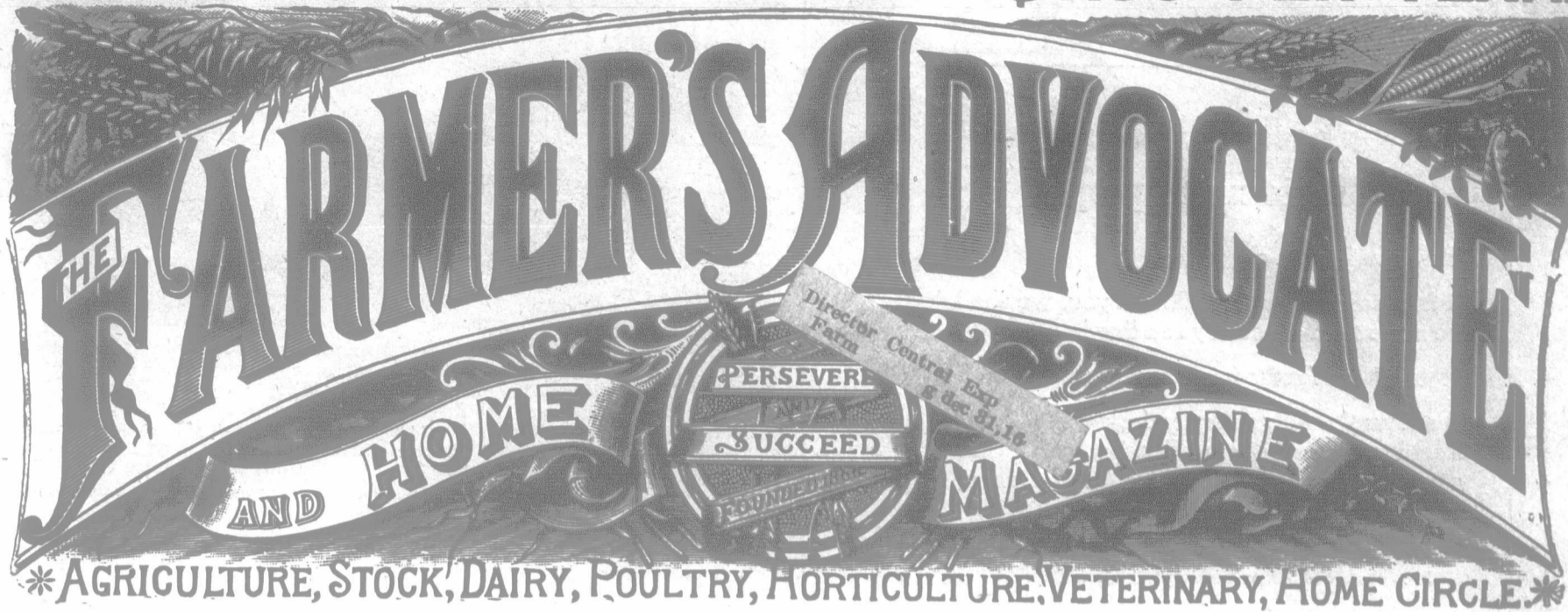


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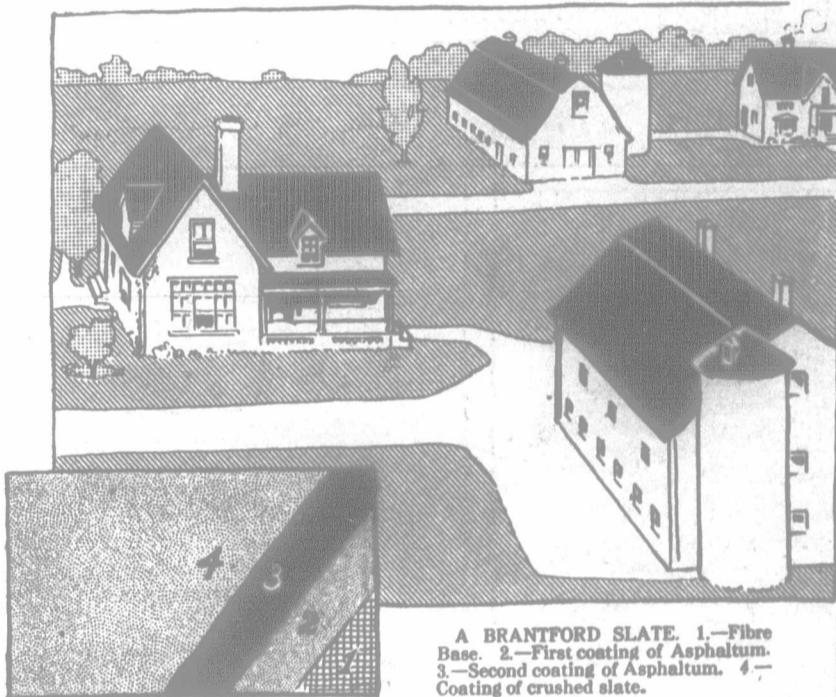
VOL. LI.

LONDON, ONTARIO, JUNE 1, 1916.

No. 1236

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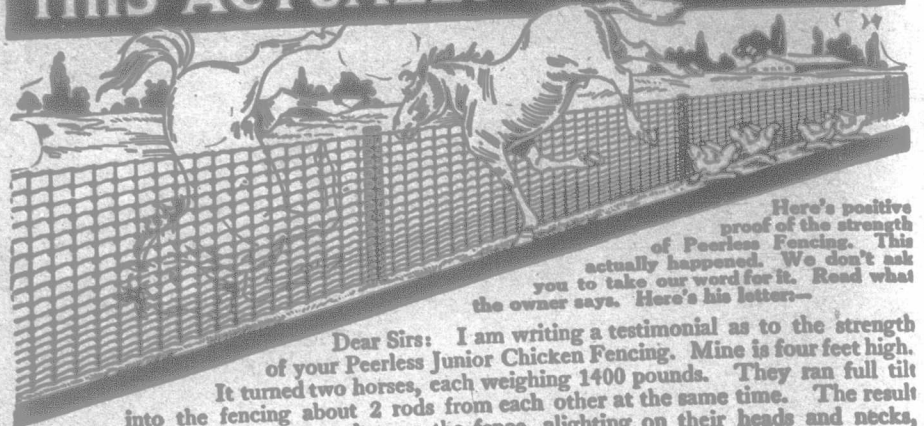
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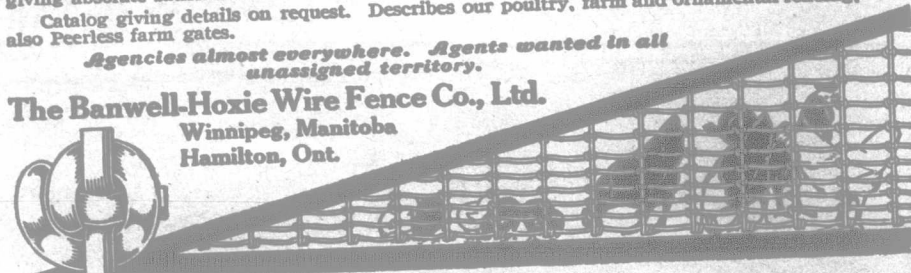
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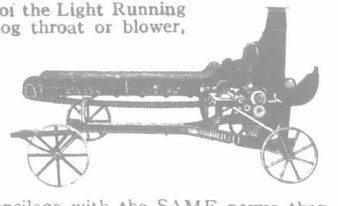
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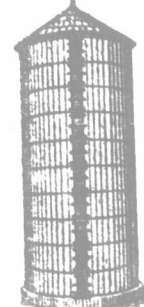
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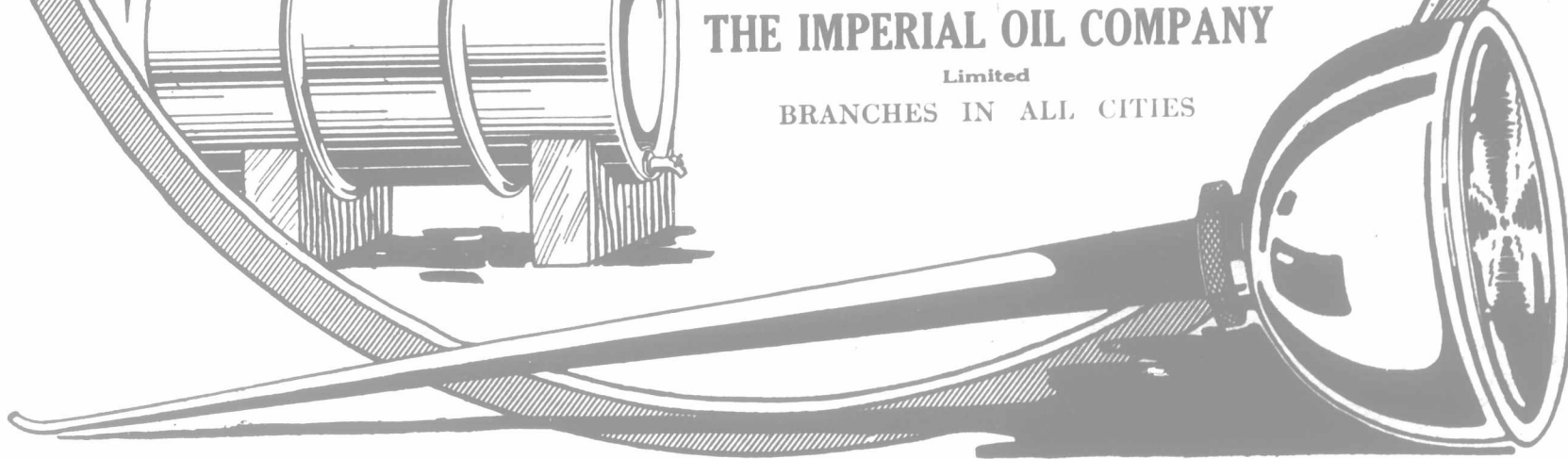
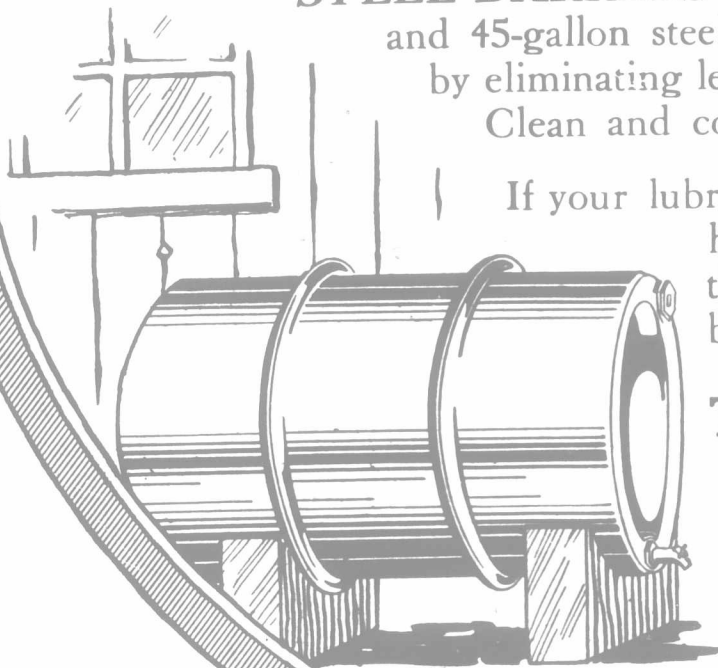
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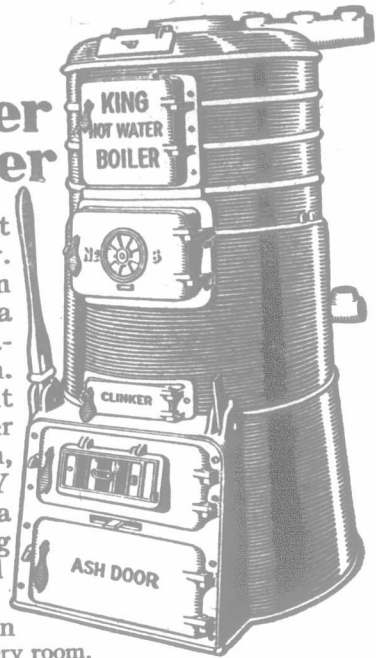
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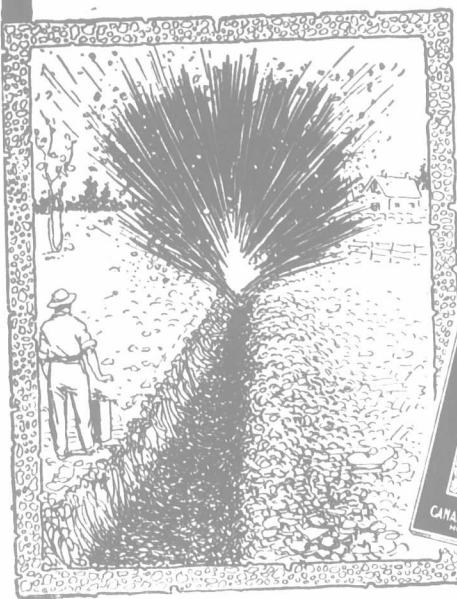
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Lf.

LONDON, ONTARIO, JUNE 1, 1916.

1236

## EDITORIAL.

It is to be hoped that June behaves better than May did.

Be sure to take your umbrella and rain-coat to the field!

It is time to see that all the haying machinery is in good repair.

Keeping records will make you a better dairyman and your herd more productive.

A wet year is generally a weedy year. If possible, never let the weeds get a start.

If all that is said against the Ross rifle is true, it is time a change was considered.

The commission business seems to be a profitable business in so far as it applies to war contracts.

Increase the acreage of corn and roots, even though planted late. Remember, the season is late.

Read the article on keeping dairy records in this issue. One man is now able to make more from a herd of 17 cows than he formerly did from 27.

The session of the Dominion Parliament, recently prorogued, might have been known as the railway session almost as appropriately as the second war session.

Those who sowed early, even though the land was none too fit, are congratulating themselves. This year, as is the case most years, it was better to sow early than late.

When you pay a fair price for a high-class article and get good value, you generally feel better than when you are separated from ten or fifteen cents and are "stung."

Records are capable of increasing the annual income from a herd of from 12 to 15 cows by \$500. These are not abstract figures. They have been proven by practice.

Seeding weather, such as has prevailed over the greater part of Ontario this year, generally means more catch crops as buckwheat, millet, etc. Sow something to keep the land productive.

Some of those who were calling for grain production a year ago are now endeavoring to show that there is likely to be a surplus of grain and a shortage of live stock at the end of the war. It never pays to give up good stock for grain growing.

Some prophets, and others, are now sure that the intense bombardment in Europe caused the heavy rains which deluged Ontario in April and May. If so, why didn't Western Quebec get the same dose? The weather in that Province was not unusually wet, we are told.

Real good horses may be scarce, but it will take considerable persuasion on the part of arm-chair Government officials to make the farmer who has one, two, three or half a dozen sound, serviceable horses for sale, believe that there is any scarcity in sight. However, we believe every farmer with a good brood mare should breed her to a good sire this year.

## What Parliament Did for the Railways.

Elsewhere in this issue is the report of what the Dominion Government did for agriculture in the session recently prorogued. There was practically nothing, so far as legislation is concerned, to report regarding agriculture. The resume is worth reading, however, in order to acquaint oneself with the way the estimates are allotted to each branch of the agricultural work. No one would expect much new agricultural legislation during a war session. Canadian Governments have gone about as far as they safely can with the "pap" they call agricultural legislation. As a matter of fact agriculture is generally legislated against more than for. Governments have a habit of making a big noise about the money they spend for agriculture, while they proceed to give big corporations and the so-called Big Business, legislation which permits them to get the advantage of the farmers of this country to an extent many times greater than that covered by the expenditure of the Agricultural Department. However, Canadian farmers believe that the expenditure of the Agricultural Department is high enough, and all they ask is a fair field, with no favors to any business or class.

It is interesting, however, to note that there was enough railway legislation in the recent session to warrant its being called a "railway session" as well as a "war session." It seems that anyone who went to Ottawa on railway business had no trouble in impressing Parliament. In fact we heard a statement made in the Capital City that there was no use in coming to Ottawa unless you had a railway to sell.

Year after year the heads of one big railway corporation have been going to Ottawa for financial help, and now another transcontinental line finds itself in a position which necessitates Government aid. During the past session \$8,000,000 was guaranteed to the Grand Trunk Pacific, and \$15,000,000 to the Canadian Northern. Those who have followed the situation will remember that in 1911 \$35,000,000 was guaranteed to one road, and they were back again in 1914 and received a further \$45,000,000. Each time the Government is told by those who are after funds that this will be the last. But this year they were confronted with a new proposition; the directors of the G. T. P. came to them with the road practically in their hands, ready to pass it over, but the Government would not, fearing that, with the financial load necessitated by the war, it would dangerously increase the obligations of Canada. What the public would like to know is how long these railroads are to remain under private control and be financed by the people, which is really the case at the present time. If the Canadian Government is to be called upon to meet the financial obligations of the roads, which the roads themselves cannot meet, it means nothing more nor less than that the Government stands behind the roads. It is said that it would be a bad thing for Canadian finance if one or more of Canada's leading railroads were to go into liquidation. If this be true it would seem that the only thing to do would be for the Government to take over the roads and operate them. All those who are following the situation closely believe that this will be the ultimate necessity, and wonder is expressed that the Government delays and keeps doling out year after year money to finance the roads when they have no jurisdiction over their operation.

Not satisfied with meeting the financial obligations of the two railroads another commission was added to the long list already appointed. This commission, at an expense to the country of \$150,000, is to go over the affairs of the two railroads and make some

plans as to what shall become of them in the future. Governments of the present age are expert at getting out of work themselves by handing all investigational activity over to expensive commissions, who, in a vain hope to earn their money, turn out reports so voluminous that no one finds time to read them through, and by the very volume of the printing add to the cost of the work. If it is necessary to further go in to the affairs of the C. N. R. and the G. T. P., it would appear to the average Canadian citizen that Parliament could have made some provision other than the appointment of a \$150,000 commission. In fact, is it not for this very class of work that we elect members of Parliament?

Then, toward the close of the session, there was hurriedly put through, legislation authorizing the purchase of the Quebec and Saguenay railway with the Lotbiniere and Megantic railway at a cost of between four and five million dollars, and which it is estimated before the road can be put in first-class running order will run close to \$10,000,000. This road, which is being taken over at a cost of something over \$70,000 per mile, runs, it is said, through an uninhabited and uninhabitable, barren and rocky country, along the banks of the St. Lawrence River. The road is very little use in winter, and during summer cannot compete with steamboat rates. From the standpoint of cost and from that of utility of the road, there seems to be no good reason why the Canadian people should be saddled with this bill of expense, particularly during this time of national sacrifice.

There was one good feature about the railway legislation of the past session but it had a bad ending. Bill No. 87, known as an Act to amend the Railway Act, was passed through the House of Commons, but the Railway Committee of the Senate succeeded in side-tracking it. The Bill itself was to give the Board of Railway Commissioners power to pass upon the proposed location of any new railway and approve of it, or, if the Board deemed that the construction of the railway upon the proposed location or any portion thereof was not in the public interest, it had the power to refuse approval. The Bill, in effect, was to give the Dominion Railway Commission power to determine the final location of railway lines in Canada. The people of this country have every confidence in its Railway Commissioners, and up to the present have found little or no fault with the Railway Commission. The location of railways would have been in good hands had the Senate seen fit to pass this good Bill. The Senate seem to want the Railway Commissioners to pass upon these railway matters, and then for Parliament to have the final action. This would make the work of the Commission useless in many cases where any decision they might make not favorable to the interests could be reversed by a well-lobbied Parliament. At the same time the Senate Committee recommended an extension of the unused railway franchises held by private interests in the Niagara Peninsula.

And lastly let us mention the gigantic project of the Hudson's Bay Railway, which has already cost \$15,466,304, and which, at a time when every effort is necessary to carry Canada over a crisis, is to be pushed to completion. It is hoped by it to open up new and undeveloped resources. This may be necessary in time to come, but at the present Canada has plenty of these awaiting development that this road might have rested until conditions were more favorable. There is a question in the minds of many people as to whether or not the road will ever prove profitable. This is no time to expend large sums on guesswork.

These figures are not used here as an attack on the Government. The other side, if in power, would doubtless do all they could to hold power, and would



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be just as likely to cater to the Big Interests. It is time for the people to insist upon careful and safe administration of public funds. Surely the railways and promoters have about had their innings.

### The Cost of Government Printing— Or Where Canada Could Save a Million Annually.

Just before the Dominion Parliament prorogued the Printing Committee brought in a few recommendations in an endeavor to reduce the cost of Government printing from its present pinnacle to a sum more in keeping with the needs of this work. Readers of "The Farmer's Advocate" who get many of the blue books and the piles of Government publications sent out know something of the profusion of these publications, but they by no means know of all of them and have little idea of what it costs annually to do Government printing. The expenditure in 1915 for printing these Government publications had increased to \$1,807,390, whereas in 1895 the expense was only \$330,627, and, as a member of the Senate pointed out, there was no complaint about there not being enough Government publications in 1895. The Printing Committee recommended that, in future, cards be sent out to all those whose names were on the mailing lists asking them to indicate what publications they desire and these could be sent them. It was pointed out in debate that one particular publication, which we understand required tons upon tons of paper and was printed at great expense was turned out to the number of 110,000 copies, but only 25,000 people could be induced to take it, or had any use for it, and consequently 85,000 copies were simply waste paper. Those who get all the Government blue books and publications know that many of them are sent to people who can make no use of them. We believe that the suggestions of the Printing Committee should be acted upon and that cards should be prepared containing a full list of the publications, and these cards should be sent to all those on the mailing list, with the request that they be filled in to indicate only the publications desired by these parties for use. Most of the publications are valuable but they are not valuable to all

people. We find many of them very useful in this office, but as is the case in every other office or on the farm we find that large numbers of them are simply waste paper to us. The same is true the country over. Some have use for certain volumes others for certain other volumes and the way to cut down expense would be to find out just what the people want and send them nothing more.

Mailing lists should also be revised annually as suggested by the Printing Committee. It was brought out in debate that some of these lists had not been revised for from 20 to 25 years, and that the publications were going to institutions which had been out of business for years.

All those who have followed these publications closely will also agree with the suggestion that they be cut down in size, as most of them contain much useless material, and, in many, better systems of compilation and general make-up would save space and consequently thousands of dollars to the country. The high quality of paper and profuse, unnecessary and expensive illustrating and the general verbosity common to these volumes could very well be dispensed with. The fault is not all with the present Government. The increase has been going on for years and it is time to call a halt. One Senator remarked that he thought it would be easy to cut down the Government expenditure for printing by at least \$500,000. We would go one further and state that the country would not suffer from lack of Government publications if \$1,000,000 per year were saved by a judicious re-consideration and re-organization of Governmental printing work and distribution. Here is another good place to promote thrift.

### Catch Crops for a Backward Season.

In a season such as this has been with a late spring followed by continuous downpours and cold, backward weather, many farmers rather than sow the regular crop which they had intended sowing on certain fields, are forced, through circumstances, to abandon their original intentions and make other cropping arrangements. Fortunately, there are a few crops which can be depended upon if sown late. Feed, both coarse and concentrated, must be provided for next winter and it is imperative that every acre be sown to some crop which will have a reasonable chance to do well, provided weather conditions from now on prove favorable.

We would not advise anyone to change from regular crops to catch crops of any class whatever until such change is necessary. For instance, it is not too late yet to sow mangels. Of course they are better in earlier, but we have seen excellent crops of these roots produced from sowings made the first week in June. A fair crop of roots would be more profitable than a summer-fallow unless, of course, the field was very dirty and required a thorough cleaning, but few fields intended for cereals would be this bad. Where the season grows so late through the protracted wet weather if the grower is dubious about a crop of mangels he should not fail to sow Swede turnips. They make a good crop to use in conjunction with silage, or to feed alone, will yield almost as much as mangels, will require a little less labor, and may be sown up to the first of July, with fair success, although some time in the first three weeks of June is generally considered the best time to sow.

For a crop to take the place of cereal grains on land which was too wet to sow at the proper time, buckwheat is perhaps the leader. The end of June or first week in July is a good time to sow in most localities. This gives an opportunity to work the land up well before sowing and to get it in good tilth even though the spring is backward. From three pecks to a bushel of buckwheat is generally enough to sow per acre. Some have reported good success from one-half bushel, but we would prefer a thicker seeding. A good crop of buckwheat will prove very profitable this year as a catch crop where conditions have made it impossible to get in other grain, as this grain may be used in mixtures for feeding purposes to very good advantage.

Another crop which deserves some consideration is millet. An article on this crop appeared in our issue of May 11 and we would advise readers to pay some attention to it where there is a likelihood of shortage of fodder for the coming winter. Seeding around the middle of June generally gives the best results. It is well to wait until warm weather before putting in a nurse crop even though sowing should be delayed until July 1. From 25 to 30 pounds per acre is generally enough seed. This crop will not take the place of

good clover or mixed hay, but is much better than letting the land go bare.

Much of the corn will be planted late this year, but it would be generally more advisable to plant an early-maturing variety late than not to plant at all. If the weather shows a tendency to dry up in time a few acres of potatoes might prove profitable as they may be planted late and still come to good maturity. In the sections where rains have been most prevalent it will be a question of what crop can be best handled to insure the most profitable production this year.

### Nature's Diary.

A. B. KLUGH, M.A.

Among all our birds there are few which are more generally beloved than the Baltimore Oriole. And the reasons are not far to seek, as this bird is brilliant in plumage, has a cheery, piping song, makes its abode near the habitations of man, and does no damage to crops of any kind. We have many birds with coloring as brilliant as that of the Oriole, but they do not habitually haunt the orchard and door-yard; we have many whose songs are of a finer quality than that of the Oriole, but they are found in the deep woods. Consequently these birds are comparatively little known except by those who seek them, or by those whose work takes them into the forest in summer, while the Oriole is well-known and well-loved.

Another feature which arouses interest in the Oriole is the wonderful nest which it builds. This nest is usually constructed at the end of a branch of an Elm. It is pocket-shaped, and usually about seven inches long and four and a half inches wide at the bottom. The top is attached to forked wings at the Y, so that the mouth of the nest will be kept open to allow the bird to pass in and out. The framework of this basket is woven out of twine, and the bottom is more closely woven than the upper part. Into this framework shreds of wood-fibre, fine grass and pieces of plants are woven. The nest is lined with hair. In places where no twine is available the framework of the nest is constructed of vegetable fibre. The eggs are from four to six in number, white, faintly tinged with blue, and spotted and scrawled with lilac and brown mostly towards the larger end.

The main food of the Oriole consists of caterpillars, as these make up thirty-four per cent. of the total food. The rest of the insect food consists of beetles, bugs, plant lice, ants, wasps, and grasshoppers, the beetles being mainly click-beetles, the larvae of which are the very destructive wire-worms.

The Baltimore Oriole is rare in the Maritime Provinces, and common from Western Quebec to Manitoba, and as far north in Ontario as Ottawa. It is gradually extending its range to the north as the country becomes more cleared.

We usually associate frogs with damp places, but there is one species of true frog (that is, not a tree frog) which spends but a very brief period in or near the water. It is to be found in the woods from May to October, and is consequently called the Wood Frog. In coloration this frog is very variable, as it may be chocolate-brown, reddish-brown, yellowish-brown, fawn color or grayish-brown, and not only may different individuals be of different colors, but the same individual may be one color one minute and quite a different color fifteen minutes later. The lower back may or may not be irregularly spotted, and the legs may be or may not be barred. The underparts are yellowish or greenish-white. There is a large patch of dark brown or black in the region of the ear, and this patch usually extends from the snout to the shoulder, widening as it runs backwards. A light line runs from along the jaw from snout to shoulder, and it is this line together with the black patch mentioned above that are the identification marks of this species.

It is a small frog, the full-grown males averaging about two inches in length from snout to the end of the body, and the females about three inches. The Wood Frog when on land is a silent species, and it is only in late March or early April when they are spawning in the pools and ponds that they utter a note. At this time the males keep up a continuous croaking and the notes they utter are much like the croaking of ducks. The eggs are laid in the water in masses about four or five inches in diameter, and may be attached to twigs or float free. After they have been laid about a week the egg-mass flattens and spreads, and the jelly about the eggs becomes green in color, due to the presence of minute, green Algae. The time which is required for the eggs to hatch depends upon the temperature of the water, and the rate of development of the tadpoles depends upon the same factor. In shallow, temporary pools, in which the water soon becomes warm, they develop very rapidly, but in deeper, permanent ponds their development is relatively slow.

The Wood Frog is one of our most active and alert species, and for its size takes the longest leaps.

An attractive plant now in bloom in our hardwood bushes is the Twisted Stalk. This plant has an erect stem from which long branches fork and grow from fifteen inches to two feet in height. The leaves are ovate, taper-pointed, and rounded and clasping at the base. The little flowers are bell-like, about half an inch in length, rose-pink in color, and hang either singly or in pairs on hair-like stalks from the undersides of the branches. This species belongs

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to the Lily Family, and is a close relative of the Solomon's Seal.

Insects which claim our attention at this time of year, whether we will or no, are the Black Flies. These insects breed in rapidly-running streams, the larvae being attached to objects in the water and breathing by means of gills. Consequently they are more numerous in localities where such streams abound.

## THE HORSE.

### Lameness in Horses—XXIV.

#### Scratches, or Cracked Heels.

Scratches or cracked heels is a skin disease, hence it may be claimed that it is not properly classed as "lameness." At the same time the condition, in mostly all cases, causes lameness, hence we may be excused for discussing it in this class.

It consists in an inflammation of the skin. It is characterized by redness, (noticeable only in horses with white heels), heat, swelling, and irritation. It is technically called Erythema, and is liable to affect any portion of the limbs. When that portion between the hoof and the fetlock joint is involved, it is called *scratches* or *cracked heels* when the limb is affected to a greater or less height above the fetlock, it is called *mud fever*, when the anterior surface of the hock is the seat it is called *sallenders*; and when the posterior surface of the knee is involved, it is called *mallenders*.

**Causes.**—Horses with fatty or beefy legs are predisposed to the trouble, but it is liable to occur in horses of any and all degrees of quality of bone. It may be due to systemic or constitutional disturbance, induced by overfeeding and want of exercise, or by the reverse, i. e., a depleted state of the system, caused by debilitating diseases, or want of proper nourishment. In either of these conditions, slight exciting causes will usually be followed by the trouble. It is caused by heat and cold operating alternately upon the skin; standing in wet, dirty and ill-ventilated stables; friction; pressure; dirt and wet. Probably one of the most frequent causes is the too common habit of washing horses' legs, especially with warm water. During certain seasons of the year, when the weather may be warm during a portion of the day and then turn cold, it is not uncommon for horses to reach the stable in the evening with mud or snow and water frozen to the hair upon their legs. The teamster, thinking the horses would be uncomfortable if allowed to stand in this condition, takes warm water and washes the legs and leaves the horses standing in their stalls. During the washing process the hair and skin have become wet with the warm water, then the air, always colder than the water that has been used, now striking the parts causes a more or less violent reaction, which interferes with the circulation. When this has occurred repeatedly, we should not be surprised if scratches or mud fever appears. The practice of washing mud or frozen matter off with either warm or cold water cannot be too strongly condemned, unless the teamster attends to but one leg at a time and does it thoroughly, that is, after washing a limb he should rub it with cloths or wisps of straw or sawdust, until it is thoroughly dry, then attend to another leg, etc. This, of course, takes a long time, especially with hairy-legged horses, and few teamsters have either the time or inclination in the evening after doing a day's work. The above practice will make the horse comfortable and prevent reaction, at the same time the horse suffers little or no discomfort by standing with mud or snow, frozen or not, upon his legs. The accumulation is upon the hair, and it is seldom that the skin is wet. Unless the teamster is satisfied to rub until dry, he certainly should not wash. Allow the horse to stand until the mud dries, or the ice melts by the heat of the legs and of the stable, when it will drop off or can readily be rubbed or brushed off. Supposing the brushing does not take place until the next morning, it is much better for the horse than washing as it is usually done; hence, on general principles we say, "Do not wash your horses' legs, especially in cold weather."

