indulged in. Before separating, and while we were on a lane with a steep bank on each side, some one suggested the Romany dance, and the hint was at once acted upon.

"It would seem that from earliest times these people have numbered amongst them many excellent dancers and singers, and what I now witnessed demonstrated beyond doubt that their love of song and the dance is as strong to-day as in the past.

"The company disposed themselves in a circle and two or three couples went into the ring; a song was started and time was kept by the clapping of hands. Someone said:

"Go it! Dance away; it's early yet. We are all Romanies here and the kushti Romany Rye's jelled a moonli so we can dick the dancing.' 'The good Romany gentleman has taken a candle so we can look at the dancing'. - It will be noted that the gypsies speak a queer mixture of English and Romany). Then upon the request 'Now, all together, please', each of the dancers clasped a partner, and with cheeks touching, the whirling commenced. Another, then another, fascinated by the movements of the dancers, entered the ring and took part, either in a species of step-dance or by executing the mazy whirl. The dance was performed with all the zest and vivacity of the Italian tarantella, but instead of being accompanied by such songs as are favored by some of the peasants who perform the tarantella, lively English songs into which Romany words were inserted when they happened to rhyme, were sung with gusto by the entire company. Had there been gorgios present they could not have failed to be amused and puzzled by the songs of which the words were a mosaic of poggado jib (broken tongue) sung to dance time.

"The play of light as it fell upon the throng, catching here a kerchief of yellow or other brilliant color on head or shoulders, there a necklace of bright red

heads, a gold brooch or large earrings - produced an effect that would have gladdened the heart of a painter, the *tout ensemble*, even if a little barbaric, being quite captivating. Swarthy skins seemed still darker by the torch-light, and as the excitement increased, eyes flashed as only a Romany's can, and, one after another, dark-eyed belles flashed by. I could imagine no term more aptly descriptive of each than their own musical words 'rinkeny chovabani' (handsome witches).

"At last the dance ended almost as suddenly as it had been begun and the merry party broke up.

"It was nearing the time when the final good-bye would be said and all would again go on the road, so that this was the last occasion during the hopping-picking upon which so general a gathering could take place; some would, perhaps, meet again in a week or two, others not until next 'hopping.' As there was a number present whom I did not expect to see again for a good while, I received many a warm handshake and the almost invariable and hearty wish for a 'happy journey', which, from a gypsy, means not only the journey one is just about to take, but also implies - 'as you travel through life may happiness attend you.'

"Any little unpleasant happenings there might have been were forgotten, and, after a parting song, keepsakes were asked for and exchanged, a pretty custom that brings to mind the giver long

after each has jalled op're the shom' (gone on the road.)

The Caistorvillians Institute.

WRITTEN BY A MEMBER OF THE CAISTORVILLE BRANCH, MONCK CO. INSTITUTE.

The very last Tuesday of every month is always our meeting day. We make an effort on Monday to have our work out of the way, Then early on Tuesday morning our faces in the window folks see, We're taking a peep at the weather, rain or snow, there's most sure to be. But if the sun is shining, whether you agree with me or not, If in winter 'tis extremely cold, if in summer sizzling hot, But no matter about the weather, go, of course, we must, Though the road be three inches deep with snow or three feet deep in dust, Arrived then at the appointed place, our members all on time, We open up the meeting to the tune of Auld Lang Syne, The minutes from the last month by the secretary are now read That those who were not present will know just what was said, Then we talk over the business, but just let me pass that o'er, Of that we've had aplenty, you wouldn't listen to more, The programme's next, some music, a reading, one or two, Some questions, perhaps a discussion and a dainty lunch when we're through.

Some one asks: "What kind of questions do your members ask I pray?" I will tell you two I remember that were asked while together one day. One wanted a recipe for brown bread, twenty five pounds of black flour had he, And my' if the bread should be soggy how happy the doctor would be! Another wanted a recipe for pie crust as flaky as you please, One you can't get grease out of, no matter how hard you squeeze. Some one else asks: "What's your motto?" For Home and Country," we reply, Then she tells us it is a good one, that she cannot deny, After thinking it well over she tells us 'tis better by far Than the old and well-known motto, "Hitch your wagon to a star," For though we might dream our way to heaven, we prove our actual worth By our faithfulness to duty in the little things of earth, But, if we'd be faithful to home and country, our own lives we must not trample, Let me tell you of two women, take them for example, "There was a woman and she was wise, She worked according to her size, And though her house was dust infested, If she was tired, he simply rested. "Her neighbor worked from noon till night, Half manically, to have the things right With broom and hose she'd sweep and squit And now he's covered up with dirt," To see then we need not be lazy; it means more work to better done, To relax these good words, though it takes two hours or one, A woman went to a doctor one day, and asked what he could do, To get her the health she had lost and build her up over again, The doctor told her she must rest, after dinner to keep a while, And do as she with fancy cooking, and after supper walk a mile.



Method of Carrying Baby and Basket.

The she said, Oh! but doctor my house would not be clean,
There would be dust on all my carpets,
Why they wouldn't be fit to be seen;
You must tell me something else, for I cannot do that you see,
All the work that is done in the house depends entirely on me.
The doctor thought a moment and then made this reply,
"Well, madam, there's just one thing to do then, it's go to bed and die."
Before we criticize a neighbor's house, let's be sure that we are right,
And that we'd do her work far better if we had her battles to fight,
If we cannot take her place and do her work, let's look after our own backyard,
Our lives won't be any happier by making some one else's life hard,
It would always be far better to let other's affairs alone.
Dare you ask of some one else's child what you've never asked of your own?
There's another thing I would mention, it's the giving up some of our joys
To knit and sew for our soldiers, though they are some one else's boys,
If our loved ones who are with us have good socks or none at all,
Let's be loyal to our country for fear the old flag fall,
Our men folk ought to be willing that we of our time should give,
For while other men are fighting, they with their families may live,
If there's nothing else to do then, rake over your neighbor, but we'll surely prosecute
Anyone who says a word against our "Woman's Institute."

Hope's Quiet Hour

The Conqueror of Death.

Our Saviour Jesus Christ, who hath abolished death, and hath brought life and immortality to light through the gospel.—2 Tim. 1:10.

High-seeming Death, I dare thee! and have hope
In God's good time, of showing to thy face
An unscumbing spirit, which sublime
May cast away the low anxieties
That wait upon the flesh—the reptile moods;
And enter that Eternity to come,
Where live the dead, and only Death shall die.

E. B. BROWNING.

In these days the words of the prophet Jeremiah are being fulfilled: "Death is come up into our windows, and is entered into our palaces, to cut off the children from without, and the young men from the streets." It is not the old or the sick only who are facing the great enemy. In all ages many men have serenely and peacefully waited for the death angel, as they "sloped into the station" after the long and weary journey through this wilderness of sin. Death comes as a friend to the aged and the suffering; and very often they watch eagerly for his coming as for a great release.

But now Death is looking through the windows of cottage and palace. The children, playing in the streets, are struck down by a bolt from the blue; and young men by thousands are marching through the gates of death into the mystery which lies beyond.

The hosts of death seem to have broken loose from all control and no family feels safe from bad news. Almost every day we see some well known name in the papers, reported as "missing", or "killed in action".

Then we look at our text which declares that our Saviour Jesus Christ, has "abolished death". What a tremendous statement! Did St. Paul mean what he said? Is it true?

He certainly did not mean that he expected to pass out of this state of existence by any other than the usual way—unless Christ should return first. But he expected to pass the gates of death as a conqueror, not as a captive, in the train of the Lord of Life. It was his hope and his expectation too, that with all boldness, as always, Christ might be magnified in his body, whether by his life or his death. The great

Apostle, who lived in and for Christ, welcomed death as "great gain." He was not afraid to die, because he knew that the gates of death opened into the paradise (the park) of his loved Master. The sting of death was gone, for Christ had paid the price of sin and set the repentant sinner free.

And so we, who have enlisted in the army of the King, are called to look death in the face unafraid. A soldier is ashamed to be afraid. A Britisher who is a coward knows that his fears bring dishonor on the Empire. For the honor of the flag he must conquer his fear. And so must we.

When we allow ourselves to grow anxious and troubled for fear of evil tidings from the battle-front, we are proving that we have no real faith in Him who is the King of all nations and Conqueror of death. If we have no faith in His love and power let us openly acknowledge it; but, if we claim to be Christians, we must try to trust our Leader. When fears crowd in upon the loving heart of a mother or a wife they should be taken straight to Him who has conquered death and they should be left with Him.

If the anxiety should be changed into certainty, and heartbreaking sorrow should take the place of anxiety, remember that Christ has abolished death and brought life and immortality into full view. Of course, there must be deep sorrow in a home when the message comes that a loved member of the family has passed through the gates. But a Christian should never speak or think

changed the temporary life for the eternal life. . . with a last smile as a farewell from my beloved family am I undertaking the eternal journey. . . Your always remaining husband, father, and brother.—Alays."

Was that brave spirit beaten down and vanquished? Or was he—like the Master he followed—a conqueror over death?

And then there are the women. Arthur Gleason, who was a Red Cross worker at the front, wrote of what he saw: "This war," he declared, "has been a revelation of womanhood. To see one of these cool, friendly creatures, American and English, shove her motor car into shell-fire, make her rescue of helpless crippled men, and steam back to safety, is to watch a resourceful and disciplined being. . . They haven't the slightest fear of being killed. Give them a job under bombardment, and they unfold the stretcher, place the pillow and tuck in the blanket, without a quiver of apprehension. That, too, when some of the men are scampering for cover."

Those women were not afraid, because they were not thinking of themselves but of others. They wanted to help where help was desperately needed. Whether they realized the fact or not, they had caught the inspiration from One who did not want to be ministered unto but to minister, and who went about doing good.

One of these brave women—Mrs. Gleason—said: "We, all of us, would go for a Belgian first, and tend to a Belgian first. We would take one of our own by the roadside in preference, if there wa

of the soul, and the Lord of Life died to save the whole world—not only the "Allies", but the Germans and the Turks—He died to save us from that terrible foe which is able to destroy the soul.

Trusting in the Conqueror of death we can go forward untroubled when our turn comes; and we can bravely and uncomplainingly stand aside when God's angel leads one we love through the thick curtain which hides from us the Holy of Holies. The curtain is black on this side, but the glory on the far side shines through.

"I think that Death has two sides to it. One shining side; as the round earth is, every day, half sunny and half dark. We, on the dark side, call this mystery 'Death'.

They, on the other, looking down on light
Wait the glad Birth, with other tears—
than ours."

DORA FARNCOMB.

The Beaver Circle

"Captain Gyp."

BY LOUELLA POOLE.

From over seas, where war's alarms
Strike terror to the souls of men,
This pleasant little story comes
Straight from a British soldier's pen—
A tale that serves to make us smile,
War's horrors to forget awhile.

Within the hospital's grim walls,
Whose doors are always open wide,
A little dog was seen to pass,
An ugly gash in his poor side—
Weak, faint, with suffering nearly spent,
Straight to the source of help he went.

Though dumb, his pleading eyes besought
The aid bestowed on suffering man,
And undenied, his wound well dressed,
Away the little fellow ran.
For several days he thus appealed
For help, until his hurt was healed.

Just as a bit of pleasantry,
The sergeant, quite in proper style,
Entered the case in his report
Of sick and hurt, to place on file:
The name he gave, with humor sly,
Was "Trooper Gyp, Eighth D. L. I."

"Admitted into hospital—
Shell wound in side," the entry read,
And homeless Gyp, with gratitude
That knew no bounds, was housed and
fed;

The freedom of the house and grounds
Was his upon his daily rounds.

"Which of you men is Trooper Gyp?"
The officer one day thus spoke:
From all the sick chaps sitting round,
No answer. To explain the joke
The sergeant came in haste just then;
And loud the laughter of the men.

"Doggy's Light Infantry!" Thus Gyp,
A well loved trooper of the same,
Took up his quarters with the guard;
So faithful, soon promotion came
To higher rank, and that is why
He's "Captain Gyp, Eighth D. L. I."

Old Mr. Toad Shows His Tongue.

Old Mr. Toad thinks his tongue the most satisfactory tongue in the world. In fact he is quite sure that without it he couldn't get along at all, and I don't know as he could. And yet very few of his neighbors know anything about that tongue and how different it is from most other tongues. Peter Rabbit didn't until Old Mr. Toad showed him after Peter had puzzled and puzzled over the mysterious way in which bugs and flies disappeared whenever they happened to come within two inches or less of Old Mr. Toad.

Peter would watch them and right while he was looking at them they would vanish. Yet so far as he could see Old Mr. Toad hadn't moved. But there was no doubt that those bugs and flies found a resting-place in Old Mr. Toad's stomach. Peter had only to look at the satisfied expression on Old Mr. Toad's face to be sure of that. Then by watching Old Mr. Toad very sharply Peter discovered that Old Mr. Toad just darted his tongue



The Greek Royal Family.

Front row—left to right: Prince Paul, Queen Sophie, ex-King Constantine, Princess Irene.
Back row: Alexander (the new King of Greece), Prince George, Princess Helene.
Underwood & Underwood.

as if a young life had been cut off in its prime. Don't talk as if death had conquered that daring soul. You know he is not dead.

"Our God, to Thee sweet praises rise
From youthful lips in paradise;
From boys fair robed in spotless white,
And nourished in the courts of light."

I know they were not all saints—those soldier lads who have "passed on"—but I know also that they are very dear to Him who gathered young men around Him on earth. He was young, too, when He finished His earthly course, having fought a good fight. May we not safely trust those eager, reckless, undeveloped boys in His wise and tender keeping?

God grant that we may face death as bravely as most of our soldiers do, when our turn comes: "looking humbly for that fuller light which shall break upon us when the morning is come upon the unseen shore."

The Conqueror of death was a young man, and many young men have followed Him fearlessly. A young Belgian in Antwerp—knowing that the call had come for him—wrote to his wife and children a parting message of life, not death. This is part of his letter: "When you will have received this I shall have

room only for one. But if you brought in a German, wounded, he became an individual in need of help. There was a high pride in doing well by him. We would show them of what stuff the Allies were made. Clear of hate and bitterness, we had nothing but good-will for the gallant little German boys, who smiled at us from their cots in Furnes hospital. And who could be anything but kindly for the patient German fathers of middle age, who lay in pain and showed pictures of 'Frau' and the home country, where some of them would never return."

It was Christ who taught the world that wonderful truth that it is a beautiful and splendid thing to be kind to those who have been unkind to us. We are slow in learning the lesson—it is not easy to return good for evil—but at least we can see it is an ideal to climb towards. Anyone can be kind to friends, but a Christian has his orders to treat enemies as friends. Can we love our enemies? Christ loves them. Even the men who are degraded and cruel are His "lost sheep." He is seeking to restore in them His own image—to win them back to repentance and righteousness. Each human soul is a priceless treasure in the eyes of Him who died to save sinners. Dare we call any man "worthless", when our Master considers him of infinite value? The only death we need fear is the death

out like a tiny flash and brought back the bug with it. What Peter couldn't understand was what Old Mr. Toad did with a tongue that would reach two inches beyond his mouth. He said as much.

"I'll show my tongue and then you'll wish you had one just like it," said Old Mr. Toad, with a twinkle in his eyes.

He opened his big mouth and slowly ran his tongue out its full length. "Why! Whyee!" exclaimed Peter. "It's fastened at the wrong end!"

"No such thing!" replied Old Mr. Toad, indignantly. "If it wasn't fastened at the end it how could I run it out so far?"

"But mine, like all other tongues that I have seen, is fastened way down in my throat," protested Peter. "Yours is fastened at the other end way in the very front of your mouth. I never heard of such a thing."

"There are a great many things you have never heard of, Peter Rabbit," replied Old Mr. Toad, dryly. "Mine is the right way to have a tongue. Because it is fastened way up in the front of my mouth that way I can use the whole of it. You see it goes out its full length. Then when I draw it in with a bug on the end of it I just turn it over so that the end that was out goes way back in my throat and takes the bug with it to just the right place to swallow."

Peter thought this over for a few minutes before he ventured another question. "I begin to understand," said he, "but how do you hold to on the bug with your tongue?"

"My tongue is sticky, of course, Mr. Stupid," replied Old Mr. Toad, looking very much disgusted. "Just let me touch a bug with it and he's mine every time."

Peter thought this over. Then he felt his own tongue. "Mine isn't sticky," said he, very innocently.

Old Mr. Toad laughed right out. "Perhaps if it was, you couldn't ask so many questions," said he. "Now watch me catch that fly."

His funny little tongue darted out and the fly was gone. "It certainly is very handy," said Peter, politely. "Mr. Toad, I—I think you are very wonderful."

"Not at all," replied Old Mr. Toad. "I've simply got the things I need in order to live, just as you have the things you need. I couldn't get along with your kind of a tongue, but no more could you get along with mine. If you live long enough you will learn that Old Mother Nature makes no mistakes. She gives us all what we need, and each one has different needs." Thornton W. Burgess, in *Our Dumb Animals*.

Senior Beavers' Letter Box.

Dear Puck and Beavers.—This is my second letter to your charming Circle. My father has taken *The Farmer's Advocate* for a number of years, and he likes it fine. I live two miles east of the town of Iroquois on a farm situated on the bank of the St. Lawrence at the narrowest point. I have one little sister her name is Jean. She is sixteen months old.

For pets we have two dogs one is a small cocker, and a large collie. The one we call Daisy and the other Jack. My father has a milking machine and I enjoy going out to watch it work. He keeps an Ayrshire herd and we have thirteen little calves. I am in the fourth book and intend writing on the entrance examination next month. Our teacher's name is Miss Mott, and she is very nice. Hoping this letter will escape the w. p. b. and I shall see it in print. I will close with a riddle.

When did Moses sleep five in a bed?

Ans.—When he slept with his fore-fathers.

WILDA THOMPSON, age 12.
Iroquois, Ont.

Dear Puck and Beavers.—This is my second letter to your charming Circle. It is about two years since I last wrote to you. My letter appeared in print just when I had the measles. Having seen my letter in print I was encouraged to write again. I live on a farm of one hundred and twenty-five acres. My father has taken *The Farmer's Advocate* as long as I can remember and likes it very much. I am about three-quarters of a mile from school and go every day I can, I am ten years old, and

I am in the fourth book, but as I am not going to try the entrance I stopped school last Friday. Our teacher's name is Mr. Shaw and we like him. The normalites came to our school during the past two terms. We expect the teacher to stay another year. For a pet I have a dog called Bob, he is called after Lord Roberts. I like to read and have read many books. I have read four of Miss Montgomery's books and as we take *The Presbyterian* and *Westminster* I will have a chance to read another—*Anne's House of Dreams*. I have also read eight of Alger's books.

brothers, I am the fourth oldest of the family. I have read a great number of books, some are: "Luke Walton", "Phil the Fiddler", "Walter Sherwood's Probation", "Kitty Frenire" etc. As my letter is getting long I will close with a few riddles:

What is smaller than an ant's mouth?
Ans.—What goes into it.

What goes up stairs on its head? Ans.—A tack in the sole of your boot.

What is the dirtiest thing in the kitchen? Ans.—The clock because it does not wash its hands and face.

name is Harry. I am very fond of reading, some of the books I have read are: "The Cash Boy", "Bob Burton", "Andy Gordon", and a lot of others too numerous to mention.

Well I will close wishing the Beavers every success, also hoping to see my letter in print.

WINNIE HANNINGAN, Jr. IV class, age 12.
R. R. 1, Vineland, Ont.

Victory Over Wounds.

The Disabled Soldiers' Resurrection.

Canada should be as proud of her wounded soldiers' victory over their wounds as she is of the glorious fights in which they fell. Their struggle up from the depths of disablement is often as hard, and even as heroic, as their desperate defence of Ypres or their dashing capture of the Vimy ridge.

We hear little, altogether too little, of those hard-won victories won by disabled men, because they are fought out in the seclusion of a hospital, not in the theatre of war with the whole world looking on. But such victories equally deserve public recognition. They show the same spirit, the same pluck, and still more indomitable perseverance.

A preacher on Easter morning was thanked for the inspiring sermon he had just preached, on the resurrection. He said: "I had my text sitting in front of me—a man in khaki, with an empty sleeve." He has had two resurrections already. He was buried by a shell explosion, and was dug out only just in time to save his life. This was the first. He spent months in hospital, fighting his way back to health. That was the second.

"Doctoring and nursing, of course, did much for him; so did the exercises and occupations they provide nowadays—perhaps the best part of the treatment. But the man himself was working out his own resurrection, by resolutely putting his own will power into the task. Now he is almost ready to go out into the world, a better and abler man, he says, than he was before, in spite of his lost arm.

"While the rest of us are thinking of a resurrection beyond the grave, he has won a resurrection this side of it, to a new life of activity and independence among his fellow-countrymen."

Authentic cases resembling that are not rare in the records of the Military Hospitals Commission. Here are a few that have just been communicated to us:

A mechanic who enlisted in the Princess Patricia's Regiment was wounded, returned to Canada, spent three months in a convalescent hospital, and now earns double his former pay, having taken



A German Sign Post Left Behind in a German Retreat Made a Good Background for These British Tommies.

International Film Service.

As my letter is getting long I will close, wishing the Circle and readers every success.

ARTHUR D. GRIEVE.
Wilton Grove, Ont.

I hope the w. p. b. is killed at the war before my letter arrives.

VERA J. PICKETTS.
R. R. No. 1 Wilmot Valley, P. E. I.

P. S.—I would like to correspond with any girl of my own age (13) if she would write first.

Dear Puck and Beavers.—This is my first letter to the *Farmer's Advocate*. I enjoy reading the letters and riddles of your paper very much. I go to school every day and am in the junior fourth class. I have a mile and a half to walk to school. Our teacher's name is Miss Campbell, and we all like her fine. I am thirteen years of age, and am five feet tall, I have blue eyes, and light hair. This is a terrible war, everything is gone up so high. I have three sisters and three

Dear Puck and Beavers.—This is my first letter to your charming Circle. My father has taken *The Farmer's Advocate* for five years and I have enjoyed reading your letters very much. For pets I have three kittens, their names are Tip, Tabby and Fanny; two little pigs which I named Pete and Jim; and a little colt, her name is Belle. I have two sisters and one brother, my sisters' names are Phyllis and Ruby, and my brother's



The Officials and Nurses of Base Hospital, Unit No. 4, U. S. A., Received at Buckingham Palace by King George and Queen Mary.

Behind them stands Dr. Walter Hines Page, American Ambassador; to the right stand Princess Mary and the Prince of Wales.

full advantage of the mechanical drawing and arithmetic classes carried on there. Writing to the hospital instructor, he says:

"When I enlisted, I was earning about \$3 a day at my trade. At present, and since my discharge from military service, I am, technically, a better man all around; I am able to now hold a job as foreman in a machine shop, with more than twice the salary I was getting before. This benefit to me is greatly due to your practical information, and my only regret is that I was unable, after my discharge, to continue instruction with you as you had advised."

Another letter received is from an ex-private in the 13th Battalion. Before enlistment, he was getting \$12 a week as driver on a city milk round. "I always had a liking for drawing," he says, "and felt that if ever I had the chance I would take up a course in mechanical drawing." This opportunity came to him at one of the Commission's convalescent hospitals. After six weeks' application to the work there, he was able to secure an appointment with a salary beginning at \$75 a month, with good prospects of advancement.

A locomotive fireman enlisted, was severely wounded, and had to have his left arm amputated. Under the Commission's scheme of re-education, which is offered to all men incapacitated for their former work by service, he received special training in telegraphy and railway routine. As a result, he secured an appointment as station agent and despatcher, at \$110 a month.

Still another patient, formerly a mechanic, passed the Civil Service qualifying examination after instruction in hospital, and has got a Custom House position at \$900 a year, rising to \$1,500.

A man who had been a guide and trapper, and had never handled tools, returned from the front with one eye destroyed by a wound and the sight of the other eye impaired. In spite of all these old and new disabilities, by putting his mind to it he became a first-class carpenter after three months in the hospital workshop.

Equally remarkable is the case of a Polish laborer. He came to Canada six years ago, and worked in a coal mine till he enlisted. At the front, he was both gassed and blinded. Though he knew absolutely nothing about carpentry, he began with, after two months of instruction in hospital he was able to hold his own with any ordinary carpenter.

Not every man, of course, can do his best. But one of the most characteristic proofs of experience during the war has been that, almost all the disabled men included, they were wounded, can be equipped once again to power to earn a good living.

And, of course, food supplies are needed for the day, the week, the month, and the year. The Government has a plan for this. The plan is to have a system of food supplies, which will be even the price of the food, and will be necessary.

The Fashions.

How to Order Patterns.

Order by number, and give correct measurement as required, giving all sizes at least one day before you receive patterns. Also state in what newspaper you saw the advertisement. Address: Fashion Department, The Farmer's Advocate, 1138 Broadway, New York City. Be sure to give your name, when you order, and the name of the newspaper in which you saw the advertisement.

Send the money for the patterns to the address given above, or to the address of the newspaper in which you saw the advertisement.

When you receive your patterns, please send them to the address given above, or to the address of the newspaper in which you saw the advertisement.

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The Ingle Nook.

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

The Farm Dietitian.

There are various nutritive foods to be had in almost every country store, and with the present concentration of the public mind on the problem of how to satisfy bodily hunger without producing bankruptcy, it behooves every head of a commissariat department to keep an alert eye on available foodstuffs and the prices thereof. The maxim should be to buy the food that is cheapest to-day, not forgetting that the ultimate cost of the food depends on its actual yield of nourishment—that is, calories per pound. If everybody does this some of the things that are now cheap will go up in price. Very well. Be alert and transfer the demand to some other commodity. It always pays to be conversant with market prices. For instance, many women are finding to-day that some of the things that used to be cheap have been so much in demand that the spread in price between the low and high grade articles has become much less, and one can now have the superior quality at almost the same price as the inferior.

The staples on the farm are meat (usually pork), potatoes, bread and butter, eggs, milk, tea or coffee. Variety is given by other vegetables and fruits, home-grown or canned, and combinations of the various ingredients in cakes, pies and puddings. Cereals are served as porridge for those who like variety. Who has not known a household where each member took his or her breakfast cereal from a different package?

It is not always economy to eat home-grown food. Export and import are the life of modern trade and there are farms where it would pay to export a larger quantity of home-grown food in exchange for imported food. This is especially true where there is quantity but not variety in home production. Nobody needs potatoes three times a day, and when potatoes are a good price it will pay to export from the farm a few bushels that would have appeared on the breakfast and supper table, using the money it will probably not take all of it for other foods not home grown and quite equal to the potato in food value.

Two articles of diet that are low in the present price scale and high in nutritive value are bananas and peanuts, and any country store is able to procure these. Where home grown fruits are not sufficient to supply the necessary fruit in the diet, apples, oranges and grapefruit are the most satisfactory of the ordinary bought fruit, since they keep well with reasonable care. Bananas are really a fruit food since they rank high among the nutritive foods, indeed they are so sustaining that they may act as a substitute for meat occasionally, and their composition is such that they could replace potatoes and bread in satisfying the need for starchy foods. Each banana is encased by nature in a germ-proof wrapper that makes it easy to handle and keep, and to the average person they are extremely palatable. Among people who do not like or cannot digest bananas the fault is often due to the eating of unripe fruit.

Bananas are usually eaten raw and are often served with an accompaniment of cream and sugar or with other fruits either raw or cooked. Indeed they are almost like bread in their readiness to combine with other foods. They are excellent as a salad, served with French mayonnaise or boiled dressing and chopped nuts. Cooked bananas are baked or fried. The latter are said to be so much like fried potatoes that it is difficult to distinguish between them and they are also used in puddings, pies and various desserts. Banana flour contains about 80 per cent carbohydrates.

It is just about fifty years since bananas were brought to America, and for many years they were looked upon as a luxury or were regarded with a degree of prejudice that made them more or less unpopular. But their cheapness and food value have long since established their claim as an important item in the diet of the natives, and at the present crisis



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9465 Blouse with Square Neck. 34 to 42 bust. Price 15 cts.

9295 Straight Skirt with Pull Yoke. 24 to 22 waist. Price 15 cts.

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we are all being urged to give them even greater prominence.

Peanuts are also a cheap and nourishing food material that we will do well to consider. Served as a salad with bananas or green peas and a good dressing, they may form the principal dish for a meal, and they may largely replace the more expensive nuts for any cooking purpose. Peanut butter with good bread makes a delicious sandwich, and one that will be much appreciated in the children's lunch or when the men take a "snack" to the field. The butter may be bought ready made or the same purpose served by putting nuts through the grinder and mixing with a little dressing.

Raisins are a food of outstanding value, nourishing and healthful. Few farms are unacquainted with the delectable raisin pie, and raisins may be used in an endless variety of ways, always adding considerably to the food value of any dish in which they may appear. Dates are also exceptional in the quantity and quality of the food units they yield per pound. And the prune properly cooked is a delicious fruit and welcome on any table.

Truly it takes brains to handle the commissariat department of the household in this day of grace, but solving the problem of a well-rounded diet without waste or extravagance is good mental exercise and an intensely interesting scientific experiment.

Table Etiquette.

When the meal is announced, go to the table promptly.

In disposing of the chairs around the table, let the front edge of the chair be on a line with the lower edge of the table cloth.

Seat yourself from the left side of the chair, and arise from the same side after the meal is finished.

Sit erect; do not lean against the back of the chair, nor rest your arms or elbows on the table.

Elaborate folding of napkins is rightly out of fashion.

Do not spread out the napkin to its full extent; leave it folded through the middle.

At the close of a single meal at a private house, do not fold the napkin, but leave it drawn together loosely beside your plate.

Do not lift the napkin while folding.

If you are to be a guest for several meals, note the disposition of the napkin made by the hostess, and follow her example.

When a plate is sent back for a second helping of any article of food, set the knife and fork at one side of the plate; let them lie parallel to each other, and a little to one side, that there may be no danger of their slipping off, and that a part of the plate shall be ready to receive the food.

The fork may be used to convey fish bones and inedible portions of food back to one's plate.

The fork is used for soft cheese, for moldings, and for most vegetables.

The forks are laid in order of use, the one first used being furthest from the plate.

Never cut salad with the knife, but break it with the fork, using a piece of bread or cracker to assist the fork if necessary.

Never leave the spoon in the cup.

Dip the spoon away from your body when serving with a spoon, or when taking your own soup. Take the liquid from the side of the spoon.

A spoon is used only when a fork will not suffice for the purpose.

Tea, coffee or other beverages should not be sipped from a spoon, but should be drunk from the cup. The spoon is for stirring and to test flavor and temperature, after which it should be laid in the saucer.

Even a slight noise is not permissible in eating or drinking. The lips should be closed during mastication.

Do not place bread on the tablecloth when you spread it.

Break bread in small pieces; never cut it.

Do not tip the soup plate, nor bread and butter or crackers into the soup.

In offering to serve any one at the table, use one of these forms: May I give you? Let me give you? May I serve you?

To refill a glass with water, place the hand near the bottom of the glass and draw it to the edge of the table; pour in water to three-fourths the height of the

glass, then slide the glass back to its proper place in the cover.

In passing sugar bowls, glasses, etc., without handles, be careful not to allow the fingers to rest inside the dish.

Never leave the table without being excused, except when you are serving as waitress.

In using the finger bowl, only the finger tips and those of one hand at a time, need be dipped in the water. The napkin serves to dry the water from the finger tips.

A hostess appears best when she does not show too-evident enjoyment of her own good things.

One should eat slowly and masticate the food properly. He should not finish the course while others at the table are still eating.

Toothpicks, like toothbrushes, should be used only in the privacy of one's room. American Cookery.

Under Seas: A Submarine Story.

BY COUNT ALEXIS N. TOLSTOY.

For two days Kate took the waves easily, now riding them and now ducking. Strong and swift, connected with the world by mysterious silent voices, she gladdened Andrey's heart. It seemed to him that she was impregnable, and that she had a higher calling than to sink ships. In daytime he either slept or sat at the wireless apparatus. Leaning back with eyes closed, he listened to fragments of reports about battles in Champagne and at the Dvina, on the Austrian frontier and near Constantinople. A man by the name of George was vainly trying to send a kiss to his wife who was sailing for America; she probably was on the steamer which an hour ago had telegraphed that

his bridge Andrey was indignant and angry, for it seemed to him that this feeling was like a yawning cleft in Kate's armoured side.

On the third day in the afternoon, Andrey hurriedly left the telegraph compartment and gave an order to get ready to submerge. Men were placed at the water-pumps, the oxygen containers, air-purifiers and distilling machinery, and all the hatchways were thoroughly examined; the gunners took their place at the torpedo tubes. The order was to move about as little as possible, to keep to the berths when not on duty, not to talk or laugh. Then the watchman left the conning tower and the main hatchway was hermetically closed.

Andrey gave the order to submerge and went over to the navigating compartment. The water rushed into the ballast tanks, the inside of the boat grew heavy and the rolling and pitching ceased; Kate sank and ran under-water, steering by the periscope. Andrey pushed a button, the electricity went out, and a cone of pale-blue rays poured from the tube. Then the screen of the periscope grew alive with tiny waves, clouds and a tail of smoke on the skyline. With chin resting on his arm, Andrey scanned the image of the sea which lay before him. Soon the smoke vanished, and on the right appeared the hazy line of land.

At night the boat rose to the surface, taking advantage of the darkness, and sailed without lights. All through the night Andrey stood on the bridge. The seas were placid, the stars were screened by a light mist, and in the south far away the pale blue ray of an enemy searchlight glided through the clouds. Before the dawn, a flock of wild ducks flew low overhead with a hiss. Then the submarine N1 telegraphed that it had submerged completely. Kate was rapidly approaching the mine field. One

a neighing colt and the wind in the bushes.

Suddenly the boat's keel hit against something hard and a grating sound broke the stillness.

"Halt! Halt!" called out Andrey, dashing forth from the navigating cabin.

The pinions cracked and the motors ceased to pulsate. Immediately it became hot, as in a Turkish bath. Andrey penetrated into the water-tight conning tower, flooded with diluted, greenish light which came through the ports with which this compartment is provided for scanning the surrounding waters. He peered through the glass pane. Gradually, vague, blurred forms and shadows became visible in the twilight of the deep. One of the shadows wavered, glided along the window, and the round tragic eyes of a fish glanced at Andrey. The fish moved astant, and disappeared deep below the boat. Evidently, Kate had not run aground; nor were there any under-sea reefs in that place. Without ceasing his observations, he gave the order to raise the boat several feet. Then numerous shadows leaped aside and scattered, and Andrey plainly saw a jumbled heap of ladders and ropes, among which quietly rocked, feet upward, a human body, half devoured by fishes. It was obvious that Kate had blundered into the remnants of a sunken ship.

This halt might prove fatal. The uniform motion of the boat was disturbed, the orientation lost; the inevitable small error of the point where the boat had sunk under water must have increased during the course. Kate had lost her way both in space and in time. Andrey drummed nervously against the window-pane. It was impossible to stay under water any longer, but to rise to the surface was equivalent to being noticed and attacked by the enemy warships. Yet this was the only way of determining the exact position of the boat.

He gave the order for the boat to rise slowly and returned to his observation point. The water gradually grew clearer. And suddenly he saw a dark ball move down to meet the boat. "A mine," flashed across Andrey's mind, and overcoming the torpor which oppressed his brain, he ordered the boat to be swerved from its course. The ball moved away, and another one appeared on the right. Another change of direction. But everywhere in the depth of the greenish twilight lay in wait eastern shells. Kate was in the midst of a mine net.

II

Seen from a great height sea water is so transparent that one can sight in it even large fish. It is owing to this that Kate was espied by two enemy hydroplanes, when she was trying to rise among the mines to the surface of the bay. But having noticed the aircraft circling over it the boat again dived to a deep level.

Now Kate was blindly groping her way forward. The motors worked at their top speed, and the body of the boat trembled. Hundreds of demons called horse-powers fiercely turned the various wheels, pinions and shafts. The air was hot and stuffy, and the men at the engine, stripped to the waist, worked feverishly. An amount of oxygen sufficient to sustain the crew for only one hour remained in the lead cylinders.

Yakovlev was still sitting at the compass, with his elbows on his knees and his hands pressing his head. In the mine cellars, the cabins, the corridors, lounged the men, their faces livid with suffocation. Prince Byelopolsky was still leaning over his logarithmic tables, now become useless. From time to time he wiped his face, as if removing a net of invisible cobwebs; finally he rose to his feet, took a few steps and fainted dead away.

Giving the order to proceed at top speed, Andrey hoped to pass the mine zone, even if some of the men would have to succumb for lack of air. Pale and excited, his hair in disorder and his coat unbuttoned, he seemed omnipresent, and his voice sustained the fading strength of the half-intoxicated men. Having noticed that Prince stretched on a berth, he poured a few drops of rum into his mouth and kissed his forehead, over his forehead. Finally, in making too rapid a movement, and flung himself to dance before his eyes, and he beat back, striking his neck against the sharp angle of an engine. He felt no pain. "Bad?" thought he and



An Italian Military Oven on the Trentino Front.