Another fertile cause of the disease is clipping the legs in cold weather. When the legs are to be clipped, it should be done in the fall, at all events not later than the middle of November. They may be clipped again during the winter, if necessary, as

they have gradually become accustomed to the cold, but it will be noticed when the clipping is not done until later in the season, as is often the case, especially when the horse changes ownership, and the new owner, in order to improve the apparent quality of bone, with a view probably of selling again, clips his legs, that in the course of a couple of weeks he has cracked heels, and often mud fever in all limbs. In cases of this kind the reaction is too great, the cold has such an effect upon the clipped legs, that have previously been protected by hair, that the circulation becomes partially arrested; then, when in the stable it regains its normal condition, only to be again checked when the horse is taken out, etc., etc., and this usually results as stated. The way to prevent skin disease of this nature in the legs is to keep the horse in a dry, comfortable place, feed in proportion to the amount of work done, and as far as possible avoid the direct operation of heat and cold, wet and dry, directly upon the skin.

**Symptoms.**—The first symptom is a redness of the skin, (noticeable only in animals with white heels), swelling, heat and tenderness. The swelling is usually the more noticeable and it usually disappears on exercise. After a while cracks extending across the heel will be noticeable, the horse will go lame for a few steps, and, if the weather be cold, it is probable the cracks will bleed a little. As the disease advances the symptoms become worse; the affected leg or legs swell more when he stands; the cracks exude pus, often of a fetid odor, and lameness becomes more marked. In chronic cases the swelling does not disappear on exercise, the horse goes lame mostly all the time, the parts assume a dirty, greasy appearance, and the odor is offensive.

**Treatment.**—If rational treatment be adopted in the early stages, it is usually successful in a reasonable time. The first thing to do is to remove the cause, if possible. Let the patient have a few days' rest;



Botha.

Clydesdale colt, first at Ayr show in Scotland.

give a purgative of 6 to 10 drams aloes, and 2 drams ginger, according to size; feed bran only, until purgation ceases, and even then feed very little grain until he is put to work again. Follow up with 3 drams of nitrate of potassium twice daily for a week or ten days. Local treatment consists in keeping the parts as clean as possible without washing. Many cases are aggravated by repeated washings with soap and water. This is another case in which we say "Do not wash." The local applications depend to a considerable extent upon the weather. This applies especially when the horse is to be worked or driven when suffering from the disease. Lotions, oils, or ointments are usually used. In warm, dusty weather, lotions are best, as they have an astringent, antiseptic action and do not gather dust or dirt, as oils or ointments do. In cold weather lotions often have such an astringent effect that they dry up and harden the skin, and then the cold still further contracts, and a case that has apparently done well will crack open again when the horse is in action, while oils or ointments have a more softening, and, at the same time, antiseptic effect, and tend to prevent cracking. Whichever is used, (sometimes they are used alternately or the lotion applied when the patient is in the stable, and the ointment just before he is taken out, in cold weather) should be freely used three or four times daily. A favorite lotion is made of one ounce each of sulphate of zinc and acetate of lead, half an ounce of carbolic acid, and one pint water. Probably the best ointment is the oxide of zinc ointment to which is added 20 drops carbolic acid to the ounce. An oil made of one part carbolic acid to 30 parts raw linseed, or sweet oil, gives good results.

When a case has become chronic, and what is generally called *proud flesh* is present, it must be removed

by applying a caustic, as butter of antimony applied with a feather once daily for two or three days, before the above treatment is adopted. When the parts become greasy, and dirty looking, or have a foul odor, they should be poulticed with warm linseed meal and a little powdered charcoal for about two days and nights, (a fresh poultice being applied about every 8 hours) before the general treatment is adopted. In cases that are largely constitutional, in addition to the constitutional treatment mentioned, it is well to give alteratives, as 1 to 1½ ounces of Fowler's solution of arsenic twice daily for a week.

WHIP.

### Better Light Sires Needed.

From statements of men who have been buying horses for war purposes it is evident that Canada has not too large a supply of the right class of light horses. By this we do not mean that Canada is short of horses, but from the number of animals turned down by the buyers and the general trend of horse affairs, we are led to believe that our light-horse stock is of rather an inferior type. Much of it has been the result of the promiscuous crossing of undersized, hairy-legged mares with undersized, light horses of the roadster class in an effort to get a light horse a little bigger than the roadster and lighter than the cull mare used in these breeding operations. There seems to be need in Canada, if our light horse stock is to be maintained, of more good-sized, high-quality light stallions. We are not advising the wholesale use of light horses, because we believe that for the average farmer it is more profitable, in the end, that he breed drafters of good weight and quality rather than light horses. But most farmers have a light mare or two which they use for road work, and there should be plenty of the right class of light horses in this country to ensure a better class of light horses in the future. A few big, strong Thoroughbreds could be used to good advantage on many mares, and the Standard-bred horses used should have plenty of size as well as speed and quality. There is also a place for the right type of Hackney. And then the owners of mares should be careful in their breeding and not expect to get good light horses from cull mares, the result of a mixture of breeds. An effort should be put forth to improve the quality of the light-horse stock as well as of the heavy horses of Canada.

## LIVE STOCK.

### Gains in a Bunch of Hogs.

Editor "The Farmer's Advocate":

We frequently read of hogs making exceptionally rapid gains on certain feeds, fed in certain proportions. However, with the best of care and attention we are seldom able to make a hog gain over 1½ pounds per day. On March 20 we bought 11 thrifty hogs, averaging 102 pounds apiece. These were fed on equal parts barley and oat chop, and had about 80 pounds of skim-milk per day. They were only fed twice a day, but were given all they would clean up. On May 11 the seven largest were sold and they weighed 1,530 or 218 pounds apiece. The four remaining hogs were marketed a week later, and weighed about the same. The seven gained about two-and-a-quarter pounds a day, and the four smaller ones about two pounds per day. It took 4,200 pounds of chop and 4,500 pounds of skim-milk to make the 1,270 pounds gain, or a little over 3¼ pounds of grain and 3½ pounds of milk to make one pound gain. Without the skim-milk it would have taken considerably more grain. At present prices there is good money in feeding hogs that do well. This is the best gain we have had hogs make. After they reach 100 pounds it requires plenty of grain to make the weight.

FARMER'S SON.

### Spring Tonics for Swine.

In spite of the fact that pigs and hogs do best when they have access to pure soil and grass, many farmers find it necessary to confine them each summer, often to the extent of keeping them on a cement floor. Such manner of rearing swine is not to be commended at all, but if there is no alternative as regards a run, the next best thing to do is to provide plenty of green feed and conditioners besides. Extensive raisers of hogs find it wise and profitable to feed plenty of tonics, such as sulphur, charcoal, etc.; even when the stock is on grass and a large range, how much more necessary is it then to "doctor up" pigs that can obtain only what is doled out to them in their troughs.

A mixture that is recommended by experiment stations in United States and Canada as well, is made up of wood charcoal, 1 pound; sulphur, 1 pound; common salt, 2 pounds; bread soda, 2 pounds; sodium hyposulphite, 2 pounds; sodium sulphate, 1 pound; black antimony, 1 pound. The ingredients of the tonic are pulverized and thoroughly mixed. The dose advised is a large tablespoonful once a day in the feed for each 200 pounds of live weight of hog. If the mixture causes too much laxativeness the sodium sulphate should be omitted. The cost of the mixture in former years was 4 cents per pound, but some of the



parts comprising the conditioner may have gone up slightly in price on account of the war.

Correctives, such as the one mentioned, are extremely useful, but it is possible to pay too much for them. A mixture of common salt, charcoal, sulphur and wood ashes, is an inexpensive preparation and one extensively used. Common Epsom salts may be added where the effect of such a medicine is desired. More common still is the practice of throwing freshly-cut sods to the pigs, and this augmented with some charcoal and sulphur seems to be very effective treatment. We recently visited a large piggery run in connection with a cheese factory. There 500 pigs were fed annually, being confined all the while on cement floors. The caretaker said they would leave their meal to root and devour sods. Charcoal and sulphur were given as well.

When worms give trouble there should be a general clean-up, and the stock should be fed in clean quarters. Many recommend access to a mixture of charcoal and salt or charcoal, wood ashes and salt. These seem to be quite effective in driving out the round worms. Turpentine also is frequently used, especially for the thorn-headed worm. The dose is a teaspoonful for every 80 or 100 pounds of live weight. The pigs should be fasted for 12 hours and then turpentine can be given in the feed. A dose each day for three days is the practice in vogue. Experiment stations in Canada and United States advise calomel and santonin, and recommend it in the proportion of 5 grains of calomel to 8 grains of santonin for every 100 pounds of live weight of hogs. This too can be given in the feed. It is generally advisable to give a physic after treatment for worms.

### The Choice Between Sheep and Dogs

There is a persistent complaint throughout the country that dogs are chiefly to blame for more sheep not being bred. Useless curs have destroyed many good flocks, and discouraged thousands of farmers who have had in mind keeping a few sheep. On the other hand, much of this fear of dogs is unwarranted, for if it were not how could the good sheep farms continue to prosper? There are shepherds aplenty, in this country who, through taking a few precautions, manage a flock successfully. Year in and year out they reap the profits that sheep breeders are now obtaining, while others refrain from fear of dogs. We desire not to minimize the dog danger below its actual importance, as it relates to sheep rearing. When once a canine or a bunch of them worries or terrifies a flock of sheep and perhaps kills or maims a few, that flock is of little more value on the farm. They might as well go to the shambles. The owner too, is very likely to become discouraged and go out of the business, for up to the present he would only be able (in Ontario) to recover, as damages from the municipality, two-thirds the value of his stock destroyed or injured. The clause of the Act governing this phase of the matter was wisely amended during the last Session of the Ontario Legislature, so the owner of killed or injured sheep may now recover damages to the full extent of the value of the animals. Even this improvement in the Statutes will not clear away all obstacles. There will be a loss for which the shepherd will not be compensated, there will be trouble for which he will receive no remuneration. If he restocks, it will be found expensive. If he gives up the idea of keeping sheep, then the equipment, buildings, and sheep pens must be made over for other kinds of live stock, and the latter will be increased in numbers in order to stock the farm properly.

It is not our intention to paint a gloomy picture for the shepherd in this regard. What we wish to do is to bring to the attention of municipal officers actual conditions that they may give the farmer keeping sheep every consideration. While the dog evil has considerable influence in limiting the number of sheep bred, it is apparent that the complaint is exaggerated and given too much credence by farmers generally. At the Sheep Breeders' annual meetings

in Toronto, both Provincial and Dominion, the matter is brought up almost yearly. Strangely enough the extensive breeders have few complaints based on personal experience. Most frequently they are giving voice to the grievances of others. Of late years an effort has been made at the sessions to cease grumbling about the "pestiferous dog," and rejoice over the high price of wool and sheep products. This should have a beneficial effect, for the feeling is altogether too prevalent that a few town curs in company with a bad country dog or two can keep hundreds of farmers from making profits which are due them. The trouble usually begins when a pack of poorly-fed, ill-bred town or village mongrels start racing across the country. Sometimes farmers' dogs, whose owners have neglected to tie them or shut them up at night, join this motley band and injury to some flock results. Country dogs are not always innocent, but in them the chief source of injury is not to be found. However, if farmers would exercise greater care as to the whereabouts of their own dogs at all times the matter could be more effectively dealt with. A dog that is worth keeping on a farm is worth training, is worth tying or housing at night, and is worth watching.

There is a feeling also throughout the country against that part of The Dog Tax and Sheep Protection Act that obliges the farmer to pay a tax annually and still compensate the owner of sheep injured or destroyed by his dog. The complaint is that the municipality has collected taxes and has them stored up against any such contingency. Why then, it is felt, should one pay the tax and compensate besides? Without entering into a discussion of this phase of the subject it would be well to say that all country dogs should be tied or housed at night so there will be no possibility of their transgressing. In the daytime a well-behaved dog will not likely give trouble. If it is not well-behaved it has no business living.

Under the new provisions of the Act there should be an increase in the sheep census of Ontario, for wool and all sheep products are high in price, and if any injury by dogs should result the loss to the shepherd will not be great, he can recover damages in full. However, if the Law is not severe enough to inspire confidence in the farmers of this province we should have the Statutes so amended as to put a great number of these town and village curs under the ground. In times like these when it comes to a choice between dogs and sheep, let it be sheep.

One Middlesex farmer clipped 330 pounds of wool from 18 ewes this spring. The average value per fleece was \$5.86. Even the wool of one sheep is worth more than a thousand of these half-starved, mongrel curs that roam at large.

## THE FARM.

### A United Canada.

EDITOR "THE FARMER'S ADVOCATE":

There never was a time probably in the history of Canada when the call for men from all ranks, professions and occupations to work together in one common cause was so apparent as at the present. The son of the millionaire and the son of the laborer march together to the same music. What is the cause all this throwing aside of caste and distinction—this great levelling up of differences? Is it not the impending danger that threatens our fair Dominion—that black cloud of aggression and oppression that would roll over us if it were not for the stalwart defence of Great Britain and her Allies? Yes, it is the great war that we are taking part in that is binding the people of this glorious North Country closer together.

But it is not war that I would specialize in this article, I introduce it more particularly to show you what it is doing in uniting the people of Canada, in bringing about that sympathetic feeling amongst the inhabitants of our country. It is proving a big

factor in this respect. But while this much may be said of the war, there is that overwhelming evidence of misery, suffering, pain and death, together with many brutalizing influences, that the hearts of the nations cry out, "How long?"

But to return to our subject, what about the unifying influences that have been set going? We will not always have the impetus of a great war to keep them going. We must go deeper than this; we must catch the vision of the beauty of these principles. We must see that in them, apart from their bearing on military strength, lies power, peace—in a word—Ideal Nationhood. There has been and is yet too much independence of the masses for the benefit of the few. Do not forget that we are all dependent one upon another. Our cities could not exist without our rural population; neither could the country prosper independent of the urban population. Our seats of learning should so work out their great system of education, that their beneficial and educative influences might be felt and appreciated by the poorest of our land.

The rural class, probably because of its interests and location, stands out more conspicuously by itself than any other one class, and for this reason the gulf of differences has ever widened and deepened. The farmer has thought, and not without reason, that his more influential city cousin has been taking undue advantages, eager to fill his own coffers with the hard-earned money of the farmer. But, on the other hand, is it not true that the city's impression of the country folk is that they are hard and close, ready if the opportunity offers to make the city man pay his last dollar for the produce they offer? Now, there may be exaggerated notions on both sides, but one thing is certain, there are misunderstandings—ignorance of conditions that prevail on both sides. Now, much of this antagonistic spirit could be averted if the spirit of unity and brotherly love prevailed.

In closing this article I cannot afford to leave out the principal actors who should be in a marked degree responsible for the new and higher national life, viz., our representatives who sit in our legislative halls, by whose yeas and nays we have to submit to laws which may prove beneficial or detrimental to us. How can we ever expect to attain to our ideals when men at the head of affairs trifle with the country's money, the country's faith, in short, with the country's best interests? But, are these men all to blame? I say "No." Who put them in the responsible positions they hold? Was it not the people? Most assuredly so. Then why is our faith and confidence so often betrayed? Just because in our narrow minds we put party before anything else. It seems absurd to think of two men, both apparently intelligent, who come to such a difference in politics that the one sees everything good on his side and everything bad on the other side, while with the other it is vice versa. Why not take an independent stand, always ready to favor that which will result in the best interest to the country in general?

There ever will be positions of trust to fill, but may they be filled by men who realize that their call to such positions is a call to a higher and broader service, a place where they can more effectually serve the people who have placed them there.

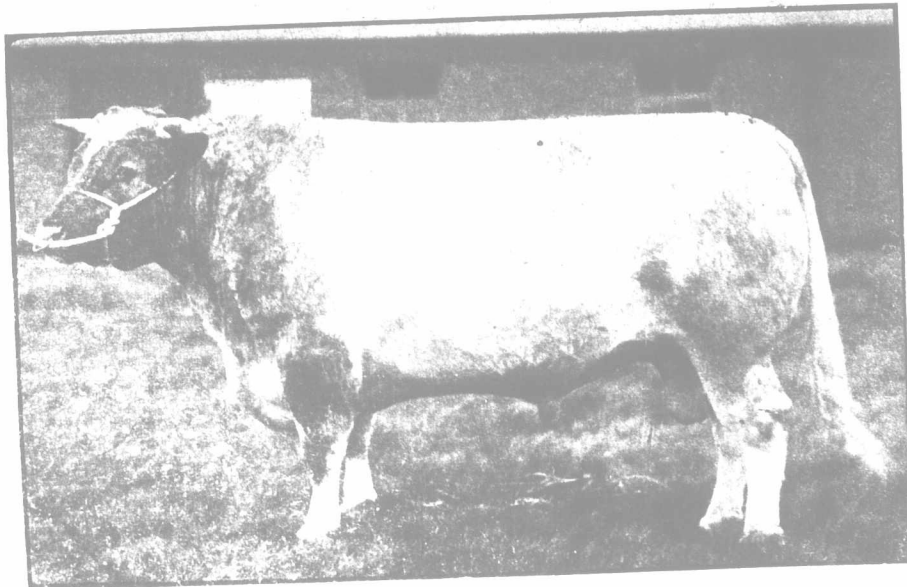
Not taking into account the positive evils that face us in our national life, we want something more than the bare "strictly business" machinery by which our country is run. We want the lubricating oil of good will and fellowship amongst all the classes, so that from the least to the greatest we may be all doing our "bit" for the general good of the country of which we are citizens.

To bring home the point of emphasis, I will sum it up in a quotation from Lord Macaulay's ballad "Horatius":

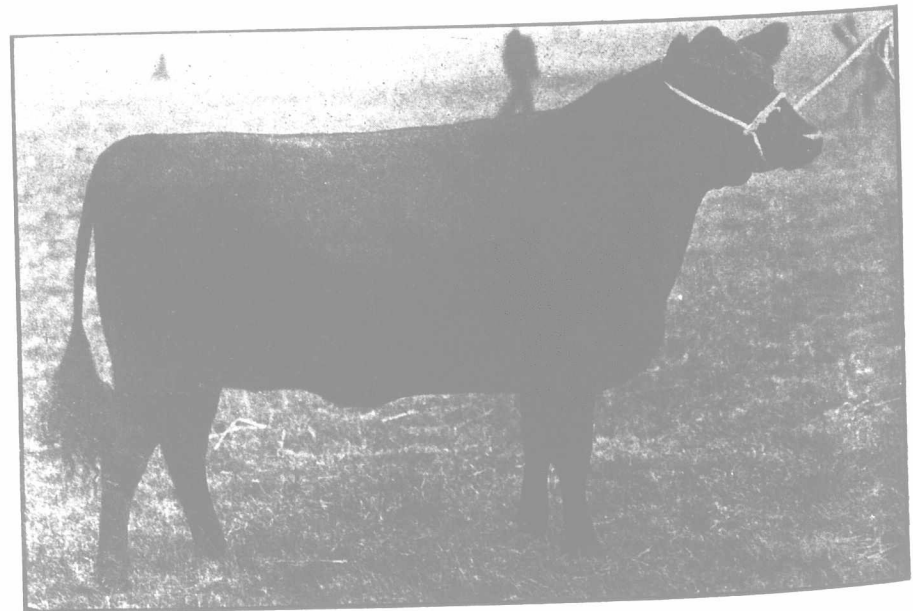
"Then none was for a party;  
Then all were for the state,  
The Romans were like brothers  
In the brave days of old."

Huron Co., Ont.

COLIN CAMPRELL.



Scottish Gift.  
A noted Scottish short-horn sire.



Juanisca Erica.  
A Royal Show Angus winner.

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The session concluded on little legislation were no new Departmentment to is of interest

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## Little New Agricultural Legislation Passed by Parliament.

The session of the Dominion Parliament which concluded on Thursday, May 18, was fruitful of very little legislation directly affecting agriculture. There were no new laws enacted relating to the work of the Department of Agriculture itself, but a slight amendment to the Canada Grain Act was passed which is of interest to Western farmers.

The policy of the Department of Agriculture, in keeping with other branches of the Government, has been to curtail general expenses as much as possible, and to introduce practically no new lines of work which will involve heavy expenditure. The appropriations for the whole Department show a decrease of \$45,000.00 compared with the previous year. The amounts for the various branches are as follows:

Details	1916-17	1915-16	Compared with estimates of 1915-16.	
			increase	decrease
Patent Record.....	\$ 30,000.00	\$ 30,000.00	\$	\$
Experimental Farms—Maintenance of Central Farm and establishment and maintaining of additional branch stations.....	846,000.00	785,000.00	61,000.00	
Branch of Entomology.....	20,000.00	20,000.00		
For the administration and enforcement of the Destructive Insect and Pest Act.....	75,000.00	100,000.00		25,000.00
For the development of the dairying industries and the improvement in transportation, sale and trade in food and other agricultural products.....	155,000.00	\$150,000.00	5,000.00	
Fruit Branch.....	115,000.00	113,000.00	2,000.00	
Towards the encouragement of cold storage warehouses for better preservation and handling of perishable food products.....	150,000.00	200,000.00		50,000.00
Exhibitions.....	100,000.00	250,000.00		150,000.00
For renewing and improving Canadian exhibit at Imperial Institute, London, and assisting in the maintenance thereof.....	5,000.00	5,000.00		
Health of Animals.....	570,000.00	540,000.00	30,000.00	
Dominion Cattle Quarantine Buildings, repairs, renewals, etc.....	15,000.00	15,000.00		
For the administration and enforcement of the Meat and Canned Foods Act.....	292,000.00	275,000.00	17,000.00	
Publications Branch.....	20,000.00	15,000.00	5,000.00	
International Institute of Agriculture to assist in maintenance thereof and to provide for representation thereat.....	20,000.00	20,000.00		
For the development of the Live-Stock Industry.....	600,000.00	550,000.00	50,000.00	
To enforce the Seed Act to test seeds for farmers and seed merchants to encourage the production and use of superior seeds, and to encourage the production of farm and garden crops.....	150,000.00	140,000.00	10,000.00	
National Biological Laboratory (Revote).....	25,000.00	25,000.00		
For the administration and carrying out of the provisions of the Agricultural Instruction Act.....	25,000.00	25,000.00		
Grant to Dominion Exhibition.....	50,000.00	50,000.00		
	<b>\$3,263,000.00</b>	<b>\$3,308,000.00</b>		<b>\$45,000.00</b>

It will be noted that there is a considerable increase in the appropriations for the Experimental Farms Branch. This is to provide for the necessary increased expenses of the general system and for further extension work in connection with agricultural fairs.

In the Health of Animals Branch provision is made for indemnity to owners of animals which may be slaughtered on account of contagious diseases, and for further expenses which may be necessary in connection with inspection and quarantine regulations to control possible outbreaks of disease. Assistance is now offered to cities or towns with a population of not less than five thousand for the eradication of tuberculosis in the dairy herds from which the milk supply is secured. When a municipality complies with certain conditions, the Branch provides inspectors free of charge who test all the animals supplying milk to the city, and direct the handling of the herds in such a way as to eliminate to the greatest possible extent the danger of communicating tuberculosis to human beings through the milk. When animals are slaughtered under these regulations compensation is allowed the owners.

In the Meat Inspection Department of the Health of Animals Branch allowance is made in the estimates to meet extra expenses in connection with the greatly increased work due to war conditions. During the last fiscal year our exports for bacon increased about fifty per cent., which caused a corresponding increase in the work of inspection.

The appropriations for the Live-Stock Branch show an increase to meet the demand for further extending the policy of distributing pure-bred sires and to provide for the work in connection with market expansion.

The Seed Branch increase is principally to provide for further assistance toward the production of home-grown root and vegetable seeds. Since the outbreak of war special efforts have been made to encourage the production of these seeds in Canada, as our regular sources of supply are seriously threatened. Subvention is offered on the principal kinds of root and vegetable seeds grown in Canada, and special officers are being employed to supervise the work of seed growing.

An amendment to the Canada Grain Act was passed widening the powers of the Board of Grain Commissioners to order a supply of cars for shipping grain. Section 207 of the 1912 Act provides that the Board may, in its discretion, order cars to be supplied contrary to the general provisions of the Act, under certain conditions. To these has been added the following:

"Whenever after due examination the Board considers it necessary and advisable in order to facilitate the despatch of grain which is insufficiently housed and liable to become damp or injured."

## The Excuse for a District Representative.

The District Representative system in Ontario is becoming understood by the farming fraternity, and we do not propose to explain here the advantages or the disadvantages of the institution. Nevertheless the scheme has been on trial long enough to show good or bad results in the counties where offices were first established, and, without any effort either to extol the system on the one hand, or criticize it on the other, an endeavor will be made to review, in part, the work done by these trained farmers who for years have driven up and down the sideroads and concessions of Ontario, preaching the gospel of improved agriculture and better social and living conditions. He who envies them their work is unconscious of the life they lead, for, although they are usually equipped with a smile and genial "Good day", they are not free from worry and their lot is not devoid of labor. Suffice it to say those Representatives who are ambitious and industrious usually bear sufficient responsibility and work hard enough to earn the stipend upon which all Government employees are generally obliged to exist. The common feeling amongst them to-day is that they earn more than they get. However, departing from personalities and leaving the man himself out of the matter, has the system been a good servant of agriculture in Ontario, and has it been instrumental in bringing about improved rural conditions, social and otherwise?

Before attempting to answer this question, allow us to explain one difficulty under which almost every District Representative has labored during his introduction to his county. The general complaint heard amongst farmers was, "we don't want any young fellow coming around showing us how to farm". Whatever the aim entertained by those responsible for the District Representative system might have been, or is, the man "on the job" surely did not, nor does he, intend to directly show farmers how to farm. He considers it his duty to assist them in farming better. Very few of these servants of the people were conceited enough to attempt revolutionizing farming in the various counties. Nevertheless, there was, and still is, a great opportunity to demonstrate the advantages of cow testing, good seed, underdrainage, improvement of live stock, the proper cultural methods of a fruit plantation, the profits in poultry when wisely handled, and a thousand other things incident to production on the farm. Then, and not less important than any line of work previously mentioned, there was the need of organization, which was lamentably lacking. To all

this work and other efforts the District Representative applied himself with energy and devotion to his duty as he saw it. The young farmers of the county were invited to attend short winter courses and learn something more about the different crops, live stock, fruit growing, and above all to get in touch with farming in a broader way by mingling with other young men and visiting farms and manufacturing plants within and without the limits of the county in which they lived. These courses have been instrumental in inspiring many bright, junior farmers to attempt greater things, particularly through experimentation on their own soil under local conditions. The Representative has furthermore listened to the best farmers in the county and made observations on their farms. He has then acted as a medium of communication between the successful agriculturist and those who are looking for suggestions and seeking for ideas along particular lines. The young fellow, whom the farmers feared was coming to show them how to farm, in most cases made himself a servant of the people. He ministered to them, he gathered information for them in the County, Province, Dominion, or in foreign fields, through his connection with agricultural work, and took it to them free of charge. The traditions of agriculture in Old Ontario were observed and revered, the ways of our fathers who were staunch, intelligent and industrious farmers, were not ridiculed, but to these methods were appended the up-to-date and necessary means of profitable production required by a more modern agriculture.

In New Ontario conditions have been different. Many settlers there knew little enough about farming, having left other occupations to start life anew in a young but big country, and to rear, in the pure and open air, a family of boys and girls, whom, it was hoped, could enter a life of greater usefulness than was possible under former conditions. These men who lack the advantages of a farm training in their early days welcomed the District Representative, even if he should attempt "to show them how to farm". In Old Ontario, too, the Representative has been well and openly received. Only in isolated instances has indifference met his endeavor to introduce himself into the farm life of the county.

### Has the System Made Good?

Let us revert again to the question, "has the system been a good servant of agriculture in Ontario, and has it been instrumental in bringing about improved rural conditions, social and otherwise?" In reply to this

query, we shall simply endeavor to review briefly some of the accomplishments of the Representatives and leave the reader to judge. Every county of Ontario and almost every province of the Dominion has felt the influence of the Ontario Corn Growers' Association. This scheme was incubated and brought into existence in the Agricultural Office of Essex County. The demonstration orchards were a good idea and served a good purpose. Egg circles were the outcome of the county system of agricultural education and, although they have had their ups and downs, they were a powerful factor in educating producers of poultry products in the proper care of eggs. Fruit growers' associations were in vogue before the Representative system but they were fostered and encouraged by these men who had a vision of the need of co-operation in the marketing of fruit. The co-operative idea has been enlarged upon until we have breeders' clubs, societies organized to produce particular kinds of seed, such as alfalfa, corn, various kinds of grain, potatoes, etc. Then came the school fairs and the distribution of seeds and eggs amongst the children. During all this time drainage surveys were being made, demonstrations in spraying, pruning and orchard work were held, the farmers were being called together and the Representative was all the while talking better seed, better cultivation, better live stock, and more co-operation.

This relates only in the most general way the results of the system. Each Representative has carried on different lines of work as he saw the needs in the locality where he labored. Of late years the work has become standardized more and more, there being a similarity of purpose and effort in all counties.

To make this treatise more complete and explain what the District Representative attempts to do, aided by the people of the rural districts, we have chosen one county and shall review the results of one man's efforts extended over a period of six years. Durham County will be taken as an example, but similar work has been done in many others. Although it is an injustice in one respect to single out one district and elaborate upon it, when approximately 40 other men are accomplishing much in other counties of Ontario, yet it is necessary to confine our remarks to certain limits in order to fully explain the function of a District Representative and what he considers his duties to be. If any reader in Ontario will take the trouble to enquire fully into the work of the District Representative for the county in which he resides he will probably be surprised at the



multiplicity of duties and number of projects for which he is directly or indirectly responsible.

**Results of Six Years' Labor.**

Six years ago this coming summer an office was opened in the town of Port Hope and a Representative was assigned to the counties of Northumberland and Durham. He did not know the people, neither did they know him, but the first thing a Representative has to do is to introduce himself and get acquainted. After the preliminaries are over the real work begins. For three years the two counties were served by one man, but in 1913 another appointment was made for the County of Northumberland.

The first six-weeks short course was held in Durham County in 1912 with 22 young men in attendance. Since that, four courses have been held, one each winter, and 158 young men in all have taken the short course and have attended the lectures and demonstrations regularly. Excursions were planned for each group of students in order that they might visit and inspect the herds of leading live-stock breeders and importers, the Stock Yards in Toronto, large abattoirs and meat-packing plants, and up-to-date dairy farms. Public speaking contests were also conducted in order to give the young men confidence in themselves when standing before an audience. Following these series of lectures Junior Farmers' Improvement Associations were organized in the townships where these courses were held. Only those who had taken the lectures were eligible for membership. The object of the Association is to create a deeper and more permanent interest in the agricultural life of the county; by the dissemination of agricultural learning among its members leading to improved farm methods; by affording the opportunity whereby boys may be brought together to discuss ways and methods of improving themselves; by conducting competitions such as the "Acre-Profit Competition", in the production of field crops; the "Feeding-Hogs-for-Profit Competition", and "Baby-Beef Competition", in the production of live stock; arranging for live-stock judging competitions at the local fall fairs; by conducting simple experiments on the farm in cow testing, commercial fertilizers, spraying, pruning and thinning, underdrainage, apiculture, poultry, alfalfa demonstrations, etc.; by the introduction of better varieties of farm crops; aiding and bringing the farms in the county to the highest state of production, efficiency and profit. These are the objects of the Junior Farmers' Improvement Association which follow the short courses held in the different townships.