The loaves are being distributed to Austrian prisoners.

it was sinking. In the evening three Austrian army corps were routed, and in the morning the ocean resounded with the hysterical voices of exchange brokers.

The entire world shrank down to the tic-tac and the clicking of the apparatus. The past was like a dream, the future did not go beyond the mine field which the submarine was soon to reach. There was neither fear, nor joy, nor regret in Andrey's mind, nothing but the image of this steel box crammed with human beings and the dots and dashes of the wireless.

At sunset the sea was all blue, and the trace of the boats on the watery knolls sparkled with iridescent red. Later on the moon rose and traced a silvery path on the waves. The hour of twilight filled Andrey's heart with vague uneasiness and anxiety. The sunset in its infinite beauty somehow threatened his calmness and self-assurance. In the face of its splendour, seemingly so useless and unimportant for a seaman, he felt himself a miserable mortal being, a helpless child starting out on its life career. And standing on

after another the submarines disappeared under it possibly forever.

At dawn when the greenish orange light was slowly pervading the fleecy clouds, Kate began to sink to a great depth at a definitely determined point. Then steering solely by compass and map, Kate started picking her way under the mines, compressed by a watery mass of hundreds of thousands of pounds. Yakovlev was in charge of the steering apparatus, while Prince Byelopolsky calculated the side drift and reported to the chief engineer in charge of the motors. Andrey, leaning over the map, gave sharp orders to the man at the wheel. There was no sensation of movement and it seemed that Kate was motionless amid very darkness. The men were mostly stretched on their backs, taking care to consume as little oxygen as possible. Nevertheless, the air was heavy and thick, and there was a tingling sensation in the ears. Now and then one of the husky peasants would mumble, "Lord! Lord!" and would heave a sigh, perhaps there came into his mind the thought of his little farm on the steppe, his buckwheat field,

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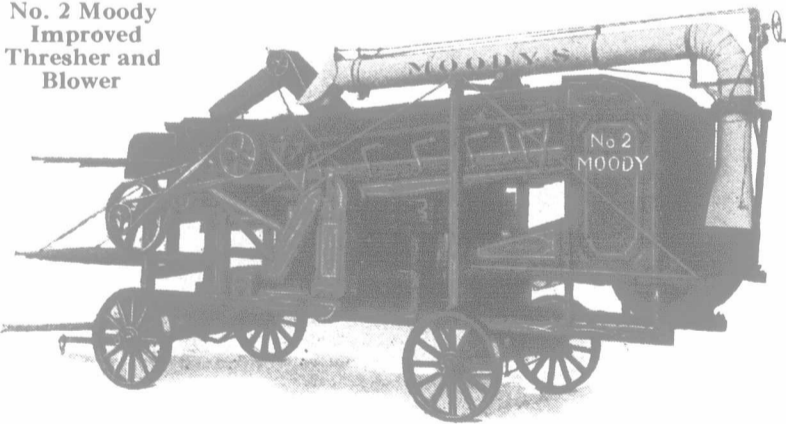
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crawled over to the emergency oxygen container. He opened the faucet and inhaled the fragrant stream of gas. His head began to swim and a sweet fire ran through his veins. Then, with an effort, he rose to his feet. The outlines of the objects around him were strangely distinct, and the faces of the men which were imploringly turned to him—some of them bearded and high-cheek boned, others tender and child-like—appeared to him infinitely and poignantly human.

In the corridor Andrey came across one of the men. The latter stood against the wall and gulped the air like a fish. Noticing the commander, he made an effort to cheer up, and mumbled: "Beg pardon, a bit unwell." Andrey leaned over him and looked into his eyes. A film of death was beginning to veil them. Andrey cursed under his breath and, turning sharply toward the telephone tube, gave a command to rise. Kate shook and dashed upward. The ascent lasted four minutes and a half. Suddenly, Kate stood still, and light fell on the screen of the periscope. The men crawled up to the main hatchway and unscrewed it. Cold, salt air rushed into the boat, swelling the chests of the men and turning their heads. Andrey leaped on the bridge uttering an involuntary cry as he met the strong light. The evening sun was solemnly suspended above vast masses of warm clouds, and the sea was all peace and quiet.

Holding the sextant in his trembling fingers, Andrey began to take observations. Soon a loud buzzing was heard in the sky. It was followed by the measured slight crackling of a machine gun, and from the hull of the boat came a sharp rat-a-tat, as if someone was throwing dry peas on it. A hydroplane was circling above Kate.

Andrey bit his lips and kept on working. About him a squad of his men were loading their rifles. The hydroplane almost reached the surface of the sea, then soared with a shrill "F-r-r-r," and flew right over the boat. A young, clean-shaven pilot sat motionless, his hands on the wheel. Below him an observer gazed down, waiting. Suddenly he lifted up an oblong bomb and hurled it into a tube. The shell flashed in the air and plunged into the sea at the very side of the boat. One of the men fired. The observer threw up his leather-covered arms with spread-out fingers; and slowly circling under the fire of the submarine crew, the aircraft soared upward.

Over the ridge of reddish mountains there appeared another aeroplane, looking like a long thin line. Kate picked her way with grace and ease across the orange-colored waters as if cutting through molten glass. Andrey buttoned his coat, pushed his cap over his eyes, and, walking a few paces on the bridge, said with a grimace, "Well, Yakovlev the mines are behind us, but what are we going to do now?"

"This region, sir, abounds in underwater reefs and sandbanks."

"That is just it and I would not risk sailing under water. . . . Wait a moment. . . ." He raised his hand.

The sun was already in the clouds and, replete with its orange glow, they lit the waters. A violent whizzing sound came from the west. Training his observation glasses on the sunset Andrey ordered greater speed. A grenade hissed on the right, and a jet of water appeared on the quiet surface. Kate tacked sharply toward the darkening mountain ridge, and behind in her shadowy wake, another bomb burst and blossomed out into a small cloud. Kate then turned east again, but now in front of her, on both sides, everywhere, shells burst and sputtered fire. The scouting hydroplane dashed above the submarine like a bat, two pale faces looked down and disappeared. Then right above the stern a grenade burst and the bearded Shubin dropped his rifle, clutched his face, toppled over the railing, and disappeared under the water.

"All hands below, to the devil!" cried Andrey, and watching where the shells fell thickest, began to give his orders. Kate circled like a run-down hare. All along the darkening skyline were seen smoking stacks of mine-layers and destroyers, and their ruthless ring was rapidly tightening about her.

Having lost her wireless mast which was shot off by a shell, Kate was now dashing toward the rocky shore, run-

ning awash. Six sparks blazed up in the dark below the rocks, and six steel-clad demons hissed above the boat. The oblong shadow of a ship was gliding along the coast. Kate shook, and a sharp-nosed, blind torpedo detached itself from her body and glided under water to meet the silhouette of the ship. A moment passed, and a fluffy, mountainous mass of fire and water rose where formerly projected the stacks of the mine layer. Then the mountain sank, and the silhouette disappeared. Kate entered into a baylet among the rocks, submerged, and lay down on the sandy sea-bed.

III

Two weeks Kate lay in the sea inlet, completely cut off from the rest of the world. By day she hid in the deep, and only under the cover of night she rose to the surface to get a supply of air. It was necessary to take the greatest precautions, for there was little hope that the enemy believed her to be destroyed by the mine-ships. Here are excerpts from the diary which Andrey kept during those days aboard the submarine:

"The excitement of the battle lasted three or four days, then all the recent events at once became strangely remote. We all live somewhere on the borderland between life and death, beyond the pale of time and space. I begin to understand the flies which in winter doze between the frozen window-panes. Most of the time the men stay in their berths half asleep, half awake. As for myself, I often lie on my couch with my eyes open and without a thought or a simple image in my head. One feeling pervades me with limitless power—that of sheer being. I feel being not as a tangle of separated episodes and fragmentary pictures, but as an unbroken infinity stretching somewhere above me, beyond the watery wall and beyond the precinct of Time itself. I cannot make it plainer. At times my heart begins to beat faster, as if trembling with the foreboding of a deeper understanding of what being is. It is such a strange and eerie feeling! I envy Yakovlev: he sleeps and dreams of battles and flag-bedecked havens, of stormy seas and women; he leans over his berth which is right on top of mine and recounts to me all this nonsense in detail.

"The Prince is very ill. The absence of sounds has been preying upon his mind all this time. To-day, the eleventh day of our stay here, he became delirious, and fell down from his upper berth. The men bring him extra allowances of food, and I pretend not to notice it. Our food supply will last us for one week if we keep to a starvation diet. My lads have grown lean and have almost stopped all conversation. They are a meek sort and if they once grasped the reason why, they would die without a murmur. May God spare them unjust suffering. They greatly pity the sick boy.

"Two days later Prince Byelopolsky died. At midnight we rose to the surface with great precautions. Our deceased comrade's body was wrapped in linen, and a shell was tied to his feet. The crew chanted a prayer over him in muffled voices. The first thing I saw when I found myself on the bridge was the stars: huge and thick sown, they shone in the heavens and in the waters of the bay. On the right rose the steep seacoast, the black battlements of its rocks and the dwarfish trees above them looming high into the heavens. From the heights came wafting a strong fragrance of juniper, wormwood and flowers.

"The Prince was taken to the deck of the boat. His sharp profile was noticeable under the linen. The corpse glided overboard and disappeared in the water without a splash. The sailors silently crossed themselves. A bat scurried by.

"Suddenly beyond the mouth of the bay the silhouette of a four-stack ship slid by. 'They' have not yet given us up. From afar off blazed forth a searchlight beam and plunged into a ravine behind us, lighting up crooked twigs, stones and mossy rifts. Then the beam swept the sky and began to search the bay. The birds twittered querulously, and the water sparkled. The beam stopped at a distance of several yards from us. Had the man at the searchlight turned the light but a hair's breadth to the left, we would have been discovered.

"The bluish light illuminated the

water and in the depth a shoal of bewildered fish. Again did a startled bat dart through the air, and night butterflies hovered in the light. Then the beam hesitated for a while, and leapt to the summit of the rock; its jagged edge flared up and the scream of a discontented eagle came down to us. We plunged again into darkness and non-being.

"The Prince is dead." I repeat this phrase many times without understanding it. To die on the earth is to cease seeing, hearing, feeling. To die is to remain all alone, in absolute solitude, as Jonah was in the whale's belly. Here I am lying motionless, surrounded by velvety darkness and dead silence in a steel box resting on the bottom of the sea. If I grew cold and ceased moving altogether, what would the change amount to? Almost to nothing. Perhaps all the difference would be that my spirit, now still chained to the round of daily duties would become entirely free.

"Eating has become repulsive to me. With great efforts I force myself to swallow a few spoonfuls of thin soup. I barely manage to pick my way to the dining-room and to see to it that all the men are at the table and eat. I have discovered that the feeling of hunger is painful only at first. Later on a crisis occurs, when the body appears to melt away, as it were; all your vital force is transferred into consciousness, and all your perceptions are strangely sharpened. In such a state a full stomach is loathsome.

"This feeling of physical decline has moments of ineffable beatitude. They commence with a light fever and then the most delicate chill pervades me, and I cease feeling my body. A sensation of freedom and sadness rises in me, and it is as if the whole universe, with the grass stalks and stars, is in me, and I am dissolved in it. I have a feeling of freedom and yet I am sad, as if I have not done my supreme, most important duty. But what is this duty?"

"I told all this to Yakovlev. He kept silence awhile and then cried. All day long he lies stretched on the Prince's berth and does not tell me any more of his dreams.

"The days are eventless. The scout ships keep on watching the seacoast. Our food supply is out. The only provisions left are the emergency ration for one day, which we can touch only when *Kate* herself will be in imminent danger. If we succeed in catching some fish, we shall be able to hold out a few more days before attempting to save *Kate* or explode her in case of failure to reach the port N. My men are pining away without a murmur, like children. Yakovlev says he cannot die on his berth; he understands that this is perhaps his supreme duty, but how well would it be to do a little shooting and sinking and then die from a bullet. The child!"

Here Andrey's diary ends abruptly. For three days the crew fed on the fish which Kuritzyn, one of the men, caught at a great risk. Then Andrey took the decision to leave the bay and make a supreme effort to run the enemy's cordon.

IV

At daybreak as *Kate* was nearing the surface of the sea the crew became aware of a powerful muffled cannonade, and when the boat emerged into the white fog, the coast was reverberating with the roar and the crash of a sea-battle. Mighty broadsides and explosions alternated with the crackling of guns. It was as though sea-devils coughed and blew and roared at each other. A bewildered sea-gull dashed over the boat.

"Quick, sir," shouted Yakovlev holding on to the railing, "now we can break through!" His teeth rattled.

The preparations were completed. A strong gale swept the fog and drove its torn masses over the seas, laying bare the rocky shore. Andrey waved his hand and *Kate* dashed out from the bay into the open. The firing was heard from behind and on the right, and the road to the port N. was free. All that the crew went through during the last two weeks was now transformed into one will, which was more impetuous than *Kate* herself who was rushing along, ripping in twain the misty morning waves.

To run the line of the enemy's ships and to bring *Kate* safe to port, to do one's duty this seemed too little. The burning will demanded something pal-

pable. What now guided these men was not calculations or enthusiasm, but a greediness, a longing to possess, strangely mingled with a yearning for destruction.

"We cannot make our get-away like this—turn back or I will shoot myself!" shouted Yakovlev in Andrey's ear. Yakovlev was completely beside himself and his pale, sallow face was twisted convulsively. . . . Finally, the large ball of the sun arose, and touched the seas, rolling beneath the fog, into a dull orange. Near at hand invisible ships thundered and chased each other. The gale grew stronger. And suddenly a grey mountainous mass loomed up and

emerged from the fog, enveloped in clouds and smoke. Above its turrets, stacks and masts fluttered the flag bearing a black eagle.

Unable to control himself any longer, seeing that the opportunity had finally presented itself, Andrey rushed down the hatchway and, knocking down Yakovlev on his way, he proceeded to load the torpedo tube. *Kate* submerged a little and, sailing awash, headed straight at the enemy's vessel.

The shadow of the hostile ship rocked and glided along the periscope screen, every now and then wrapping itself in a cloud pierced with fiery needles of

shots. *Kate* fired a torpedo, but missed her aim. Leaning over the screen and biting his lips to bleeding, Andrey examined the tiny image of the ship, one shell from which struck its target with the force of twelve hundred million pounds. The distance between *Kate* and the enemy ship kept on decreasing; its image occupied already a half of the screen when it suddenly started tacking.

"Another one!" shouted Andrey.

At that very moment a blow fell on the boat, a loud crash resounded throughout her and the periscope screen

Massey-Harris Service

Talk No. 4.—A Square Deal.

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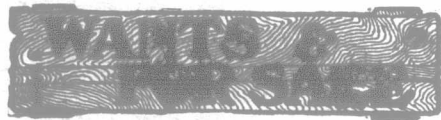
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grew dark. Andrey ran out from the navigating compartment and shouted: "The periscope is shot off! Top speed forward!"

The engineer seized the handle of a lever and without turning about, asked: "Which way?"

"Forward, forward, to the devil!" Andrey went over to the conning-tower. Straight before him foamy streams eddied furiously. Finally, the dark bottom of the ship appeared screening the light.

"Halt!" ordered Andrey, "Fire another one! Full speed backward." He closed his eyes.

For a moment it seemed to him that the end had come. He was hurled into the corridor, lifted up, then dashed against the wall and dragged down. The outcries of the men and the crash of the hull were drowned by the muffled thud of the inrushing water. The light went out. *Kate* began to rotate and sink.

By the force of the explosion *Kate* was cast far away from the sinking ship and dragged down by the vortex to a great depth. The hull began to leak in several places, and the motors went out of commission. In general, the submarine was now much like a large buoy in the dark inside of which dazed, maimed men were groaning and gasping their last. But she did not stay long in the deep; freed from the weight of two torpedoes, she began slowly to rise, stopped before reaching the surface and started going down again as the water leaked into her hull.

The first to recover his consciousness was Kuritzyn. With an effort, he rose to his feet and crawled over to the engine-room. By the light of matches he found the engineer and began to rub his ears. As this proved of no avail, he opened the faucet of an oxygen container right over his face. The engineer revived and the first thing he did was to clutch his wounded knee.

"Never mind the knee," said Kuritzyn. "Do you hear the noise of the water? We are sinking. Can you fix the engine?"

"Cannot tell," answered the engineer hoarsely.

Kuritzyn lighted a candle and opened the faucets of all the oxygen bottles. The men began to show signs of life. Andrey was found in a narrow passage. Kuritzyn somehow dressed the captain's wounds, but could not bring him to his senses. Another man tried to revive Yakovlev, but soon saw that the officer was dead. All the available hands worked at the pumps, while the engineer and his two assistants busied themselves with the engine, and everybody listened with anguish to the clanking of the instruments.

Kate was somewhere near the surface, but, as the periscope and the indicator were destroyed, it was impossible to tell precisely where she was. On the other hand, to unscrew the hatch and look out would mean to subject *Kate* to the risk of being flooded.

Finally, the engineer reported that it was necessary to replace the cylinder, but that this was hardly possible to do because the supply of candles was giving out. Kuritzyn started cursing the engineer, the candle factories, the motors and their inventor. Then he swooped down on the men at the pumps and ordered them to drop dead, but raise the boat at least one yard. The men kept a grim silence. Finally, the last candle went out. The engineer spat, cursed and threw away his controller. "It's all over, boys!" said someone, and the pumps stopped. The only sound which now broke the silence was the monotonous, deadly splash of water leaking down on the periscope screen.

"Follow me," said Kuritzyn hoarsely to two of the men. "Let us unscrew the hatches. What's the use of monkeying with it any longer?"

Feeling their way, several men followed him into the corridor, and up the spiral staircase in the main hatchway. Reaching the top, they grasped the bolts of the lid. "Here's our finish," said one of the men.

"Shut up, mind your business," answered Kuritzyn sternly.

At that moment the sound of footsteps on the outside of the boat reached their ears. Someone was walking on *Kate's* hull. Kuritzyn said hurriedly, "Down to the ballast tanks! When I fire, blow them out. We are ordered not to surrender the boat."

Then, his revolver between his teeth, he pressed the bolt. The lid yielded, and light and air rushed into the opening. "Hey, who is there?" shouted Kuritzyn.

"Russians, Russians," replied a lazy voice.

"Lord!" When Andrey had hit his head against the iron wall of the submarine, two sheaves of greenish sparks flashed before his eyes. Then everything grew dark and silent. One spark, however, remained in his eyes and little by little spread into an even pale-blue splendour. Andrey contemplated it a long time with a quiet and profound delight.