In 1911 the first school fair including three schools was held in Durham County. This scheme grew each year, until 1915 when six school fairs were held, representing 73 schools. During 1916 every rural school in the county of Durham numbering 98, will participate in the school fall fair scheme. This will probably necessitate eleven different events when the season for the fairs arrives. Each school will average about twenty pupils, so the reader can gather some idea as to the work of distributing seed, eggs, etc., and judging plots throughout the summer, and arranging the exhibits in the fall. Three pupils in each school may take one setting of eggs each for twenty-five cents a dozen, this money going into the funds for prize money. All who do not take eggs may take the seed of some field crop, and five of the girls of the same school may also take sweet peas or aster seeds. In all 324 dozens of eggs were distributed this spring. The plots grown from the seed thus distributed will, if possible, be examined and judged this season and in the fall the product of the plots and of the eggs will be entered by the children at their local fair. Each fair will be managed by a fairs association, the officers for which will be elected from the children of the schools contributing entries to the event.

The prize money is paid by cheque. Sometimes these cheques are taken to the local bank while in other cases a teacher or someone else acts as a bank, cashing the cheques after being endorsed by the children. The District Representative has also been instrumental in organizing three fruit growers' associations. One of these alone, it has been estimated, saved for its members \$10,930.80, in three years over and above what would have been obtained had the fruit been marketed through the ordinary channels. This is 60 cents per barrel additional on the number of barrels disposed of in 1911-12-13. The Northumberland and Durham Apple Growers' Association was also organized to advertise the apples of the two counties and increase the consumption of this fruit. Exhibits were erected annually at Toronto and a book, containing 100 recipes of how apples may be used, was published. Two plowmen's associations were also organized, one of these has held four matches, the other three. Three reg. circles and six Farmers' Clubs may also be added to the list of organizations. In 1911 four demonstration orchards, 2 in each county, were taken in hand, and a trial run for a period of

three years, while at the same time demonstrations in pruning and spraying were conducted throughout the county. In addition to these, apiary demonstrations and mustard spraying demonstrations, were held. Two-day courses in stock and seed judging were carried on at which large numbers were present. Special fruit meetings were held every year, under the auspices of the Northumberland and Durham Apple Growers' Association. Educational exhibits were erected and live-stock judging competitions were conducted at the fall fairs.

In addition to what has been previously mentioned, there was much detail work of a more general nature, such as the handling of the correspondence at the office, preparation of addresses for meetings, attending committee meetings, preparing articles for the press, assisting and supervising the Farmer's Clubs in their various activities, aiding the Women's Institutes, and various organizations connected with the rural community, encouraging the growing of alfalfa, identifying weeds, weed seeds, insects, diseases of apples, etc., giving formulae for treatment of smut in oats and wheat, encouraging dairymen to keep records by sending them blank record forms, encouraging cow-testing associations. The office has also been used as a general bureau of information by the farmers of the district, and the board room of the office is used as a meeting place for many of the farmers' organizations.

Even this long list of accomplishments is incomplete. Various activities were engaged in that have not been recorded here, but, considering the time and efforts required to show these results, we believe nothing more is needed in the way of an excuse for a District Representative.

**A Broader View.**

It would be manifestly unfair to judge the District Representative System, or the Representatives themselves, by the work in one county. Approximately 40 offices have been opened in Ontario, covering territory from the eastern limits of Glengarry to the western confines of the province reaching to Manitoba. Up in the North Country and in Southern Ontario, where farming is well developed, we find these men going to and fro among the rural people. Some counties are harder to "work" than others, and some people are more indifferent than their neighbors in adjoining dis-



The School-Fair Boy and His Plot of Grain.

tricts. The best farming sections usually give the Representative liberal support and aid him in his efforts. There may be counties where more has been accomplished than in Durham, and there may be counties where fewer results can be shown. However, this depends upon the man in charge to some extent, as well as upon the possibilities of the district and the support and assistance rendered by the people. No public move of this nature has shown such a small percentage of failures on the part of those employed to do the actual work. The men have been ambitious, industrious, and conscientious, and to them is due a large share of the credit for the success of the District Representative system.

Things seem to go wrong in Canada just so some new Governmental commission can be appointed. Of course, every commission means less work for Parliament and more expense for the country, but Parliament doesn't like work anyway and the country likes expense, at least, it seems that way from the general course of events.

Throughout the country there is still that persistent complaint that the pestiferous dog renders sheep breeding unprofitable. The time may come when we shall be obliged to choose between this class of live stock and a number of worthless curs. Ontario's Provincial law has been amended in this regard, and we should first give it a trial. If it fails, then let us attack the dogs and the dog law, replacing the former with sheep and the latter with a statute that will ensure their protection.

**Are We Better Off Than Our Forefathers?**

EDITOR "THE FARMER'S ADVOCATE":

I'm sometimes wonderin' how muckle better off we are than oor forefathers that cam' oot tae this country frae auld Scotland a hundred years ago or mair. They had their hard times, sure eneuch, an' mony the story I hae heard o' what they had tae gang through the first few years they pit in in the woods. I wis talkin' tae an auld neebor the ither day an' he wis tellin' me that when his feyther first cam' tae the spot that he had chosen for his hame he had tae juist cut doon a lot o' trees, ane on tap o' the ither, until he had a sort o' shelter where he an' his family could stay until he had time tae build a shanty o' cedar logs for a hame. They were practically turned oot o' Scotland by the landlords that thought they could mak' mair money by keepin' sheep than by rentin' their land tae these small farmers. Sae the men had tae mak' room for the sheep, an' that's how some o' us are in Canada to-day, instead o' bein' in the Highlands or Lowlands o' Scotland. But it wis a guid turn the landlords did them in turnin' them off, I'm thinkin'. They were forced tae get oot intae the world an' begin tae earn an' independent livin' an' dae things on their ain responsibility, instead o' daein what they were tauld by some auld tyrant o' a lord or duke that wad aye k-ep them pullin' off their hats tae him. The freedom o' the life in the woods, even wi' a' its hardships, must hae been next thing tae heaven itself, aifter the slavery an' subjection of the auld land. They showed the value o' the new condeitions by the character they developed, an' I'm dootin' but the families they raised were as weel trained as the average family o' the present day. Ye wouldna' think they had muckle chance tae educate a family wi' schools sae far apart, an' sae few o' what we call present-day improvements. Automobiles were scarce in those days an' the rural telephones weren't in ilka hame, an' gi' ye were expectin' a letter frae the auld land ye wouldna' find it in a box at yer gate. But I'm no' sure that walkin' didna' dae them mair guid than ridin' in a soft-cushioned car is daein' us; an' as for the telephone I'm juist aboot comin' tae the notion that it's daein' oor country-folk mair harm than ony benefit they get frae it is daein' them guid. Ye canna' ring up a neebor or tak' doon the receiver when ye're called, but ye hear some third party comin' on tae the line tae listen tae the conversation between you an' yer friend. Gin there's ony meaner trick on earth than this, I dinna' ken aboot it. I heard a chap say once that it wis as mean as stealin' the milk-bottles oot o' baby-carriages, but I think it's worse. The mon that steals the bottles kens that he rins the chance o' gettin' punished, but the telephone sneak feels sure he willna' be caught or he wouldna' risk pryin' intae his neebor's business. Gin this is a sample o' the code o' honor that is comin' in wi' modern inventions an' condeitions, I'm thinkin' we would be better livin' the life o' oor ancestors in the backwoods, for they had a guid share o' self-respect wi' a' their drawbacks, an' when it cam' tae choosin' between what wis honorable an' what wis dishonorable they generally chose the former. I've heard them tell o' a drover wha wis buyin' up a boat-load o' cattle one time an' on askin' a certain farmer how much he wanted for a fat coo he had, the farmer said, "twenty-five dollars." "Weel," says the drover, "I'm juist gaein' tae tell ye that she's worth mair than that, I'll gie ye twenty-seven." This story is sworn to for a fact, an' I can weel believe it, but I havena' heard o' anything like it happening among oor drovers an' farmers o' the present day.

Some tell us that oor ancestors are tae blame for a' oor faults an' follies, but I'm thinkin' we'll hae tae gie them credit for settin' us an example in some things that we're no' tryin' vera hard tae follow. They lived what ye might call the "simple life," and on the whole they were healthier and mair contented than maist o' their great grand children are to-day. I heard an auld chap say the ither day that in his feyther's time the bairns were raised on oatmeal porridge an' the Shorter Catechism, but noadays they brocht them up on cornflakes an' Eaton's catalogue. Gin that's the case I move that we get back tae the auld ways an' mak' a fresh start an' see if maybe we'll get somewhere through time. A wee bit mair discipline an' hardship wouldna' dae the rising generation ony harm, an' as things are gaein' in the world to-day it may be comin' tae them a richt. The Lord isna' gaein' tae let humanity rin tae seed juist yet, I'm thinkin', an' the chance tae develop a strong, moral character that will no' shame oor ancestry may be juist ahead o' us. It's here noo, tae a certain extent, an' mair money a guid chap has taken advantage o' it, but there's need o' a wee bit mair pressure bein' brocht tae bear yet, sae that oor nation as a whole may get the benefit o' a struggle for existence that will build up backbone an' mak' ilka ane o' us men an' women wha can dae oor share o' the world's wark that was sae weel carried on by those wha are gone, an' wha hae left the unfinished task in oor hands. I'm no' thinkin' we'll gae back on it.

SANDY FRASER.

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EDITOR "THE FARMER'S ADVOCATE":

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### School Credit for Work at Home.

EDITOR "THE FARMER'S ADVOCATE":

At the outset it should be stated clearly that this has no reference whatever to the usual type of home lessons which are usually a bugbear to both pupils and parents because they are generally misunderstood or badly assigned. Too often the teacher assigns new work to be learnt at home and next day she hears the lessons in school. This is an exact reversal of duties between teacher and parent. In this case the parent too often has to do the teaching and the teacher does the hearing. Frequently the parent neglects the children altogether and so does the teacher. The only possible situation is one where the teacher teaches the work in school, then assigns this old work to be reviewed at home and so make it more perfectly remembered or applied. No new work should on any occasion be set for home study unless it is merely an application of rules or principles already taught in school.

But it is the purpose of this article to explain an entirely new type of home work for which children should get credit. The work referred to is real everyday work of a useful, practical kind, such as all country boys and girls perform at their homes or farms. Most of our farm boys have to do odd jobs or chores regularly before or after school, such as milking the cows, tending the poultry, picking the berries or small fruits, feeding the pigs, or other special tasks. The girls also help their mothers in house work by washing dishes, making beds, or setting the table, and thus lighten mothers' burdens very appreciably.

Now the happy thought occurred to several educationists to give credit in school for all such work done at home, with a view to showing that the school and the home are two closely allied institutions. Credit was given and home work was valued as highly as any school subject. The results were astonishingly successful both at school and at home. Parents were interested, for at last school was visibly doing good; children to whom book work never appealed, were at once encouraged and helped; backward boys became brighter and more active and a new interest developed in their whole attitude to education. When promotions to a higher grade were made partly on the success of children in the activities of their home life, their home work was done with a different spirit.

#### Two Types of "Home Project" Work.

The aim of this work is, of course, to interest children in agricultural or domestic work and give credit for the satisfactory completion of it. It is beginning to be known as "Home Project Study" and is one of the most promising fields for developing real vocational training among rural children in the best way and in the best place for it, which is at home under school supervision. The difficulties attending its introduction soon manifested themselves and were seen to involve two distinct questions.

First, what kind of home work should receive credit at school?

Secondly, how should the school direct or supervise the home work selected?

This has resulted in two distinct plans which for the sake of convenience may be called:

- (1) The Massachusetts Plan and
- (2) The Oregon Plan.

#### (1) The Massachusetts Plan.

Under this plan, which originated in Massachusetts, each pupil, with his teacher's advice, selects some definite work to be done at home, partly under the direction and supervision of the school. The work must be such that the pupil can carry it on from beginning to end. Supplementary reading and extra study bearing on his home project is an additional part of the work. Naturally, the parent must give consent and hearty co-operation, but this is always assured, and when the teacher visits the home occasionally to inspect the work, any necessary suggestions or directions are usually well received by all concerned. This is easily understood when one remembers that the home projects most successfully undertaken include the raising and care of a pen of poultry; planting and cultivating part of the vegetable garden; caring for and picking fruit from part of the orchard; planting and tending berry bushes; preparing the soil, planting, cultivating and harvesting a special crop such as corn, potatoes, or tomatoes; feeding, cleaning and milking one or two cows, and testing the milk; keeping milk records and testing milk of individual cows; feeding and tending a pen of pigs; planning and building a hog or chicken house, porch or sidewalk; canning tomatoes, cherries, or other fruits; the regular performance of some piece of house work, like setting the table, serving the meals, making beds, cleaning and dusting; planning and cutting and sewing garments, and other such duties.

Wherever this plan has had a fair trial it has been very effective. Of course it means extra work for the teacher, who must visit the homes occasionally. But rural teachers and rural clergymen would find this an excellent practice and should make it a regular habit. The work is not such a delicate task as might be supposed, for the tact and enthusiasm which all teachers should possess if they are to be real teachers will carry the work through to success. In Massachusetts about one half of the pupils' free time is occupied in these projects.

#### (2) The Oregon Plan.

The second plan has developed more fully in Oregon than elsewhere, but is successful in many states. In this case the school does not need to supervise the home work and no extra reading is required. Children are also allowed a free choice of work, and are merely encouraged to help in regular work and do their part well and faithfully. The parents judge the amount

and quality of the work, and report to the teacher who gives corresponding credit towards school ranks. Promotion to a higher grade and successful completion of the school course depend partly on proper fulfilment of this home duty. The work is often similar to the tasks mentioned in the first plan, but includes also building the morning fires, providing fuel, sawing logs and chopping wood, feeding the stock, milking the cows, cleaning the horses, caring for poultry, making the bread, sewing and ironing clothes. But any other regular work vouched for by the parent is accepted and counted as the equivalent of one school subject, which is the basis of giving credit.

In this case no attempt is made to make the work educative except in the sense that all work of any description whatever is educative if it is conscientiously and well done. The home work is not necessarily associated with the school work, but the child of course receives instruction from the parent who thus resumes the function of teacher which was his before schools were invented or became common.

There has long been a divorce between the home, the school and the vocation, but none of these can get the best work done without correlation with the others. These two plans afford the most sensible way of combining the work of each and making it most effective and are the most promising field for rural industrial training. They have the supreme merit of costing no money; they do not increase the school taxes; they take little or no school time and can be started in any province and in any school at any time. They can be applied in a city school as easily as in a rural school. The teacher is shown to care for other things than intellect, for more than a mere portion of life, for the habits and tastes and future career of the child, for the whole of his life as well as for part of it. Too often no interest is taken in pupils outside of school except in the case of their games and sports. Even this is not common enough, but when it is genuinely taken, it results in increased affection for the teacher and increased attention to his teaching of school subjects.

Many people are sincerely convinced that school gardens have so many objections that they will never really be the means of teaching horticulture and agriculture successfully, though they form good demonstration plots for showing the preparation of a seed bed, planting seeds and flowers, and cultivation of the soil. They honestly believe that home gardens are a better medium for teaching agriculture as the child can care for his garden during summer when school is closed. Either the Massachusetts or the Oregon plan affords a logical extension of the home-garden idea. Perhaps some day our provincial directors of Elementary Agricultural Education and directors of Industrial Education will see the need of relating agriculture and industry as closely as possible to the real kind of work practised in actual business.

It is not easy to say which plan is the better for Canadian schools. It might be objected, for example, that the Oregon plan seems to be faulty from the fact that there are too many judges and hence too many standards and that a careless, indifferent parent with an ambitious, bright child might not give sufficient credit, and that an ambitious parent might give greater credit than the lazy or careless child might deserve.

Both plans, however, might be very easily improved by having the pupils write about their projects and keep the accounts and records of their work. In this way Composition would become a subject with real life and personal interest in it. Indeed all real literature arises from having something to say and a desire to say it. The war has brought a marvellous crop of energetic literary articles and fascinating simple-minded and great-hearted letters from soldiers. Why? Because they felt and really experienced what they wrote. Then if monetary values were brought into play, the financial statistics would form an excellent basis for practical arithmetic and book-keeping.

I hope to see one of these plans adopted with modifications in Macdonald College Day School and spread to all our rural schools and academies in the Province of Quebec.

SINCLAIR LAIRD,  
Macdonald College, P. Q.

### A Reply to Mr. Good's Articles on Economy.

EDITOR "THE FARMER'S ADVOCATE":

For a number of weeks there has been appearing in "The Farmer's Advocate" a rather remarkable series of articles on political economy written by one who signs himself W. C. Good; remarkable, not indeed for profound economic sagacity or logical conclusiveness, but for a sort of partisan sophistry seasoned with a somewhat trite morality.

Mr. Good has such a dread of a "shallow and callous materialism" that he invariably couples his economic theories with a sermon on morality. Callousness I will not impute to him; shallowness, I need not, for it is apparent to all. The principles of a sound political economy rest not upon morality, but upon justice. And governments putting those principles into practice require at the helm a man not necessarily with a great heart, but certainly with a great head. Mr. Good's heart is doubtless in the right place but his mental vision is not clear enough or comprehensive enough to see through and to grasp the economic problem in its relation to agriculture, as I shall forthwith proceed to show.

Lack of space prevents me from dealing with much that is misleading in Mr. Good's articles, so I shall confine myself almost entirely to studies VIII and IX. In study VIII he has figured out the agricultural deficit

for one year at \$110,000,000. But as there is a wage bill of \$760,000,000 paid largely to the employer he can, by appropriating a part of it, easily overcome the deficit and avoid the clutches of the sheriff. In study IX, however, the writer, in his blind eagerness to arrive at a certain conclusion and yet appear logical, presents figures that upset his former calculations, subvert his previous theories and cast ridicule on all his labored efforts at economic reform. Canadian farmers, he tells us, buy two-thirds of all imports as well as of all goods made in Canada which, according to his figures, would be two-thirds (1,350,000,000 plus 575,000,000) or \$1,925,000,000. According to his figures agricultural products amount to \$1,000,000,000. But I find that this must include all home-grown produce consumed on the land such as butter, eggs, fruit, etc. Otherwise in allowing the town and country laborer the same wages Mr. Good's acute intellect would have taken this into account. It cannot be less than \$67,000,000 and may easily be double that. Assuming the former figure, however, we find that with an expenditure of \$1,350,000,000 and an income of \$1,000,000,000 agriculture must face an annual deficit of \$350,000,000 which no amount of economy can overcome. The farmer having disposed of all his produce is at the end of his resources and so to meet his financial obligations must mortgage his farm. With a capitalization of \$5,000,000,000 it would take about 15 years to bring agriculture to bankruptcy. This is the logical outcome of Mr. Good's juggling with figures. But when we turn from the written theory to the rough practice we find no indication of this impending calamity.

The explanation of this glaring discrepancy is that Mr. Good has arranged his figures to fit into his taxation scheme; but by so doing has upset his theory of moral obligations on the part of the manufacturer towards the farmer. The wealthy man, he tells us, can command more labor than he gives. But in these figures he shows that the city man devotes two-thirds of his energies to supplying life's comforts to the rural class. Absurd! The manufacturer is not a fool. He exchanges just as little of his goods as possible for the products of the farm. The rest he uses to provide comforts and luxuries for himself. And although this doctrinal economist may theorize and ponder statistics for a 1,000 years he cannot convert facts into fiction.

Now, I have not followed Mr. Good to his ultimate conclusion and remedy. For his figures are so mixed up and, as I have shown, so utterly worthless and unreliable, that to do so would be unprofitable. His general contention, that agriculture needs stimulating, is, I believe, correct, and I would welcome that stimulant as much as any one could. I hold no brief for manufacturing. I do not advocate protection. But, if agriculture is to receive an impetus that will bring it to its proper place as the foremost industry of our land, that improvement must be founded upon solid and enduring principles, not upon statistics that are misleading or assumptions that are false, nor upon Mr. Good's florid prose interspersed with honied quotations from philosophers and economists, not upon the laws of man or the principles of economics, but upon the laws of human nature.

Huron Co., Ont.

JAMES LOVE.

## THE DAIRY.

### What to Look for When Selecting a Dairy Cow.

EDITOR "THE FARMER'S ADVOCATE":

The only satisfactory way of ascertaining the value of a dairy cow is by keeping a record of the value and amount of milk she produces. This method has not yet come into common use, and the dairyman has often to select cows entirely from their outward appearance. It is, therefore, advisable that he be familiar with the type of cow that indicates large milk production.

There are certain features, common to all cows, that are noted producers of milk. They all present a somewhat wedge-shaped appearance, and there is also a marked absence of fleshing, especially during the period of heavy milk production. This absence of fleshing must not be confused with the poverty which is caused by lack of feed or by unthriftiness on the part of the animal; it is due to an increased effort to produce milk. Instead of the hide being dry and rough it is pliable and glossy. The eye is not dull but is bright and vigorous.

Another characteristic of the dairy type is a large capacity for feed. This is very essential. In order that a large amount of milk may be produced a large quantity of feed must be consumed.

Most important of all is the mammary system. Since it is in the udder that the secretion of milk takes place, the proper development of this part of the system is essential. It should be large and free from all fatty or useless tissue. It should have long attachment to the body, both in front and behind. The quarters should be evenly balanced, and have teats of convenient length and evenly placed. The size of the veins which extend forward from the udder and along the abdomen is also a very reliable guide. These carry the blood away from the udder after the milk has been secreted. When there is a large amount of blood circulating through the udder, and back again to the heart, as there always is when a cow is secreting a large amount of milk, these milk veins, as they are called, show marked developments, and in this way the value of the cow for milk production can be fairly well estimated.

Peel Co., Ont.

G. KNOWLES.



# Cows Properly Bred, Fed and Tested Pay Their Way.

The main object in keeping cows is that they contribute to the farm revenue, but statistics show that many individual cows and even whole herds are kept at a loss if market value is given to feed and labor. In fact the average cow kept in Canada does not produce sufficient milk to pay even for the feed she consumes, and the value of the calf at birth added to the milk value will barely make the balance come on the right side of the ledger. Many cows are kept at the expense of some other branch of the farm. The market value of the average cow is determined not so much by her appearance as by her performance at the pail. The wedge-shaped body, big frame, tortuous milk veins and large, well-balanced udder are taken as indications of the cow's ability to produce milk, but it is only by the continuous use of the scales and Babcock test that a cow's true value as a producer or her market value can be estimated. This fact was in evidence at sales of pure-bred stock this past winter. Cows that showed type, conformation and from all appearances ability to produce, but which had never been tested, were a slow sale as compared with cows with no better conformation but whose records showed their actual yield of milk and butter-fat for a definite period. The difference in price was equally noticeable at sales of grade herds. Records aid in selling the cows and also tend to increase the price which prospective buyers are willing to pay for the progeny. Many dairymen have demonstrated that keeping individual records pays large dividends for the time and expense involved each year. The facts have been heralded from public platform and Agricultural Press for years, but as yet a very small percentage of the dairymen of this country have deemed it to their advantage to know what each cow in the herd is doing. Those who know their cows by the test, strongly advise every dairyman to use the scales and tester. By the use of these two instruments the actual value of individual cows in the herd is revealed. The unprofitable cows can then be weeded out, and the remainder given more attention. The use of the milk scales, Babcock tester, proper feed and a good sire is the easiest, most simple, cheapest, but surest method of building up a profitable herd of cows. Because the herd is not pure-bred is no reason for not commencing to keep records. By weeding out the poor producers, saving heifers from the best cows, using a sire from high-producing, high-testing dams, and good feeding, there are to-day profitable grade herds that have been built up in a few years from very ordinary cows that at one time barely paid their way.

Under the supervision of the Dairy Branch of the Dominion Department of Agriculture, there are fifteen record centers for testing work in the Province of Ontario, and upwards of thirty-five in the Dominion. Only two of these centers are located in Western Ontario. Besides these organized centers there are many local cow-testing centers where cheesemakers or buttermakers do the testing for their patrons. In all, there are about three-hundred-and-twenty places where testing is being carried on systematically. A few dairymen, and their number is gradually increasing, own testers and keep their own records. Every effort is put forth to encourage the weeding out of the unprofitable producers and give more care and attention to those left. The results obtained at these centers would warrant their introduction to all communities. If every dairyman made the same use of the information given by the scales and tester as some have, there would soon be an immense increase in the yield of milk and butter-fat per cow. New records for production are being set every year. Thirty thousand pounds of milk from one cow in a year have been obtained. From fifteen thousand to twenty thousand pounds per cow is quite common, and yet the average is only about four thousand. In some stables the standard for milk production of grade herds has been set at 10,000 pounds for a year. Cows failing to meet this are disposed of. At the present price of milk these cows leave a profit of about \$65 per year, whereas the average cows barely pay for the feed they eat. It is time that every cow paid her way. For this purpose testing work is advocated, and the results so far are gratifying.

## A Record Center.

The object of organizing testing associations or record centers is to encourage the dairymen to know their cows, in order that good feed and valuable time may not be wasted on cows that are boarders. By weeding out the low producers, the average milk yield for the herd is gradually increased, which naturally enhances the revenue. Where systematic testing has been followed for three or four years the yield of milk per cow is practically double that of the average cow. As the work at all testing centers is similar, the operating of, and results accomplished at the Listowel Record Center, under the management of James Burgess, will give the reader an idea of the important work that is being done. In this district within a radius of about twelve miles from Listowel are nine cheese factories and two creameries. Patrons bring the milk to their respective factories once a month to be tested. The Department furnishes sheets on which to tabulate the weight of each cow's milk, also feed record sheets to facilitate the work of estimating the cost of feed each cow consumes during

the year. As testing is only done once a month, preservative tablets are also supplied, and all expenses of testing are defrayed. The patrons must purchase their own test bottles, a set of spring-balance scales, and a box for carrying the samples to and from the factory. For a herd of ten cows the cost to the patron does not exceed \$2.50. This is only a small item when compared with the benefit resulting from knowing the cows. Even with this testing done free, there are only a few patrons who take up the work. While it is preferable that the milk be weighed at every milking, a fair estimate of the milk yield is arrived at by weighing three days a month and taking a representative sample for testing. On a set date the samples and monthly records are brought to the factory, where the testing is done by the man in charge of the center. From the weight of milk for the three days, the amount for the month is figured out, and a statement giving the weight of milk and number of pounds of fat for each cow in the herd is sent to the patron monthly. A yearly statement showing the age of the cow, milking period, weight of milk, average test, pounds of fat, value of the year's milk at market price, value of fat, cost of feed and net profit is also given each patron. Thus the dairyman has in concise form the actual value of each cow in the herd from the producing standpoint. At a glance it can be seen which is the most profitable cow, and which should be sent to the shambles. It is not always the cow giving the highest yield of milk that is the most valuable. One cow may give a richer milk and when figured on a quality basis the high-testing cow may equal the one producing several hundred pounds more milk, which is low in butter-fat.

If there is any time left after the testing has been done and the record sheets filled out for the month, the man in charge of the center makes it a point to get acquainted with the patrons on their own farms. In this way he is able to give valuable advice regarding crops to grow in the section and methods of feeding to give best results.

The Center at Listowel was organized in 1912, but only a few of the 600 patrons of the factories in this district kept records, or had the milk of individual cows tested. In 1915 there were 62 dairymen owning 588 cows who kept records, and this year there are about 80 members. This may seem but a small increase, but the work is having a leavening effect. As the value accruing from having the herds tested becomes known, the membership of these record centers will increase, and the four or five-thousand-pound cow may soon be the exception rather than the rule. One difficulty so far is that the dairymen who have poor herds are very slow to become members. It is easy to convince the progressive dairymen of the advantages of keeping records, but for various reasons the man who would be helped most is last to take up the work. It is like every other progressive movement, it takes time to get everyone interested. However, those who are in the work are loud in their praise of what keeping individual records of the herd has done for them.

## Results of Three Years' Work.

In 1912 when this Center was organized the best 100 cows gave an average of 8,800 pounds of milk, and 264.6 pounds of fat in one lactation period. In 1915 the best 100 cows averaged 10,959 pounds of milk, testing 3.4 per cent. fat, which equalled 352.5 pounds of fat, or an increase of 2,159 pounds of milk and 87.9 pounds of fat. At 30 cents per pound butter-fat this is an increase of \$26.37 per cow, which is practically all profit, as the increased cost of feed was slight. One herd of nine cows averaged 7,069 pounds of milk and 238.6 pounds of fat in 1912, but the same number of cows in the same stable averaged 10,118 pounds of milk and 339.7 pounds of fat in 1915, or an increase of over 3,000 pounds of milk. In another herd the increase in two years was over 4,000 pounds of milk per cow, or as much as the average cow produces. This increase in production was made on an increase of \$7.19 worth of feed. The feed was carefully weighed both years, therefore, the actual cost is known. Numerous examples could be given to prove the value of testing. The herds mentioned made the greatest increase, but all under test showed a marked improvement. There is a great variation in herds. While the 62 herds, comprising 588 cows, in this Center averaged 7,461 pounds of milk and 246.6 pounds of fat per cow, the lowest herd was one of five cows that averaged only 5,020 pounds of milk and 192.6 pounds of fat. One of the best herds consisted of 17 cows with an average of 10,391 pounds of milk and 360.5 pounds of fat. With milk valued at \$1.25 per hundred pounds, there is a difference of \$67.13 in the returns between the average of the lowest and one of the best herds, but the estimate of the feed consumed showed a difference of less than \$15. One herd of 13 cows produced a total of 73,827 pounds of milk and 2,623 pounds of fat, while another herd of 13 cows in the same district produced 129,451 pounds of milk and 4,076 pounds of fat, a difference of over 55,000 pounds of milk, or a difference in income of

\$435. These two herds required the same amount of stable room, the same amount of labor was involved, and there was not over \$150 difference in the cost of feed. The figures given are not fictitious, they are facts, the result of weighing and testing the milk and knowing definitely what each cow is doing. The cows in these herds are practically all grades, and it should be encouraging to dairymen who have grade herds to know that from the production standpoint grade cows may be highly profitable.

## How Production was Increased.

The weighing and testing of the milk in itself did not stimulate greater production, but it did set many dairymen thinking of the loss involved in keeping cows that were poor milkers. They began to study their business and to devise ways and means of deriving a greater revenue from their herds. The scales and test had demonstrated the first year that appearances were deceiving. One concrete example proves this conclusively. In a certain stable were two cows of the same breed, the same age, standing side by side, fed the same and freshened on the same day. They both had dairy type with strong constitutions, big barrel and good udder development. The proprietor usually milked these two cows, and, while he knew one gave more milk than the other, he did not think it amounted to very much in the year. However, the scales told a different story. One cow gave 9,000 pounds of milk while the other gave 5,600 during their lactation periods. This was a difference of 3,400 pounds, or \$42.50 with milk selling at \$1.25 per hundredweight. This should be conclusive evidence in favor of keeping records.

By knowing what the cow is producing each day, a little experimental work in feeding can be done. Some cows may respond to one kind of concentrate better than others. It may pay to feed extra grain to one cow and not to another. One cow may be at her limit of production on ten pounds of concentrates, while the one standing beside her would pay well for a few extra pounds. This can only be determined by the scales and tester. The eye is deceiving in such matters. In every stable where the herd has made the greatest increase in production, a study has been made of the feed problem. True, it cost more for feed per cow than it previously did, but for an increase of one dollar in the feed bill there were three or four dollars extra income from milk. In estimating the cost of feed, silage was figured at \$2.50 per ton, roots at 10 cents per bushel, hay at \$14 per ton, and all concentrates at market price. In some stables the feed was weighed regularly, in others it was only weighed occasionally and an approximate estimate made. In one large grade herd which averaged over 11,000 pounds of milk, the actual feed cost was \$65.60. In other stables it was around \$60, while in some it dropped to as low as \$45. While the individuality of the cow and her breeding counts a good deal, no cow can produce unless she receives the raw material in sufficient quantities and in the right proportion to manufacture the finished product. It is believed that it would pay handsomely to invest money in some of the concentrates on the market in order to balance up the ration being fed. The dairy cow requires feeds high in protein. It has also been clearly shown by members of the record centers that it pays to feed a variety of feeds, to have water before the cows, to keep them comfortable and to curry them occasionally.

When a dairyman pays attention to feeding and keeps records of milk production, he becomes more particular about the sire to head the herd. Any kind, no longer does, but he must be pure-bred, and from high-producing stock. That is not sufficient; he must also be a strong individual showing breed-type and conformation. The result is that the heifers are proving better milkers and higher testers than their dams. In many herds the heifers in their first lactation are doing better than the matured cows. If this is continued the outlook is bright. The influence of a good sire is plainly in evidence in the Listowel Center, where 62 herds average 7,461 pounds of milk per cow, when the average for Canada is less than 4,000 pounds. When such good results can be accomplished in one district, with grade cows, why cannot it be done over the entire Dominion?

The records indicate the cows to save heifers from, and also point out the cows to sell. It is natural for the herd to increase, and sooner or later there will be a number of the good cows for sale. The owner knows their value, and the purchaser is usually willing to pay the price for a good article. The cow with a record commands the high price.

Keeping records makes dairying more interesting. It introduces the business end of farming and eliminates working in the dark. What each cow is doing every day is known. The day's profit can be estimated each night, and an effort is usually made to manage the herd to make yearly profits exceed those of the previous year.

## What Dairymen Say.

Once a dairyman can be induced to start keeping records it is not difficult to keep him at it, as new light is thrown on his business. Varied are the expressions regarding the record work. One was heard to say that he owed his success in dairying to the

keeping of records. "Seven years ago I was not giving an own."

"Fewer cows greater."

"The cow the scales."

"It is not the one that it up is the much until I."

"I now know."

"The Babcock light. The amount of."

There is a majority of dairymen who give their reasons for having a good record is one dairymen I have a poor by letting the milk," is the bring my herd in a year, so stock answer records?" is men have time than pay for 35 or 40 milk become a me time to even Evidently he performance. tory from a than from his need of weed It is difficult against keeping of it.

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keeping of records. The following expressions convey the ideas of those practicing testing:

"Seven years ago my twenty-seven cows were not giving any more milk than the seventeen I now own."

"Fewer cows, less labor, and the profits are much greater."

"The cow I thought was the best is proven by the scales to be little better than a boarder."

"It is not the heaviest milker at the start, but the one that gives a fair amount of milk and keeps it up is the cow that pays. I never realized this so much until I became a member of a record center."

"I now know the value of a well-bred sire."

"The Babcock tester reveals a cow in her true light. The amount of butter-fat is as important as the amount of milk."

There is also the other side of this question. The majority of dairymen do not keep records, and they give their reasons for not doing so. "I know when I have a good milker without bothering with the scales," is one dairyman's idea of keeping records. "I know I have a poor herd and I will not disgrace myself by letting the public know how my cows really do milk," is the confession of another. "I can never bring my herd up to average 10,000 pounds of milk in a year, so what's the use of trying?" But the stock answer to the question, "Why do you not keep records?" is "I haven't time," and yet these same men have time to feed and milk cows that little more than pay for their feed. A certain dairyman who has 35 or 40 milking cows has been frequently asked to become a member of a record center, but he hasn't time to even weigh the milk three days in a month. Evidently he knows his cows and is satisfied with their performance. However, more milk is sent to the factory from a herd of 16 cows in the neighborhood than from his 35 cows. One would imagine there was need of weeding, breeding and feeding in this herd. It is difficult for anyone to secure a logical excuse against keeping records, but there are many in favor of it.

The difficulty has been to get the dairymen who should test to do the work. They continue to stand in their own light, but it is hoped that by continually pushing the work and showing the direct benefit it has been to many, that the number of members of record centers or cow-testing associations will continue to increase. The cost is small, as the Dairy Branch of the Department of Agriculture, at Ottawa, defrays practically all the expense. It is doubtful if there is any operation on the farm that gives larger returns for labor than does keeping records of the cows. By weeding out the poor cows and feeding those that are kept better, there is an increase in production without a corresponding increase in cost. Testing the cows also tests the man's ability to apply the knowledge revealed by the scales and tester to advantage. If all the cows in Canada produced an amount of milk equal to the average cow in the Listowel Record Center, there would be 19,345,170,219 pounds of milk in place of only 9,871,178,103, as shown by the census of 1911. At \$1.25 per hundred pounds there would be an increase of \$118,428,989 to Canadian dairymen. Keeping individual records has given many dairymen a start on the highway to success, and it will do the same for many more. Set the standard high in milk and butter-fat production, and do not be satisfied until every cow in the herd lives up to it. It is not the number that counts so much as the quality of the cows.

## HORTICULTURE.

Start early this season to find a market. Remember the early bird.

Are the strawberries, set this spring, being kept well-hoed and clean?

It might be found profitable to thin some of the early apples, such as Duchess and Wealthy.

Watch the currants for the worm and aphids. The Spray Calendar published in the issue of March 30, 1916, describes the treatment for both.

Producers should get every cent possible of the consumer's dollar. The most effective way to accomplish this end is to go after it with quality to offer and an efficient organization to offer it.

Keep the hoe working in the garden. A good dust mulch will tend to conserve much of the spring precipitation in the ground, and upon this supply of moisture the young plants should thrive.

If the fruit crop, promised by one of the most splendid blooms of history, materializes, there will be an excellent output this season and conditions may arise that will require active selling organizations.

Watch the weather, watch insect and fungous diseases and watch the fruit. If an additional spray is necessary, put it on. Don't allow past efforts to prove abortive on account of the need of one more application. Clean fruit will pay best.

Unless the soil is sandy, do not cultivate the orchard too late in the season. It is now believed that many

trees perish in Ontario because of prolonged cultivation, causing the growth to go into winter immatured. In some districts in Eastern Ontario cover crops should now be sown. Between Toronto and Trenton, authorities state that the middle of June is usually late enough to cultivate, and it is considered that in no place in Ontario should the cover crop be sown much later than July 1. The season of course and the soil govern the cessation of cultivation.

### The Outcome of Precooling Experiments.

In the season of 1914 the Dairy and Cold Storage Branch of the Dominion Department of Agriculture opened the experimental precooling and fruit storage plant at Grimsby, Ontario. Edwin Smith has been in charge, assisted by J. M. Creelman. Recent bulletins of the Dairy and Cold Storage Series review the tests made there, and they are of considerable interest to fruit growers, for there is undoubtedly much outcome to the precooling and storage principle. In a country like Canada, with a few localities where fruit of all semi-tropical kinds can be produced in abundance, and these far remote from great provinces that cannot grow the commodity and must from sheer necessity constitute a lucrative market, the need of such a practice is apparent. The cities of the East will continue to consume the major part of this produce, but with the present areas now fruiting, and still more to become productive, there will be surpluses to dispose of. With an efficient system of precooling and storage, the tender fruits can be so distributed as to lighten the burdens of marketing and disseminate these luscious fruits throughout districts that otherwise could not be so favored. From the plant at Grimsby, trial shipments have been made to various points in Western Canada, and even to Great Britain. In the majority of cases they have been successful, showing at the same time the advantages of precooling and the possibilities wrapped up in the practice. Those growers and associations in the Niagara District who have given it a trial from a commercial point of view, speak optimistically of this means of distribution.

Successful shipments of cherries have been made to Winnipeg, and from there they have been reshipped to various points in the West. It has been shown that under precooling methods the Early Richmond can be shipped long distances as well as the Montmorency. While many of the commercial varieties of sour cherries may be shipped long distances by precooling, this is not true of sweet cherries. The Manager of the plant reports that the Black Tartarian, Windsor, and Napoleon Bigarreau (Royal Arm), are adapted to this purpose.

No fruit has responded to precooling more satisfactorily than the plum. Successful shipments of plums were made as far west as Prince Albert, Sask., and to Glasgow, Scotland. The plums retained their flavor and texture under refrigeration better than any other tender fruits. When removed from the refrigerator cars, most varieties remained in good condition for four or five days, if the shipment had not extended over a period of more than ten days. The conclusions printed regarding plums are: "All varieties of plums are not adapted to long distance shipment. The following have proved most satisfactory: Bradshaw, Monarch, Grand Duke, Reine Claude, Damson, Abundance, and Burbank. The Washington, General Hand, Imperial Gage, and Lombard should not be used for distant shipments.

Relative to peaches, the report reads: "Peaches should not be held under refrigeration longer than is absolutely necessary since they lose flavor under a low temperature more quickly than any other fruit. Tests have shown that all varieties of peaches are not adapted to precooled shipments of long duration. Thus far it appears that the Belle of Georgia, Yellow St. John, Early Crawford, and Elberta, if properly picked and packed, may be precooled and shipped to nearly any part of the Dominion".

Pears, tomatoes, gooseberries, black currants, red currants, cucumbers, sweet corn, celery, apples, and strawberries have all been experimented with in connection with precooling. The results show that there are possibilities that should be developed in connection with these fruits.

### The Bloom in the Niagara District.

F. H. Grindley, of the Dominion Fruit Branch, at Ottawa, recently spent three days investigating the prospects for peaches and other fruits in the Niagara District. During that time he inspected orchards and interviewed growers in Winona, Grimsby, Beamsville, Vineland, Port Dalhousie, Niagara-on-the-Lake, and Queenston. As a result of his visit he is in a position to give a report on present conditions. The fruit situation may be sized up, says the Fruit Branch, in the single statement that trees of all varieties were bearing a full load of blossoms. In fact, the whole peninsula was literally a field of bloom, and lovers of Nature could not spend time more profitably than by visiting any section between Hamilton and Niagara Falls during blossom time. The more optimistic growers maintain that the 1916 blossom is the largest ever seen in Niagara. Recently, however, there have been heavy rains and occasional low temperatures, which may have interfered with pollenization. The above report applies not only to peaches but to all varieties of fruit, including pears, plums, cherries and apples. Mr. Grindley stated that he saw scarcely a single tree of any of these fruits that had not a full load of bloom. Everything points to a large total crop and one slightly greater than that

of last year. It must always be borne in mind that this report is based only upon the amount of bloom, and that there is always the possibility of unforeseen factors reducing the crop between now and the date of harvesting. The grape crop is the only one which could not be estimated, as the vines will not bloom until early in June.

## THE APIARY.

### Introducing the Queen.

EDITOR "THE FARMER'S ADVOCATE":

After rearing the queens by the method described in the issue of April 27, 1916, the problem that next confronts the beekeeper is, how to successfully introduce them to a colony. This is a question that beekeepers have been trying to solve since queens were first introduced, and have only been partially successful. There have been many different methods originated, and each time its originator claimed to have discovered a method by which all queens could be safely introduced to a hive, but generally, upon investigation, it was found that like all former discoveries, it worked only under certain favorable conditions. However, there are several good ways of introducing queens which may be used with success when the directions are carefully followed and conditions are the most favorable. Before elaborating on these better methods of requeening, let us briefly discuss the reasons for introducing a queen.

In the first place, the colony may have lost its queen, either from old age or in some other way, and if this happens in the spring when the colony is building up, or in the summer in the honey flow, valuable time is wasted when the colonies are allowed to rear their own queen. When a person is raising his own queens, or if he buys them, the colony can be requeened in a day or so, and in this way there is no time nor bees wasted. Again, the colony may be black bees and the owner desires to Italianize them, which should be done to all black bees. If the queen is getting old it will usually pay to replace her with a young, vigorous queen. This is especially so in the fall in order to prepare the bees for winter. A young queen will lay longer in the fall than an old one will. A fourth reason for requeening a colony is to prevent swarming. If the colonies are requeened with a young laying queen in the spring, it will practically eliminate swarming and aid in producing a heavier honey crop the following summer. The foregoing are, I think, a few of the most important points, and should be sufficient proof that in most cases it pays to requeen a colony.

In regard to the different methods of introduction, the first one to be mentioned is the old reliable caging plan. I do not think that this method needs a very full description, as it is pretty well known, and also, the directions are generally printed on the mailing cages when queens are purchased through the mail, but perhaps a few pointers may help someone. When the cage is received from the mails, a piece of cardboard is tacked on the top over the wire cloth. This piece is removed, and on the under side of this will be found the directions for introducing the queen. There is very little for the apiarist to do if he has his hive ready to receive the queen. The cage is placed over the frames, wire face downwards. Be sure and place the cage as near the centre as possible in order to be near the cluster. When the cage is placed to suit, quickly and quietly close the hive so as not to disturb the bees more than is necessary. When this is done leave the hive and do not open or disturb it for, at the very least, two days, or better, four days, as the bees will liberate the queen by tearing away the cardboard and eating out the candy in the hole. If the colony has been queenless for at least twenty-four hours and other conditions are favorable, the queen is very likely to be accepted. Sometimes when the queen comes out of the cage, the bees will "ball" her and also occasionally when the hive is first opened after introducing. If the beekeeper should see this ball in time, the queen may be saved by smoking the bees, and when the queen is first seen pull her out from the mass and introduce again. Another way of breaking up the ball is to throw it into a dish of water when the bees will quickly leave her and she may be treated as before.

The second method of introducing is also a caging plan, and this method was much discussed in bee books and journals a few years ago. This is called the push-into-comb-cage plan, and is worked as follows: Take a piece of wire cloth about three inches square, and from the corners cut a small square of about one-half inch each way and then bend the edges over, making a bottomless box. The queen is placed on a comb, over cells containing honey, also if possible over some empty cells, and the cage is set quickly over her and the edges are pushed down into the comb. The queen is released from the cage in 24 to 48 hours by the bees chewing away the comb under the wire cage. By this time the queen will have laid a few eggs in the empty cells, and this will give her the odor of a laying queen, thus insuring her safe introduction. In a way this is a very simple method if one uses care in the making of the wire cages and in transferring the queen from the mailing cage, or whatever she is in, to the comb, under the introducing cage. Care must also be taken not to push the cage too far into the comb. If the bees have not released the queen inside of 48 hours, the apiarist



may remove the cage, when the queen will generally be accepted.

A new method of introducing was originated in 1913 by Arthur C. Miller, and is called the smoke or distress method. This is a plan that requires much care in operating, and the rules must be followed very closely. This method is worked as follows: The entrance of the hive to which the queen is being introduced is closed by the blocks to about an inch in width, and through this is blown three good puffs of thick, white smoke and the entrance is then closed altogether. The kind of smoke used is very important, the heavy, thick and whitish kind being the most suitable for best results. Mr. Miller has a 1/8-inch space under his frames, and where there is only the ordinary shallow space, the results are not so good. When the colony is roaring loudly, or in about twenty seconds, the entrance is opened for about an inch and the queen run in, followed by a puff of smoke, when the entrance is again closed for about ten minutes. The entrance may be opened full width in an hour or so, or when the bees have settled down again. This system has been tried considerably, and most beekeepers report very good results when conditions were favorable.

A new method of introduction that is being recommended is the fasting method. This is simply a renewal of the Simmin's method, which was never very popular. By the fasting method, the queen is placed in a cage without food for about thirty minutes, when she is then allowed to enter the hive previously prepared for her. The queen, being hungry, will not show fight or fear, and the bees will generally accept her. This is a very simple method and from all reports, seems to be generally satisfactory.

These are a few of the principal methods advocated for the introduction of a queen to a colony, and perhaps someone who is starting in the bee business will find a few hints that will help him. One thing more, avoid all new methods of requeening and all other operations in the apiary that are sometimes boomed, until they have been tried and recommended by the experienced beemen of the country.

Middlesex Co., Ont.

BEEKEEPER.

## POULTRY.

### Care of Young Turkeys.

The domesticated turkey retains many of the habits of its wild ancestors. Although it has lost some of its shyness, it still appears suspicious and is ever on the lookout. Turkeys prefer to roam the fields and woods rather than to be confined in any definite area. Consequently, it is difficult to keep track of them during the summer. If they are permitted to go their own way and seldom brought to the farm buildings, the young birds are almost as difficult to catch as their wild cousins of the forest. From the commencement of the breeding season until the poults are ready for market, turkeys are a source of worry to the person who is responsible for looking after the flock. The hen endeavors to hide her nest in the spring, and unless she is in a pen her nest may be found along a fence, in a bunch of weeds, even in the woods possibly a mile distant. Their nests are difficult to find, as, if the hen has any suspicions that she is being followed, she seldom goes to the nest.

While a good hatch may result from the nest in a hidden place, it more frequently happens that rodents destroy the eggs. It is claimed that the poults of the wild birds are much hardier than those from domesticated birds. For some reason there is a heavy mortality in many flocks of turkeys. Disease appears to be quite prevalent and is difficult to control.

The poults are very delicate the first week, and require constant watching. In fact, great care is necessary until they are about eight weeks old, or to the time they have the quill feathers well started. The production of these feathers seems to weaken the young birds and special attention is required to counteract this difficulty. For the first week they must have a warm place that is free from drafts and dampness. Several rations give good results, but sudden changes from one feed to another must be avoided. Some poultrymen feed very hard boiled eggs and bread crumbs the first three weeks and give them plenty of fresh water to drink. Others prefer feeding wheat bread that has been soaked in milk. Cornmeal bread also proves satisfactory. Two quarts of shorts, one quart flour, one-half quart bran and a teaspoonful of soda mixed with sour milk and baked is recommended for feeding the young turkeys. This cake should be soaked in water before feeding. Any of these feeds are good, but one should be fed continuously. For the first two or three weeks, it is necessary to feed five times a day. After that three times daily is sufficient. Wheat may be added to the ration after the second week. From the time the poults are hatched they should have access to grit, as that is necessary for digesting the feed. Plenty of green feed, as chopped onion tops or dandelions, makes a valuable addition to the ration, some claiming that it is essential to the health of the fowl that they have one of these feeds. Under no consideration should the feed be scattered on the ground, if trouble would be avoided. Allowing the small birds to feed from the hand is the best and safest method, but this is not always practicable. The next best thing is to use a clean trough or board. There is less danger of disease if the coops and yards are moved every day. At the end of four weeks the hen may be released from the coop and permitted to lead her flock to new pastures. However, they require attention

for a few weeks longer, and care must be taken to have them under shelter before the dew falls at night, and keep them in until the grass is dry. A close watch should be kept for lice. These minute insects are enemies of young birds. Drooping wings and dullness are indications that these enemies are encamped, and a little lard should be rubbed on the head and under the wings of each poult to rout these intruders. If there is looseness of the bowels, a little powdered charcoal added to the mash tends to correct the trouble and also aids digestion.

After turkeys are six or eight weeks old, they are usually allowed free range. They travel over a considerable area every day in search of insects and grubs. Although they roam through grain fields, as well as pasture fields, very little grain is destroyed, and by their feeding on grasshoppers, etc., it is possible that more good than harm is done. The pests of the growing crops go to produce the white, tender meat on the turkey. A mash might profitably be fed each morning, so long as it is readily eaten. Grain fed at night may be an inducement for them to come home to roost. One trouble with turkey raising is that they usually make themselves more at home at the neighbor's place than where they belong. After the birds are half grown, the limb of a tree is preferred to a covered building for a night's lodging. If every flock could be prevailed upon to journey homeward at a reasonable hour every evening, the worry of the turkey raiser would be blotted out.

After getting a good start, turkeys are not expensive to raise and they usually bring a good price on the Thanksgiving or Christmas market. In fact, turkey is in demand the year round. If it were not for disease taking its toll, turkey raising would be smooth sailing. Colds and blackhead are two troubles which cause the greatest percentage of loss. It is very discouraging to see the flock dwindling down through the season until but a few remain. The poults are more susceptible to attacks of colds than older birds. Symptoms are sneezing and watery discharge from the nostrils. When these are first noticed, put a little coal oil in the drinking water, and rub carbolized oil around the eyes. Sometimes swellings appear around the eyes and it is necessary to lance them. If so apply a two per cent. carbolic acid solution to cleanse the wound.

Blackhead is the dreaded disease which causes a considerable loss each year. It is a contagious disease of the liver and intestines. It may occur any time after the poults are a couple of weeks old, and may cause death a few weeks after infection, or the birds may mature and then after a year or more suddenly die from the effects of this disease. Affected birds first appear dull and listless, with loss of appetite. Diarrhoea sets in, the wings and tail droop, and there is a peculiar discoloration about the head. Only a very small proportion of cases recover. It is considered to be an incurable disease. On examining a diseased bird, the caeca will usually be plugged with a cheesy content and the liver more or less enlarged, together with yellowish spots on it. Preventive measures should be taken to guard against the poults contracting the disease. As the germs of the disease live in the ground, it is necessary to keep the birds off the old feeding grounds, especially if there is a suspicion of the soil being infected. Even on a fresh area, care should be taken not to put the feed on the ground. If birds show symptoms they should be isolated from the flock and possibly it would be wise to destroy them to prevent the disease spreading. Buildings and roosts that turkeys frequent, as well as feed trough and drinking fountain, should be disinfected and all droppings buried. It is claimed to be one of the most difficult diseases to prevent or eradicate. In many sections people have been forced to cease trying to raise turkeys, on account of the loss caused by blackhead. Cleanliness regarding pens, coops, yards, feeds and feeding ground, is essential.

Turkey eggs usually hatch well whether incubated by hen or artificially. After the first few weeks the poults are very little trouble, except for their wandering habits. If they go on free range, without contracting blackhead, they are not so liable to become infected until they are yarded for fattening in the fall. In districts where the disease is unknown, every effort should be made to prevent infection.

### Moisture Increased the Hatch.

EDITOR "THE FARMER'S ADVOCATE":

I conducted an experiment in artificial incubation this spring that may prove of interest to "Farmer's Advocate" readers who use incubators. I have two hot-air machines situated in a dry cellar with a cement floor. The machines are of 244- and 390-egg capacity respectively. The 390 is a new machine bought this spring. The instruction books says "never introduce moisture directly into the machine, but throw water on the cement floor." But I was having too many chicks dead in the shell. I wrote to the Central Experimental Farm, at Ottawa, about the trouble and received a reply that ran partly as follows: "Contrary to instructions we obtain better results from this particular machine when using moisture pans." So I decided to try for myself. Galvanized iron pans three-quarters the size of the nursery drawers were procured about an inch deep and filled with sand. Strips about an inch square were placed under the pans at each end so as to allow air circulation through the bottom diaphragm. The sand trays were filled with water to the height of the sand and placed in the 244-egg machine. The 390 machine was run without moisture, but water was thrown on the floor according to directions. After the last

testing the larger machine contained 316 eggs, the smaller machine 214 eggs. The large machine hatched 214 chicks, the smaller, with moisture, hatched 180 chicks. The machine with the moisture gave about twenty per cent. better results than the other. Eggs were from the same pens, gathered under similar conditions. Temperature was held at 103 throughout the hatch, as nearly as possible.

Middlesex Co., Ont.

W. E. WILLIAMS.

### Ten Rules for Better Chicks.

Here are ten cardinal points in raising young chickens:

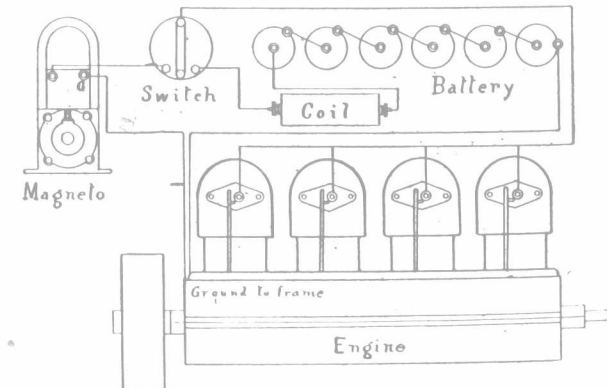
1. First feed the chicks when thirty-six hours old. Provide them sharp sand or clean grit. Give them dry bread and sweet milk, mixed with chopped boiled eggs and dry bread or cracker crumbs. Feed this once every three hours for two or three days, then once a day for ten days or two weeks.
2. Don't overfeed. Give only what the chickens will eat up eagerly in a few minutes.
3. Exercise aids digestion and assimilation and keeps the chickens contented in confinement.
4. Give a scratch feed consisting of finely cracked grains, as well-seasoned corn, wheat, steel-cut oats, millet seed, etc., or commercial chick food in a light litter, such as hay chaff.
5. Feed a mash rich in protein which contains 5 per cent beef scraps after the chicks are two weeks old, and 10 per cent after they are three weeks old, or give a mash of finely ground grains, corn meal, oat meal or wheat bran.
6. Give an abundance of green food, as short grass on the sod, young oats or rye, lettuce or cabbage leaves.
7. Keep the surroundings free from filth. Clean coops and yards frequently to prevent droppings from contaminating the food.
8. If you can get sour milk regularly feed it. Do not alternate sweet and sour milk. This will put the digestive system out of order in a few days.
9. Keep off lice by a liberal use of insect powder. Grease the head slightly with cottonseed oil, vaseline or lard. Do not overdo at any one time.
10. Remember you can do more toward making a good fowl during the first ten days of its life than during any forty days afterward.—University Farm, St. Paul, Minn.

## FARM BULLETIN.

### Diagram of Electric Wiring on Gas Engine.

Question.—Give diagram of wiring of built-in magneto, dry cells, coil, etc., for make and break ignition, so that engine may be started on battery and then run on magneto.

F. H. O.



Ans.—The accompanying diagram shows the system of wiring for a gas engine, so that it may be started from the battery and afterwards run on the magneto.

### Ditching and Fishing.

BY PETER MCARTHUR.

At the present time only two occupations are possible in the country—ditching and fishing. We have to do a lot of ditching to keep from being drowned out, and the fishing helps to keep the young people from getting discouraged. There may have been better weather springs than this, but I doubt if there has ever been a spring in which the wet was so evenly distributed. We get a thorough soaking, and a few days later when the land is about dry enough to work we get another soaking. One decent working day a week for the past month has been about the average. Farmers who can put a couple of teams to work whenever conditions are right have, in some cases, managed to get in their spring crops, but few who are doing their work with one team have managed to accomplish much. We had hoped to get in our oats to-day in a field that has been plowed a few lands at a time during the past month, but this morning a drizzling rain began to blow up on an east wind, and we have more prospect of a three-days' rain than of finishing our seeding. Farmers are beginning to talk of putting in an extra lot of corn to take the place of the oats they are unable to get in, but we shall need dry weather to get in corn. This is certainly

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Hogs.—H



a discouraging spring at a time when greater production is so urgently needed.

When everyone else was ditching I felt compelled to take a hand at it myself. There was a little job of tile draining that I wanted done, but just because it was a little job I couldn't get anyone to do it. The men who had big jobs of tiling to do found no difficulty in getting professional ditchers to do the work, but as my job would not keep a ditching gang busy for more than a day no one wanted it. I let the job three times, but those who contracted to do the work never managed to find time to do it. I wouldn't have waited so long but for the fact that I had never done any tiling and had never happened to be around when it was being done. The bulletin on the subject that I read made the work seem hopelessly scientific, so I felt helpless. But this spring the garden and the approach to the house were both so wet that I was afraid someone would get mired, so after holding a council of war we tackled the work ourselves. I admit that I didn't do the heavy digging, but I used the spoon, or whatever they call the instrument with which they clean out the bottom of the ditch, and then I laid the tile. But if I didn't do the heaviest work I shouldered all the responsibility. If the drain would not work I would be the one to blame, since I had laid the tile. Of course, it was a mussy and sloppy job, but we dammed back the water and allowed only a little stream that guided me in getting the right level. By shaving the bottom with the spoon I managed to distribute the natural fall of the ground so that the water flowed evenly, and then I laid the tile. Although the drain was only about twenty rods long I felt before I was done that I would be quite content to leave such work in future to "Honest John Tompkins, the hedger and ditcher. Who, though he was poor, never wished to be richer."

But we got it in and covered at last, and now I take a lot of solid satisfaction out of seeing the water pour in a steady stream from the end of the tile. In spite of the rain we are having I can see that it is draining the land better than the old open ditch, and besides, there is no danger of anyone getting jolted by stepping into it at night.

The fishing was the biggest surprise of the season.

I thought I was going to have a laugh on the littlest boys, but they had the laugh on me. They asked me to get them fish hooks when I went to the village, and I invested three cents for them. So as to seem to enter into the spirit of the sport I even bought them a skein of fish-line. When they were ready to go fishing I followed "The Advocate's" editorial advice and helped them to dig bait, for I could still remember the spots where fishworms were plentiful. What made me think I was going to have a joke was the fact that I had fished the Government drains in the neighborhood long ago. It is true there was one spring when we threw out several messes of fish with pitchforks—fishing at night with lanterns and catching the fish on the little rapids. There was another time when I got a whole school of chub at one catch by inducing a pioneer who understood the art of net-making to make me an unlawful bag net, which I set in the creek. But I had never taken a fish from the drains with a hook and line, although I had sat on the banks and fished until I was so empty "I couldn't tell whether I was suffering from hunger or a backache." So when I saw the boys starting off to try their luck at fishing I was quite prepared to sympathize with them. While they were away a fish peddler came along and we bought some herring, and I was ready to give the boys a lecture on the advantages of fishing with a silver hook. But along about sunset I heard a couple of yells that were unmistakably triumphant, and presently two wet, muddy but wildly happy boys were showing me their catch—six chub, the two biggest of which were fully eight inches long. I was so overwhelmed that I didn't even smile at them when they told me that the biggest one—a regular monster—got away. Now they are going fishing on "the twenty-fourth" and I am not sure but I shall go with them. Eight-inch chub are not to be despised when one is living so far from the good fishing places.

**Roast Duck.**

A recent fire in the Curtis incubator plant of Ransomville, N. Y., said to be the largest in the world, burned over 20,000 young ducks and destroyed about 100,000 duck eggs, many of them nearly ready to be hatched. The fire started from a defective heater and only lasted half an hour.

**Live Stock Exposition at Chicago Revivified.**

The International Live Stock Exposition of Chicago which for the past two seasons has not been held will be revivified in 1916 and December 2 to 9 have been named as the dates. Senor Carlos M. Duggan of Buenos Aires, Argentina, has been selected to pass on bullocks at the coming show and the American Shorthorn Association selected Senor Ricardo F. Pearson of the same city to judge Shorthorns.

It has been decided to change the rule governing the ages of swine, so that all ages will in future be computed from the first day of February and the first day of August of the year in which the animals were farrowed, instead of using March 1 and September 1 as a basis, which was the custom in the past. Liberal appropriations have been set aside for the coming event and it has been decided to reinstate both the breeding and fat classes as planned for the show of 1914.

**Production and Thrift.**

BY ANGIUS MCKYF.

There's a "chuffer" to chuff his chug-buggy;  
A butler to buttle his meat;  
There's a duffer to duff his pug—"Puggy";  
And a footman to perfume his feet:

A lackey to lacquer his harness;  
A swiipe to swiipe sweat off his nags;  
A whackey to w'ack at the furnace;  
A packey to pack up his rags;

There's a gardner to grow him a boquet;  
A valet to val up his breeks;  
A pardner to help him play croquet;  
And a caddy to carry the "steeks."

He rides to the talk-fests quite nifty;  
Jags up on ten dollar champagne;  
He advises the farmer,—"be thrifty,—  
Bale grass, and make hay in the rain."

**Toronto, Montreal, Buffalo and Other Leading Markets.**

**Toronto.**

During last week over 6,400 head of cattle were received at the Toronto Stock Yards, numbering in all about 1,000 less than for the week previous. Last week opened with a good demand for all grades and classes and prices went up 15 to 25 cents per cwt. These prices held for good to choice, but the medium class of cattle weakened slightly as the days went by. Small lots of fine steers sold up to \$9.90 per cwt., while extra choice realized \$9.85 in car lots. Choice weighty steers brought \$9.25 to \$9.75, and good, weighty \$8.75 to \$9.25. Choice, handy went at \$9 to \$9.40; good, at \$8.75 to \$9.10; medium at \$8.25 to \$8.60; and common at \$7.75 to \$8.25; butchers' cows and bulls held at the twenty-five cent rise recorded early in the week at \$7.75 to \$8.50 for choice, with extra choice at \$8.75; medium to good, went at \$6.75 to \$7.75.