Then a restlessness arose in him: It was caused by the sensation of a foreign body within the light. How well would it be if this body dissolved and disappeared, but it did not. The light did not decrease, but the joy was gone, the foreign body strangely disturbed and distracted him. Andrey concentrated his mind and with surprise, which was speedily followed by fear and anguish, he became aware that the foreign body was himself. Then the mysterious splendour turned into a plain bluish lamp suspended over his berth, and his body began to pain in many places. When he felt the pitching and tossing of the submarine and the noise of the engine, he tried to turn over but could not. He groaned, and soon plunged into the living darkness of natural sleep.

Meanwhile *Kate* was being towed by a mine-layer. On the orlop-deck a group of sailors were clustered around Kuritzyn. He was sipping rum and telling stories about sea-battles and his own deeds. He tried hard not to swagger or lie, but his efforts were crowned with but little success: the rum was too strong. Besides only a few hours before the commander of the mine-layer slapped him on the shoulder, mentioned all the devils in addition to both his own and Kuritzyn's nearest relatives and wound up with saying: "Fine fellow! I'll recommend you for a medal!" —Sel.

Ability to Relax.

"One of the important things to know in life, especially if you are a woman, is how to let yourself alone. The ability to relax, the art of being judiciously lazy, the tact to let herself alone, has saved many a woman from a nervous breakdown. We all know the housewife who nags herself into such a state of consciousness that she cannot rest. If she lies down she is continually worrying herself with thoughts of the work she is neglecting.

"Much of the blame for this state of affairs lies at the doors of the mothers. The mistake is in their training of the children, especially their daughters. They are taught from earliest infancy to be kind to others, to bear with them, to forgive them, to help them; but from birth to death, no one ever tells them to be kind also to themselves.

"The woman who nags herself can make herself more miserable than any one else possibly could. She can make her life more of a nightmare than any misfortune could possibly make it. If such women could learn to be kinder to themselves, there is no doubt that their own lives would be lengthened, and not only that, but the lives of those with whom they come in close contact would be made far more pleasant."—*Mother's Magazine.*

"Percy", A Monkey.

BY MRS. A. E. ROBINSON.

Percy is a black Brazilian ring-tailed monkey, with a smooth white face; bright, beady black eyes, and a little patch of black hair on his head that gives him the appearance of a very old weazened up man with a skull cap. He has long limbs, and hands very much like a human baby's hands.

I purchased Percy in Los Angeles, from a man whose brother captured him in Brazil, and brought him all the way to California. He was about six months old when I got him. This man was very cruel to Percy and used to beat him unmercifully, trying to tame him, and I bought him because I hated to see him so abused.

Percy was so wild when I bought him that we could hardly go near him; but he immediately took up with my cousin who has always been very kind to animals of all kinds, and went up on her shoulder and kissed her all over her cheek, and, although he has only seen this lady once in three years, when he did see her he immediately went to her and loved her in the same way, and could hardly be induced to go back to his window.

Percy is very fond of peppermint candy and one day, while sitting on this lady's shoulder eating a peppermint, the thought seemed to strike him that she might like candy too, and quick as a flash he took the mint out of his own mouth and popped it into hers, as she opened it to say something.

When I receive a letter from this cousin, Percy always wants the envelope and smells it all over, and finally chews the stamp, but will not destroy the envelope, as he seems to know that it is different from other envelopes. Sometimes he will play with it all day, and at other times he will take a pencil and mark all over the envelope, when we tell him to "write to Ella." He never wants to write to anyone else.

He is very intelligent and seems to understand everything one is speaking about, and if you give him anything he never forgets it and always expects the same thing when he sees you. For instance, one man let him go through his pockets and take out something he had brought for him one day, and ever since, when this man comes, Percy has to go into his pockets immediately and search until he finds something. Another man let Percy knock off his hat, the first time he came to see him, and now when he comes, Percy immediately knocks off his hat.

Percy lives in a store where he has an opportunity to see many people. He picks out his friends and makes up his mind that he dislikes some people very quickly. He is always glad to see his friends, but when anyone whom he dislikes comes in, he makes faces at them and acts very much like a badly spoiled child.

He is not very fond of children, as a rule, and does not seem to notice them very much, unless they are very nicely dressed, when he shows a preference for little girls with bright colored ribbons. There is, however, one little boy named Bobbie who comes to see Percy, who seems to be an exception to this rule, as Percy immediately comes down from his cage and wants to run and play with him.

Sometimes when things have gone wrong and Percy is crying, I say "Here comes Bobbie". He immediately stops crying and begins to look for Bobbie. We believe the reason he likes Bobbie better than other little boys is because Bobbie is gentle with him.

We had Percy in the window of the store and crowds of people used to stand outside to watch his antics when he was performing on his trapeze and the louder they laughed the harder he would perform, seemingly trying to show off still more.

We have to watch Percy very closely as he is mischievous, and he seems to realize when he is being watched and will wait until he thinks the coast is clear

before attempting his mischief. When caught at any mischief he cries very hard and seems to be very angry at the person who has discovered him, and the only way to stop his crying is to pretend to whip that person.

He is very industrious and likes to do what others around him are doing. For instance, if I am sewing, Percy has to have a needle and thread and piece of cloth and sew too. He pushes the needle into the cloth with his hands and pulls it out with his teeth. He likes to try to mend his playthings when they are broken and will work hard trying to fix them.

He eats nearly everything that we eat, but has an especial preference for grapes, and when eating them he holds his head back so that he will not lose any of the juice. He is also very fond of raw eggs and will hold one in his hand, make a small hole in one end and suck out the inside without spilling a drop. He can drink from a cup or glass just as a person drinks, and can use a spoon very nicely.

When his master goes away he grieves for him and will hardly eat, and the moment he sees his master coming he says, "Ah-hah," which seems to be an expression of enjoyment.

In the mornings he is quite talkative, when he wants his breakfast, and says, "Ah-hah, ah-hah," and when his master says, "you must say it three times," he does say, "Ah-hah, ah-hah, ah-hah," emphasizing the last one very strongly.

When bath time comes we give Percy a pan of water and he gets right into the pan and washes himself, using his tail for a wash-rag. He washes his feet like a person, washing between each toe very carefully, then after he has dried himself he holds out his feet to his master to have his toe-nails manicured.

When Percy gets sleepy he wraps himself up in his little blanket and curls up into a little furry ball and goes to sleep. He used to have a white rat for a pet and he always wanted it when he got sleepy. He would hold and rock and love that rat, just like a mother with her baby, then curl up with it in his arms for the night. When his rat died one day he grieved for it and would not be comforted for a long time.

I have been offered large sums of money for Percy, but we have become so attached to him that it would seem almost like selling one of the family and we would not think of accepting any price. I believe that the little monkey would very soon grieve himself to death if he were separated from us.

The cute things that he has done would fill a book, but I feel that this will give you a fair idea of his habits and intelligence.—Our Dumb Animals.

Health as an aid to Beauty.

Food is a double-edged sword, conducive of good when properly used but resulting in harm when abused. It is not designed purely for the purpose of giving to its consumer a certain amount of pleasure. The important function of food is to supply substances necessary to the body so that it may maintain its vitality, its warmth, and its energy. To be healthy, you should eat enough of each kind of food to exactly supply the daily requirements of the body. In the normal person over-eating, as well as semistarvation, produces harmful effects.

Select every article of food with care. Food should be absolutely fresh or as fresh as it is possible for it to be. The fresher the food, the safer and healthier will it be. Stale or damaged foods often escape detection and manage to find their way into the culinary departments of a household.

Every portion of food served should be first well prepared. This refers to the cooking, baking, boiling, or broiling of the food so it can be easily digested and absorbed by the system. If the food is incompletely prepared or overdone, perhaps burned to a crispy hardness, even the most resistant stomach will give vent to a twinge of pain from the insult offered to it. Meats that are cooked too long lose their flavor and become less digestible. If they are burned, there are formed substances that irritate every part of the body with which they come in contact. On the other hand, the longer most vegetables are cooked the more digestible they become. Prepare the food so that it looks good. The appearance of food will often arouse a desire for eating where the appetite is indifferent. Foods should be

tastily as well as tastefully prepared. This does not mean that, in order to stimulate the taste, foods should be loaded with spices. These additions to the food, instead of aiding, interfere with digestion. The food should be varied. Rather than large portions of a very few kinds of food there should be smaller portions of a larger number of dishes; nothing becomes more loathsome nor more unappetizing than the constant repetition of the same articles of food.

Chew well every bit of food. The more it is chewed, the less work will the already overburdened stomach have to perform. Food cannot be well chewed unless the teeth are in good condition. Sound teeth are a valuable asset in the protection of health.

An agreeable disposition is a valuable aid in the enjoyment of a meal. A meal that is well enjoyed is well digested, since enjoyment encourages the appetite. Depressing emotions markedly reduce the appetite. The sad, the sorrowful, the melancholic are thin-faced and hungry-looking from neglect of eating due to an absent appetite. Anger also is an appetite destroyer. Newspaper and magazine reading during a meal may be a time-saving habit, but it is detrimental to the proper digestion of the food.

Foods have a two-fold function to perform. They supply energy in the form of body heat and motion, and they repair body tissues that have been destroyed during the process of motion or heat production. A diet must contain foods that will fulfil both of these objects. Energy-producing foods are the sweet foods, such as sugar, honey, molasses; starchy foods, such as bread, potatoes, peas, and Lima beans; and also fats and oils. Material for new tissue is furnished by meat and many of the vegetables. There is required ten times as much food for energy as is required for tissue-building. Hence meat should form less than one-tenth of the diet.

Avoid overeating. Overeating, aside from the interference with personal appearance, is wasteful and harmful. The amount of food necessary for a person depends upon the amount of active energy-consuming work performed by that person; it also depends on the time of the year—cold, wintry days requiring more fuel to keep the body warm. Eat enough, so that the appetite is just satisfied. The amount that you eat is a matter of habit and like other habits can be regulated.

Those who exercise, or who do a moderate amount of muscular work, require more meat than those of more sedentary habits. Too much meat causes an increase of the blood-pressure. In addition to this, when used in unnecessarily large amounts it also produces substances that irritate the liver and kidneys and create disturbances in these places. Many people eat as much as a pound of meat daily and suffer from the consequences of this oversupply in the form of various ailments. Whenever this amount has been reduced to one-third, the ailments have disappeared. Meat equivalent to one-half pound daily is ample for the man who does a moderate amount of muscular work. A growing boy of sixteen years or more of age requires an equivalent amount, while a girl or woman will need about six ounces of meat each day.

Meats—and by meats are meant the usual butcher's meats—in the order of their digestibility are beef, mutton, lamb, veal, bacon and pork. Meat should be eaten only once a day at the heaviest meal.

The green vegetables can, to a slight extent, take the place of meat in replacing destroyed tissue. When properly prepared, they supply other substances not found in meat, for the use of special parts of the body. The green vegetables add palatability to the food. They include cabbage, cauliflower, spinach, lettuce, celery, cucumbers, asparagus, rhubarb, squash, and onions. To this list may be added others, usually not considered as green vegetables. These are tomatoes, turnips, beets, parsnips and radishes. The most indigestible are cabbage and cucumbers. Eat daily at least two different vegetables in this list. Potatoes, peas, and Lima beans, on account of their starch, are classed separately.

The amount of fats and oily substances, starchy foods and sugar to be eaten daily depends on how much work the body is called upon to do. Fats are represented by butter, by the fat of pork, ham and bacon, by cocoa, chocolate, by the cream in milk,

Canadian National Exhibition

August 25th—Toronto—Sept. 10th.

The annual world's fair on a more than usually progressive scale
Mobilization of national resources. Men, food and equipment.

Immense exhibit of tractors and other farm labor-saving devices

Judging competitions for farmers' sons; new farm crop competitions and extended classifications in all departments.

Brimming over with new recreational and other features.

*Confederation Year Spectacle.
The apex in spectacular achievement.*

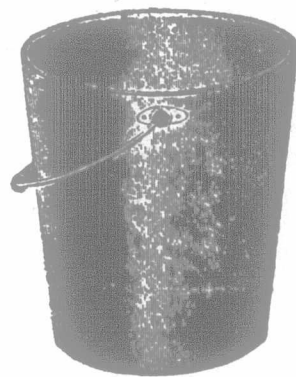
Write for Prize List.

Do you belong to the Better Milk Brigade?

Are you striving to do "your bit" by providing more and better milk for the babies of Canada, who will one day take their places in the affairs of the world?

If you are, we have something which will interest you. A milk pail which does not give the milk that woody or tinny taste. Because it is made of the modern

Indurated Fibreware



The ware which does not transmit taste—is easily cleaned—light to handle and of wearing qualities unsurpassable.

Write for particulars of our Indurated Butter Tubs, Milk Pails, Milk Pans, etc.

THE E. B. EDDY CO.
Hull, Canada

SALE BY EXECUTRIX OF FARM AND FARM PROPERTY

There will be offered for sale by public auction, at the premises on **Wednesday, 18th day of July, 1917** at the hour of **two o'clock p.m.**, the Jabel Robinson farm, known as "LINSLADE FARM", being Lot 29, Talbot Road East, Township of Southwold, County of Elgin, 200 acres, about 3 miles west of St. Thomas. Land well tilled, and there is a commodious brick residence, large bank barn and other necessary outbuildings, and good young orchard. This is the best farm in the county. Also all the stock, implements, etc. will be sold. For particulars apply to **Locke & McLachlin, Auctioneers, or Cameron & Grant, St. Thomas.**

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
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Don't Dig Post Holes

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

and by oils such as are obtained from or are present in olives and the nuts. Not more than two ounces of butter a day should be used by one person. Four ounces of pork or six ounces of ham or bacon are sufficient for the daily allowance of a person.

Starchy foods are the most commonly used. Potatoes, peas, beans, the cereals, such as rice, farina, and oatmeal, and the flours, particularly wheat flour, are all rich in starch. Potatoes should form part of the daily diet and the equivalent of one large potato can be eaten. Starchy food for breakfast may be supplied by a dish of cereal with cream, or two eggs with a roll or toast and butter. Buckwheat or griddle cakes and syrup may be substituted on another morning. The eating of bread is very often overdone. One of the best breads is made from bran flour and molasses. Sugar is mostly used with coffee or in desserts. The equivalent of three tablespoonfuls each day is all that is necessary.

Eggs other than hard boiled are readily digestible, and when soft are a nourishing form of food. Two eggs daily are as many as the body needs. Milk is another standard, useful, and highly nutritious food. Two or three glasses daily are sufficient.

Cheese is also a very nourishing food and for the amount of nourishment that it gives, is probably the most economical from the cost standpoint.

The use of coffee and tea is apt to be overdone. Habitual coffee and tea-drinkers are recognized sufferers from indigestion. They also belong to the class with the disturbed nerves—the irritable, restless and sleepless. No harm will result from drinking water during meals, providing it is not ice cold nor the amount too great. The amount will depend on the dryness or saltiness of the food eaten. Avoid too much spice, especially mustard, too much salt and vinegar. Alcohol should not be allowed in any form. It retards digestion and if continued regularly, results in an inflammation not only of the stomach but also of the liver and kidneys.

The best time for the heaviest meal is at the end of the day when the day's work is finished. Drowsiness after such a meal is not unusual, since the blood-supply of the digestive apparatus is increased at the expense of that in the brain, and diminished blood to the brain produces sleepiness. The fallacy of a twenty-minute walk after a meal was probably the invention of a mischief-maker. A twenty-minute nap would be wiser, then could the digestion proceed undisturbed. Irregularity of meals and dining late at night, like all other irregularities in living, is productive of irregular health.

The following three menus for the three daily meals fulfil all the requirements for the needs of the body. They are suitable for the average woman busy at housework, at the office, or employed in the store.

Breakfast.—Fruit; choice of any of the following—two eggs with or without ham or bacon; cereal with cream or griddle-cakes with syrup; also a roll or toast with butter, weak coffee or one glass of milk.

**You Help Yourself
You Help Us
and You Help a
fellow-farmer
when you get a
new subscriber for
THE FARMER'S
ADVOCATE
and Home Magazine**

We appreciate every subscriber. We try to do our best in subscribers' interests, year in, year out, sometimes at considerable financial sacrifice to ourselves.

We welcome NEW subscribers. We esteem OLD subscribers; but if there's one subscriber above another that we like and feel grateful to, it's the subscriber who takes the trouble and exhibits the good-will that makes him go out and get other men to subscribe to our journal.

When YOU do that you are playing a big part in the success of "Canada's Leading Farm Paper". You are doing more than you know to encourage us in our efforts on behalf of the farmers of Canada.

More than that, you are decidedly benefiting the man whom you induce to subscribe. You know that! And finally you perform a good stroke of business for yourself, because we allow you six months free on your own subscription for each new subscriber you secure, at \$1.50 a year in advance.

Show us that you approve our constant efforts to uphold your interests and put out a good, clean, practical, wholesome and thoroughly independent farm paper.

THE WILLIAM WELD CO.
LIMITED
LONDON CANADA

COUPON

THE FARMER'S ADVOCATE AND HOME MAGAZINE, LONDON, ONTARIO

Gentlemen:—
I have secured _____ new subscribers, as below, and enclose _____ for \$_____ to pay for same. (State whether express, postal order, etc.)
subscription for each new subscriber secured. Please give me credit for six months on my own

New Subscriber..... Town.....
R. R. No.....
New Subscriber..... Town.....
R. R. No.....
New Subscriber..... Town.....
R. R. No.....
Signed.....
Town..... Province.....

Lunch.—This may consist of a combination of any of the following—fish, a salad, cheese, spaghetti, canned or stewed fruit, milk or cocoa.

Dinner (preferably at night).—Soup one course of meat, potatoes, a green vegetable (such as lettuce, asparagus, and so forth), a vegetable entree or salad, the simplest dessert consisting of custard or fruit.

Bread is, of course, assumed, for lunch and dinner.

Special diets may be arranged for special purposes. The diet of the growing girl, this refers particularly to the schoolgirl of fourteen years of age or over, should be given considerable thought. The three-meal dietary as outlined above would be best suited for her requirements. This is the candy and pastry-consuming age; these substances, eaten indulgently, interfere seriously with the development of the young girl. They produce unpleasant changes in a good complexion. Pimples and a greasy skin owe their origin to too much candy, pies, ice-cream sodas or frappe lunches, fatty and fried foods. The young girl is also a lover of pickles, olives, salads with rich dressings, and other vinegary delicacies, and in her enthusiasm for these things she paves the way for future attacks of indigestion.

Women or girls who are even in the least way inclined to irritability, nervous headaches, or sleeplessness should exclude entirely coffee and tea from their diets. Spices, particularly pepper, vinegar and salty foods should be reduced to the smallest possible quantity. For such people, also, the smaller the quantity of meat, such as beefy meats, that is eaten, the less irritated will the already overstrung nervous system become.