On Monday choice stockers went at \$8 to \$8.75, and medium to good at \$7 to \$8; on Tuesday they were still wanted and sold at \$8 to \$8.75 for choice, and at \$6.75 to \$8 for medium to good. Wednesday's market saw good stockers sold for \$7.50 to \$8.25 and medium for \$6.75 to \$7.50. On Thursday choice stockers, 800 to 900 lbs., sold for \$7.75 to \$8.50; good, 700 to 800 lbs., \$7.50 to \$8; and medium, 650 to 700 lbs., at \$6.75 to \$7.50; light stockers changed hands at \$5.50 to \$6.50.

Milkers.—Milkers were steady in a lightly supplied market and good to choice went, during the first part of the week, at \$75 to \$100 each. This class of stock was wanted both for Western and Eastern Canada, and there were not sufficient of the quality wanted to fill the orders. From \$80 to \$115 was the range for choice milkers, with medium at \$60 to \$75. The latter class were a slower sale.

Calves.—The run of calves was light and the demand was good. This caused an advance of 25 to 50 cents per cwt. Good to choice veals brought \$9.50 to \$11.50; and medium \$7.50 to \$9.50 on Monday's market. This price was maintained on Tuesday and Wednesday, with odd fine on the latter day being quoted at \$12. The \$9.50 to \$11.50 range held good on Thursday, with medium selling at \$7.50 to \$9.50, common at \$6.50 to \$7, and grass at \$4.75 to \$6.25.

Hogs.—Hogs were quoted down 50

cents below the prices ruling at the end of the previous week. The offer during the first part of last week was generally \$10.40 f. o. b. country points; \$10.75 fed and watered, and \$11.15 off cars. However, \$11.25 and \$11.35 off cars was paid by some buyers. On Tuesday one firm bought 300 hogs at \$11.15 off cars, and Wednesday saw them move at \$11.15 to \$11.25 off cars, and \$10.90 fed and watered. This also was the general price on Thursday.

Sheep and Lambs.—Prices were firm for sheep and lambs during the first part of the week, 25 cents being added to sheep, while choice spring lambs held firm. Light sheep ewes went at \$9.50 to \$11.50; yearlings at \$10.50 to \$13.50 and choice, spring lambs from \$11 to \$13 each. During the latter part of the week lambs sold at \$10.50 to \$13.75 per cwt. Spring lambs sold at \$6 to \$13 each; light sheep ewes went at \$9.50 to \$11.50; heavy sheep and bucks at \$8 to \$9.50, and culls at \$5 to \$6.

**Breadstuffs.**

Wheat.—Ontario, (according to freights outside) No. 1 commercial, \$1.02 to \$1.03; No. 2 commercial, \$1.00 to \$1.01; No. 3 commercial, 97c. to 98c.; according to freights outside; feed wheat 92c. to 93c. Manitoba wheat (track, bay ports) No. 1 northern, \$1.20½; No. 2 northern, \$1.19¼; No. 3 northern, \$1.16.

Oats.—Ontario, No. 3 white, 48c. to 49c., according to freights outside; commercial oats, nominal.—Manitoba oats (track, bay ports) No. 2 C. W., 51½c.; No. 3 C. W., 50½c., extra No. 1 feed, 50½c.; No. 1 feed, 49½c.

Rye.—No. 1 commercial, 92c. to 93c., rejected, 86c. to 88c., according to sample. Buckwheat.—Nominal, 70c. to 71c., according to freights outside.

Barley.—Ontario, malting, 66c. to 67c., according to freights outside; feed barley, 63c. to 64c., according to freights outside.

American Corn.—No. 2, 80½c., track, Toronto.

Canadian Corn.—Feed, 73c. to 74c., track, Toronto.

Peas.—No. 2, \$1.70, sample peas, according to sample, \$1.20 to \$1.50.

Flour.—Ontario, winter, \$4.30 to \$4.40, track, Toronto; \$4.35 to \$4.45, bulk, seaboard; Manitoba flour—Prices at Toronto were: First patents, \$6.70; second patents, \$6.20, in jute; strong bakers', \$6.00, in jute; in cotton, 10c. more.

**Hay and Millfeed.**

Hay.—Baled, car lots, track, Toronto, No. 1, best grade, \$20 to \$22; No. 2, per ton, low grade, \$17 to \$19.

Straw.—Baled, car lots, \$7 to \$8, track, Toronto.

Bran.—\$23 per ton, Montreal freights; shorts, \$25, Montreal freights; middlings, \$25 to \$26; Montreal freights; good feed flour, per bag, \$1.70 to \$1.75, Montreal freights.

**Country Produce.**

Butter.—Prices remained about stationary on the wholesales during the past week. Creamery, fresh-made, pound squares, 30c. to 31c.; creamery solids, 28c. to 30c.; separator dairy, 25c. to 27c.; dairy, 22c. to 24c.

Eggs.—New-laid eggs firmed slightly, selling at 25c. to 26c. per dozen, crate lots, and 28c. to 29c. per dozen in cartons.

Cheese.—20½c. to 21½c.

Honey.—Is off the market.

Beans.—Primes, \$4.

Poultry (live weight).—Spring chickens 35c. per lb.; fowl, 16c. to 19c. per lb.; ducks, 17c. per lb.; turkeys, 20c. per lb.; squabs, dressed, \$3.60 to \$4 per dozen.

**Hides and Skins.**

City hides, flat 19c.; country hides, cured, 18c.; country hides, part cured, 17c.; country hides, green, 16c.; calf skins, per lb., 26c.; kip skins, per lb., 24c.; sheep skins, city, \$2.00 to \$3; sheep skins, country, \$1.50 to \$2; lamb skins and pelts, \$1.20 to \$1.25; horse hair, per lb., 41c. to 44c.; horse hides, No. 1, \$5 to \$5.50; No. 2, \$4.50 to \$5. Wool, washed, 40c. to 44c. per lb.; wool, rejections, 33c. to 35c. per lb. wool, unwashed, 28c. to 32c., per lb. Tallow, No. 1, 6½c. to 7½c.; solids, 6c. to 7c.

**Wholesale Fruits and Vegetables.**

Old Potatoes advanced again during the past week as they are becoming very scarce—British Columbias of fine quality are becoming quite active, selling at \$2 per bag. The New Brunswick Delawares at \$1.95 and \$2 per bag, while Ontarios are noted for their absence.

New potatoes have declined; the Bermudas selling at \$8 per bbl.; while the Floridas, which are small, bring \$2 per hamper.

New carrots and beets continue to come in in large quantities and now sell at \$1.25 to \$1.50 per hamper.

Cabbage advanced considerably, and sold at \$5 to \$5.50 per case, but Thursday the arrival of a couple of cars of Norfolk variety which sold at \$4 per case caused the other to decline to \$5.

Leamington cucumbers, which have only been coming in in small quantities lately, had a field day on Tuesday last, when the price advanced to \$2.50 and \$2.75 per 11 quart basket. This high price was also due to the fact that there were not any of the imported hampers on sale that day. These have since come in, and the price of the Leamingtons has dropped to \$1.75 to \$2, and a few at \$2.25 per 11 quart basket; the imported now sell at \$4.25 per hamper.

The Texas Bermuda Onions have advanced to \$2.60 to \$2.75 per crate; the real Bermudas selling at \$2.35 per crate.

Asparagus is coming in freely again after being rather scarce and has declined in price, the 11 quart baskets selling at \$1.25 to \$1.50, and a very few of the best bringing \$1.75.

Strawberry deliveries are increasing daily. They are now mostly coming from Arkansas and Tennessee, and are of better quality, and sell at 14c. to 16c. and 17c. per box. They will likely be firmer for a short time, as they have been having heavy rains down south—delaying shipments.

Cuban Pines are coming in freely and are selling at \$2.75 and \$3 per case.

Navel Oranges which are just about over sell at \$3 to \$4.25 per case, while late Valencias sell at \$3.50 to \$4.25 per case.

**Montreal.**

Receipts of live stock last week were perhaps not quite so large as usual owing to the large number of people leaving the city both for the holiday and for the summer season. Demand was lighter than usual, this being partly due to the reasons just mentioned and partly due to the smaller population as well as to higher prices. Choice steers at last reached the high record for this period of the year of 10c. per lb. As a matter of fact, this price was refused. It will be a little while yet until grass cattle reach the market and until that time arrives, prices will continue very firm. Demand was moderately active for sheep, lambs and calves. Quite a few calves were being shipped to the United States and the tone of the market was quite



firm with sales of choice as high as 8 $\frac{1}{2}$ c. to 9c. per lb., good being 7 $\frac{1}{2}$ c. to 8c. Medium calves sold at 5 $\frac{1}{2}$ c. to 6c. per lb., and culls as low as 2 $\frac{1}{2}$ c. Spring lambs were more plentiful and in good demand and prices ranged from \$5 to \$8 each. Sheep sold at 8 $\frac{1}{2}$ c. to 9c. per lb. for ewes, and as low as 8c. for culls. Yearling lambs brought 11 $\frac{1}{2}$ c. to 12c. per lb. Hogs sold at 11 $\frac{1}{2}$ c. to 12c. per lb., with fractionally higher prices for choicest. Sows sold at 2c. under these figures, while stags ranged around 6c. per lb. weighed off cars.

**Dressed Hogs.**—Sales of abattoir-dressed, fresh-killed hogs took place at 16 $\frac{1}{2}$ c. to 16 $\frac{3}{4}$ c. per lb. Although these prices were very high, demand continued good and everything offered was taken.

**Horses.**—The supply of horses throughout the country is exceedingly light, very large quantities having been taken away for war purposes. Demand, however, was not heavy and prices continued steady as follows: heavy draft, weighing 1,500 to 1,700 lbs., \$200 to \$250 each; light draft, weighing 1,400 to 1,500 lbs., \$150 to \$200 each; small horses, \$100 to \$125 each; and culls \$50 to \$75 each. Fine saddle and carriage horses were \$200 to \$250 each.

**Poultry.**—Prices for cold store stock ranged from 24c. to 27c. per lb. for turkeys; 22c. to 24c. for chickens; 17c. to 19c. for geese and fowl, and 19c. to 20c. for ducks.

**Potatoes.**—The market for potatoes continued steady. Car lots of green mountains were quoted at \$1.75 per bag of 90 lbs., ex-track, Quebec potatoes being \$1.70. For smaller lots, 10c. to 15c. was added to these figures.

**Honey and Maple Syrup.**—Maple syrup was in moderate demand at 85c. for 8 lb. tins, in a wholesale way; \$1 for 10 lb. tins; and \$1.25 to \$1.35 for 13 lb. tins, according to quality, and about 5c. more for smaller quantities. There was very little demand for honey, and prices were steady at 15 $\frac{1}{2}$ c. per lb. for white clover comb, and 13c. for extracted, brown clover comb being 13c., and extracted 11c. Buckwheat honey was 10c.

**Eggs.**—The market continued unchanged. Selected, new-laid eggs were 25c. per dozen, straight gathered being 27c., No. 1, 24c. and No. 2, being 23c. per dozen. Demand was active both for local consumption and for packing purposes.

**Butter.**—Receipts of butter continue to increase, and the make is now quite large. The make for June will be among the largest of the year and the quality among the finest. There is a good demand for domestic account and consumption is keeping up well. There is also a good demand from English importers, there being a scarcity abroad. Ocean freight rates, however, are very heavy. The market was rather firmer, choicest new milk creamery being 30c. to 30 $\frac{1}{2}$ c. per lb., fine being 29 $\frac{1}{2}$ c. to 29 $\frac{3}{4}$ c. Finest held creamery ranged from 26 $\frac{1}{2}$ c. to 27 $\frac{1}{2}$ c. per lb. Dairy butter was about 1c. up, to 23c. to 24c.

**Cheese.**—The market was steady and firm. Exporters were not bidding quite as much as a week ago but prices showed no change, being 19 $\frac{1}{2}$ c. to 19 $\frac{3}{4}$ c. for finest Western and 1c. less for finest Eastern. Fine cheese was about  $\frac{1}{4}$ c. under finest.

**Grain.**—Prices of wheat were firm and advances took place over the lower prices of a few days previous. Locally, there was little change. No. 1 commercial white was quoted at \$1.10 to \$1.15 per bushel in car lots. Oats were steady and in good demand, No. 2 Canadian Western being quoted at 56 $\frac{1}{2}$ c. per bushel, ex-store; No. 2, at 53 $\frac{1}{2}$ c., No. 1 feed extra, 53 $\frac{1}{2}$ c., No. 1 feed at 53c., and No. 2 feed at 52c. No. 2 white Ontario and Quebec was 52 $\frac{1}{2}$ c., No. 3, 51 $\frac{1}{2}$ c., and No. 4, 50 $\frac{1}{2}$ c., ex-store.

**Flour.**—Ontario flour advanced during the week and patents were quoted at \$6 to \$6.25 per barrel, straight rollers being \$5.40 to \$5.60 in wood, and \$2.60 in bags. Manitobas were steady at \$6.80 for first patents, \$6.30 for seconds and \$6.10 for strong bakers, per barrel, in bags.

**Hay.**—The market was steady at \$22 to \$22.50 for No. 1; \$21.50 for extra No. 2, \$20.50 to \$21 for No. 2; \$19.50 for No. 3 and \$18.50 for clover mixed, ex-track.

**Hides.**—Calf skins advanced another cent and they were then 34c. per lb. for No. 1 and 32c. for No. 2. Lamb skins were selling at 40c. each. Beef hides were 22c., 20c. and 19c. for No's.

1, 2 and 3, respectively. Horse hides were \$2.50 to \$3.50 each and rough tallow 1 $\frac{1}{2}$ c. to 2 $\frac{1}{2}$ c. per lb. with rendered at 7c. to 7 $\frac{1}{2}$ c.

### Buffalo.

**Cattle.**—Prices for cattle were the highest last week at Buffalo within the history of the trade. Something like six loads of shipping steers sold up to \$10.50 and not one of the loads approached the killing percentage of the load the week before that brought the same price. Bulk of the best shipping steers ranged from \$9.90 to \$10.50 and yearlings sold a nickel higher than the week before, scoring the record price of \$10.15. Best handy butchering steers sold from \$9.75 to \$10.10. Best Canadian heifers brought \$9.00 to \$9.25, with best heavy, fat cows, \$8.00, few very fancy up to \$8.25 to \$8.50. Little, light heifers were running from \$8.25 to \$8.50, with the best kinds in loads and on the handy order from \$8.65 to \$8.75. Bulls sold high, best heavy ones running up to \$8.25 to \$8.50, and nothing in the bull line under six cents. Choice feeders would bring up to \$8.50, if not more. A load of a little better than 600 lb. Canadian stockers sold at \$8.35. Milcher and springer trade was strong, best ones ranging up to \$100. Sellers are expecting larger shipments out of Canada, with the present very high values prevailing. Grass steers of medium weight the past week sold from \$8.75 to \$9.25 but it will be a couple or three weeks before any considerable number of grassers begin to move.

Receipts the past week were 4,225 head, as against 4,250 for the previous week and 3,750 for the corresponding week last year. Quotations:

**Shipping Steers.**—Choice to prime natives, \$10.00 to \$10.50; fair to good, \$9.50 to \$9.85; very coarse and common, \$8.50 to \$8.75; best Canadians, \$9.25 to \$9.50; fair to good, \$8.50 to \$8.75.

**Butchering Steers.**—Choice heavy, \$9.00 to \$9.75; fair to good, \$8.40 to \$8.75; best handy, \$9.25 to \$9.90; yearlings, prime, \$9.75 to \$10.10; yearlings, common to good \$8.25 to \$9.50.

**Cows and Heifers.**—Prime, weighty heifers, \$7.50 to \$8.50; best handy butcher heifers, \$7.75 to \$8.25; common to good, \$6.50 to \$7.50; best heavy fat cows, \$6.50 to \$7.50; good butchering cows, \$6.00 to \$6.50; cutters, \$4.25 to \$4.75; canners, \$3.25 to \$4.00.

**Bulls.**—Best heavy, \$8.00 to \$8.50; good butchering, \$7.50 to \$7.75; sausage, \$6.00 to \$6.25.

**Stockers and feeders.**—Best feeders, \$8.25 to \$8.50; common to good, \$7.25 to \$8.00; best stockers, \$7.50 to \$7.75; common to good, \$6.00 to \$7.00.

**Milchers and Springers.**—Good to best, in small lots, \$80.00 to \$100.00; in car loads, \$70.00 to \$75.00; medium to fair, in small lots, \$60.00 to \$65.00; in car loads, \$55.00 to \$60.00; common, \$40.00 to \$50.00.

**Hogs.**—Prices were generally lower the past week. Monday, when the decline figured 10c. to 15c., top was \$10.35, and while several decks sold at \$10.30, bulk moved at \$10.25.

The next two days nothing sold above \$10.25, with bulk going at \$10.15 and \$10.20, Thursday's trade was steady with Monday, and Friday values were off a dime, top being \$10.25, with majority selling at \$10.15. Pigs the fore part of the week sold at \$9.75, with roughs \$9.00 and \$9.10, and before the week was out pigs dropped to \$9.40 and \$9.50 and roughs landed down to \$8.90. Receipts the past week were approximately 29,000 head, as compared with 29,544 head for the week previous, and 27,000 head for the same week a year ago.

**Sheep and lambs.**—Buffalo made a new record for clipped stock the past week, when on Monday top shorn lambs reached as high as \$11.50, bulk sold at \$11.40, yearlings reached \$10.10, top clipped wethers sold around \$9.25, with some that contained a few yearlings reaching as high as \$9.50 and ewes went from \$8.75 down. After Monday, however, the trade was bad and before the week was out top, dry-fed, handy lambs sold down to \$10.25, wether sheep landed down to \$8.75 and ewes went from \$8.00 down, latter prices being the top quotations for Friday's market. Cull lambs the fore part of the week sold up to \$10.50 and Friday best in this line could not be ranged above \$9.25, with skips selling as low as \$5.50. Stuff showing grass proved very hard sale and they undersold the dry-feds anywhere from 50c. to \$2.00 per

cwt. Receipts the past week were 24,700 head, for the week previous there were 26,443 and for the same week a year ago the run totaled 11,200 head.

**Calves.**—Market was good the past week. Monday tops sold at \$12.00 and \$12.25, Tuesday's top was \$12.00, Wednesday bulk sold at \$12.25, Thursday some reached \$12.50 and Friday the general price for best lots was \$12.00. Cull grades sold well, best in this line bringing from \$10 to \$10.50, with less desirable ones going from \$9.50 down. Receipts the past week reached around 4,200 head, as compared with 4,458 head for the week before and 3,900 head for the same week a year ago.

### Chicago.

**Cattle.**—Beeves, \$8.30 to \$10.75; stockers and feeders, \$6.15 to \$9; cows and heifers, \$4.60 to \$9.75; calves, \$8.25 to \$11.25.

**Hogs.**—Light, \$9.10 to \$9.75; mixed, \$9.40 to \$9.85; heavy, \$9.30 to \$9.85; rough, \$9.30 to \$9.45; pigs, \$7.25 to \$9.10.

**Sheep.**—Lambs, native, \$8.40 to \$12.35.

### Ontario's May Crop Report

The Ontario May Crop Report has been issued and describes agricultural conditions in the province as they appeared up to the middle of the month. This information is gathered through a large number of correspondents in various parts of the country.

So far fall wheat promises excellent returns, except where affected by frequent spring rains on low spots or on untiled land. Some correspondents mention a comparative lack of sunshine so far this season, which, with the prevailing cool weather, has retarded growth; but the general tone of the reports is more or less cheerful, as less fall wheat land than usual will be plowed up or re-sown. There has also been fewer complaints of injury from insect pests.

Hay and clover, judging from the present outlook, should be one of the best crops for years. The fields, especially those of last year's seeding, came through the winter in fine form, and there was but little heaving or other injury from spring frosts. As in the case of fall wheat, a small portion of the crop, owing to the very wet spring, has been drowned out on low-lying places where the fields were not well drained.

Alfalfa looks more uneven than clover at present, not having wintered so well as the sister crop. However, there are some reports of splendid fields, and an average general yield is looked for.

The cold, backward spring weather has delayed vegetation fully a week later than usual for the middle of May, and about a fortnight later than for the same period for last year. Pastures were further on relatively than orchard leaf or blossom. Some live stock had been turned on to the grass, but many cattle were yet in the stable. With warm weather a rush of growth is anticipated, as the ground has been thoroughly saturated by frequent spring rains.

Reporting on conditions existing on the 15th of May, it may be said that not half the expected area of spring grain seeding had yet been done. While a few fortunate individuals on high, light or well-drained soils had finished the job, many had not been able to even get on the land, and were anxiously waiting for a few days of continuous dry weather. The ground, particularly heavy clays, suffered from the very wet summer of the preceding year as well as from the rains of the present season, and its condition was variously described by correspondents as "soggy", "sticky", "tough", and "sad". A good seed bed was impossible in most cases, although some "mucked in" a portion of their seed, taking a chance of early germination. The delayed sowing season, with a scarcity of suitable help, will render farmers very busy during the remainder of the spring, and grains will consequently have a reduced acreage. Later field crops, such as corn, buckwheat, beans and potatoes are likely to be more extensively grown in order to make up the deficiency. More mixed grains will be sown for feeding live stock—chiefly oats and barley.

Spring prospects for fruit, generally speaking, have never been surpassed. Very little winter injury has happened to orchards, rabbits and mice having

done more damage than the elements. So far this season there has been no frost to injure fruit buds, and all classes of orchard trees are making a most promising show of blossom, although about a week or two later in showing than usual. Owing to the frequent rains of the last few weeks spraying operations have been delayed, and the results of this forced neglect may be seen later. While some grape and raspberry canes have been more or less frozen back on account of all the heavy fall growth failing to mature, both of these fruits are expected to average up after all. The other bush fruits and strawberries give promise of generous yields.

While the very late spring has made considerable inroad into fodder supplies, there is still sufficient on hand in most cases to meet requirements. Hay is relatively scarce and high in price, but straw, silage and other coarse fodders help farmers to go light in feeding it. Oats are more plentiful, and are being fed generously, owing to the high price of live stock and their products. The same may be said of wheat, much of which is being turned into pork, as hogs are greatly in demand. None of the inferior grain from last year's wet harvest has been wasted, and even the choicest oats, wheat, and barley are at present worth more sold "on foot" than in the bag. The splendid pastures now promising will soon relieve the drain on the better class of fodders. In short, the Ontario farmer who is into beef raising or dairying never had more encouraging prospects before him.

### "Save" in the Apiary.

EDITOR "THE FARMER'S ADVOCATE":

Beekeepers unconsciously permit a great wastage which might be saved. War or no war you cannot afford to throw away the little pieces of burr combs that the bees build between poorly spaced combs, or between the tops of the frames and the queen excluder. Besides a loss of wax (it requires from 8 to 20 pounds of honey to produce one of wax), these stray pieces when carelessly thrown about are often the means of starting the whole yard robbing. A small can (an old honey pail) serves as a convenient receptacle for these cuttings and scrappings and it is surprising how quickly sufficient scraps accumulate to make it worth melting and pressing.

Since beeswax is so costly for the bees to secrete why not prevent them from building unnecessary comb? Have a beespace between each comb and also between the top bars of the frames and the queen excluder and the bees will not fill in the space. This bee space should be  $\frac{3}{8}$  of an inch, no more, no less. Not only will this save the time of the bees but the combs can be handled much more easily.

The present high price of sugar and the poor prospects of it taking a drop is sufficient reason to start thinking now of the fall feeding. The sugar bill can be reduced by reducing the number of colonies. All the weak ones should be united up and made into a few strong ones. Keep only strong colonies headed by young, vigorous queens, and in the fall you will have only strong colonies to feed. One strong colony may gather a big surplus but several weak ones will never store enough for their own use let alone a little for their owner. If your queen is failing replace her with a vigorous young one and note the difference.

Save every drop of honey, for it costs money to produce and present conditions indicate that the price will be high. Twirl the combs in the extractor till they are dry. It makes a great waste to have the bees handle wet combs when honey should be removed from the combs before replacing on the hives. Drain the cappings thoroughly; mash them up and let them stand overnight in a warm room. Then place them in a solar wax melter and expose to the sun. If the bees can find an entrance into the solar extractor, they'll be into it sooner or later. Better stuff a cloth into the opening or tack over a piece of lath. This will save you trouble later.

Make your work efficient. If you can reduce the labor in the apiary, you can increase your returns.

Save the bees, save the products of the bees and you are helping to save your country.

G. F. K.  
O. A. College, Guelph.



### The Se

I know an old  
A mountain road  
And billowed hills  
To sunset and t

I take a path th  
Deep thinking o  
And find a spot  
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—C. K. OBER  
Manhood.

### Women's V

#### Household Sci

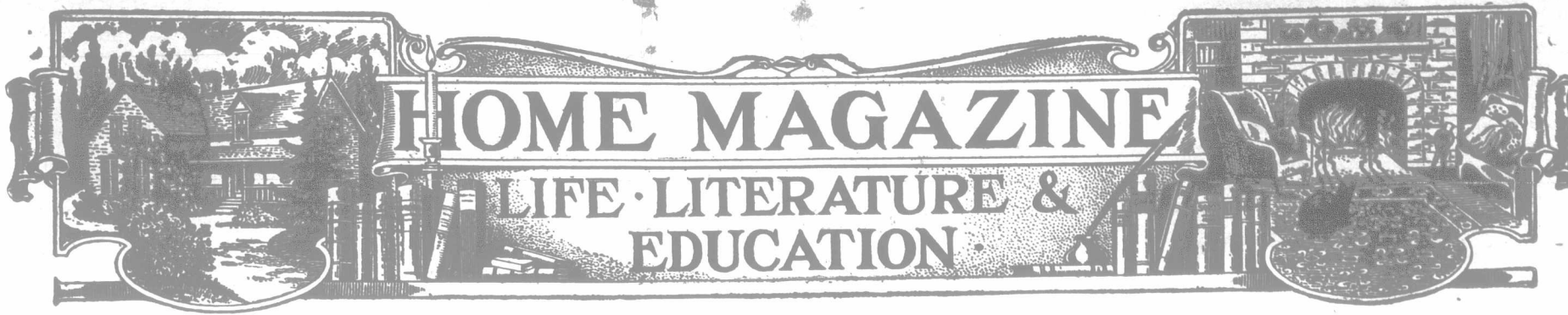
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**The Secret Place.**

I know an old house on a hill,  
A mountain road, a grove, a rill,  
And billowed hilltops, stretching far  
To sunset and the evening star.

I take a path through glade and wood,  
Deep thinking of its solitude;  
And find a spot, o'er arched and still,  
Where peace and poise the spirit fill.

The Master's presence there is near,  
The Master's plan again is clear;  
And far removed from work or strife,  
I re-appraise the worth of life.

The hill, the outlook and the wood,  
The time, the place, the attitude,  
Hold not the secret of the prayer;  
The secret place is anywhere.

—C. K. OBER (New York), Canadian Manhood.

**Women's Work in P. E. I.**

**Household Science Short Courses.**

Six Household Science Short Courses were held at Prince of Wales College, Charlottetown, P. E. I., during the months of January, February and March. These courses were under the direction of the Department of Agriculture, and lasted for two weeks. They were open to the women and girls of the rural sections of the Province, and upwards of three hundred and fifty applicants were received. As only twenty-six could be accommodated at each course, there are still a number of applications on the waiting list.

The course embraced all subjects of special importance to the homemaker on the farm. Printed pamphlets bearing on the work were distributed to each member of the class; this proved to be a great saving in the time allotted or class work, as well as satisfaction of the members having at the end of the course notes which would aid in putting the knowledge gained into practice.

Throughout the course three hours a day were devoted to cooking. This course comprised bread and biscuit-making, cooking of meats, and fish, desserts, cake-making, invalid cooking, and the utilizing of left-overs in the preparation of appetizing dishes. The different methods of cooking and the effect of each on the different food materials was brought to the attention of the class. Stress was laid on the fact that it is not necessary to expend a large amount of money for food materials in order to have the daily menu both attractive and of high nutritive value. Table setting and serving was fully discussed and demonstrated. Emphasis was laid on the importance of attractive service.

The Home Nursing lectures included the care of the sick room, with special attention to ventilation, care of the patient, bed-making, bandaging and emergencies. In these lectures each member had the opportunity of doing the practical work in bandaging, preparing the bed for the patient and changing the clothes with the patient in the bed.

The lectures in House Furnishing were dealt with under the following headings: harmony of decorations and furnishings, principles of art and design applied to furniture, papers, hangings and pictures, planning of color schemes and the furnishings for various rooms. A feature of this course was the stenciling, and many attractive pieces of work were done by the members at a very small cost.

In the millinery, the making and trimming of hats was the important item. In some cases the buckram shapes were made by the class, while at other times the shapes were bought at a

small cost and then covered with velvet or silk. In the flower-making, taft roses, violets and daisies were made from ribbon and silk, and were used in many cases as the trimming for the hats made.

The various fabrics and the characteristics of each were fully discussed in the laundry classes, also the methods of laundering these fabrics and the effects of the different cleansing agents upon them. The aim of these classes was to have the different processes involved in laundry work done with the least expenditure of time and energy. A phase of this work in which the women were deeply interested was the making of Castile and laundry soaps, the different dry cleaning processes and the removal of stains.

Lectures were given in Home Management. The plan and arrangement of a convenient kitchen were discussed. The value of system in housekeeping and the keeping of personal and household accounts were dealt with.

Hygiene was the topic of two lectures to each class. These dealt with the relation of bacteria to disease, the various ways in which bacteria enter the body, and the conditions under which they flourish. The value of sunlight, fresh air and proper food in keeping up the resisting power of the body was clearly shown. In addition lectures on the treatment and Prevention of Tuberculosis were given by Dr. Garrison, Superintendent of the Dalton Sanitarium. It was fully explained how the disease is contracted, and the care and treatment the patient should receive in the various stages of the disease. Emphasis was laid on the importance of thorough disinfection.

W. K. Reek, B. S. A., in a discussion on the "care of milk and cream on the farm" urged upon the class the necessity of cleanliness in all operations in connection with dairy work. That the best utensils should be adapted in carrying on this very important part of farm work was clearly demonstrated.

In a lecture on Farm Home Conveniences by Theodore Ross, B. A., concise and clear information was given on various labor-saving devices, which in many farm homes could be installed with a comparatively small expenditure of money.

Prof. MacCready in an illustrated lecture on School Improvement, compared the condition of rural schools with what they might become through co-operation, and impressed upon the class the importance of helping to make these conditions possible.

In a lecture on Vegetable Gardening, J. Leslie Tennant, B. S. A., explained in detail the location of the most suitable garden and the preparation of the soil, the best varieties of vegetables to grow and the care of such, so as to get the best results.

These courses were under the direction of Miss Hazel L. Sterns, Supervisor of Women's Institutes, assisted by Miss Alberta M. MacFarlane and Miss Adele Gordon.

A pleasing feature throughout the courses was the manner in which the classes were entertained at the homes of Lieut.-Governor and Mrs. Macdonald, Premier and Mrs. Matheson, Hon. and Mrs. Murdoch MacKinnon, Dr. and Mrs. Pethick, and Prof. and Mrs. J. A. Clarke of the Experimental Farm.

Already applications have been received for next year's classes, and it is hoped that next year by means of additional equipment greater numbers will be able to take advantage of these courses.—Hazel L. Sterns, Supervisor Women's Institute Branch.

**Women's Work in Eskimo-land.**

BY AUBREY FULLERTON.

For housekeeping ways that are most perfectly adapted to conditions and surroundings, one must go to the far north. The Eskimo women of the

or "iglo" built of snow-blocks, and in the summer it is a deer-skin tent. In the making of both, the women lend a hand, and afterward, while the men are busied in stocking the larder, they take the responsibility of keeping the house in order.

Cooking is not a highly developed art among these northern housekeepers. There is only one kind of food to cook, and usually only one way of cooking it. "Eskimo" means "flesh-eater," and the name fits, for a diet of meat, morning, noon and night, the year around, is what these people eat. They know of no other taste than the taste for meat, and fortunately there is an un-failing supply of caribou and musk-oxen, seals and walrus, salmon and wild fowl, the hunting of which is the one concern and business of the Eskimo men. When the trophies of the day's hunt come home, the women prepare it for eating.

Great pieces of flesh—the fatter the better—are cut and placed in kettles to boil, or sometimes hung over a flame to singe around the edges. The only fires in the snow-houses are of seal oil in rude stone lamps, and naturally enough the cooking is very imperfectly done. As often as not, the meat is served half raw, and while the average Eskimo family prefers cooked meat it will eat it uncooked if there is nothing else to be had. Whale blubber, raw walrus steaks, and the like are a strange diet for human kind, but they have proved very effective against the Arctic cold.

To the women, too, falls the task of making the family clothes. The same animals that give the food supply furnish all the dress-making material also, and out of the deer skins and seal skins that the men bring home the housewives fashion curious wearing apparel for themselves and their men-folk. They are clever needlewomen, and despite their clumsy tools and heavy materials they turn out garments that serve the purpose remarkably well.

For men and women alike the Arctic tailors make fur suits consisting of coat, breeches, and stockings. In the winter a double suit is worn, the inner one with the hair next the body, and the outer one with the hair exposed. The single summer suit is similar, but lighter. Women's coats are looser than the men's, and have an apron in front and a hood in the back in which to carry the baby. The older children have miniature fur suits of their own.

Many of the Eskimo women are fond of embellishing their own and their husbands' garments with curious embroidery. The designs are sometimes very clever, and really artistic effects are obtained by the mingling of different colored furs. On the Labrador coast the native women find vent for their ingenuity in making heavy fishing boots, which they sell to the fishermen from Newfoundland.

That other important part of a house-keeper's duties, the care of the house itself, is a much lighter task in Eskimo-land than the dressmaking and the preparation of the meals. There is a minimum of furniture and fixings. Both snow houses and tents are usually built with but one room, though partitions sometimes divide it if more than one family is to occupy it.

The interior arrangements of an iglo, particularly, are ingenious. The doorway, protected on the outside by a porch through which one must crawl on hands and knees, opens directly upon the floor-space in the centre of the iglo; around the sides, and opposite the door, platforms of hard, smooth snow are raised about eighteen inches from the floor, and these constitute the furnishings of the house. On the side platforms are kept the cooking utensils and kitchen



Members of One of the Short Course Classes, Charlottetown, P. E. I.

W. Kerr, B. S. A., speaking on Poultry explained fully the feeding and care of hens and chickens so as to obtain the best results. The need of greater co-operation in this work was brought before the class.

Landscape Gardening was taken up by J. A. Clarke, B. S. A. Stress was laid on the importance of beautifying home surroundings, the choice of a suitable background for a house, the desirability of suitable trees near by, and the grading of lawns. It was pointed out how with thought and planning undesirable conditions in matters of this kind could be easily improved.

Arctic coast are not models in many of the domestic arts, but in this respect of making the best of what they have they are perhaps without equals the world over.

Woman's work in Eskimo-land is heavy and never-ending. It runs the whole scale from cooking to sewing, and from making beds to choring for the men, with the care of many children added to all the rest. Each of these items, however, has for them a very different meaning from that understood by other housekeepers. The home itself, in the first place, is unlike any other home on the continent, for in the winter it is a windowless house



supplies, and the largest one, facing the doorway, is the family bed. A mat woven of willow twigs is laid first on the snow, several thicknesses of deer skin robes are placed on top, and the bed is made—as warm and comfortable a bed, too, as one would wish for.

In such a room the Eskimo family lives by day and night throughout the winter. For heating and lighting they have only their smoky seal-oil lamps, but even these soon develop heat enough to warm the house. A temperature of about sixty degrees is usually kept, the lamps requiring constant attention, but an igloo will sometimes become uncomfortably overheated, and is very apt to do so if too many people are in it. The only way to secure ventilation is by thrusting a pole through the side of the wall, and when the temperature has cooled off the holes are filled in again with snow. Houses of snow have the advantage, at least, of being easily repaired.

A separate kitchen is sometimes built, connecting with the main living-room, and a really aristocratic igloo will have not only a kitchen but a fireplace in it, and a hole in the roof for a chimney. Two or more families may combine to build a chain of houses, some of which they use in common, but with their own particular igloos for parlors and bedrooms.

The domestic capacities of these snow-houses are, of course, very limited, but the Eskimo occupants have learned to make the most of them, and in fact live more comfortably in them than in their summer tents. Cooking, eating, and sleeping go on according to the Eskimo idea of housekeeping, and there is even some provision for social life, games and such like.

Women are ever busy in the far north, and their importance in the domestic realm is fully recognized. The men, of course, are their lords and masters, and the women must always consult their wishes and consider their welfare. If a woman should disturb the bedding in an igloo while the men were out hunting on the ice, calamity would follow, for the ice would crack and everybody would probably drown. Thus the women must not only do their day's work but must time it to suit the convenience of the men, and of this accepted rule there are many instances. Marriage ties among the Eskimos are very loose, and exchanges or divorces of wives are frequent. When husband and wife are well mated, however, and domestic affairs run smoothly, the master of the house is fair and even kind to the woman who cooks and tailors for him. And with all their discomforts and hardships, the Eskimos have the name of being the most persistently cheerful people in America.

## Hope's Quiet Hour.

### His Witnesses.

Ye shall be my witnesses both in Jerusalem, and in all Judæa and Samaria, and unto the uttermost part of the earth.—Acts 1:8 (R. V.)

We are His witnesses.—Acts 5:32.

When soldiers take their sovereign's fee,  
And swear his own to be,  
The royal badge on forehead bold  
They show to young and old.  
Nor may we hide for fear or shame  
The persecuted Name.  
Only with downcast eyes we go  
At thought of sin that God and angels know.

—KEBLE.

During that last wonderful interview with His Apostles, before the Agony in the garden, our Lord threw new light on many things. One thing He told them was the reason they had been given the great privilege of His special teaching and daily fellowship. It was not alone for their sakes, but for the sake of all the world. "Ye also shall bear witness, because ye have been with me from the beginning", He said; showing that the special privilege carried with it a solemn responsibility.

Then—just before their Risen Lord passed out of their sight on Ascension Day—the word of command was again given,

and the chosen witnesses of Christ were told to give evidence for Him not only at home—where charity "begins"—but unto the uttermost part of the earth. Jerusalem must not be overlooked for foreign missions, but the claims of the near must not be allowed to crowd out the needs of the far. We are all called to help forward both Domestic and Foreign Missions.

We are certainly not all called to give up our home duties and go out as 'missionaries', but we, who have seen the light of the glory of God in the face of Jesus Christ, have no right to keep that priceless treasure to ourselves. We must try to tell out the good news.

I am a woman, writing especially for women—for I don't expect many men to read this corner of the Advocate—and I should like to call your attention to a verse in Psalm 68. In the eleventh verse we read: "The Lord gave the word: great was the company of those that published it". The revisers of our Bible have translated that text: "The Lord giveth the word: The women that publish the tidings are a great host."

You notice that a great host of "women" are publishing God's Word. Even the tense is different in the two translations. In the R. V. it is the present tense. The Lord is always here. He still "giveth" the word to faithful witnesses who, like the women on Easter Day, "run" to carry His messages.

A great host of women is still witnessing for Christ, at home and in the business world, in the schools of Christian and heathen nations—even unto the uttermost part of the earth.



Inside an Igloo or Eskimo Snow House.

The Psalmist contrasts the women who publish the good tidings of God with the great men of the earth, and goes on to say: "Kings of armies flee, they flee; and she that carrieth at home divideth the spoil". A faithful worker for Christ may be unknown on earth, and yet she may be quietly sowing much seed in His great field, and may have many sheaves to lay at His feet when the harvest comes.

"The love of Christ constraineth;  
At home, abroad, where'er  
By sea or shore abiding  
His name and sign we bear.  
We ask not that our service  
Or great or small may be,  
If only Thou wilt own it,  
Dear Lord, as unto Thee.

It is possible to be admired as a great worker—in church or Red Cross circles—and yet to be really witnessing for self rather than for Christ. If we are willing to work laboriously and enthusiastically for causes that "show" largely in the sight of men and women, yet shirk the humble tasks which yield little chance for distinction, it may be that we are deceiving ourselves and are not witnessing for Christ at all. What if we love the praise of men more than the praise of God! What if our lauded "good works" are largely imitations of the real thing! What if we are bent on glorifying our own name instead of the Name of the Master!

One day lately I was one of a great gathering of women—church workers. Sitting in the gallery I looked down on a confusion of spring hats, which blossomed

out in the beauty of spring flowers. They were so showy, and such a splendid imitation of the real flowers,—and yet they were only imitation! I am not finding fault with milliners' flowers—indeed I am very glad to notice that the old taunt about church workers' being "dowdy" is out of date. No one rejoices more than I do when the spring sunshine wakes up the flowers—both those in the gardens and fields, and those in the women's hats. But the artificial flowers made me think. We women, who claim to be Christ's disciples,—are we always faithful witnesses for Him? The church in Sardis, in St. John's time, made a show of being alive, yet was "dead" in the sight of Christ.

Living flowers are not finished in a hurry and then at a standstill, like the imitations. They draw their life, moment by moment, from the hidden root. They grow. Are we growing in Christ-likeness? Are we drawing life from Him Who is the Life of the world? Our outward witness should be the natural expression of our hidden life in Him. The flower is a proof of the life of the plant. If the plant should die the flower would wilt and fade. We see the flower and it tells us that the plant is living.

So Christ sends out His disciples to show by the beauty of holiness that He Lives. In spite of our many shortcomings He is willing to give us the high privilege of witnessing for Him. St. Paul's great hope and ambition was not to win glory for himself but to show forth the Life of his Master.—2 Cor. 4: 10, 11. His life was Christ; and that hidden life, which the world

medicine, science, and Chinese; but work was never allowed to crowd God out. It was his lifelong custom to kneel down daily at noon, drawing fresh life from God in the midst of each busy day. His special petition was not for easy work, but that "God would station him in that part of the missionary field where the difficulties were the greatest, and, to all human appearance, the most insurmountable." He had mighty faith in God's power and willingness to supply all that he needed. When asked by a critical man of the world whether he really expected to make an impression on the idolatry of the Chinese Empire, he answered in the oft-quoted words: "No, sir, but I expect that God will". If our expectations of God's co-operation were great, we also should accomplish great things or Him. "By translating the Holy Scriptures into the printed characters of China, Morrison provided a book, and that Book the Book of God, for one-third of the human family!"

Battles are fought in the open field, but the arrangements and plans are secretly worked out. So the battles of the Church of Christ, fought to win the world for Him, cannot be victories unless the soldiers are in secret communication with their General.

Faber joyously declares:

"I live in triumph, Lord, for Thou  
Hast made Thy triumphs mine.

\* \* \* \*

"Hope finds its strength in helplessness,  
And gaily waits on Thee."

DORA FARNCOMB.

### Gifts for the Needy.

Two of our readers have sent me donations (of two dollars each) which I will gladly spend on comforts for the sick poor. With sincere thanks.

HOPE.

### The Pavillions of Peace.

BY GRACE RHYS, IN THE INDEPENDENT.  
Within the circle of His peace  
The Lord of life abides and is.

Out of His peace I cannot go  
Now that its still delight I know.

Clad in its beam I spend the day,  
A poor weed drest in a silver ray.

Earth's fields at evening mourn the light;  
In His pavillions there is no night.

Peace holds the darkness, till it seems  
His hand upon me in my dreams.

Tho strange the land, more wild than fair,  
The vision of peace is also there.

And when I wake, in light it falls,—  
His window set in my chamber walls.

Drest in His peace the hills arise  
And shine like towers of Paradise.

The green trees standing in the sun  
Are flames of His brightness every one.

Flowers, blown in a secret place,  
In their day of beauty desire His face.

Lit by His thought, His children's eyes  
Are lamps before His mysteries.

Within the peace of His great halls,  
Where moon and star ingem the walls.

Gifts I have gained at His hand of light  
That make one treasure of day and night;

Chrism of the eyes, a seal on the mouth,  
A harp at the ear set, a sun in the south.

Thru His pavilion flows white peace,  
The fountain of my felicities.

Out of His peace I shall never go:  
My feet are set by that stream's white flow.

"Heaven's gate is shut to him who comes alone", sings Whittier. We must lend a hand to others before we can enter into its glories. When I was a child a dear old servant used to say when I had given her any help in my small way, "Oh, my dear, a little help is worth a deal of pity". And that proverb has often pointed the way ever since.—Marian Pritchard.

Work and purpose is the moral of every heroic life.—ADAMS.

## Fashion

### How to

Order by measurement as at least ten inches. Also state in what size you are. Price of the one suit, for skirt, thirty dollars. Address Fashionable Farmer's Advocate, London. Your name will be put in the paper. Many forget to send the following.

When ordering, send the following:

Name.....

Post Office.....

Country.....

Province.....

Number of Patterns.....

Age (if child or maiden).....

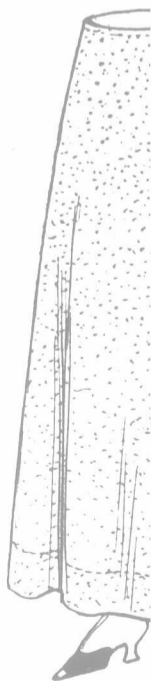
Measurement.....

Date of issue.....

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8815-



8554a—Two-pi



# Fashions Dept.

## How to Order Patterns.

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

When ordering, please use this form:—  
Send the following pattern to:

Name.....  
Post Office.....  
Country.....  
Province.....  
Number of Pattern.....  
Age (if child or misses' pattern).....  
Measurement—Waist..... Bust.....  
Date of issue in which pattern appeared.....



8812—Girls' midday costume, 8 to 14 years.



8815—32 to 46 Breast.

Waist 8627—34 to 44 bust. Identical with above except that cuff flaps are omitted. Skirt 8889—Two-piece skirt, 24 to 32 waist measure.



8865 Girl's Coat, 8 to 14 years.

8845 Girl's Dress, 8 to 14 years.



8554a—Two-piece semi-circular skirt, 24 to 34 waist.



8715a—Sports skirt for misses, 16 to 18 years.

# The Windrow

Sinn Fein means literally "Ourselves Alone." It was the name given to an organization founded in Ireland about 1905 to promote the sale of home manufactures and to further economic undertakings.

—M. M. C. Reynolds, of Goderich, Ont., totally blind in her eightieth year, has knitted more than 125 pairs of socks for soldiers at the front.

Flour in Constantinople has been selling at 22 cents a pound, coffee at 55, and sugar at 75.

Women have voted in New Zealand for twenty years. The lowest death rate for babies in the world is in New Zealand. . . . Women also vote in Norway, Australia, Sweden, Denmark and Finland. The next lowest death rates for babies in the world are in these countries.—Is this coincidence or consequence? asks The Independent.

Everyone knows, says London "Chronicle," the part which Krupp's plays in equipping Germany and her Allies with munitions, but how many are aware that the money with which the great firm was placed on a sure foundation, if not actually founded, came from Birmingham? Alfred Krupp came to Birmingham about 1840 with an introduction from Dr. Siemens to Messrs. Elkington & Mason, electroplaters, the predecessors of the present firm of Elkington & Co. He offered to them a machinery which he had invented for rolling metal "blanks," from which spoons and forks are made. Eventually he sold this to the firm for £10,000. With the money thus acquired Krupp proceeded to Essen and laid the foundation of the great fortune he afterwards acquired.

An American relief-agent, in a report published recently, tells of conditions in Belgium:—"I have seen thousands of people lined up in the snow or rain, soaked and chilled, waiting for bread and soup. I have returned to the distributing stations at the end of the day and have found men, women, and sometimes children, still standing in line, but later compelled to go back to their pitiful homes, cold, weak and miserable. It was not until eighteen weary hours afterward that they got the meal they had missed. The 'meal' is three thick slices of bread and a pint of soup.

Picture the mental condition of people without work for more than a year and a half, daily face to face with the possibility of starvation, cut off from communication with the outside world by barbed wire and armed cordons. There are 3,000,000 thus suffering and destitute."

The English poet, John Masefield, who has won fame by "The Everlasting Mercy," "The Widow in the Bye Street," etc., was, it seems, once a "bar-tender" at a little "saloon" in Greenwich village, New York. An American journalist, Karl K. Kitchen, has just enjoyed the experience of accompanying Mr. Masefield to this scene of his early activities. "Twenty years had not caused him to forget his old friends," says Mr. Kitchen, "men who were kind to him when he was a runaway sailor lad, eking out a hand-to-mouth existence as a general utility man about O'Connor's. For Mr. Masefield was not made a bar-keeper the first day Luke O'Connor gave him a job and a place to sleep." The proprietor's son, Charley, was in charge, and he remarked to Mr. Masefield, "You're famous, and, I daresay, rich." The poet smiled—

"I've had good luck, that's all," he said simply. When we sat down in the back room he explained his changed circumstances over a short beer, which he did not touch. "I've had extraordinary good luck, an extraordinary good wife and kind friends," he went on. "Soon after I ran away to sea I became convinced that there were only two careers for me—literature or medicine. While I was tending bar down here at the Columbian I bought a copy of Chaucer's poems, and the very night I read them I determined to become a poet. I read all the poetry I could get my hands on, and in a year I was writing poetry myself. Fortunately there's a market for it."

# The Dollar Chain

A fund maintained by readers of The Farmer's Advocate and Home Magazine for (1) Red Cross Supplies. (2) Soldiers' Comforts. (3) Belgian Relief. (4) Serbian Relief.

Contributions from May 19 to May 26:

Mrs. J. W. Ford, Belwood, Ont., \$1.00; "Your Friend", Langton, Ont., \$2.00; "Unknown", \$22.00; A Friend, Ramsayville, Ont., 50 cents; "Toronto", \$2.00; Marjorie and Grace, \$2.00; A Friend, \$1.00; A Friend, Fergus, Ont., \$18.00.

Amount previously acknowledged.....\$2,403.95

Total to May 26.....\$2,452.45

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

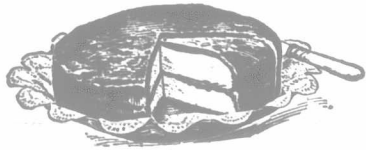
# Current Events.

J. J. Hill, the famous railway Mag-nate, died at St. Paul, Minn., on May 29th.

At time of going to press the most sanguinary conflict in the history of warfare is still in progress at Verdun after nearly two weeks of continuous fighting. Fort Douaumont has been retaken by the Germans, who have also captured the village of Cumieres, but at time of writing the French are holding firm elsewhere. Upon both sides the slaughter has been terrific. . . . On the Italian front the Austrians have advanced at some points but are being pressed back in the Lagarino Valley. . . . At Salonika fighting is expected at any moment and a few preliminary skirmishes have taken place a few miles away. . . . A Bulgarian army of 25,000, led by German officers, has crossed into Greece and captured Fort Rupel and two neighboring forts. As a result of the invasion Greece may be forced into the war. The entire Serbian army of 100,000 men, has gone from Corfu and landed safely at Salonika. . . . In the Tigris Valley the Russians and British have joined forces below Kut-el-Amara, and the lowering of the waters of the Tigris will help to facilitate the advance of the Allies towards Bagdad.



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## The Beaver Circle

### Our Junior Beavers.

[For all Beavers up to Junior Third Class, inclusive.]

This time the Senior Beavers are quite crowded out, but then perhaps we shall give them the whole corner to themselves sometime again. That will be only fair, don't you think so, Beavers?

### Peekaboo Stories.

#### Peepapeep and the Luna Moth.

One lovely day in early summer Peepapeep went out into a deep green woods on the shore of a beautiful little lake. After wandering about for a while she sat down to rest beneath a thorn bush. She could see the lake, and watched its changing colors, now blue, now green, now silvery white, as the sky above it changed, or the wind ruffled the surface or reflections from the trees struck far into its depths.

"How beautiful it is!" she exclaimed. "I can't imagine how Fairy Iceandsnow can like the far north with its hard, glittering ice better than this".

Just then she noticed, lying beside her on the ground, an odd-looking thing, open at the top, that resembled, somewhat, a milkweed pod burst open to let the silk escape. But it was very thin, and dull yellowish in color.

"I declare!" said Peepapeep, "This looks like a little canoe. I wonder if I dare take it down to the lake and try it on the water."

Before she could decide, a rustling noise above her, in the thorn-bush, caused her to look up, and there she saw, among the branches, a strange and very wonderful living thing whose fluttering wings made the noise. Although it looked quite large to her, she was not at all afraid, for she knew by this time that nothing would harm Peepapeep.

"Oh you lovely creature!" she cried aloud, "how I wish I could get a good look at you!"

"I'll lend you my wings, if you like", said a voice beside her, and, turning about she saw a small, green, red-capped elf sitting on the end of the odd boat-shaped thing. He was already taking from his shoulders a pair of tiny green wings which, presently, he offered to her.

"Thank you", said Peepapeep, "I had forgotten mine. You look like an Irish fairy."

"So I am", said the elf. "I came over on the last airship. But I've been in these woods long enough to know all about the folk who live here. When you have had a look at that wonderful creature above I'll tell you all about it. I saw a very strange event last night when the moon was full".

At that Peepapeep, with the wings now fixed upon her shoulders, flew up into the thorn-bush, so that she could look down upon the great fluttering thing there among the green leaves. She saw that it had a furry body with pale yellow stripes along each side and across the top. Its head looked like a pearl, and, most wonderful of all, at its sides were great bluish-green wings, shimmery as moonlight, edged at the front with a purplish-brown margin, and bearing upon them, farther back, four curious spots that reminded her of the spots on a peacock's tail. At the back the wings ran into long points like the wings of a swallow. The whole creature must have measured quite three inches across.

"What are you?—bird or butterfly?" asked Peepapeep, but the great creature just clung there, trembling its wings, and never answered a word.

"It won't talk," said the elf below. "It's too sleepy. Moths wake up right only at night, you know."

"Oh, it's a moth, then," said Peepapeep. "Yes a luna moth,—called so because of the moonlight color of its wings, I suppose".

"Then it should be a friend of mine", said Peepapeep, "for it was the Moon-ray Fairy that brought me my name".

"I know her", said the elf, "she often rides on the back of these moths. Now come down and I'll tell you what I saw last night".

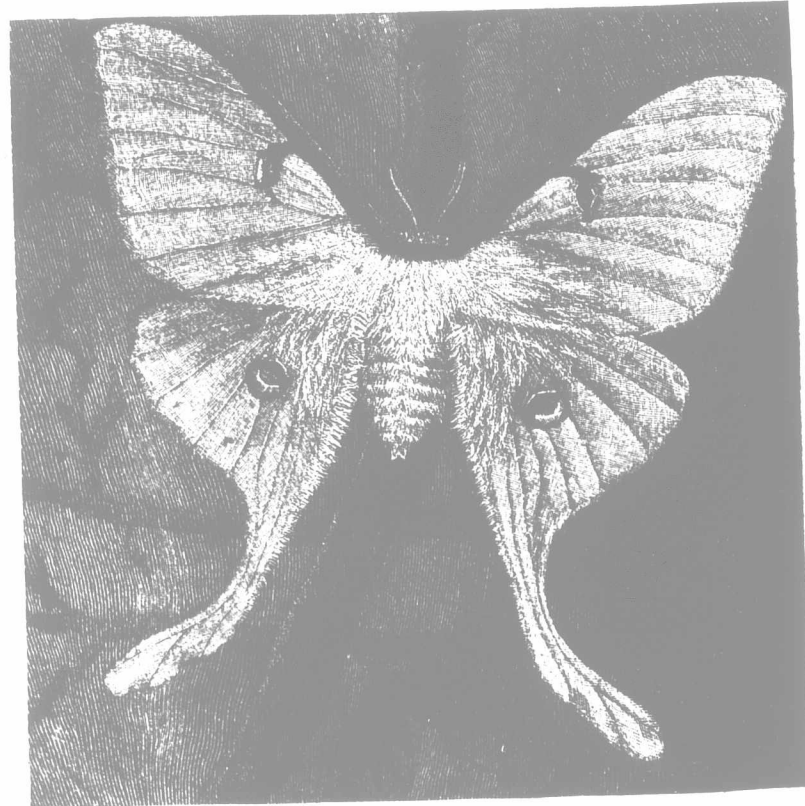
Peepapeep flew down and sat on the other end of the yellowish boat.

"To begin with", said the elf, "the full moon was shining very brightly, and, in wandering about the wood, I chanced to see, just where it shone brightest, this thing on which we are now sitting. It was all closed up then, and I wondered what it was. As I stood there I laid my hand upon it, and presently I felt a great trembling, and knew that some living thing was inside. I felt a little afraid, but was too curious to leave".

"Oh, you need never be afraid", said Peepapeep.

"I know,—most things are kindly if you leave them alone. And then, of course, we fairies always have an advantage in being able to make ourselves invisible. . . . Well, I stood there watching, and presently I saw the thing begin to burst open at one end. Little by little it broke away, and I knew that something was trying to get out. After a while, little by little, a great body came wriggling through. You can imagine how I held my breath, just forgetting everything else in seeing".

"I know", nodded Peepapeep. "In a few moments", continued the elf, "the creature was quite outside, and stood there, trembling and trembling in the moonlight. After a while the wings began to spread out. I declare, it was quite the most beautiful sight I had ever seen. 'A moth! As I



The Luna Moth.



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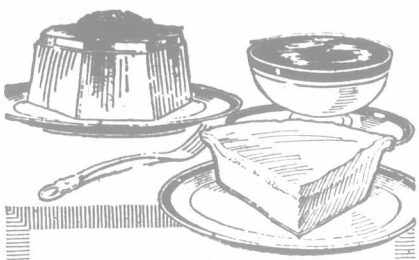
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live!" I exclaimed. And with that the great creature flew up into the thorn-bush, where it has been ever since".

"How did you find out its name?" asked Peepapeep.

"Why, when morning came I heard voices, and soon a man and a little girl with golden curls came near.

"The little girl picked up the house of the moth and began breaking it open still more. 'What is this, father?' she asked.

"The cocoon of a luna moth!" exclaimed the father. "You have made quite a 'find' Ethel". With that the little girl began jumping up and down with excitement. "And there's the moth, father", she cried, "See, there in the bush!"

"The two of them stood there for a long time, watching the moth and talking about it, then the father said, 'well, Ethel, we must go. We'll leave the moth here. You may take its cocoon, if you like; it will never need that house again'. 'No, father, replied the little girl, 'I'll leave that, too. It may serve as a house for some other little woods creature. I'm sorry I broke it so much'. Then the father laughed and they walked off".

"I wish all people were as thoughtful about the woodsfolk", said Peepapeep. "But I must be going too. Thank you, dear elf, for telling me so much about the moth. And don't go back to Ireland too soon. I'd like to meet you again".

"Perhaps we shall meet again", said the elf, "But don't forget your wings, we might want to fly somewhere together".

### Junior Beavers' Letter Box.

Dear Puck and Beavers.—I have read the letters in the Farmer's Advocate for some time, but never have made an attempt to write before. I wonder if the Beavers will let me join? For pets I have a hen called Miss Scratchter, a dog called Ted and a cat called Muggens. I am very fond of pets. How many beavers are watching the bird's nests? I am, and find it very interesting. My teacher's name is Miss Stewart, and we like her fine.

As my letter is getting rather long, I guess I will close, wishing the Beavers to write to me. BERYL WEESE.

Rednersville, Ont.  
P. S.—I would like Margaret Allen to write to me.

Dear Puck and Beavers.—This is my first letter to your Circle. My teacher's name is Miss Gamble. I am in the second book. There are about 38 in our room. My father was a farmer, but we are living in a town now. We could hardly do without the Advocate if it is a farmer's paper.

I will close with a riddle.—Round at both ends and high in the middle.  
Ans.—Ohio.

(No name signed).

Port Perry, Ont.

Dear Puck and Beavers.—This is my first letter to your charming Circle. I like reading the Beavers' letters very much. My father has taken the Farmer's Advocate as long as I can remember, and likes it fine. I go to school every day I can. I am in the Senior second class. My teacher's name is Miss Thompson and I like her fine. I have a little brother three years old, called Carl. I hope my letter will be printed, I will close with a riddle.

How far can a rabbit run into the bush? Ans.—To the middle.

ALBERT WEPER (age 8 years).  
Palmerston, Ont.

Dear Puck and Beavers.—I enjoy reading the Junior letters. My father has taken the Farmer's Advocate for seven years. My school teacher's name is Miss Jean Robinson, and we like her fine. The C. P. R. station is just across the road from our house. Well Puck as my letter is getting long, so I will close with a riddle: What goes around a house and around a house and never makes a mark?

Ans.—The wind.  
ARNOLD WADE (age ten).  
Port Granby, Ont

Dear Puck and Beavers.—This is my first letter to your Circle. Say Beavers is not this war a terrible thing? I go to school and am in the senior first



## A TEAPOT TEST

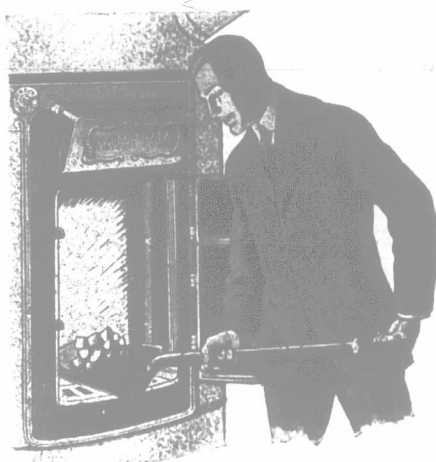
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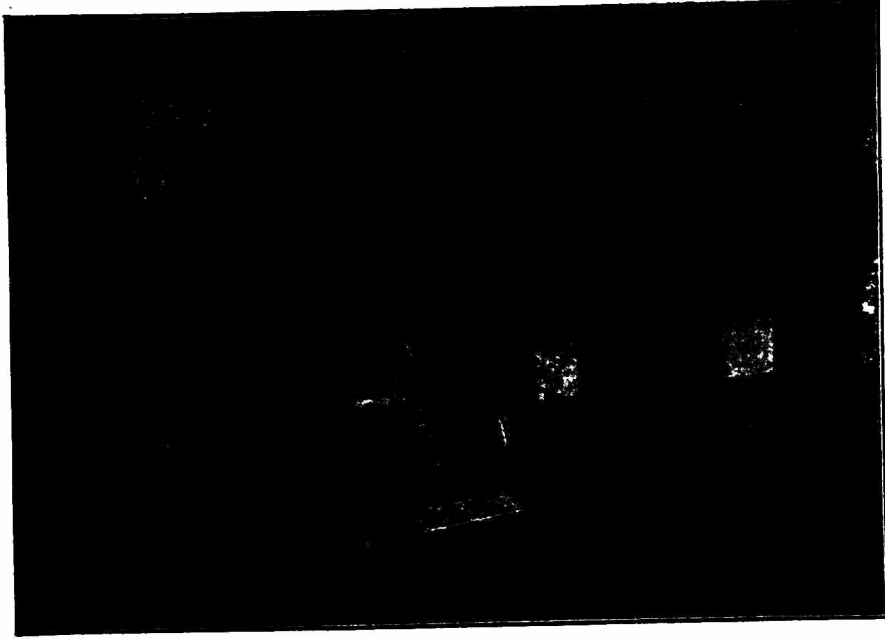
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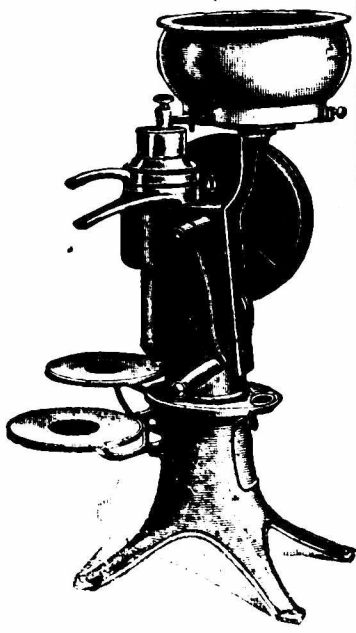
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book. I will close with a riddle: What is the first thing you do when you go in water? Ans.—Get wet. Wishing the Beavers every success.