A word to the obese. In the young, obesity may be hereditary. In the elderly it is due to lack of exercise and too great a fondness for the many products of the cook-book, especially of the greasy, sugary, and starchy variety. It bloats the face, makes yellow the eyeball, dulls the eye, and doubles the chin. It is the great despoiler of good looks in men and beauty in women. But it is not hopeless. Omit one meal a day and replace that meal by exercising. Always leave the table hungry and the old, uncomfortable desire for overeating will gradually wane until the appetite is satisfied with little. Abstain from all the fat-producing foods, the starchy, sugary, fatty or oily kinds.

The menu of the heavier meal of the day can consist of bouillon without fat, meat, all except the fried, and green vegetables; also all fish except salmon and roe. The second meal should also be frugal, consisting of simple foods, cheese, fresh green vegetables without oily dressings, and the sour fruits such as strawberries, raspberries, gooseberries, oranges, grapefruit, or apples. Very weak tea or coffee without sugar can be used. For bread, the dark flours are best, particularly bran flour.

Though the lean individual may be the more agile and vigorous, leanness is also associated with those of a nervous temperament. It is not always a desirable condition, since it prematurely ages the face by the early appearance of wrinkles. It is also the accompaniment of chronically diseased stomachs, resulting from a disturbed digestion and poor absorption of the digested foods.

The foods which are the best adapted for the lean are those that have been denied to the obese person—the starches, sugars and fats, but sufficient care must be exercised to prevent disturbing an entirely good stomach. Let the lean one eat well of the rich foods and sever relations with the sour and spicy ones. Above all, let her cultivate a sunny, restful disposition, with a nervous system under steady control, for these are the trade-marks of the robust and plump person.—DR. LOUIS H. LEVY, in Pictorial Review.

Hsuan Tung, the young Emperor of China, who was restored to the throne on July 1st, has abdicated for the second time. He came to the throne in 1908, abdicated in 1912 when the Chinese Republic was established, was restored to the throne by the Monarchists one week ago, and has again abdicated. Both the Republicans and the Monarchists are preparing for war, and the condition in China is serious, but the ultimate success of the Republicans is practically certain.

Current Events.

The Government of Russia has abolished all decorations and orders except those awarded for distinguished service in war.

The Russian army, under General Brusiloff, has again taken the offensive in Galicia, and in a two-days' battle took over 18,000 prisoners.

Sir Herbert Beerbohm Tree, the noted actor-manager, foremost as a tragedian, a brilliant speaker, and author of "Henry III and his Court," "Thoughts and Afterthoughts," etc., died in London, Eng., on July 2nd, in his 63rd year.

The recent Red Cross campaign in the United States has resulted in a fund of over \$120,000,000 having been collected for this object; cash to redeem pledges, is pouring in at a rate of \$500,000 a day.

The vote on the Conscription Bill, taken at 5 a.m. on Friday morning, after an all-night session, resulted in the Bill passing its second reading by a majority of 65; both the "Referendum" and "Six-Months-Hoist" amendments being defeated. The Bill will be pushed through the remaining stages as rapidly as possible.

On July 1st, owing to a washout on the route, a trolley-car on the Niagara Gorge Route, filled with tourists and sightseers, jumped the track and plunged into the river just above the whirlpool. Nearly fifty people were killed or injured. A similar accident occurred at almost the same spot just two years ago.

The German bombardment of Rheims still continues, over 15,000 shells having fallen in the town within the last few weeks, and over half the town is now in ruins. About 5,000 out of the 120,000 inhabitants still cling to their homes, some of the smaller shops are still open, and some people still at work, numbers of them collect at night in some of the larger cellars where they can sleep in safety.

For only the second time in English history a Royal Investiture has been held in public. At the close of the Crimean War Queen Victoria presented, in public, the first Victoria Cross. King George celebrated his birthday by presenting medals to over three hundred veterans of the Great War, and to nearly thirty relatives of men who had lost their lives on the battle field. The ceremony was witnessed by the largest crowd ever assembled in Hyde Park, where the Investiture took place. A unique feature of the ceremony was the fleet of air-ships on guard overhead.

A large French air fleet of nearly 100 aeroplanes flew far into Germany on the 6th inst., and dropped bombs on several points of military importance, some bombs being dropped on the Krupp works at Essen. Ten German machines were brought down after the recent raid over England.

In connection with the Semi-Centennial celebration of the Confederation, the new Parliament Buildings, now in course of construction at Ottawa, to replace the buildings destroyed by fire over a year ago, were formally dedicated on July 1st, by the Governor-General. The memorial tablet, to be placed in the Hall of Fame in the new buildings, bears the following inscription in both English and French:

- July, 1917.
- "On the fiftieth,
- "Anniversary of the Confederation
- "Of British colonies in North America
- "As
- "The Dominion of Canada,
- "The Parliament and people
- "Dedicate this building
- "In process of re-construction,
- "After damage by fire,
- "As a memorial of
- "The deeds of their Forefathers,
- "And of the valour of those
- "Canadians,
- "Who in the Great War fought for the
- "Liberties of Canada,
- "Of the Empire,
- "And of
- "Humanity."

Attention is directed to the advertisement regarding the sale of Linslade Farm, in the township of Southwold, in the County of Elgin. This property comprises 200 acres of well-tiled land. The buildings are good and in repair. Stock, implements, etc., will also be sold. See the advertisement in this issue.

PARIS GREEN

The Season for Potato Bugs is Here!
ARE YOU PREPARED?

We have been fortunate in securing a limited supply of Paris Green. Get your order in now, while it lasts.

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.

There are still a few tons of high-grade Cotton Seed Meal offering.

Give us a trial order for groceries, buggies, wagons, implements, gasoline engines, oats and mill feeds.

Prices given on application.

United Farmers' Co-operative Co., Ltd.
Toronto, Ontario



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

The Dollar Chain

Contributions from June 29th to July 6th: "Helper," \$2; Ben Rae, Allenford, \$1; "Well Wisher," Bright, \$1; "Toronto," \$2; "A Sympathizing Friend," \$2.

For Byron Military Hospital for Tubercular Soldiers: "Marjorie and Grace," \$1; Mr. John Ingram, Manitowaning, \$2; "Fanny D.," R. 5, Brantford, \$1.

Total amount for Byron Hospital to date, \$504.35.

Amount previously acknowledged \$4,748.90

Total to July 6 \$4,760.90

An Appeal From France.

An urgent call is being sent out for funds for French hospitals. Collection day is July 14. The following extract from a letter sent out from Red Cross headquarters is self explanatory:

"Brave, courageous France is again in need, and though she makes no appeal on her own behalf, she is brave enough to do so on behalf of her wounded soldiers. This is the situation as summed up by one writer: Supplies in France, after nearly three years of war, are almost exhausted. Just one concrete case, though many might be given.

In little Poictiers fifteen hospitals are trying to support their wounded on thirty-five cents a day, per man. In peace this would be inadequate, with war prices it is pitiable. Coal is fifty dollars a ton, and food brings famine prices. One nurse says pathetically: 'Could you send food to our wounded? We have 175 beds, many of the men coming direct from the front—and we are so poor!'


The Executive Committee of the Canadian Red Cross Society has received an urgent appeal from the London Committee of the French Red Cross to take part in an Empire-wide appeal for assistance for the sick and wounded soldiers of the French nation, and also their prisoners of war.

This appeal has been endorsed and commended by our Canadian Red Cross Society, and the fourteenth of July has been chosen as a fitting time for France's Flag Day.

"He gives twice who gives quickly."

Geo Amos and Sons, Moffat, Ont., write us that since they have purchased the excellent young Shorthorn bull, Newton Grand Champion (imp), and have Beaumont Beau, which breeders at large have declared one of the best bulls in the country, they will offer for sale, among other things, their well-known sire, Loyal Scot (imp.) He has proved himself a wonderful bull and has sired many prize winners at the large shows. They will also spare several young bulls and females. See the advertisement and write Messrs. Amos for particulars.

Six-Year-Old Apple Trees



Planted with C.X.L. Stumping

Better Trees— More Fruit

Plant your trees with C.X. L. Stumping Powder—they will grow faster, crop earlier, be healthier and produce more profits.


C.X.L. Stumping Powder

breaks up the sub-soil and lets the roots get all fertility they need.

Use C.X. L. Stumping for ditching, sub-soiling and grading. Safe as gun powder.


There is big money in agricultural blasting. Write for proposition. Send for our Free Booklet "Farming with Dynamite".

Canadian Explosives, Limited



805 Transportation Building, Montreal.
Western Office, Victoria, B.C. 6

Six-Year-Old Apple Trees



Spade Planted



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.

DO YOU NEED FURNITURE

Write for our large photo-illustrated Catalogue No. 7—It's free to you.

THE ADAMS FURNITURE CO., Limited
Toronto, Ontario

You can assure your family a **MONTHLY INCOME for LIFE** or assure yourself an income during your old age by means of an

Imperial Monthly Income Policy

Write for particulars now and mention The Farmer's Advocate. Address: **Imperial Life Assurance Co. of Canada** Head Office: **TORONTO**

When Building—specify

MILTON BRICK

Smooth, Hard, Clean-Cut. Write for booklet. **MILTON PRESSED BRICK COMPANY** Milton, Ontario

Frost & Wood Binders

Sure working, sure elevating and sure tying. Send for new folder.

FROST & WOOD CO., LIMITED Smith's Falls, Ontario

When writing mention "Advocate"

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

How to Make Butter and Cheese

Will you please inform me of the best method of making butter and cheese?

A SUBSCRIBER.

Ans.—This is one of the impossible questions we sometimes get at this office. To go into all the details of good buttermaking and good cheese making would be impossible in the answer to one question. We direct the attention of our subscriber to the Dairy Department of this paper which carries from time to time detailed articles in connection with both subjects. However to give him a start we may say that milk should be produced under sanitary conditions. Everything should be kept clean and the milk should be cooled rapidly to below 70 degrees F. and preferably to 50 or 60 degrees if set in pans or cans to cream. If a separator is used of course the milk should be strained and separated right from the cow. Keep all utensils clean. Frequent scalding is necessary. If milk is set in shallow pans to cream keep it cool and free from drafts at a temperature of 50 to 60 degrees for 24 to 48 hours. If set in deep cans submerge or surround with cold water preferably cooled by ice. Remove the cream, which comes to the top, before the milk sours. Souring is not likely to occur inside 36 hours where ice is used. Generally 24 to 36 hours are required for cream to separate. Where separator is used skim around a 28 to 30 per cent. cream. Cream should be soured before churning. Cool the cream from the separator down to 50 to 60 degrees. Keep it sweet and cold until sufficient is collected for a churning which should not be less than twice a week. Do not put warm or cold water in cream if at all avoidable. When the cream commences to thicken bring the churning temperature of 58 to 65 degrees if gravity cream in summer, or 65 to 72 degrees in winter. Rich separator cream may be churned at 42 to 52 degrees. Strain cream into churn after it has been scalded. Add sufficient coloring to give a "June grass" tint. Do not fill barrel churn more than one-third to one-half full. Turn at a speed of 50 to 70 revolutions per minute decreasing as butter begins to come. Ventilate two or three times to allow escape of gas. Add a dipper of water when butter is size of grains of clover seed—cold water in summer and water the temperature of the cream in winter. Stop churning when the butter is the size of wheat grains and drain off the buttermilk through a strainer. Add about as much water to the butter as there was cream having the temperature 45 to 50 degrees in summer or 50 to 60 degrees in winter and wash. Usually one washing is sufficient. Allow salt to stand in the butter in the churn for an hour. One-half ounce of salt to the pound of butter is enough for good butter. The butter may be worked once or twice always with a downward pressure never with a scraping or sliding motion. It has been sufficiently worked when even in color, close in body, and free from excess water. It should be printed and wrapped neatly or packed in a clean crock or paraffine-lined wooden package.

The same precautions as to cleanliness apply in cheesemaking. We cannot describe fully here Canadian Cheddar cheesemaking. Preferably it should be done at a regular cheese factory. An acidimeter is necessary to measure acidity of curd produced by ripening the milk. Cheese coloring is added at the rate of one to one and one-half ounces per 1,000 lbs. of milk where colored cheese is desired. Rennet is then added. This varies in strength and acts most quickly at 98 degrees F. Use cold water to dilute the rennet and for best results use a temperature of 86 degrees. Do not use less than 3 ounces per thousand pounds of milk, and generally not more than 5 ounces. Dilute it with pure, clean water and stir into the milk vigorously. The curd is ready to cut when the forefinger inserted therein will break it clean. Cut into cubes with a special



WRIGLEY'S

Now **THREE** Flavours!

Get a package of the new "JUICY FRUIT"—See what a joyous, lasting flavour has been crowded in to give you a great, **BIG 5 cent** package of refreshment!



— **THE FLAVOUR LASTS** —
"Chew it after every meal!"

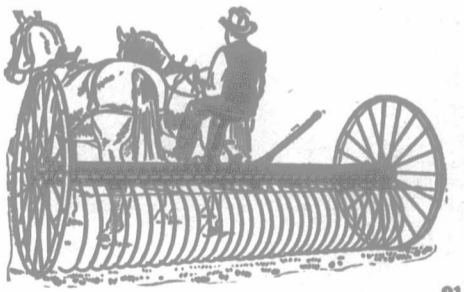
The Peter Hamilton All-Steel Rake—No. 4

will positively rake your fields clean, without the teeth catching or digging into the ground and mixing dirt and dust with your hay, because the points of the teeth run parallel with the ground and are held rigidly in place. The wheels and the curve of the teeth are extra large and will gather up a large windrow.

Buy a **PETER HAMILTON RAKE** if you want large, clean windrows of clean hay. Made in 8, 9 and 10 ft. sizes, for either one or two horses.

Write to-day for free illustrated folder.

Peter Hamilton Company, Limited Peterborough, Ont.

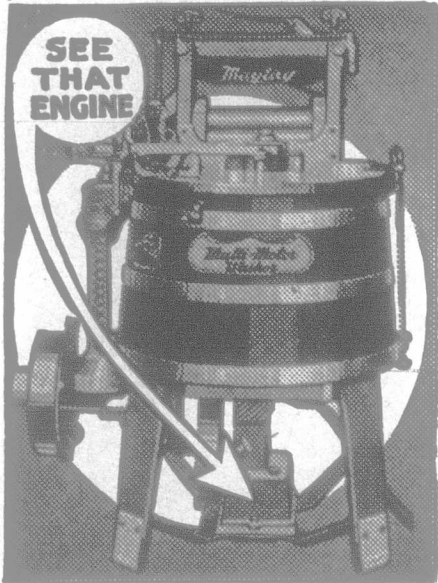


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Whitby, Ont. Healthful, picturesque location 30 miles from Toronto. Academic Courses from Preparatory Work to Junior Matriculation, Teachers' Certificates and First Year University; Music, Art, Oratory, Domestic Science; Social Economics and Civics; Commercial Work; Physical Training—gymnasium, swimming pool, etc. Calendar from Rev. F. L. Fawcett, B.A., Principal, Whitby, Ontario.

FLETCHER'S SHORTHORNS Our herd of Scotch Shorthorns represents Orange Blossoms, Kilblean Beauties, Matchless, Mysies, Missies, Clementinas, etc., and is headed by the Watt-Stamford bull, Victor Stamford—99999—a Toronto winner. Present offering—one roan Orange Blossom bull, 12 months old (a show animal) also younger bulls and several choice cows and heifers. Geo. D. Fletcher, Erin, Ont., R. R. 1, Erin Sta., C.P.R., L-D. Phone.

"MAYTAG"
MULTI-MOTOR WASHER



It is positively the only washer of its kind on the market. The half-horsepower engine operates on gas, gasoline, kerosene or alcohol—about five cents worth does the wash.

This washer will not injure the daintiest linens, or the most delicate laces—and it will handle heavier blankets—doing the work twice as well and in less than half the time required by the old-fashioned washer or back-breaking, knuckle-skinning wash-board and tub.

- We also have in stock
"Maytag" Electric
"Maytag" Power and
"Maytag" Hand Washers
 ALSO THE
"Maytag" One H.-P. Engine

Each machine warranted FOR THREE YEARS.

Ask your dealer, or write for information to :

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COLLINGWOOD, ONTARIO

Sole distributors for the Provinces of Ontario, Quebec, Nova Scotia, New Brunswick and Prince Edward Island.

IMPROVE YOUR HEALTH
 Drink a beverage having the tonic properties and general flavor of the finest beer. Easily made in your own home with
HOP MALT EXTRACT
 Made only from pure hops and malt. An aid to digestion. Excellent for convalescents. Anyone can make it.
 Small tins, \$1.00, large, \$1.50
 Agents Wanted DEPT. A
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Maxwell
 Line of WASHERS, CHURNS, BUTTER-WORKERS, FOOD CUTTERS, GAS ENGINES, etc. Write for Catalogue.
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VIKING
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curd horizontal knife first and then twice (crosswise and lengthwise) with a perpendicular knife. Agitate by gently stirring after cutting. Steam heat should be applied to cook the curd and apply heat slowly, taking one-half hour to increase the temperature from 86 to 98 or 100 degrees. Agitate until up to desired temperature constantly then occasionally to avoid matting. The whey is then removed from the curd and the latter dipped on a clean cloth spread over a rack in the vat or sink and stirred until the curd has from 40 to 50 per cent moisture. The cheese is then matted into pieces about 1 foot long and 4 to 6 inches wide and piled three deep at a temperature of 95 degrees until they become meaty. The curd is then run through a mill which cuts it into pieces of uniform size. When it feels silky and mellow it is salted. The rate of salting varies from 1½ to 3 lbs. per 100 lbs. curd or per 1,000 lbs. milk. In about 20 minutes the curd may be put into hoops, bandaged, capped and pressed. They must then be ripened in a suitable room at a temperature of 38 to 40 degrees if possible.

Questions and Answers.
Miscellaneous.

Joint Ill—Castration.

1. Up to what age are foals subject to be infected with joint ill?
2. I had a four-year-old Clyde stallion castrated about six weeks ago and he is still as keen and noisy as ever. Is he likely to continue this way, or is there anything could be done as I would like to be able to put him out to grass with other horses?

A SUBSCRIBER.

Ans. 1.—Some difference of opinion still exists as to the nature of this disease, but the best viewpoint seems to be that the germs of the disease gain entrance to the foal shortly after it is dropped, and that danger is practically nil after the navel cord has dried up and healed. Symptoms of the disease generally appear from a few hours to a few days after birth. In rare cases the disease develops after a few weeks. It is believed that the germs enter the foal through the raw surface of the umbilical cord. Treat this with a strong antiseptic such as a ten per cent. solution of carbolic acid, formalin or one of the coal-tar products, or a solution of corrosive sublimate 40 grains to a pint of water. One of these should be freely applied immediately after birth and four or five times daily until the navel opening is entirely healed.