TREDDIE A. HAMILTON (age 7).  
R. R. No. 1, Orton, Ont.

### The Bird.

There is a bird in the wildwood,  
His songs are the sweetest heard;  
He would be a king if he ever could  
And yet he is only a bird.

He sings when the morning's breaking,  
He sings when the bright sun shines;  
He brightens you heart when it's aching,  
For he sings as sweet as the chimes.

He sings when the dew is falling,  
He sings when the morning breaks,  
You may often hear him calling  
Sometimes when your heart aches.

And he rises early at the dawn  
With song for the rising day,  
And sings away in a tree on the lawn  
Till the children come to play.

EVA TAYLOR (age 10 years).

This poem is very good, for a little ten-year-old, Eva. It "makes sense", and you have only made one mistake in the rhyme—"shines" and "chimes". Some day you will make no mistakes in rhyme.

## The Ingle Nook.

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

### Why Not Make a Salad?

"Oh dear, what shall I get ready for tea."—Haven't you heard that plaint over and over from the housewife, especially during summer when work calls and energy taries?

Well, why not make a salad? There are salads that may form the chief dish at the evening meal, and there are others that may be served with meat. You will need nothing more save bread and butter, or rolls and tea, with fruit, and, perhaps, cake, if the family insist on it.

Salads are wholesome, too, and, if necessary, may be made very nutritious. Indeed, the "salad habit" is one that may be recommended on every count, not the least of which is the ease with which the most of them may be prepared.

### Dressings.

"You can make a salad out of anything," is often said, and that is quite true scraps of meat, vegetables, fruit cooked or uncooked, eggs, cheese, nuts, all work up nicely into these delicate dishes. But when you come right down to fundamentals you find that the dressing is, to a great extent, the salad. If it is poor and wishy-washy, or if too little or too much is used, the dish cannot possibly be a success; so, ostensibly, in learning to make salads the first thing is to master a few good preparations that will blend with vegetables or fruits of various kinds.

Many people cannot touch oil dressings, others think salad comparatively poor without them, hence it is well to know how to make both. There are other mixtures, also, that are especially adapted to fruit salads.

Here is a method that makes a very good cooled dressing, without oil, that will keep very well for a week or more in a cool place. It is called Superior Salad Dressing: Take 4 eggs, 1 cup vinegar, 2 tablespoons butter, 2 teaspoons salt, 1 teaspoon mustard, 1 teaspoon sugar. Beat the eggs, then pour the heated vinegar over, a few drops at a time, beating well. Cook over hot water until thick, stirring all the time, then beat in the salt, sugar and mustard moistened with a little cold vinegar. Add the butter and a dash of red pepper. When thick, add cream, sweet or sour, to taste.

For May's Oil Dressing: Have good salad oil, 1/2 yolk of an egg, and some lemon juice very cold. Put the yolk in a cold bowl and beat well. Add

gradually 1 teaspoon of the olive oil, beating hard all the time. Add 5 drops lemon juice, then another teaspoon of the oil, then a few drops more lemon juice, and so on until a teacupful of oil and 2 tablespoons lemon juice have been used up. Add pepper and salt to taste. Cayenne or paprika are nicer than black pepper.

Green Mayonnaise.—This is very attractive when served with fish or colorless vegetable salads, such as potato. To make it, add to the usual dressing a generous quantity of scalded and chopped parsley.

Fruit Salad Dressing.—If the salad is to be served with meat use ordinary dressing, omitting the mustard; if with cake, use whipped cream or the fruit juice, which may be mixed with a little sherry.

### Meat and Fish Salads.

Chicken Salad.—Use the white meat. Cut it into bits and mix with some chopped celery or nuts and salad dressing—the oil dressing is best. Serve on lettuce. If preferred, the celery may be omitted and a little chopped cheese and pickled cauliflower may be added. Garnish with sliced, hard-boiled eggs.

Ham Salad.—Chop nice lean ham and mix with chopped celery or celery seed. Pour over all a bacon dressing made as follows: Heat 2 tablespoons pork fat, stir in 1 tablespoon flour, add 1 cup water and let boil up. Add 1/2 cup vinegar and 2 eggs beaten with 1 teaspoon sugar, 1/2 teaspoon mustard and 1/2 teaspoon salt. Boil 4 minutes stirring all the time. Use when cold. Will keep several days if covered.

Codfish Salad.—Mix boiled codfish with shredded cabbage and serve with mayonnaise.

Lobster Salad.—First make a jelly thus: Boil 6 coarse stalks of celery, half a small onion, and 2 tablespoonfuls of chopped parsley in 1 1/2 pint-water, and season nicely. Strain and dissolve in 2 tablespoons cold water. When partly cooled add a green vegetable coloring and turn into a ring mould. Serve on lettuce with the hole in the center filled with lobster, and mayonnaise on top. Stock may be used for liquid.

Tongue Salad.—Mix together chopped tongue, celery and hard-boiled eggs. Mix with salad dressing and serve.

### Vegetable Salads.

Onion and Apple.—Boil 1 cup vinegar. Mix together 1 teaspoon mustard, 1 teaspoon cornstarch, 1/2 teaspoon salt and a little pepper with a beaten egg. Stir into boiling vinegar and cook till creamy. Pour over 2 mild tart apples and one onion chopped fine. Serve on lettuce.

Vegetable Salads.—Cooked vegetables of any kind—corn, dried or green beans, chopped beets, green peas, etc., make very good salads, alone or mixed with other vegetables, if dressed with a good dressing and nicely served on lettuce or water-cress. If liked, the dressing may be heated and stiffened with a little gelatine, then put into wet moulds alternately with the vegetables. Let stand over night. One tablespoon granulated gelatine is enough for half a pint of dressing. Canned tomatoes make a very nice salad if cooked with a slice of onions and a few cloves, nicely seasoned, strained, then stiffened into a jelly with the gelatine. Diced potatoes may be mixed with chopped cucumber, celery or a very little onion and hard-boiled egg, then mixed with dressing. Nuts may be used instead of the egg.

Jelly Salad.—With a tart lemon jelly made with jelly powder may be mixed chopped pickles, celery and tiny onions, or, if preferred, chopped beets or shredded cabbage. Let stiffen and serve on cress. When making such jellies put a layer in a mould and let stiffen a little in a cold place, then add a layer of vegetables, continuing until full.

Water-cress and Egg.—Arrange cress torn to pieces and chopped hard-boiled eggs in layers. Serve with dressing.

Beet Salad. Small, boiled beets may be scooped out and the centers filled with any vegetable mixture that is liked, mixed with dressing chopped cucumber and celery are very nice.

### Fruit Salad.

Orange Baskets. Keep half of each peel for "baskets." Filling: Take 1



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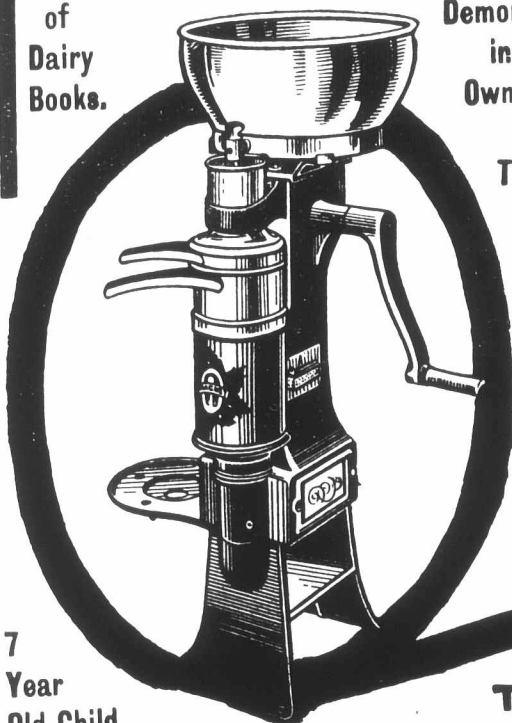
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oz. gelatine, 1/2 cup cold water, 1 cup boiling water, juice of a lemon, 1 cup sugar, 1 pint orange juice and pulp. Soak the gelatine in cold water. Add the boiling water and juice with the sugar. Stir and strain, then put on ice to stiffen. When hard fill the baskets and put whipped cream on each. It is safe to prepare all gelatine dishes the night before.

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II.  
6

"Do you remember when we sat opposite at a table before?" Mary Romany asked.

"I was just going to ask if you remembered," I said. "Oporto. . . . We were late. We had been out rowing. Dinner was cleared away when we got back—all but one table. So we were together. Your mother came around to the window on the piazza and asked if we had everything we wanted."

"That was the only time. . . . They were nice to us, weren't they?"

"Yes," said I, and we fell to thinking. . . . Covent Inn. It was an old Long Island homestead enlarged and remodeled, but not enough to break its heart. The season was practically over, though the best week of weather of the year was yet to come. A small case of cigars and a desk, just large enough to hold the register, the pen-rack and the box of matches, occupied the corner of the dining-room near the hall; on the opposite end, doors opened to the kitchen on the left and a tap-room on the right. The rest of the lower floor was given over to the stair-case and a sitting room with a huge fire-place. A broad porch had been added around the dining-room. I didn't really see the outside of the Inn until next morning.

The landlord puzzled and pleased me. He must have had a very good season. He appeared only in the most official capacity, such as registration or collection, and to play the host in the exalted prerogative of lighting a guest to his room—as I found afterward. He was large, heavy, and highly-colored—such a one as you would hesitate to excite for fear of apoplexy. I shall always remember him. He laughed (which invariably brought on a fit of coughing) when asked if he could accommodate me with a room. "You can have the whole new wing if you like," he said. "Leave it to me. Your bag has already gone up."

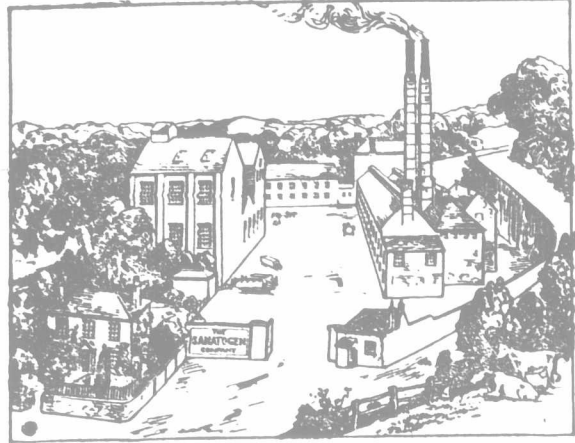
I was pleased to obey. This was after supper. Mary Romany was waiting to take me to the Bluffs. From the Inn to the Bluffs, there was a broad promenade with the forest on either hand. Here we met the wind that had been hushed during the walk through the wood from the station. It seemed there was something she still must say about Liu chuan. I realized that she had suffered more than I. There was a touch of gray in her heart, too. She said her father had suffered. In those long days on the river, in which I was mostly unconscious, she had been unable to repress her horror for the hands that had held the repeating-rittle. . . . There was another memory. . . . The water, she said, would not stay on my brown face, because of the oils in the coloring that Yuan had put there. It seemed to make it all the more terrible to her, as I cried out to her father. . . . We had reached the end of the land. "It's Oporto again, facing the North," said I, as we gazed into the dark of the Sound.

"But rougher, wilder," she answered. "Yes, it does have that same frank stare of the North, only the Dipper has been polished. . . . Isn't it strange for us always to be on the cliffs Oporto, the mountain terraces of Hong Kong, the hills at Hsi tin lin?"

"And the gorge at Liu chuan. . . . You are always on the Heights."

"How different you are from Hong Kong."

"I was stricken. I couldn't help it, and when you were gone, I burned with



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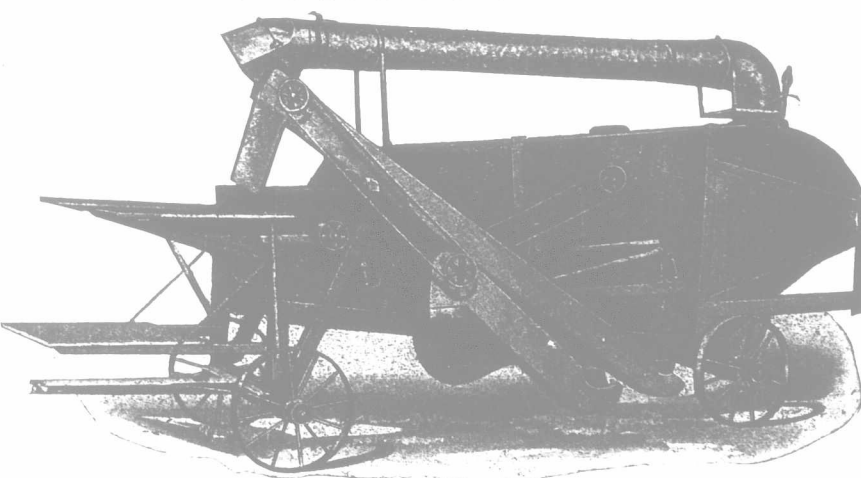
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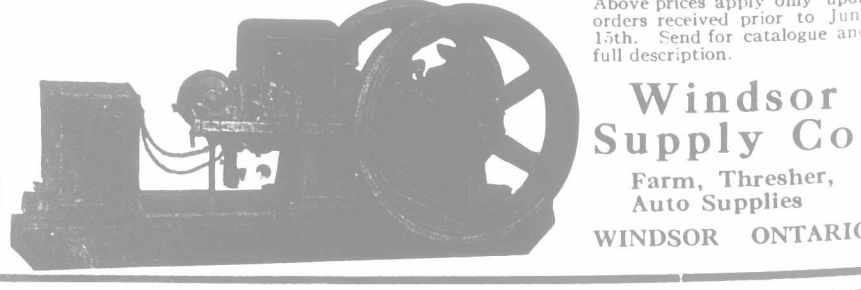
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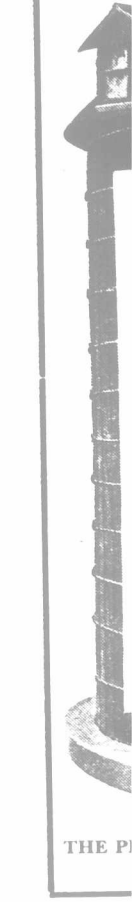
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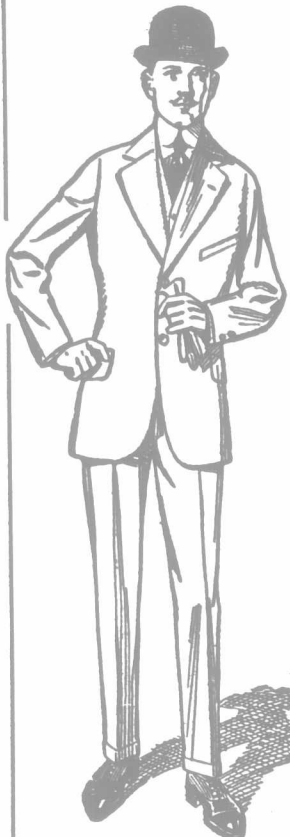
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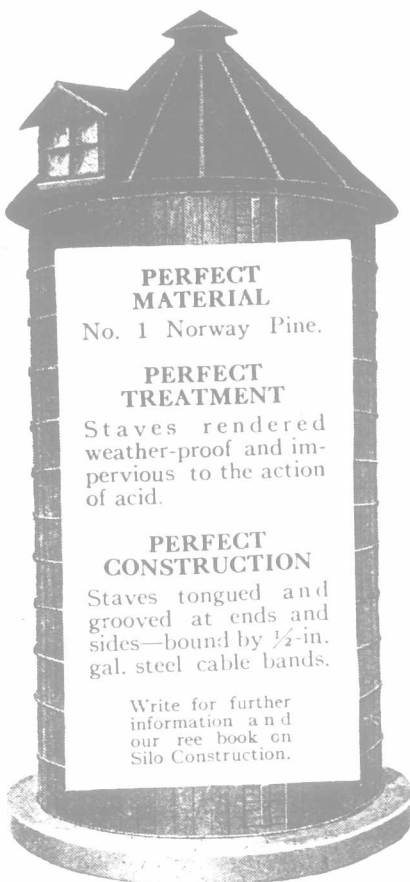
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restlessness. I had to go up the river. . . Hong Kong—and you suffered too? The suddenness, your leaving—I am glad it is over—all but—"

She laughed softly. "We have had to learn so many lessons alone and a part—haven't we?"

In relating how I came to follow her so shortly up the Yang tse, there were things to say of Jane Forbes and Yuan, and of how much had come from the voice we had heard, saying, "By the rivers of Babylon."

She broke the silence afterward: "The world will not let them alone—but we won't think of them—to-night."

Do you realize, that we hardly know each other? I have waited here almost breathlessly. . . You are good. You are finer than I thought."

I could not answer, but looked away in the uncomplicated northern skies, over the Sound. We breathed the wind so strongly pure, and listened to the long sweep of the waves. There was a burnt orange feather which the day had pinned upon the black wall of the northwest. Faintly through the dark, we could see far below, the sweeping foam, like ghostly fingers writing swiftly on the shore. Beyond was the soft deep night and the imperial northern stars, coldly distant and nobly white.

When Mary Romany turned to me from the ocean (I was standing a step behind), the pallor which her face reflected told me that the moon had risen over the woods in the south.

"Nothing is left out this night," I whispered, awed by the lofty beauty. "Moon, forest, cliffs, ocean and stars and wind—"

"Yes, the wind," she answered, and I bent close to hear, "it's like spirits whispering—hundreds and hundreds of spirits."

Her eyes were drawn a little against the wind, her lips slight apart, her face so freshly cool.

"And what do they say?" I asked, though I was thinking a different thing—that Mary Romany was the spirit of all this night beauty.

"We have helped you—we have helped you—that is what they say to me. . . I am almost afraid to be so happy," she added in a low tone.

"I think I understand what you mean," I said.

"Tell me—"

"That we are not to begin our—happiness quite yet; that this—that Covent does not mean, 'together against the stream'—you and I—"

Her words came from the immensity: "I cannot bear to have you doubt—that I want it as much as you—together against the stream—"

We walked to the steps leading down the Bluffs, and sat there together.

"That was a good deal for a man to hear in one sentence, Mary Romany—that you want this great thing as much as I—"

"More than ever to-night—"

Never in my life did I summon the quality and degree of courage required in my next question.

"And there is nothing insurmountable—to keep us apart always?"

"No. We are the masters—"

"Then what would you have me do? Whatever is your thought—is as desirable to me—"

"And you help me to be strong?"

"With all my might."

She would have caught my hand to kiss it, and a tear fell upon it—before I drew her to me instead. And then in my arms was the spirit and embodiment of all the beauty and wonder of that perfect night. I marvel that vitality beats on through the hush of such a fulfilment.

Afterward, Mary Romany looking back toward the light of the Inn—a pallid and shapeless hulk against the trees—said we were keeping "them" up, because I had not been shown a room.

"But think," she added, "We shall be up early in the morning and breakfast together. . . Down below for a mile on the shore—the stones are lovelier than anywhere in the world, and I have a little house to show you. . . I think I can sleep—as I have not slept for years. Everything has been so dear. I'm on the border-land of laughing or crying. . . Think of it—to-morrow—"

At length we started for the Inn. We might have lost our way and time and space, had it not been for a sudden unmasked beacon on the



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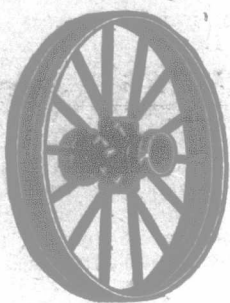
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veranda—the ashes flicked from a fat cigar, and thick-weather signals—a fit of coughing. . . I felt the cling of her fingers. Very orderly we passed under the light together.

The proprietor remarked urbanely that it was a fine night, to which I agreed, with un-English fervor. And up we went together—the man with a lamp.

My whole nature was fired with protests against this thrusting, dividing hand of the world—that summarily chucked us off to bed. True she was not far distant—at the end of the hall, a room or two away, at most,—but it was a terrible fall from the glory and solitude of the night-world, to these walls and oil-lamps, our parting for the night, manhandled.

I stood at the door while the proprietor made my room ready; and as he emerged, turning attentively for any last wish, I remembered a very good cigar that I had seen in his case downstairs. Mentioning this, his reply was to lead the way below. . . I bade him good-night with the case between us.

The upper hall was deserted. My door had been left open so there could be no mistake. I glanced to the farther door in which Mary Romany had vanished; and in the next instant an astonishing fact abraded my brain. The distance between her room and mine was that of but one good-sized room, rather than two; and what I had supposed was a hall-door between was only a pretext, designed to keep up the slavish uniformity of a hotel-hall. The wall was not broken; the sash and panels were but rudimentary fronts.

Consequently whatever filled in the distance between Mary Romany's room and mine was certainly not a guest-chamber, since there was no hall opening.

I entered my room, locked it, and regarded the other door which I had taken for a clothes-closet—in the eminent direction. It was provided with a bolt, which was not shot.

It did not occur to me that Mary Romany's room could extend the entire distance to this wall. I must see what was beyond this inner door, but before I tried it, the zest of the whole matter was whiffed away by the thought that the door was of course locked on the other side. This became so probable in the next few seconds, that it hardly seemed worth while to try; but I did.

The door opened easily with a turn of the hand. The intervening room, now used for storage, was unmistakably the middle apartment of a family-suite in the hotel season. Just at this instant Mary Romany opened her door in my direction—and we faced each other with the world shut out.

Never were the eyes of Mary Romany so wide, as her arms lifted involuntarily, and stretched out to me. The glory and sweetness of her riveted me for an instant; and in this interval, a spark seemed to cross the divine darkness of her eyes; her lips quivered; her head bowed and she turned away from the open door.

7

She was standing by the far window, her back to me. It had been like dragging through an interminable night-mare, as I sped across the store-room—and to her, at the window.

From the holy night, and its hours of heavenly concord, back to this world; from the sudden unspeakable happiness of the discovery, and her uplifted arms—to her turning away, and the sense of the proprieties of a hotel-room;—the test was tumultuous. It was not that I believed her afraid, but in the mere thought that she could be sorry this had happened, there was a destructive principle.

Could she be sorry, when every impulse of mine was to be glad? In the horror of this structural rift I stood there beside her—not lifting my hand.

Her face turned slowly to the lamp-light. I saw her sparkling teeth, her eyelids dropped as if in a tension of expectancy. . . Then she beheld my face.

"Oh—" and her arms lifted again. "Ryerson Boy—your face is like death—" "I thought—forgive me—I thought you were sorry—"

"Sorry,—when I came to Long Island to be with you?—though one could not have thought of this—"

"When you turned away—" "I was startled. It was not you, but I thought of —this—this man,

KEITH

SEEDS FIFTY YEARS SERVICE

1866 1916

We pay railway freight on all orders \$25 or over in Ontario and Quebec.

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YOU WILL FIND SOME BARGAINS HERE

For prices of Seed Grain and Mangel Seed see issue of May 18.

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Eureka, Cobler, Delaware and Green Mountain.....	\$2.25	1914 and 1915 growth.	Per bus. (70 lbs.) on cob.
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Ontario Variegated No. 1.....	\$25.00	Bailey.....	3.00
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(No. 2 for purity).....	15.00	White Cap.....	3.00
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<b>PEAS, ETC.</b>	Per bus.	Stowell's Evergreen.....	15c. \$3.50
Golden Vine Peas.....	\$2.15	Early Cory.....	15c. 4.00
Canadian Beauty Peas.....	2.15	Golden Bantam.....	20c. 4.50
Early Britain Peas.....	2.50	<b>MILLET, ETC.</b>	Per bus.
Prussian Blue Peas.....	2.25	Siberian Millet.....	\$2.15
Black Eye Marrowfat Peas.....	2.15	German or Golden.....	2.50
Rye Buckwheat.....	1.35	Common.....	2.25
Silver-hulled Buckwheat.....	1.15	Japanese Barnyard, per lb.....	7c.
Rape (Dwarf Essex).....	per lb. .10	Shallot or Potato Onion, per lb.....	8c.
Thousand Headed Kale.....	lb. .22		
Sorghum (per 100 lbs.).....	5.00		

**GEO. KEITH & SONS SEEDS**

**124 KING ST. E. TORONTO**

**The Steel Truss BARN**

With its fireproof walls and roof and strong steel trusses will give you substantial, neat and cheap housing for your crops and animals.

Read what a brother farmer says:

Alvinston, Ont.

Dear Sirs,—I am well pleased with my barn, and want to say in connection with the building of the barn that one can get a barn so much quicker by taking your style than the old-fashioned wooden barn, and also the expense in the building, boarding men, etc., is greatly reduced. I would judge not more than one-quarter the cost it would be for a wooden barn. These two items alone should induce anyone to build your style of barn. Now, in connection with the barn itself, I consider that it is lightning-proof, and the danger from fire is not so great should other buildings be burned close by. It never needs painting, and I think it a very much stronger barn than any timber frame I ever saw. I think it will last much longer than a wooden barn, and its general appearance should recommend it to anyone who is going to build.

Yours very truly,

W. J. BOURNE.

This man saved money by putting up a Steel Truss Barn. We can save money for you, too. We are putting up 50% more barns this year than last, and as we purchased most of our materials before prices advanced, can give you special value. Send us size of your barn and say when you will be ready to build, and we will send you a copy of our large new book, The Steel Truss Barn, which tells all about the barn and gives a few good stable plans, etc.

**The Metal Shingle & Siding Co., Limited**

Preston, Ont. Montreal, Que. Toronto, Ont.

**Davenport Beds \$33.75**



A couch by day and a bed at night. This davenport has selected quartered oak, upholstered in best leatherette. Choice of sizes 7 ft. long or 5 ft. long; either opens to a full-size bed, with separate spring and felt mattress.

One of the many splendid values in our illustrated

Catalogue No. 7

which contains hundreds of photographic pictures of the best selected home things. All priced freight paid to any station in Ontario.

**The Adams Furniture Co., Limited, Toronto**

with a touch of in his soul.—

"Yes." "And don't you there could no dismayed?"

"That's what love you, Ma."

We sat down—with an unbroken gates of laughter ripples only with the lamp-light showed us robes bonnets. . .

"Men who been so ill on way."

I lifted the —four window east. The wind heard the sweet they sank away the moon crossed east window where Mary

"Don't you thing if I were masters—if I myself. . . thing beautiful were afraid. world would were afraid mother would afraid of my

I listened r "The world cliffs," she added on the cliffs, stars and the the very pass night—and you poor silly old at us, at me. It cannot stay. Ryerson Boy. we are not safe not there, no offices of an of a third—ca

And thus I heartedness of "And when "will you tell we can make

"There is t already said. hard. I'm so Afterward, darkness, rem

"The little Garden," she too close to the thinking of i

"I found my —my flower down the river to meet me— breast. I saw my soul. I v again the d That's my roa light fell ther with you, Ma clearly—that little Crossing

She drew h and I told h I went to the

Remarkable C Now reader pair of pants astounding off known English ered a rema You can't tea same as \$20 s out no matte for if during grinding worl (not just Sun hole, another The firm will in every par \$6.50 for a r for a pair o charges and p for six mon Now, don't t away you ca cloths, for yo card to The Theobalds R for large ran measure char absolutely fre 2 cent post "The Advoca



with a touch of the big city back there in his soul.—

"Yes."  
"And don't you see if you were happy, there could not be that in me to be dismayed?"

"That's what wretched. . . Oh, I love you, Mary Romany—"

We sat down on the floor by the window—with an unbribable guard holding the gates of laughter, so that attenuated ripples only were allowed to pass. And the lamp-light on the ingrain carpet showed us rose-baskets, big as sunbonnets.

"Men who have come so far, and been so ill on boats—must have their way."

I lifted the curtains where we were—four windows facing the north and the east. The wind came through and we heard the sweeping of the big waves as they sank away from the stones; and the moon crossed the floor from the east window to the north—but not where Mary Romany chose to sit.

"Don't you see it would spoil everything if I were afraid? We could not be masters—if I were afraid of you or of myself. . . We could not make this thing beautiful—as the dream is—if I were afraid. . . Who in the wide world would I be at peace with—if I were afraid of my lover? . . . My mother would say I might as well be afraid of my baby, as of my lover."

I listened raptly.  
"The world would trust us out on the cliffs," she added after a moment. "Out on the cliffs, with the wind and the stars and the moon and the sea—in the very passion of the earth and the night—and yet, if the world knew this poor silly old world—it could not look at us, at me, quite the same. . . It cannot stay so silly much longer, Ryerson Boy. It must see soon that if we are not safe together—here—we are not there, nor anywhere—and that no offices of another—no pronouncement of a third—can make us safe together."

And thus I perceived truly the great heartedness of Mary Romany.  
"And when," I whispered at last, "will you tell me what the dream is—how we can make this thing more beautiful?"

"There is time. How much we have already said. It is not going to be hard. I'm so happy."

Afterward, our sitting together in the darkness, reminded me of another night. "The little temple in the Chinese Garden," she said at once, "but that's too close to the river for me to be happy thinking of it—"

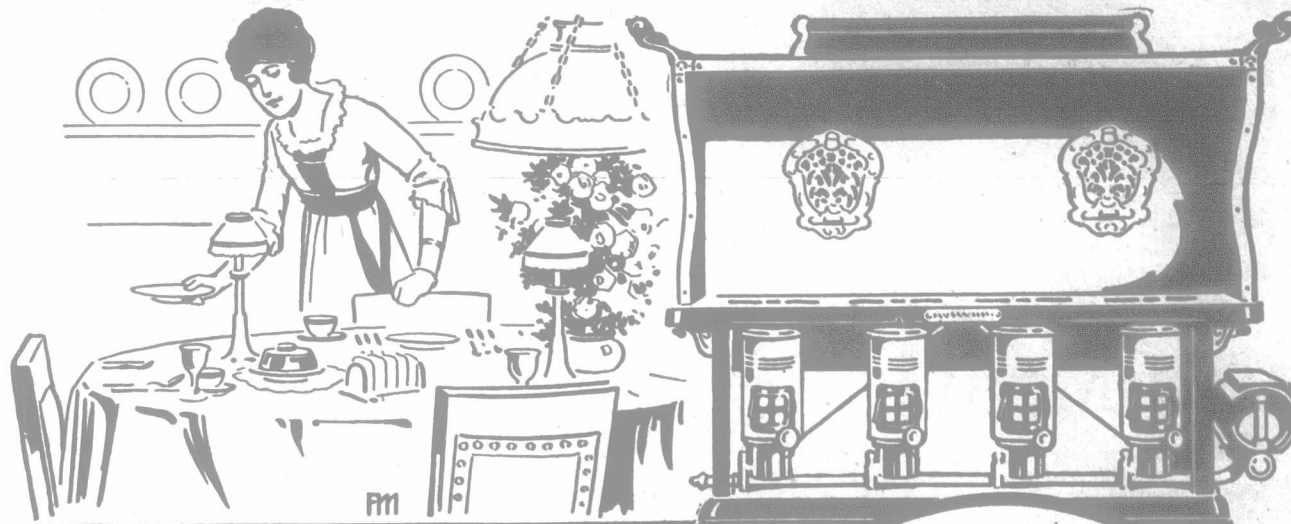
"I found my yellow rose in that garden—my flower of happiness. Afterward down the river—you came to the Crossing to meet me—the yellow rose in your breast. I saw you that morning with my soul. I wonder if I shall ever see again the deck of *La Samaritaine*? That's my road to Damascus—my great light fell there. . . Here in the dark with you, Mary Romany, I can see it clearly—that Death is only another little Crossing—and not the last."

She drew my head to her breast, and I told her again. . . After that I went to the next room.

**Suits Free!**

Remarkable Cloth that Won't Wear Out!