2. A stallion castrated at a mature age often requires several months to quiet down. He will probably be all right in the course of time. Do not feed too heavily and give plenty of work or exercise.

Hens Die From Improper Feeding.

What is the cause of hens dying in the following manner? The hens are fat and to all appearances perfectly healthy but frequently in the morning we find one dead under the roost. After they are dead we notice the rectum and the flesh around it looking sore with a discharge sticking to the feathers resembling "white scours". We never notice any of them sick. We feed wheat almost altogether.

R. J. M.

Ans.—It is evident from the explanation given that the hens in question suffer from lack of exercise and green feed. We would infer from the symptoms stated that the hens are confined and liberally fed. Allow them as large a run as possible and dig up the soil so they can scratch in it. Feed a mixture of oats and wheat in litter one foot deep, so they must work to obtain it. If they are not running at large supply plenty of green feed in the form of lettuce, dandelions, clover or, in fact, almost any kind of green vegetation. Dandelion leaves are much relished and appear to have considerable medicinal effect. When starting treatment, starve for 18 to 24 hours and then give a light mash with sufficient Epsom salts in it to purge them mildly. The mash could be continued if desired. Place charcoal before them so they can eat it at will. Plenty of exercise and green feed are the essentials.



Back Up The Boys Who Are Fighting For You!

Work and save as earnestly and wholeheartedly as they are fighting in France!

Work at something that helps directly toward winning the war! Save, and lend your savings to the nation, to finance the struggle and furnish everything needed to the men in the firing line.

For every \$21.50 you lend the nation now, you will get back \$25 at the end of three years—an interest return of over 5%. Certificates are issued in denominations of \$25, \$50 and \$100 and may be purchased at \$21.50, \$43 and \$86 respectively, at any Bank or Money Order Post Office.

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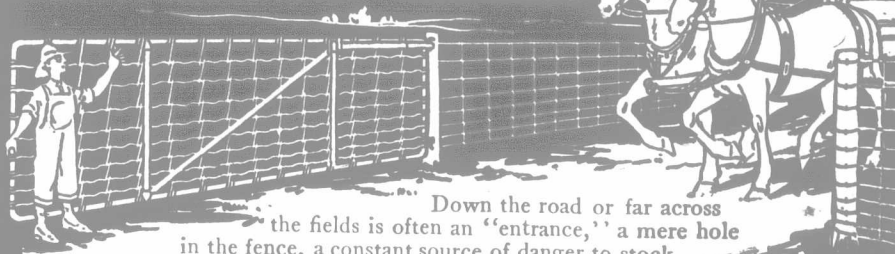
The National Service Board of Canada.

R. B. BENNETT,
Director General.

C. W. PETERSON,
Secretary.

26

PEERLESS GATES



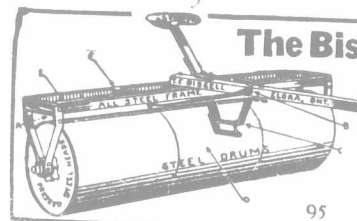
Down the road or far across the fields is often an "entrance," a mere hole in the fence, a constant source of danger to stock getting through. The best way to

Keep Your Stock Where You Want Them

is to provide real gates, strong and durable. All Peerless Farm Gates are of heavy open hearth steel wire on strong tubular steel frames electrically welded in one solid piece, and braced like a steel bridge. No sag, no rust, no wearing out. Ask your dealer to show you Peerless Gates, also Peerless Perfection Farm and Poultry fencing with the famous Peerless lock at all intersections.

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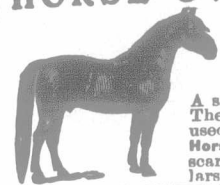
The Bissell Steel Roller has a rigid steel frame—no wood whatever.

Large roller bearings and strong 2" axles insure durability and great strength. The Bissell is a 3-drum Roller of good weight, built to stand hard usage and give great service. Write Dept. W for free catalogue.

T. E. BISSELL CO., LTD., Elora, Ont.

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A TREATISE on the Horse-FREE!

We offer free this book that tells you about many of the diseases afflicting horses and how to treat them.

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is a safe and reliable remedy. It will cure Ringbone, Splint, and other bony enlargements. It is also a reliable remedy for Curbs, Sprains, Bruises, Cuts and Lameness. It does the work safely and at small expense.

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Kendall's Spavin Cure is sold at a uniform price of \$1.00 a bottle, 6 for \$5.00. If you cannot get it or our free book at your local druggist's write us

Dr. B. J. Kendall Co., Enosburg Falls, Vermont U.S.A.

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Ontario Creameries, Limited London, Ontario

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by CUTTER'S BLACKLEG PILLS. Low-priced, fresh, reliable; preferred by western stockmen, because they protect where other vaccines fail.

Write for booklet and testimonials. 10-dose pkg. Blackleg Pills, \$1.00 50-dose pkg. Blackleg Pills, \$4.00

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

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SAVE TIME—Save Labor—Save Expense Our new catalogue describes every kind of device for money-making and labor-saving on farms. Write to:

LOUDEN MACHINERY CO. Dept. 1, Guelph, Ont.

BALMEDIÉ ABERDEEN-ANGUS

Get high-class Angus bull and breed the champion steers. I have showing-quality bulls from 10 to 24 months of age; also choice 1 and 3-yr. old heifers. T. B. BROADFOOT, FERGUS, ONT.

Questions and Answers. Miscellaneous.

Growing Onion Sets And Seeds.

1. Give details of growing sets and onion seeds.

2. What varieties of onions give best results for marketing? P. R.

Ans.—1. The growing of sets requires more skill and experience than the growing of either domestic or pickling onions. Soil and preparation are about the same as for a crop of the latter. Clayey soil should be avoided, but the ordinary soil which is considered good for onion production does very well for sets. The drills are made about a foot apart, and the ordinary seed sowers can be used to distribute the seed. The row is sown about two inches in width, and as much as twenty to fifty pounds of seed per acre is used. In the vicinity of Chicago, which is the largest set-producing section in America, the rows are one foot apart, and from 60 to 85 lbs. of seed are used per acre. Where it is only desirable to produce a small patch, the seed can be sown with a small tin can with a diameter of about two inches. Punch a number of small holes in the bottom, slightly larger than the seed, but not large enough to permit two seeds to escape at once. Fill the can with seed and shake it lightly along the open drill, cover the seed in the drill with fine soil from one-half to one inch in depth; the light covering is recommended for medium heavy soil, and the deep covering for light soil. One ounce will sow about forty feet of drill. The varieties used for growing sets are Yellow Flat Danvers, Yellow Dutch or Strasburg, Australian Brown, White Portugal or Silverskin, Extra Early Red, and Red Weathersfield. The cultivation and weeding are practically the same as for market onions. In Huron County, near Hensall, the harvesting methods are somewhat different from those employed elsewhere. Three rows are pulled and placed in a window and left to dry in the sun until such time as the tops will rub off when going through the cleaning machine. For winter storage they are placed in trays and stored in much the same manner as are domestic or pickling onions.

In seed production the bulbs should be selected very carefully in regard to shape, color and size. Good rich clay or sandy loam is a desirable type of soil. The bulbs are planted in rows three feet apart, and about six inches apart in the row. This admits of horse cultivation. About 125 bushels of bulbs are used in planting an acre. The crop varies according to season, from one pound to upwards of four pounds of seed from each bushel of bulbs planted. In gathering the seed, the field is often gone over four or five times, cutting off those that are ready. About two inches of the stock is removed with the seed ball. They are generally gathered in bags or sacks and are taken to the seed-drying house, where they are spread out on shelves. A free circulation of air is permitted in order to aid in the drying of the seed. After the balls are thoroughly dried, the seed is beaten out with a stick. It is then gathered up and run through a mill to clean it and blow off the light stuff. After it is cleaned it is placed in barrels or tubs and water poured over it until all the good seed is entirely immersed; the light and poor seed floats to the top, and is discarded. The good seed is then thoroughly dried as quickly as possible; if it remains damp for any length of time it will mould or germinate.

2. Southport Yellow Globe, Southport Red Globe, Red Wethersfield, Danvers Yellow Globe. There is a long list of useful varieties but these give good results when grown from seed.

"The 'orn of the 'unter is 'eard on the 'ill," sang the little boy at the Ragged School treat. But somehow his version of that line in "Kathleen Mavourneen" jarred on the nerves of the old squire. "My little man," he said, kindly, "why don't you put a few more aitches in your song?" "Garn!" advised the little man, politely. "Don't yer know there ain't no 'h' in moosic? It only goes up ter G!"

Look for the Dealer Who displays this Sign



1 1/2 H. P. \$65.

On Skids With

BUILT-IN MAGNETO

3 H. P. \$115.

6 H. P. \$205.

F. O. B. Montreal or Toronto

A Fairbanks-Morse Quality Engine at a popular price, the greatest Engine value offered. "More than rated power and a wonder at the price."

Simple—Light Weight—Substantial—Pool-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. Long, efficient, economical "Power Service".

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Go to the dealer who displays the sign shown above. See the features that make it the one best engine "buy" for you. When you buy an engine from your dealer you deal with the local representative of the manufacturer. He stands behind the engine he sells. He's responsible to you. He's at your service to see that you are satisfied.

THE CANADIAN FAIRBANKS-MORSE CO., LIMITED St. John, Montreal, Toronto, Winnipeg, Saskatoon, Calgary, Vancouver.

See the "Z" And You'll Buy it.

Another Wet Season in Prospect



You will need Canvas Covers for your Engine, Thresher, Stacks, etc. Canvas Duck is very high in price this year, but we bought early and can quote you attractive prices.

Get our prices on Belting, Hose, Oils and All Power Users' Necessities.

Ask for our 1917 Catalogue.

WINDSOR SUPPLY CO., 57 Sandwich St., West, WINDSOR, ONTARIO

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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.

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Clydesdale Horses-Holstein Cattle-Yorkshire Hogs

We always have some choice young breeding stock to offer.

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BREEDER OF HIGH-CLASS CLYDESDALES

Write me for prices on champion mares. R. R. No. 1, OTTAWA, ONT.

MEADOW LAWN SHORTHORNS

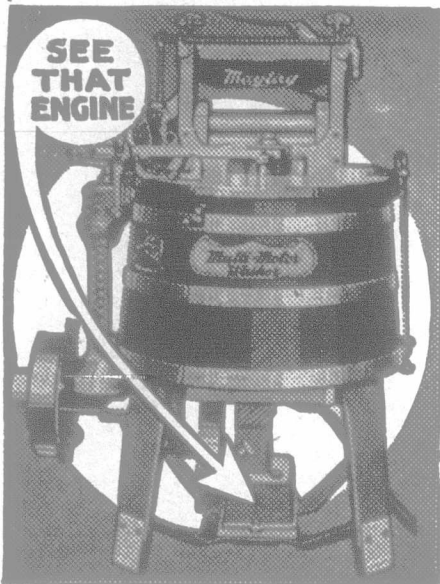
We are offering 3 extra choice Scotch bulls, belonging to the Claret and Roan Lady families. Low set, thick, fleshy fellows by that great sire, Escana Ringleader, first-prize bull at Toronto and London Fairs. Write your wants or come and see them. F. W. EWING, R. R. No. 1, Elora, Ont.

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Two young red bulls (June and July), a Wimple and a Julia. Would buy a few females of good families.

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MULTI-MOTOR WASHER



It is positively the only washer of its kind on the market. The half-horsepower engine operates on gas, gasoline, kerosene or alcohol—about five cents worth does the wash.

This washer will not injure the daintiest linens, or the most delicate laces—and it will handle heavier blankets—doing the work twice as well and in less than half the time required by the old-fashioned washer or back-breaking, knuckle-skinning wash-board and tub.

- We also have in stock
- "Maytag" Electric
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 - "Maytag" Hand Washers
- ALSO THE
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Each machine warranted FOR THREE YEARS.

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Drink a beverage having the tonic properties and general flavor of the finest beer. Easily made in your own home with

HOP MALT EXTRACT

Made only from pure hops and malt. An aid to digestion. Excellent for convalescents. Anyone can make it.

Small tins, \$1.00, large, \$1.50

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

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A Better Separator for Less Money

VIKING

Cream Separators of Quality

curd horizontal knife first and then twice (crosswise and lengthwise) with a perpendicular knife. Agitate by gently stirring after cutting. Steam heat should be applied to cook the curd and apply heat slowly, taking one-half hour to increase the temperature from 86 to 98 or 100 degrees. Agitate until up to desired temperature constantly then occasionally to avoid matting. The whey is then removed from the curd and the latter dipped on a clean cloth spread over a rack in the vat or sink and stirred until the curd has from 40 to 50 per cent moisture. The cheese is then matted into pieces about 1 foot long and 4 to 6 inches wide and piled three deep at a temperature of 95 degrees until they become meaty. The curd is then run through a mill which cuts it into pieces of uniform size. When it feels silky and mellow it is salted. The rate of salting varies from 1 1/4 to 3 lbs. per 100 lbs. curd or per 1,000 lbs. milk. In about 20 minutes the curd may be put into hoops, banded, capped and pressed. They must then be ripened in a suitable room at a temperature of 58 to 40 degrees if possible.

Questions and Answers.
Miscellaneous.

Joint Ill—Castration.

1. Up to what age are foals subject to be infected with joint ill?

2. I had a four-year-old Clyde stallion castrated about six weeks ago and he is still as keen and noisy as ever. Is he likely to continue this way, or is there anything could be done as I would like to be able to put him out to grass with other horses?

A SUBSCRIBER.

Ans. 1.—Some difference of opinion still exists as to the nature of this disease, but the best viewpoint seems to be that the germs of the disease gain entrance to the foal shortly after it is dropped, and that danger is practically nil after the navel cord has dried up and healed. Symptoms of the disease generally appear from a few hours to a few days after birth. In rare cases the disease develops after a few weeks. It is believed that the germs enter the foal through the raw surface of the umbilical cord. Treat this with a strong antiseptic such as a ten per cent. solution of carbolic acid, formalin or one of the coal-tar products, or a solution of corrosive sublimate 40 grains to a pint of water. One of these should be freely applied immediately after birth and four or five times daily until the navel opening is entirely healed.

2. A stallion castrated at a mature age often requires several months to quiet down. He will probably be all right in the course of time. Do not feed too heavily and give plenty of work or exercise.

Hens Die From Improper Feeding.

What is the cause of hens dying in the following manner? The hens are fat and to all appearances perfectly healthy but frequently in the morning we find one dead under the roost. After they are dead we notice the rectum and the flesh around it looking sore with a discharge sticking to the feathers resembling "white scours". We never notice any of them sick. We feed wheat almost altogether.

R. J. M.

Ans.—It is evident from the explanation given that the hens in question suffer from lack of exercise and green feed. We would infer from the symptoms stated that the hens are confined and liberally fed. Allow them as large a run as possible and dig up the soil so they can scratch in it. Feed a mixture of oats and wheat in litter one foot deep, so they must work to obtain it. If they are not running at large supply plenty of green feed in the form of lettuce, dandelions, clover or, in fact, almost any kind of green vegetation. Dandelion leaves are much relished and appear to have considerable medicinal effect. When starting treatment, starve for 18 to 24 hours and then give a light mash with sufficient Epsom salts in it to purge them mildly. The mash could be continued if desired. Place charcoal before them so they can eat it at will. Plenty of exercise and green feed are the essentials.



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Work at something that helps directly toward winning the war! Save, and lend your savings to the nation, to finance the struggle and furnish everything needed to the men in the firing line.

For every \$21.50 you lend the nation now, you will get back \$25 at the end of three years—an interest return of over 5%. Certificates are issued in denominations of \$25, \$50 and \$100 and may be purchased at \$21.50, \$43 and \$86 respectively, at any Bank or Money Order Post Office.

"Save for the men who are saving Canada."

The National Service Board of Canada.

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26

PEERLESS GATES

Down the road or far across the fields is often an "entrance," a mere hole in the fence, a constant source of danger to stock getting through. The best way to

Keep Your Stock Where You Want Them

is to provide real gates, strong and durable. All Peerless Farm Gates are of heavy open hearth steel wire on strong tubular steel frames electrically welded in one solid piece, and braced like a steel bridge. No sag, no rust, no wearing out. Ask your dealer to show you Peerless Gates, also Peerless Perfection Farm and Poultry fencing with the famous Peerless SEND TODAY FOR CATALOG. It tells you how to put up a fence to "stay put."

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The Bissell Steel Roller has a rigid steel frame—no wood whatever. Large roller bearings and strong 2" axles insure durability and great strength. The Bissell is a 3-drum Roller of good weight, built to stand hard usage and give great service. Write Dept. W for free catalogue.

T. E. BISSELL CO., LTD., Elora, Ont.

When writing please mention Farmer's Advocate

Gossip.

Dairy Shorthorns In England.

The Dairy Shorthorn Association of England has issued its Year Book for 1917, and its official records of milk yields are interesting. Two cows have topped 13,000 pounds of milk in one "profit"; four have beaten 12,000 pounds; two have got over the 11,000 pounds mark; 22 have gone past the 10,000 pounds line; 45 have done well over 9,000 pounds, and 99 have "licked" the 8,000 pound record. Below are some of the chief records:

Name of cow.	Milk yield in lbs.	Days in milk
Marian 4th.....	13,784	292
Duchess of Cranford 3rd.....	13,441 1/2	298
Primrose 3rd.....	12,983	331
Gilmorton Lass.....	12,785 3/4	323
Harrington Duchess 52nd.....	12,417	363
Hutton Girl.....	12,035 1/2	339
Forest Farm 3rd.....	11,939	356
Lady Thrush 3rd.....	11,646 3/4	236
Fair Rosamond.....	10,994	333
Dolphinlee Fogathorpe 3rd.....	10,989 1/2	303
Primrose 3rd.....	10,942 3/4	306
Ewerby Countess 4th.....	10,929	255
Rindlip Dulce.....	10,925 1/4	295
Waterloo Lily 2nd.....	10,857	320
Hero Fancy 18th.....	10,759 1/4	331
Border Lady 2nd.....	10,586	362
Waterloo Gift.....	10,542 3/4	355
Rosamond Queen.....	10,538 1/2	310
Johnby Rose 10th.....	10,488 3/4	312
Marchioness 44th.....	10,480 1/2	342
Shard Mary.....	10,426	307
Bessborough Belle 10th.....	10,381	303
Royal Daisy 2nd.....	10,305 1/4	336
Sweet Wampool.....	10,215 1/4	308
Leazow Musical.....	10,199 3/4	316
Veracity.....	10,179	339
Sybil 16th.....	10,153 1/2	349
Stella.....	10,097	366
Sincerity.....	10,084	318
Lilac 7th.....	10,063	353
Melody 13th.....	10,043	299

At Thornton's Kingham Gloucestershire sale recently, a Dairy Shorthorn cow Starlight, which gave 70 lbs. of milk in one day made \$1,010, which is about an average price for an approved milk yielder of the dual-purpose breed in Britain to-day. ALBION.

Questions and Answers. Miscellaneous.

Cut Worms and Insects Injurious to Roses.

I should like to know the names of certain insects in my garden and the remedy for same.

1. There is a worm which cuts off the cabbage plants. The large ones are 1 1/2 inches long, dark grey in color and about as large around as a lead pencil. There are also some smaller ones about one inch long. Are they cut worms, and what is the remedy?

2. Our rose bushes are being eaten by green worms; they are like tomato worms, only lighter green and smaller. What should I do to combat them?

3. Small light green lice are sucking the juice out of the rose leaves. They live on the under side of the leaf. A sample of same is enclosed. How would one get rid of them? L. E. A.

Ans.—The cabbage plants have, no doubt, been destroyed by cut worms. Poisoning is the most effective remedy. The following recipe is often used by vegetable growers, but where only a few plants are to be treated one can follow the directions approximately and reduce the amounts, using the same proportions: Mix half a pound of Paris green in 50 lbs. of bran, adding the poison to the bran a little at a time, stirring continually until the whole is tinged with a green color, then add water sweetened with sugar or molasses until the mixture is sufficiently moistened to crumble through the fingers. The mash should be scattered, in the evening, about the plants that are liable to attack. It will be eaten in preference to the plants. All precautions necessary when poison is distributed should be exercised.

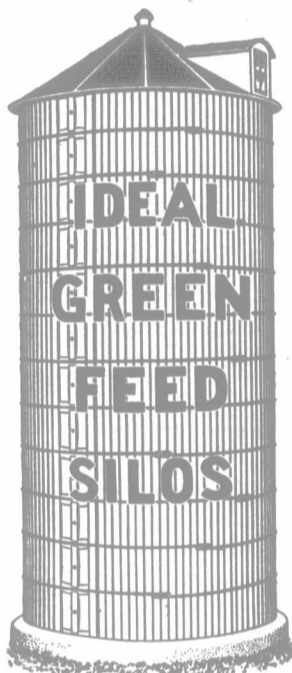
2 and 3. The slug and leaf-hopper which are injuring the leaves can be destroyed with a solution of whale oil soap. Mix 1 lb. of whale oil soap in 4 or 5 gallons of rain water. Mix it thoroughly and spray both surfaces of the leaf. Repeat the treatment if necessary. Kerosene emulsion is also effective, but not quite so convenient.

Prepare Now to Get More Profit from Your Cows



Place Your Order at Once for an

Ideal Green Feed Silo



MADE IN CANADA

Larger milk profits are sure to follow the erection of an Ideal Green Feed Silo. The best authorities have found that silage increases milk flow about 25 per cent., and reduces feeding costs 15 to 20 per cent. Silage is also the greatest profit-producing feed for beef cattle and sheep. Order your Ideal now, and be prepared to make larger profits from your live stock next winter.

Now is the time to plan for your silo. In selecting it, remember that it is GOOD silage that is most profitable to feed, and that GOOD silage can be produced only in a GOOD silo. Something that is claimed to be "just as good" at a lower price is never as good. A "cheap" silo is bound to be an inferior silo, and it can not produce GOOD silage. A "cheap" silo, or a silo that you can erect from "cheap" material, will prove the most costly you can buy.

The few dollars you might save on the first cost by buying such a silo will be lost many times over in the poor quality of the silage, the trouble and expense you will be put to in keeping the silo in repair, and in its short life.

An Ideal Green Feed Silo will pay for itself in one year, and will last from fifteen to twenty years. It will preserve your silage perfectly. It is the most profitable silo to own, because it returns the biggest profit on the money you invest in it.

Don't take a chance. Don't buy any silo until you get all the facts that prove that you get more for your money in an Ideal than in any other. Write to-day for our large, illustrated catalogue—or, better still, place your order with a De Laval agent for an Ideal Green Feed Silo. You take no chances in ordering an Ideal, because it is used and endorsed by thousands of the most experienced farmers and the best authorities in Canada.

THE DE LAVAL COMPANY, Limited

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

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

There are men that have good **Shorthorn Herds** that need good bulls to head them. There are men that have herds that are kept to breed thick, easy-feeding cattle and big cows that are good milkers. There are men that are trying hard to start improvement in their own herds and in their neighborhoods.

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

Imported Shorthorns

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. DUNDALK, ONTARIO JAMES McPHERSON & SONS

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 information. Kindly give me an idea of the age of the bull that you would require. Correspondence solicited. Oak Park Stock Farm - R. R. 4, Paris, Ont. - W. G. Bailey

FERTILIZERS

For Fall Wheat and Seeding Down

High Grade—Write for Prices THE W. A. FREEMAN CO. LIMITED HAMILTON CANADA

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.

Glenfoyle Shorthorns

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

Brownlee Shorthorns. Offers a choice lot of young bulls, ranging in ages up to nine months and sired by the Nonpareil bull, Royal Saxon. See these before buying elsewhere. Could also spare a few females. Douglas Brown, Bright, Ont., R. R. 3, Ayr Station, C. P. R.

MARDELLA SHORTHORNS

Bulls, females, sires, quality; breeding dual-purpose cattle over 40 years. The Duke—dam gave 13,509 lbs. milk, 474 lbs. butter-fat—at the head. Thomas Graham, Port Perry, Ont., R.R. No. 3. When writing please mention Advocate

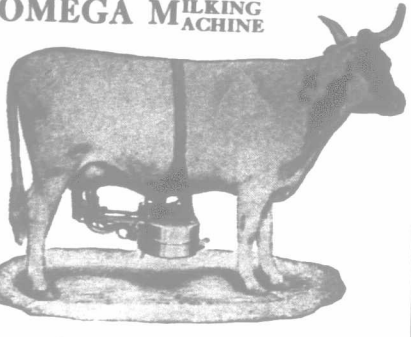
Order Fall Fertilizers Now
For Prompt Shipment

Two Reasons Why

A Transportation Reason—So the dealer can order out his fertilizer in cars loaded to full capacity, which hold twice as much as average-loaded cars. Just half as many cars are needed—the other half are set free for other uses. Freight congestion is relieved. You stand a better chance of getting your fertilizer.

A Patriotic Reason—So all our industries, all our national resources, all our efforts can give a full measure of war-time service, and so fertilizers can have a chance to increase our national food supply.

Write for Particulars
SOIL IMPROVEMENT COMMITTEE
of the
NATIONAL FERTILIZER ASSN.
Postal Telegraph Bldg. Chicago
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OMEGA MILKING MACHINE

MILKS FAST AND CLEAN
Has no rubber connections for the milk to pass through, but transparent celluloid tubes. The OMEGA is simple to operate, sanitary, and easily washed. It is used in the private dairy of H. M. King, George V. at Windsor Castle. Increased the milk flow 3% in a 17-day test on ten cows at the O.A.C., Guelph.

WRITE TO-DAY FOR FREE BOOKLET.
C. RICHARDSON & CO., St. Mary's, Ont.

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

Harab-Davies Fertilizers Yield Big Results

Write for booklet.

THE ONTARIO FERTILIZERS, LTD
WEST TORONTO

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.

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

Willowlee Holsteins

A few bulls left 4 months old; dams, 65 lbs. of milk a day. \$50.00, delivered.

A. MIGHT, R.R. No. 6, Brampton, Ontario.

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

D. M. WATT
For imported or Canadian-bred Ayrshires, bulls or females, set my prices. My importations win wherever shown. Write me for one animal or a carload. St. Louis Station, Que.

Questions and Answers.
Miscellaneous.

Holidays for Hired Men.

I would like you to tell me how many legal holidays there are in a year. E. S.

Ans.—The following are legal holidays for hired men. New Year's Day, Good Friday, Easter Monday, Victoria Day, Dominion Day, Labor Day, Thanksgiving Day, or Christmas Day and any other day or days set apart by official proclamation.

Road Fence—Speed Limit.

1. Is a man compelled to build a road fence along the front of his farm?
2. What is the speed limit for autos in a police village? A. M.

Ans.—1. Not in some cases. This depends on your township bylaws. Consult your township clerk.
2. The limit on country roads in Ontario is 20 miles per hour. Most police villages and incorporated villages, towns and cities set it at 15 miles per hour.

Fence Questions.

Is it lawful to put barbed wire on a line fence providing there is no bylaw in the township prohibiting it?
2. Are steel posts lawful for a line fence?
3. If a neighbors stock break the fence, are they responsible for damage done?
4. Is an eight strand, forty-eight inches high, woven fence high enough for a line fence?
5. If not what is the specified height? J. O.

Ans.—1, 2, 3, 4 and 5. These fencing questions should be referred to the fence-viewers in your own locality. Get the bylaws from your township clerk and then call on the fence-viewers who will decide the matter. In many places barbed wire is unlawful on a line fence and it is necessary to get the neighbor's consent before using it.

Dying Without a Will.

A dies without a will, leaving property worth about \$8,000. The legal heirs are mother, brothers and sisters.
1. What share goes to his mother?
2. Is the estate subject to government tax, and how much?
3. He also leaves a check for what money he had in the bank payable to one of his brothers. Has the bank a right to refuse payment after A's death?
4. Is it also subject to government tax?
5. What should A's brother do in order to get check cashed?
6. If A's brother pays off all claims on property, and gets the heirs to sign off, can he get a proper title, or will it have to go through a process of law. D. F.

Ans.—1. She and the brothers and sisters all take in equal shares.
2.—Yes. Five per cent. on shares of brothers and sisters.
3.—Yes.
4.—Possibly. It depends upon the circumstances.
5.—He should make claim for the amount of it against the estate, filing same, of course, with the administrator as soon as letters of administration have been granted by the surrogate court.
6. Administration is probably necessary for various purposes, and the deed of conveyance to the brother should be from the administrator with the mother and other brothers and the sisters joining therein. The wives (if any) of the other brothers ought also to join in such deed to bar their dowers.

Veterinary.

Stiff Heifer.

Two-year-old heifer became stiff in her fore legs two weeks ago. She is now stiff in all legs. She eats and milks well. She is out on pasture during the day and in the stable at night. I think she has rheumatism. J. S.

Ans.—The symptoms indicate rheumatic affection. Keep her in a dry, comfortable place. Purge her with 1 1/2 pints raw linseed oil and follow up with 2 drams salicylic acid 3 times daily. Bathe the joints of her limbs well 3 times daily with hot water, and after bathing rub well with hot camphorated oil.

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.

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 similar records, going as high as 30.14 lbs. All straight, good individuals at moderate prices.

EVERGREEN STOCK FARM REGISTERED HOLSTEINS

Just now we are offering a very choice young bull, five months old, whose five nearest dams average over 30 lbs. of butter in seven days and 100 lbs. milk in one day. Also another bull calf whose dam was the top-price cow in the Woodstock Sale. Bell phone.

A. E. HULET, Norwich, Ont.

DUMFRIES FARM HOLSTEINS

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

S. G. & ERLE KITCHEN ST. GEORGE, ONTARIO

SILVER STREAM HOLSTEINS—SPECIAL OFFERING

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.

J. MOGK & SON, R. R. No. 1, Tavistock, Ont.

KING SEGIS WALKER'S

Oldest daughter with first calf made 456 lbs. milk and 24 lbs. butter; with her second calf, 560 lbs. milk and 29 1/2 lbs. butter. His first granddaughter, through his son, at 2 yrs. 2 months, made 440 lbs. milk and 23 1/2 lbs. butter. Young stock for sale.

A. A. FAREWELL, OSHAWA, ONTARIO.

Riverside Holsteins

Herd headed by "King Johanna Pontiac Korndyke", a brother of Pontiac Lady Korndyke, 38.02 lbs. butter in 7 days, 156.92 lbs. milk and 23 1/2 lbs. butter. His ten nearest relatives have official records that average of Canada was bred here. Choice young bulls for sale.

J. W. RICHARDSON, R. R. No. 2, CALEDONIA, ONT.

FARMERS SHIP YOUR WOOL DIRECT TO US

The Highest Prices Ever Paid for Wool Are Now Being Paid by Us

Mr. Farmer, you can get more money for your wool by sending it direct to us.

In all probability it will come to us, anyway, at some time, no matter to whom you sell it.


For over thirty years we have been one of the largest buyers of wool in Canada. We could not continue in business for this length of time if we had not treated our customers fairly and paid top prices. We send your money the same day as wool is received, only deducting freight or express charges.

We are now paying for wool as follows:

Per lb.	
Unwashed fleece, fine.....	58c. to 60c.
Unwashed fleece, coarse.....	56c. to 58c.
Washed fleece, fine.....	70c. to 72c.
Washed fleece, coarse.....	68c. to 70c.

Ship to-day, or write us telling how much wool you have, if washed or unwashed, and breed of sheep clipped from. We will then quote you a straight price and send you shipping tags with full instructions.

John Hallam
Limited
TORONTO



Lump Jaw

The first remedy to cure Lump Jaw was

Fleming's Lump Jaw Cure

and it remains to-day the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails.

Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in

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Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy.

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

LAKESIDE AYRSHIRES

A few young bulls for sale from Record of Performance dams, imported and Canadian-bred, sired by Auchenbrain Sea Foam (Imp.) 35758, grand champion at both Quebec and Sherbrooke

Write for catalogue

GEO. H. MONTGOMERY, PROPRIETOR,
Dominion Express Building, Montreal, Quebec
D. McARTHUR, MANAGER, PHILIPSBURG, QUEBEC.

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 11,022 lbs. If that sort of production appeals to you, we have heifers all ages and young bulls for sale. **Thos. J. McCormick,** Rockton, Ont., Copetown Stn., G. T. R.

SUNNYSIDE AYRSHIRES

We have at present the strongest lot of young bulls we ever offered—one by Holsland Masterpiece, one by Sunnyside Matchless, and the others by our present herd sire, Sunnyside Masterpiece.

Jno. W. Logan, Howick Station, Que.

JERSEYS FOR SALE

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

CHAS. E. ROGERS, INGERSOLL, ONT.

When writing please mention this paper.

Questions and Answers. Miscellaneous.

Fall Pasture.

Would you recommend sowing Hungarian or millet at the present time for fall pasture for cows, if not, what would be best to sow? **SUBSCRIBER.**

Ans.—Hungarian or millet might do all right. Some sow rape, but of course rape would not be suitable for milk cows. By the time this reaches you it will be getting late to sow millet.

A Modest Sphinx Moth.

I am sending a moth the name of which I do not know. I would be very thankful if you would tell me through your columns to what species it belongs. I found it on a stump beside a swamp in a pasture field.

W. A. H. H.

Ans.—The moth was the Modest Sphinx, *Marumba Modesta*, belonging to the Hawk-moth or Sphingidae. The larva of this species feeds on poplar and cottonwood.

Holidays.

Can a hired man be forced to put in holidays if he does not take legal holidays? I have 15 days to put in after my year is in, but I did not have any legal holiday. Can I take all the holidays that there are in the year out of the 15 days? **A. S.**

Ans.—A hired man is entitled to eight holidays in the year unless other arrangements are made. Of course, working on these days would not let the man out unless an agreement was made to allow for them.

Worms in Land Sown to Turnips.

While hoeing my turnips I find a great many small worms, a great deal like the cut worm, they seem to be in the manure in the soil, do you think they are likely to destroy my turnips or is there any way I could prevent them? The seed was treated with turpentine before planting.

G. M.

Ans.—It is scarcely likely that they will destroy the turnips you might try the poisoned bran mixture recommended elsewhere in this issue if they begin to trouble the crop, but it is not likely that they will.

Collecting Wages.

1. Can a man collect wages if he leaves on his own account? In the agreement he was to feed his horse half a gallon of oats three times a day as long as he was on my place. He fed his horse before he left one night and took 13 lbs. of oats with him. I took the oats out of his buggy and he quit me on the following day and demands his wages.

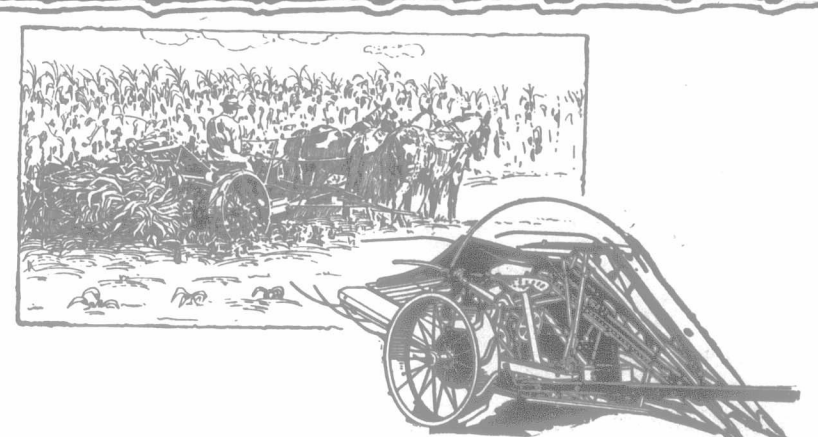
2. I have to pay higher wages to another man to fill in his time. Can I stop the extra money out of the first man's wages?

3. Is it right to pay a man as much money for the first month or two and then for him to leave when the work comes on? I hired him for 8 months and he quit me at the end of 1 month and 2 days.

4. If I ask a man to do necessary work such as milking or taking cows away after 6 o'clock and he refuses to do it and leaves what steps can be taken?

5. Can he collect his wages? **E. O. M.**

Ans.—Questions of wages depend altogether on agreements. If the man was hired for a certain lump sum of money for the eight months his money isn't due until the time is in. In any case both parties to the agreement are called upon to live up to that agreement. If the hired man had no just cause to leave, of course a judge would allow the farmer who must pay higher wages for a man to take his place something on the difference. A man is supposed to do necessary chores, but not to work fifteen or sixteen hours a day. If he hired by the month at so much a month his wages are due each month end and he could collect, but, of course, without reasonable cause for leaving he would be called upon to fulfil his contract. If he was only to feed oats while on the farm he had no right to carry any away. As a general thing the easiest way out of these difficulties is the best. The man would likely be little use if forced to remain.



Get Both Corn Profits

DO you harvest and feed corn stover, the hay crop of your corn fields? If not, are you giving yourself a square deal?

A forty-acre field of forty-bushel corn contains, besides the grain, almost eighty tons of good, palatable, dry feed. At the Government's figures, that roughage is worth at least \$260.00. Without a corn binder, that much money is lost to you from every forty-acre field of corn. With a binder you can add it to your profits.

Furthermore, it is easier and cheaper to save stover than to waste it. A **Deering Corn Binder** cuts five to seven acres a day, cuts it at just the right time to get the greatest feeding value out of the stover, saves the wages and the trouble of getting two or three extra men and puts the hard work where it belongs, on the tractor or horses.

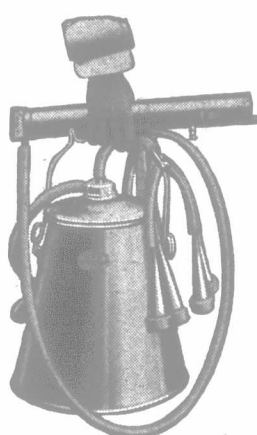
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International Harvester Company of Canada, Limited

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WEST—Brandon, Man., Calgary, Alta., Edmonton, Alta., Estevan, Sask., Lethbridge, Alta., N. Battleford, Sask., Regina, Sask., Saskatoon, Sask., Winnipeg, Man., Yorkton, Sask.

EAST—Hamilton, Ont., London, Ont., Montreal, Que., Ottawa, Ont., Quebec, Que., St. John, N. B.



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Canada's Shrewdest Dairymen
BECAUSE
It Saves them Money

You can't do better than follow the big leaders when selecting a Milker.

They know because they have made it their business to know.

Write for Free Milker Book "H"—"You Need a Milker".

H. F. BAILEY & SON, GALT, ONT.
MANUFACTURERS UNDER HINMAN PATENTS

GLADDEN HILL AYRSHIRES

We are offering some choice young bulls, nine months of age from splendid cows and sired by Fairvue Milkman. A few females also for sale.

LAURIE BROS., AGINCOURT, ONTARIO

Hillhouse Ayrshires

F. H. Harris, Mt. Elgin, Ont.

Headed by Burnside Lucky Master Swell, a combination of blood so hard to equal, being of the Masterpiece and Lucky Girl families, a combination which means quality, production and constitution. Ninety head to select from. Special offering—20 yearling heifers and 3 bulls. Inspection invited.

THE WOODVIEW FARM JERSEYS

LONDON, ONTARIO
John Pringle, Prop.

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.

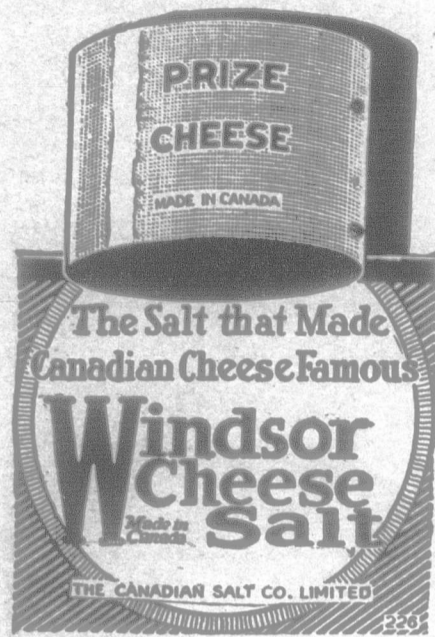
THE DON JERSEY HERD—

OFFERS:—Several young bulls, all of serviceable age, and all from R.O.P. dams. These are priced right. Interested parties should write or see these at once. We also have females of breeding age.

D. Duncan & Son, Todmorden P.O., Duncan Station, C.N.O.

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**



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)

Chester Whites

For immediate delivery, young pigs from extra-choice litters, pairs not akin. Also, to prevent inbreeding, grand boar, Clearview Led (two years past). Apply:

ELMDALE FARM
John Pollard Norwich, Ont., R. 4

TAMWORTHS

Young sows bred for August 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.

Cloverdale Berkshires and Shropshires—In Berkshires I can furnish boars or sows, all ages, pairs not akin. All breeding stock imp. or from imp. stock. In Shropshires can furnish rams or ewes, any age, from imp. stock. Prices reasonable.
C. J. LANG, R. R. No. 3, Burketon, 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 pedigree Collie puppies, sable and white; both sexes. A few good sows pigs, 8 weeks.
B. ARMSTRONG & SON, Codrington, Ont.

Champion Berkshires—When buying, offer are sons and daughters of the two great champions, Lucky Lad and Baron Compton, and out of winners, including champions. Both sexes.
W. W. Brownridge, Georgetown, Ont., R.R.3.

Berkshire Pigs Registered stock, choicely bred young boars, and sows in pig, all ages. Can supply pairs not akin.
CREDIT GRANGE FARM
J. B. Pearson, Mgr., Meadowvale, Ontario.

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.

SWINE FOR SALE An offering choice stock in Poland China and Chester White swine of either sex, most any age. 1st-prize Poland China herd, London and Toronto, 1915. Prices easy.
George G. Gould, R. R. 4, Essex, Ont.

Please mention Farmer's Advocate

Gossip.

Prospects Bright at Highland Lake Farms.

Prospects for a good season at Highland Lake Farms were never better than at the time of our visit to the farm a couple of weeks ago. Crops were coming along fine, the Holsteins were doing excellently and R. W. E. Burnaby looked the part of an extremely contented proprietor while showing us over the premises. Speaking of the Holsteins, trade has been flourishing with Mr. Burnaby since our last visit to the farm. Sales have not only been plentiful but the number of 30-lb. cows in the stables has also increased from one to five since our last visit. Very few breeders in Canada have now more 30-lb. cows than has Mr. Burnaby. Katy Burke Korndyke Pontiac is the highest with 33.12 lbs. of butter in 7 days and 124.64 lbs. in 30 days. Tidy Albino De Kol comes next as a four-year-old with 31.92 lbs. in 7 days, and 123.38 lbs. in 30 days. Daisy DeKol Hengerveld has 31.43 lbs. in 7 days, and 123.32 lbs. in 30 days. Simcoe Mercedes Queen is eight points above 30 lbs., and Helena Pauline Korndyke only three points below. In milk, however, the latter ran as high as 111 lbs. in one day and produced 773 lbs. for the seven days. She is a half sister to Daisy Pauline Pietertje, the Canadian yearly record cow for 1914. All five are now safe in calf to Avondale Pontiac Echo, the son of May Echo Sylvia, which has been the herd sire at Highland Lake Farms for the past season. He is one of only two 40-lb.-bred bulls in Canada to-day, and has been the senior sire in service during the past season. We might add that he has only been under lease, but he comes back again to the herd for the 1917 breeding season under the same arrangements. The several bull calves Mr. Burnaby is advertising elsewhere in these columns are all sired by Avondale Pontiac Echo, and from dams whose records are all above 30 lbs. Other bulls listed are sired by King Segis Pontiac Artis Canada, a 30.12-lb.-bredson of King Pontiac Artis Canada, and which has until recently, been the junior sire in service. He has recently been sold to B. E. Hagerman of Stirling, Ont. The sons and daughters of this sire which are still at Highland Lake furnished ample proof that Mr. Hagerman has made a good selection. Another recent important sale was a bull calf by Avondale Pontiac Echo to D. A. Dunlop, Toronto. The records of the dam and sire's dam of this youngster average 34.38 lbs. of butter in 7 days, which places him well up among the best young bulls of the year. B. V. Harvey, Lakefield, Ont., secured another calf from a 30-lb. dam, while others of lesser note have been going out lately at an average of almost one per day. Even with good cattle and the choicest of breeding Mr. Burnaby states that fair treatment is really the most important stimulant to all kinds of trade. Look up his advertisement and let him know your wants.

Questions and Answers.

Miscellaneous.

Keeping Pork in Brine.

About two weeks ago I put down some pork. I boiled 1½ lbs. of salt, ½ lb. sugar and a little saltpetre to each gallon of water. The meat was put in this brine and kept in the cellar. There is now some mold on it. Will that injure the meat? If so how can I remedy it? A. L.

Ans.—Frequently some mold appears on brine-cured pork, but it is not desirable nor should it appear so soon. It would be advisable to take the meat out and scrape the mold off, after which it should be rubbed lightly with salt. Boil the brine, scald the retainer, and return the meat and brine to the vessel. If the meat continues to mold we would advise a straight salt cure. Use 10 lbs. salt and 2 ounces of saltpetre for each 100 lbs. of meat and dissolve in 4 gallons of boiling water. When cold pour this brine over the meat, cover, and weight down to keep it under the brine. Scald the container thoroughly.

DELCO-LIGHT

ELECTRICITY FOR EVERY FARM

Puts Joy in Farm Life

Do you realize what electricity on the farm means—clean, clear light any time of the day or night—without matches. Light all over the house, in the barns and sheds, in the yard, and dairy. Power to work the small machinery. Running water from an electrically operated pump.

It means doing chores in half the time. It means doing away with a lot of hard work. It means more fun, better health, *pleasure on the farm.*

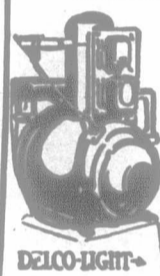
And Delco-Light completes the joy of electricity on the farm, for it brings you electricity easily, economically. This truly wonderful plant costs little for the work it does. It is cheap to operate. Easy to operate. And gives splendid satisfaction.

Thousands of Delco-Light plants have been installed. Every owner is enthusiastic and feels that he paid little for all he has received.

The Delco-Light plant consists of combined self-starting gas engine

and electric dynamo and a set of storage batteries. Starts on pressing of a lever, stops automatically when batteries are full. It is utterly simple in construction and operation. Efficient of fuel and delivers all the light and power you will require.

Full details, descriptive literature and a free demonstration can be obtained by writing your nearest distributor. They are listed below. The price of Delco-Light is No. 208—\$485 and No. 216—\$585.



The Domestic Engineering Co. - Dayton

CANADIAN DISTRIBUTORS—C. H. Rooks Ltd., Toronto; Breen Motor Co., Winnipeg; B. L. Robinson, Calgary; Langley & Hazlett, Vancouver; Provincial Electric Light and Power Equipment Co., Kentville, N.S.



DELICATE MECHANISM

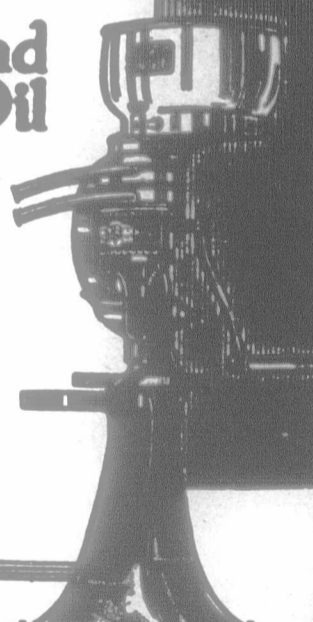
such as the close fitting bearings and adjustments of a hand separator, demands a special lubricant in order to work efficiently.

Standard Hand Separator Oil

is especially manufactured for this purpose. It is absolutely free from all impurities, cannot gum, and besides giving superior lubrication where it is needed, protects the separator from seam rust and corrosion.

Put up in pint, quart, half-gal., gal. and 4-gal. cans. Sold by reliable dealers everywhere.

THE IMPERIAL OIL COMPANY
Limited
BRANCH STATIONS THROUGHOUT CANADA



LARKIN FARMS

Southdowns and Shropshires

Having added to our flocks by purchasing, from J. C. Duncan, all the sheep of the Niagara Stock Farm, Lewiston, N.Y., we are able to offer an excellent selection of the two-year-old and shearing rams and ram lambs; also a few show flocks of both breeds for the Summer and Fall Fairs. Address

Berkshire boars, all ages
Larkin Farm, Queenston, Ont. Twenty-minute trolley-ride from Niagara Falls.

FARNHAM OXFORD DOWNS

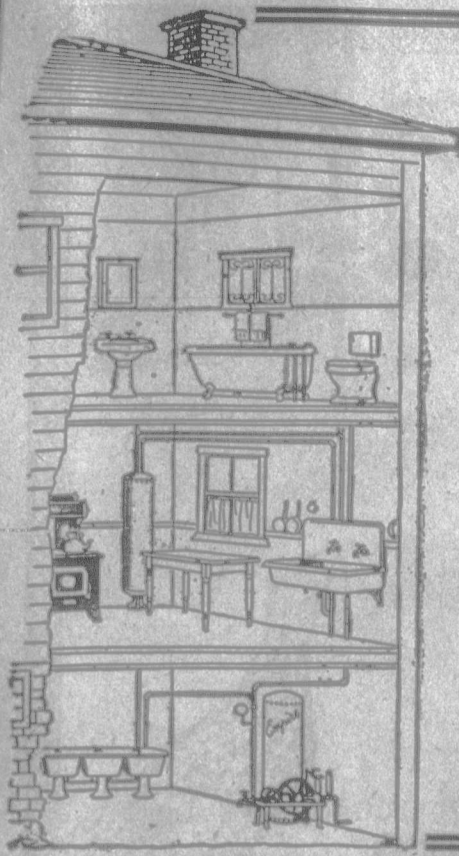
Flock established from the best flocks in England. Our initial importation was among the first in 1881. Having quit the showing, we now make a specialty of breeding animals. Special attention to flock headers. They will give a good account of themselves in the showing. Offering for the present season—120 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.



Have Your Own Water System

Have running, hard, soft and hot water on every floor of your home—in the basement for laundry purposes, in the kitchen, in the bathroom. Then a tap outside for watering the lawn or flowers, and another for the stock in the yard, also water in the barn, poultry house, garage.

The water supply is constant, and always under good pressure when you use an

Empire WATER SUPPLY System

Empire Water Supply Systems are simple in design, compact, powerful. There is an Empire System suited to the needs of every home, and priced so reasonably that no home need go without it.

Send to-day for our Free Catalogue and Information Blank.

Fill in the latter, mail it to us, and we will select a system suited to the needs of your particular place, and estimate its cost without charge or obligation.

EMPIRE MANUFACTURING CO., LIMITED
EAST LONDON, CANADA. Branch Office: 119 Adelaide St. W., Toronto

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!



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

FOR SALE

Buckeye Traction Ditcher

1914 MODEL

In excellent condition.

Box "M," Farmer's Advocate, London, Ont.

Tom Johnson claims that the oldest joke is the one about the Irish soldier who saw a shell coming and made a low bow. The shell missed him and took off the head of the man behind him. "Sure," said Pat, "ye never knew a man to lose anything by being polite."

"But, my dear," said his wife, after he had complained about the food the new cook had brought in. "You know during these terrible times it is absolutely necessary that we make great sacrifices." "Oh, of course, but what I object to is that cook's making hers in the form of a burnt offering."

Mrs. Nexdore—"Professor Adagio called at our house yesterday and my daughter played the piano for him. He just raved over her playing."

Mrs. Pepprey—"How rude! Why couldn't he conceal his feelings the way the rest of us do?"

HOMESEEKERS' EXCURSIONS



MAY 8th TO OCTOBER 30th

Every

TUESDAY

"ALL RAIL" - 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.

Cream Wanted

We want your cream. We pay highest market price for butter-fat. Supply cans for shipping.

We have opened a Creamery at Prescott, Ont., where we will be able to take care of our Eastern shippers.

Write for particulars, either to Toronto or Prescott.

We guarantee satisfaction in all our dealings with you.

The T. Eaton Co., Ltd.



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.

Fertilize Your Fall Wheat

The Empire is gasping for wheat, and the Government are calling for increased production. Every acre, therefore, must be made to yield its maximum return.

SYDNEY BASIC SLAG

is the ideal fertilizer for wheat, and can be obtained at any station in Ontario for twenty dollars per ton. If you have never used fertilizer, now is the time to start, when big crops are essential. What about taking 20 tons and distributing same among your neighbors? Drop us a line, and our salesman will call and talk the matter over.

The Cross Fertilizer Co., Limited
Sydney, Nova Scotia

Honoring the Brave!



IN THESE days of supreme sacrifice, when men are doing and daring and dying for our national ideals—when even those who stay at home are making undreamed-of efforts for the Empire's welfare—a lasting memorial is sought to perpetuate the memory of those brave men whose answer to the call of duty has meant the surrender of their lives.

In the making of memorial tablets, the Dennis Company brings to the task a wealth of art-knowledge, a store of experience, and a sense of the fitness of things peculiarly valuable when dealing with this delicate subject.

Write for full information and estimates on brass or bronze memorial tablets, shields, church furniture, etc., to

The Dennis Wire & Iron Works Co., Ltd.
London, Canada

NORTHERN ONTARIO

Millions of acres of virgin soil, obtainable at 50c. an acre in some districts—in others, free—are calling for cultivation.

Thousands of farmers have responded to the call of this fertile country, and are being made comfortable and rich. Here, right at the door of Old Ontario, a home awaits you.

For full information as to terms, regulations and settlers' rates, write to:—

H. A. MACDONELL, Director of Colonization, Parliament Buildings, Toronto, Ont.

Hon. G. H. Ferguson, Minister of Lands, Forests and Mines

When writing advertisers will you please mention The Farmer's Advocate.



Days of sport are days of health

And they're days of clean exhilaration too, when Remington UMC makes one of the party. And you know what a welcome change at the table a little seasonable game can make.

The beautiful "hang" and precision of Remington UMC Rifles and Shot Guns—the deadly-smooth reliability of Remington UMC metallics and shot-shells make all the difference between real "days of sport" and—the other kind.

100 years right

Remington UMC

The line complete

Remington UMC Pump Gun. The first hammerless repeating shot gun. Six shots. Positive slide action. Easily and quickly loaded. Smooth working. Rapid in fire. Solid breech, closed top and sides. Loading and ejection at bottom—shells, smoke and gases go **down**.

Remington UMC loaded shot shells, smokeless: "Nitro Club" and "Arrow" (steel lined) and "Remington"; (black powder: "New Clubs",) are turned out with consummate care, the best of materials, and many tests.

Remington UMC Big Game Rifles and metallics stand alone in the shooting world for brilliant performance in the hands of the **average** shooter.

Remington UMC 22's—If you want fast, clean sport any day of the year, get a hard hitting, little REMINGTON UMC .22 RIFLE, an "Auto-loader", 16 shots; a "Slide Action Repeater", 15 shots; or a "Single Shot." Remington UMC .22 Cartridges, short, long, and long rifle are made with the same care as our famous high-power metallics. Get a box or two, and be ready for an hour's fun any time.

Remington UMC of Canada, Limited.
Windsor, Ontario

Go to the reliable dealer who displays the Sportsmen's headquarters sign