Now readers, would you like a suit or pair of pants absolutely free! A most astounding offer is being made by a well-known English firm! They have discovered a remarkable Holeproof Cloth. You can't tear it! Yet it looks just the same as \$20 suiting. You can't wear it out no matter how hard you wear it, for if during six months of solid, hard grinding work every day of the week (not just Sundays), you wear the smallest hole, another garment will be given free! The firm will send a written guarantee in every parcel. Think readers just \$6.50 for a man's suit, and only \$2.25 for a pair of pants sent to you all charges and postage paid and guaranteed for six months' solid grinding wear. Now, don't think because you are miles away you cannot test these remarkable cloths, for you simply send a 2 cent post card to The Holeproof Clothing Co., 56 Theobalds Road, London, W. C., Eng., for large range of patterns, easy self-measure chart and fashions. These are absolutely free, and postage paid. Send 2 cent post card at once! Mention "The Advocate."—Advt.



*The New Perfection cooks like gas—  
is cool, clean, economical.*

**LESS EXPENSE  
AND DRUDGERY, TOO**

Every housewife knows how the New Perfection Oil Cookstove saves hard work. What some don't know is that it is actually *less expensive than either gas, coal, or wood.*

The New Perfection housewife has no fires to build, no ashes to take out, no wood to split. Her kitchen is cool and odorless. Dinner done on time—and to perfection.

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Royalite Oil gives best results.

**THE IMPERIAL OIL COMPANY  
Limited  
BRANCHES IN ALL CITIES**



*No more of this!*

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whether it be moose, bear, rabbits, ducks, partridge—at the Traps or on the target range—the selection of the proper Shot Shell or Cartridge for each purpose goes a long way toward producing the best results.

**Dominion Shot Shells and Metallics** are made in sizes that operate perfectly in all popular makes of shot guns and rifles. The exact proportion of powder and shot in Dominion loading gives the shooter Ammunition that hits hard and stops what it hits.

The big "D" trade mark on a box of Cartridges is your guarantee of accurate, speedy, well balanced, Canadian Ammunition. Twice the price won't buy better.

Send for free colored hanger "A Chip of the Old Block."

**Dominion Cartridge Co., Limited,**  
209 Transportation Building, Montreal.



**Thriving without his Mother on GARDINER'S Calf Meal**



Weaning is no set-back to the calf that gets Gardiner's Calf Meal with skim or separated milk. This Meal provides the equivalent of the cream taken from the milk, making it equal to new milk in every way.

Its high proportion of Protein (guaranteed 19% to 20%) and of Fat (guaranteed 8% to 9%) make Gardiner's the most valuable Calf Meal on the market. Calves, young colts, lambs and little pigs thrive on it splendidly for the first few months after weaning.

Put up in 25, 50 and 100 lb. bags. If your dealer doesn't handle it, write us for prices and information about Gardiner's other products—Ovatum, Fig Meal, Sac-a-fat and Ontario Feeders' Cotton Seed Meal. 3

**GARDINER BROS.,**  
Feed Specialists, SARNIA, Ont.

**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.**

**White Grubs.**

Our ground seems to be alive with full-grown, white grubs. Would salt planted with the corn be of any use? If you know of any plan that would destroy them please answer in your first issue. C. B.

Ans.—It is doubtful if salt would have the desired effect. We do not know of any effective method of destroying these pests. It is risky planting corn or potatoes in a grub-infested field. Some of the other crops are not quite so susceptible to their attacks, although none of the cereal crops are immune. Prevention consists in following a short rotation of crops, which leaves a field in sod not more than two years. Crows and blackbirds are also destructive of the grub.

**A Summer Course in Beekeeping.**

A summer course in beekeeping is being arranged for at the Ontario Agricultural College for the week of June 12. It will consist of apiary demonstrations and practices. Day sessions will be conducted in the apiary so far as possible and four illustrated evening lectures will be given during the week. Such special subjects as wintering, swarm control, bee diseases, queen rearing, and requeening, will be taken up in turn and demonstrated by means of the bees and appliances in the apiary. Frank C. Pellett, State Apiary Inspector, of Iowa, will be in attendance and assist in the instruction. He will also give illustrated evening lectures throughout the week. The slides used by Mr. Pellett are from photographs taken in the field which were secured at great difficulty. The Wellington County Beekeepers' Association is arranging to hold a Field Day at the College during the week of the course. Those who cannot attend the whole week are cordially invited to be present on Field Day, the date of which will be announced later. There are no tuition fees charged for the course. For further particulars write the Provincial Apiarist, Morley Pettit, O. A. C., Guelph.

**Gossip.**

Regarding the stock which Francis Stauffer, Bright, Ont., will offer for sale on June 14, by auction, he writes: "We are offering 6 mature cows in their prime and, in every respect, all right. These are daughters and granddaughters of Paladin Ormsby, Brookbank Butter Baron, and Count Wayne Mercedes. These sires are of the best and their daughters in any herd will make a good showing if given the opportunity. We have 6 other young cows, three and four years old, in milk, which were sired by a grandson of Brookbank Butter Baron and Francys 3rd., and one sired by Louis Prilly Rouble Hartog. Our young stuff will prove attractive to the average buyer. Those sired by our herd bull, Woodland Jongste Pride are a prime lot. This sire's dam, Lady Jongste at two years and one month, in R. O. P., made 12,476 lbs. milk and 591 lbs. butter; and eight months after freshening, in R. O. M., made 14 lbs. butter." Send for a catalogue and look up the pedigrees of the stock Mr. Stauffer will sell on June 14. The advertisement appears elsewhere in this issue.

The Sunday school teacher put to her class a number of questions touching the history of the cities mentioned in the Bible.

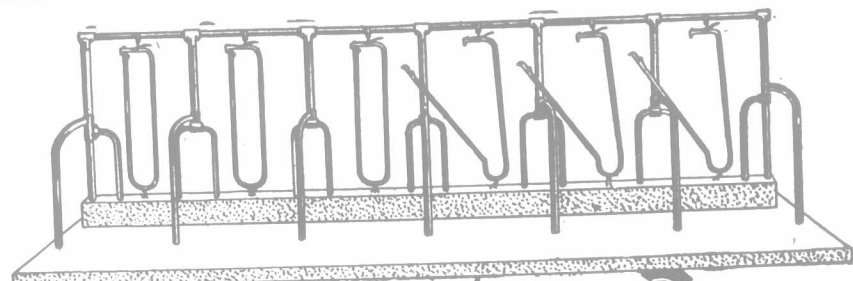
"What happened to Babylon?"  
"It fell," said one boy.  
"And what became of Nineveh?"  
"It was destroyed."  
"And what of Tyre?"  
"Punctured!"

# Sydney Basic Slag

If you intend to put in some Fall wheat, you want to fertilize with SYDNEY BASIC SLAG and you should arrange for your requirements at once. There is tremendous congestion on all railway lines and goods are taking longer in transit than usual. Many farmers who delayed ordering last Autumn were disappointed of supplies. SYDNEY BASIC SLAG will grow your crop at a lower cost than any other fertilizer. If you do not know our agent in your district drop us a line and our general Salesman will get into communication with you. If we are not represented perhaps you could distribute a car of 20 tons for us. You will be reasonably remunerated for your trouble.

Interesting descriptive literature will be sent on application.

**The Cross Fertilizer Co., Limited,**  
Sydney, Nova Scotia



## For the Sake of ECONOMY ALONE!

**O.K. STANCHIONS AND STALLS**  
save money, space, time and labor. Far more satisfactory than wood. Many dollars are saved every year on repair bills. Wood quickly rots and must be replaced, but Steel is practically indestructible.

### OK CANADIAN U-BAR STANCHIONS AND STALLS

enable you to stable more cattle in the same barn space than is possible with wooden stalls, yet each cow has just as much room.

Then there is the big saving in time and labor. The cleaning of the barn is done much more quickly and easily. Valuable time is saved for other, and more important, work.

The combination Gravity and Spring Lock on O.K. Stanchions is the simplest and surest lock yet devised.

Stalls of 2-inch iron tubing with "T" clamp fastened by 2 bolts. Strong, rigid, easy to set up. Send Coupon to-day for FREE Book. 41-B



Canadian Potato Machinery Co. Limited, 491 Stone Road, Galt, Ont.

Please send Stanchion and stall Book FREE. When will you build or remodel? .....  
How many cows? .....  
Name .....  
Address .....

WRITE TO DAY FOR FREE SAMPLE 3 PRICES

**MAPLE LEAF OIL CAKE MEAL** **FEED DAILY TO ALL LIVE STOCK**

THE CANADA LINSEED OIL MILLS, LTD. TORONTO & MONTREAL

**Pays for Itself in 7 days**  
WRITE FOR OUR SPECIAL OFFER

This latest model Hand Mixer produces a better mix with less cement, saving you time, labor and money.

Wettlaufer Bros., Ltd. 178 A Spadina Ave., Toronto

BE SURE AND ASK FOR THE **Maxwell**

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

Maxwells Limited, St. Mary's, Ontario

**Louden Barn Equipments**

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 Company Dept. 1 Guelph, Ont.

**Look Out For**

The Imperial Life Assurance Company's big advertisement in next week's issue, entitled

**"A Monthly Income for Life"**

It has an interesting message for YOU.



## A SURE CURE FOR THRUSH Douglas' Egyptian Liniment

For sale everywhere. Write for Free Sample.

**Douglas & Co., Napanee, Ont.**



# The Great Sale of 75 SCOTCH SHORTHORNS

At ELORA, ONT. SATURDAY, JUNE 10th, 1916 At 12, Noon

J. A. Watt, Elora, will sell 25 head; J. M. Gardhouse, Weston, will sell 25 head, and Robert Miller, Stouffville, will sell 25 head.

There are 10 bulls and 65 females, all valuable ages. There are show bulls of the different ages in shape to go any place. There are females of all ages that have won and that are ready again. There are cows with calves at foot that have no superiors in any herd, the calves are by the greatest sires that can be produced. Every one well bred, every one a good one. Some of the females are: Wimple Marchioness, from Gainford Marquis and Burnbrae Wimple, both grand champions. She is a grand heifer. Matchless E, a great senior yearling of the Lovelace family. Countess Selma 2nd, a Kiblean Beauty cow that has won against all ages and all breeds in the biggest U. S. shows, and she is breeding champions now, one of them is the B. C. at her side. Roan Princess, a Lovely with a wonderful B.C. at her side, sired by Superb Sultan. She is a good cow and a good breeder. Evelyn, a junior yearling, large and smooth and all ready. Maxwalton Clara, one of the best cows and one of the best breeders. Lavender Anoka by Avondale, with a show B. C. at foot and in calf again, one of the best breeding cows we know. Burnbrae Lavender, her daughter by Superb Sultan, one of the kind that must breed champions, her red B.C. looks like one. Red Missie, bred a first prize senior calf last year at Toronto, her C. C. of this year looks like repeating. Jealousy 4th, a champion at Toronto, has won every place and she is ready again, a great cow, well along in calf to Gainford Marquis. Lovely Belle, shown many times last year, and always first, she is a yearling now. Kilwinning Lady, is a splendid show heifer, the right age for the West this year, a year old in July.

Miss Clipper 3rd, a three-year-old that has won a lot, she has a roan C. C. at foot that looks like doing its bit, a great pair to buy. Daydream, a red three-year-old that has won, with a beautiful red C. C. at foot. Marabelle, another three-year-old that has won a lot, she has a B. C. at foot. Village Belle, all ready for the yearling class this year, a winner last year. Missie of Walnut Grove has produced one of our greatest champion bulls, and she has a red B. C. at foot now by Gloster Champion. Mysie of Ivanhoe, a cow that has scarcely been defeated, with a red cow calf at foot. In bulls there is the two-year-old Cecilia Sultan that was junior champion at Toronto last year, a great bull in great form, the Sultan kind. Clan Alpine 2nd, a good sire and one of the best show bulls, he is four years old. Monkland, a red two-year-old, that will scarcely be beaten this year. Minstrel, just a year old, a beautiful roan and a Missie, a real good one. Browndale Winner, a great calf, the right age for the west. Gold Dust, a junior yearling worth buying. And there are several September bull calves that are bred in the purple, that are made right, and in condition to show and win. A great array of show bulls, cows and heifers, and an offering of breeding material such as has not been offered in Canada before. Come and see them sold. Elora is 12 miles north of Guelph.

COL. CAREY M. JONES } Auctioneers  
CAPT. T. E. ROBSON }

Write ROBERT MILLER, Stouffville, Ont., for catalogue, mentioning this paper

## Questions and Answers.

### Miscellaneous.

#### Lumps on Knees.

At 3 days old a soft lump appeared on colt's knee, and at 6 days of age one appeared on the other knee. They are to the outside and a little below the knees. I am rubbing them with wood alcohol. W. J. B.

Ans.—Puffy lumps of this kind are not uncommon in young colts. In mostly all cases they disappear without treatment. Leave alone until weaning time, and if they have not disappeared, by that time, rub well daily with tincture of iodine.

#### Ophthalmia.

For some months my driver has had sore eyes. There are days when only one is affected. When troublesome he keeps them closed. They discharge water freely, appear very itchy, and around the eye is swollen. To bathe them with hot water seems to give relief for a time. The day following they may be open and to all appearances perfectly well. Sometimes, too, they are open and apparently all right but over them seems to be a scum, gelatine in appearance; a movement before them, however, causes a blink. Otherwise he is in splendid condition and full of life. What is the cause and treatment? A. Mc. N.

Ans.—This is a constitutional disease, and may appear without any apparent cause. A few attacks usually results in blindness from cataracts. Treatment consists in giving a laxative as 1½ pints raw linseed oil. Keep him in a comfortable stall, and exclude drafts and direct sunlight. Bathe the eyes three times daily with hot water, and after each bathing put a few drops of a lotion, made with 10 grains sulphate of zinc, 20 drops fluid extract belladonna and 2 ounces of distilled water into each eye. In some cases recovery is slow, and treatment may have to be continued for some time.



**SEE THE DIFFERENCE**

Here are two cans with glass sides inserted to show contents. On the left is an ordinary varnish stain. See the muddy sediment settled at the bottom. It must be stirred before using, and never gives good results. On the right is Campbell's Varnish Stain—clear as a crystal—no dregs or sediment. Its ingredients are scientifically unified. You can use it on any floor or furniture with perfect results.

**CAMPBELL'S VARNISH STAIN**  
DISSOLVES GREASE SPOTS

There! we have given you two big reasons for using Campbell's in preference to all others. You'll find many other reasons in the first can you buy.

There are 13 colors: Natural wood color, light oak, dark oak, walnut, cherry, mahogany, green, rosewood, white enamel, flat black, gloss black, piazza green, and piazza red. Sold by reliable dealers everywhere. If your dealer cannot supply you

**LET US SEND YOU THIS BOOK**

Mr. Ekin Wallick, contributor to the Ladies' Home Journal, and a national authority on home decoration, has written a charming and instructive book, "The Attractive Home." He tells all about rugs, lighting, pictures, furniture, and how to make an attractive home at small expense. Regular price, \$1.00. For forty-five (45) cents in stamps we will send you this book postpaid, and a half-pint can of Campbell's Varnish Stain, price 30 cents. \$1.30 worth for 45 cents. Write today and give name of nearest paint dealer or decorator.

Made by  
**CARPENTER-MORTON CO.**  
Boston, Mass.

Canadian Distributors  
**A. RAMSAY & SON CO.**  
Montreal, Can.





## Percheron Stallions and Mares

All imported from France, four to seven years old, all proven foal-getters Government approved; first-class certificates, weighing 1,900 to 2,100 lbs. Blacks and grays. I am going to close them out. Now is your opportunity to get a good stallion at your own price. Terms to suit. Write at once for particulars and come.

J. B. Hogate, - - Weston, Ontario

**Clydesdales** We have still left some exceptionally good draft stallions, ranging in age from one to eight years, prizewinners, including champions; also in-foal mares and fillies. There is a horse boom coming. Buy now.  
**SMITH & RICHARDSON, Columbus, Ont.**

## White Grubs—Horse Wasting His Oats.

Almost all my potato crop was eaten last year by white grubs, and on planting potatoes this spring I find the ground full of grubs. Can anything be done to destroy them?

A few weeks ago someone asked how to prevent a horse from wasting his oats while eating them. I had the same difficulty myself until I mixed some chop with the oats. This makes him eat more slowly, and he does not spill the oats. J. D. P.

Ans.—A short crop rotation is the only known method of preventing white grubs. They are supposed to have a three-year life cycle, and the eggs are usually laid in sod. By not allowing a field to remain in sod for more than two years is a preventative. For a field already infested a crop that is least susceptible to their attack should be grown.

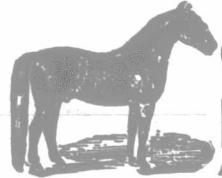
### Sitting Hens Eat Eggs.

My sitting hens are eating their eggs. I have set six hens and only one has not eaten the eggs given her. The rest ate almost all given them. I let them off every morning and they have full run until they go back on the nest themselves. They get feed, water, etc. What is it they lack or what causes them to eat their eggs? I don't like to set any more until I can get a remedy. R. L.

Ans.—From the evidence given it appears that eggs have been set which have thin shells and, getting broken in the nests, the hens have eaten them and either acquired the egg-eating habit, or have eaten them as they break. It is entirely unnatural for a sitting hen to devour her eggs, but she is very likely to do it if they become broken. If the flock be given plenty of oyster shell, bone, and not too much mash, the egg shells should be of a firmer texture and this will prevent them breaking accidentally. The only thing to do in such a case is to feed the hens so they get all the elements usually picked up when on free range, and set them in a dark place. Reports of this nature are common this spring.



**Horse Owners! Use**



**GOMBAULT'S  
Caustic  
Balsam**

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

**Fistula  
and  
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**Mention this Paper**

**Breed More Cattle.**

EDITOR "THE FARMER'S ADVOCATE":

A very competent authority estimates that, having reference to last year's trade, average prices current for beef on the Smithfield market in London, England, for 1915, show an increase of 40 per cent. since the outbreak of the war. The last English produce report to hand quotes Irish beef at 19 to 20c. per lb. for sides wholesale and English at 20 to 21c. per lb., as against a price of 15½ to 16¼c. for Irish and 15¾ to 16¾c. for English, during the last week in December 1915. It further quotes South American chilled fore-quarters at 16½c. and hind quarters at 19¾c., as against 12½ and 16c. respectively for fore-quarters and hind-quarters in December. "Supplies of frozen beef are practically exhausted, only a few small odd lots of bull beef being obtainable. These, in view of the strong demand ruling for all classes, realize high prices. The absence of frozen supplies has again forced buyers on to the chilled article, with the result that values have advanced sharply."

The general beef situation, from the standpoint of the home and foreign market, further emphasizes the shortage of supply. One feature is particularly noteworthy. It has never been indicated from any country that there is an undue accumulation of beef in storage or a congestion of cattle going forward to market. Present prices and present demand fully confirm this fact. The position in Europe is well known. The Argentine output has been absorbed for army supply to such an extent that very little frozen Argentine beef is available for civil consumption in Great Britain. Australia has passed through a severe season of drought and her exportable surplus has been greatly diminished. Moderate supplies of cow beef are going forward from New Zealand but these are not of first-rate quality. Canada and the United States have not appreciably increased their cattle population and are clearly able to find a remunerative market in Europe for any of their product available for export. The steady and continuous rise in price definitely reveals the condition of the world market for beef and emphasizes the fact that the situation is growing worse with the progress of the war.

Contrast the position with respect to grain. Enormous stores of wheat are tied up in Russia. In Siberia alone it is estimated that there is an accumulation of over 9,000,000 tons of grain. Until peace is declared, this accumulation will probably become more pronounced. After the war, the production of grain will again be undertaken on an enormous scale in all the contending countries. In view of this fact and with the release of the accumulated stocks, it is undoubtedly true that grain will then drop in price to a very considerable extent. With an overstocked grain market and a pronounced under-supply of cattle the farmers of Canada should have little difficulty in making up their minds as to what their policy shall be for the future.

One warning, however, should be given. We must emphasize quality before quantity. On the British market, Canadian beef does not equal in quality the beef exported from United States or from the Argentine. Unless we can improve our cattle, both as regards quality and as regards finish, we need not expect to be able to effect sales at Smithfield but shall be obliged to seek a market in France or Italy. Even our best grass-fed cattle, when offered on the Chicago market last year, yielded disappointing returns. In Canada there is any number of good beef cows but we can never develop a beef trade by breeding these to dairy bulls, to grade bulls, or even to pure-bred bulls of inferior type. A really good pure-bred sire is an asset to any community. He should have the patronage of all the farmers in the neighborhood. The maintenance or use of a scrub bull, under the present circumstances, should be deemed an unpatriotic act.

One other non-progressive practice should be eliminated or, at least, superseded by a better one. Reference is to the sale and purchase of stocker and feeder cattle, whether for finishing in the stable or on grass. In the case of the farmer who sells, this practice, unless in exceptional circumstances, is a mistaken one. He should feed and

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**THOMAS GRAHAM, R. R. 3, Port Perry, Ont.**

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We are offering choice young bulls from 6 to 12 mos. of age. Cows in calf, heifers from 1 to 2 yrs. of age. Also our big, thick stock bull, Barmpton Sailor, A. McKinnon, Erin, R.M.D. Hillsburg or Alton Stations. Long-Distance Phone.

finish his own stock. On the part of the farmer who buys, a speculative and non-productive enterprise is continued and encouraged, which has neither an economic nor a practical argument in its favor. He should grow his own feeders, or a part of them at least. Trading of this nature has done as much as any other one factor to destroy the beef cattle industry in many parts of Canada. It can only be built up by a change of system.

A good herd of milking beef cows will bring in a return as regular as the change of the seasons. If labor is not available to milk all of them, two calves may be put on a single cow, possibly followed by a third, and better calves reared than if fed by hand. The feeding of these calves until fit for market, whether as baby beef or as butcher or export stock, will insure a steadier income than can possibly be obtained by the continuance of the old methods. No practice will so tend to conserve female stock nor so speedily and steadily add to our available supply of beef.

**JOHN BRIGHT,**  
Live Stock Commissioner.

**Questions and Answers.**  
Miscellaneous.

**Weight of Silage in Silo.**

I have sold the silage in my silo to a neighbor and I should like to know how many tons there would be in it, also how many pounds per cubic foot. The corn was cut and put into the silo in the fall, and taken out in April. After the spoiled part was taken off there were 9 feet of silage. This amount was all that was put into the silo, which is round and 12 feet across. J. G.

Ans.—Not knowing what tramping the corn received, when it was put into the silo, or how much was taken off as bad silage, it would be difficult to arrive at the accurate mean weight of a cubic foot of this silage, for the total depth should be known. However, 33 pounds to the cubic foot would be approximately correct, and on this basis the 9 feet in depth should yield very close to 16½ tons.

**Getting a Stand of Alfalfa.**

1. As I intend sowing some alfalfa this spring, I should like to know through "The Farmer's Advocate" the best time to sow seed and the amount per acre to show the best results.

2. I am told some varieties are harder than others. What kind would be best adapted to this part of the country? The land is very heavy clay.

3. I sowed six acres last year but it wintered very poorly. Would it catch all right if I sowed some broadcast on the places that are winter killed? Would I need to harrow it in?

4. Does alfalfa require a nurse crop or will it do all right without one? W. F.

Ans.—1. Alfalfa does very well sown in late June or July without a nurse crop. This provides opportunity to cultivate the land well during the spring, as one would a summer fallow. The weeds are thus destroyed and a good seed bed obtained. Showers are usually frequent throughout July, so one should be quite sure of a catch. Twenty pounds per acre is the amount usually sown on farms where alfalfa has not become established.

The Ontario Variegated alfalfa which is produced locally is the best seed to sow. Next to this comes the Grimm and this seed should be produced in a latitude not south of Ontario to be hardy.

3. It would probably be better harrowed lightly, for heavy clay land would likely be hard on top and the small seed would be unable to gain a foothold. If it could be sown immediately after or before a shower and harrowed lightly, a good catch should be procured. However, we are not very optimistic about patching up fields of alfalfa to improve the stand.

4. Alfalfa will do all right without a nurse crop. In fact, excellent reports come from districts where the practice of sowing in late June and July without a nurse crop is common.

On heavy clay soil we would be inclined to handle the alfalfa in an experimental way only until we were assured that the soil was suitable for it. On heavy land, not well drained, it is difficult to maintain a good stand of alfalfa one year after another.

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**Canada's Grand Champion Shorthorns of 1914-1915**  
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Pure Scotch in breeding, we have an exceptionally choice lot of bulls for this season's trade, ranging in age from 8 to 15 months, big mellow fellows and bred in the purple. Also ram and ewe lambs of first quality.

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Heifers in calf. Four bulls which should be heading good herds.

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**GEO. AMOS & SONS, MOFFAT, ONT., STA., C.P.R. 11 miles east of Guelph.**

**OAKLAND-48 SHORTHORNS** Present offering is one choice red bull, 20 months old, price \$175; also three about seven months old. A few cows with calves at foot and bred again, and some fine heifers bred. All registered and priced to live and let live.

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**Geo. D. Fletcher, P. R. 1, Erin, Ont. L.-D. Phone: Erin Station, C. P. R.**

**Oak Lodge Stock Farm** Shorthorn bull, 20 months old, bred from dam of milking strain. Two bulls, twelve months old. Will be sold at a price that will please customers.

**J. E. BRETHOUR & NEPHEWS, Burford, Ont.**

**Four Imported Bulls** The above bulls are choice bred, of good quality, and should make valuable sires. We have five Canadian bred bulls from 10 to 18 months old. We invite inspection of our stock and will give correspondence our most careful attention.

**J. A. & H. M. PETTIT, Phone Burlington, Freeman, Ont.**  
Burlington, Ont., G. T. R. half mile from farm.

**Spruce Glen Shorthorns** When in want of Shorthorns visit our herd. We have 70 head to select from. Minas Fames, Miss Runden's, Florences, Emilys, etc. Many of them one and two-year-old heifers. Also several young bulls of breeding age—level, thick, mellow fellows and bred just right.

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From 18 months down. Grandsons of "King Fayne Segis," "King Segis Pontiac," "Rag Apple Korndyke 8th—the best of the breed." Write us giving particulars as to your requirements.

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

### Questions and Answers. Miscellaneous.

#### Becoming U. S. Citizen.

How long after a Canadian-born man has taken out his Intentional papers to become a citizen of the United States, can he cross over to Canada for a day without being held by the Canadian Government for a year.

W. W.

Ans.—He can do so at any time.

#### Title to Land.

A's father left a will by which A was given the farm, his brothers and sisters each a sum of money and the mother a certain amount each year. The brothers and sisters were paid and gave to A and their mother, who were the executors, quit-claims. After some years the mother died and all debts were paid. What must A do to secure the deed of the farm in his own name—his father's being a crown deed? The will was not probated but it and the quit-claims were registered and A has them and the father's deed in his possession. SUBSCRIBER.

Ans.—The title has become vested in A and nothing more is necessary in that connection. But he ought to make a statutory declaration, to be put with the other papers, to the effect that his mother was duly paid her annuity down to the time of her death.

#### Killing Ground Hogs.

Is there a compound that generates a gas that will kill ground hogs? I have not the time to shoot them and trapping is too slow. Please tell me some way to destroy them for they are very numerous this year. W. L. K.

Ans.—Carbon bisulphide is a liquid which quickly volatilizes and the gas so generated is very poisonous. Furthermore the gas is heavier than air and will readily find its way to the lower recesses of a ground hog's den. The operator should always bear in mind, however, that this material is very inflammable and should under no circumstances be allowed to come in connection with fire, else more than the ground hog may be destroyed. Wrap a piece of cloth, not too tightly, into a ball about the size of an egg. Saturate this ball thoroughly with carbon bisulphide and place it in the den as far as one can reach. After this close up the mouth of the hole with soil. If two entrances can be found to the den they should both be closed in this manner. The gas given off from this material is said to be quite effective in destroying these rodents. Carbon bisulphide can be obtained at any drug store and the cost is not excessive.

#### A Park Proposition.

The Municipality of A have an Agricultural Society. They hold their annual spring stallion show and their fall fair on some park grounds in the town of B. The society is supposed to own the grounds and buildings valued at about \$6,000. There is a debt against said grounds and buildings of \$1,000. The directors of the society have asked the two municipalities to assume the debt and take over the grounds as a park to be used as such for both municipalities jointly—the society paying rent for the two or three days they use it each year.

1. Could the township of A invest say \$1,500 in said property without taking a vote of the ratepayers?  
2. Could the town of B assume the balance without asking the voice of the ratepayers, or could they go even shares in the proposition?  
3. If not, what is the limit of a Township Council's expenditures for any proposition of the kind? Said park could be used by both municipalities for picnic and pleasure grounds. F. I. E.

Ans. 1 and 2. We think not.  
3. It is not altogether a question of amount. It would require what is termed by The Municipal Act a "money by-law" which is defined by the Act as meaning a by-law for contracting a debt or obligation or for borrowing money. Generally speaking such by-laws must have the assent of the electors in order to be valid. There are certain exceptions, but we do not think that what is proposed would come within the scope of any such exceptions.

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Farm, 5 miles north of Drumbo Junction, C.P.R. and G.T.R., where morning trains will be met. Send for a catalogue to—

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### King Segis Pontiac Paul 15940

We have for sale a few sons of the above bull, ready for service, and whose dams are large, heavy-producing cows. Here is an opportunity to get the blood of KING SEGIS and KING OF THE PONTIACS at reasonable prices. Correspondence solicited.

Also Berkshire and Yorkshire Swine  
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The only herd in America that has two sires in service whose dams average 119 lbs. milk a day and over 35 lbs. butter a week. Cows that will give 100 lbs. milk a day are what we are trying to breed. At present we have more of them than any other herd in Canada. We can supply foundation stock of this breeding. Visitors always welcome. Long-distance Phone.

D. C. FLATT & SON, R. R. 2, Hamilton, Ont.

**Dumfries Farm Holsteins**—Think this over—we have 175 head of Holsteins, 50 cows milking, 25 heifers due to calve in the fall, and 60 heifers, from calves up to 2 years, as well as a dozen yearling bulls, and anything you may select is for sale. Breeding and individuality the very best.

S. G. & ERLE KITCHEN, St. George, Ontario

### For Sale

Only three bull calves from our senior herd sire and a few from the junior herd sire left. In these is combined some of the richest testing blood of the breed. Also females of all ages, 75 or 80 head from which to choose.

M. L. HALEY & M. H. HALEY, Springford, Ont.

### For Sale: Sons of King Segis Walker

From high-testing daughters of Pontiac Korndyke. Photo and pedigree sent on application.

A. A. FAREWELL OSHAWA, ONTARIO

### Lakeview Farm, Bronte, Ont.

Offer for sale, sons and grandsons of 100-lb. cows; one is out of a 24.56 lb. 3-year-old daughter of Lakeview Rattler's 28.20 lbs., the latest Canadian champion 30-day butter cow 8 months after calving, and is half brother to L. D. Artis, 34.66-lb. Canadian champion senior 3-yr-old. Terms to suit purchaser. MAJOR E. F. OSLER, Prop. T. A. DAWSON, Mgr.

**Clover Bar Holsteins** A splendid 14 mos. old son of Minnie Paladin Wayne, who has just completed a record of 26.87 lbs. butter, 545 lbs. milk in 7 days. Her 2-year-old record was 22.33 lbs. For type and color he is second to none. Also her 3-weeks-old bull calf and a few others from good R. O. M. dams. PETER SMITH, R. R. No. 3, STRATFORD, ONT.

**HOSPITAL FOR INSANE, Hamilton, Ont.** For Sale—HOLSTEIN BULLS, varying in age from 1 to 11 months, from Record of Performance or Record of Merit dams, and the grand bulls Sir Korndyke Wayne Dekel, grandson of Pontiac Korndyke, or Lakeview Dutchland Le Strange, a grandson of Count Hengerveld Fayne Dekol. Prices right. APPLY TO SUPERINTENDENT.

### EVERGREEN STOCK FARM — REGISTERED HOLSTEINS

Present Offering: Several bull and heifer calves; also a few yearling heifers bred and ready to breed. Write for prices and descriptions. Bell phone.

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**30-lb. Bred Holsteins 30-lb.** We are now offering for sale a bull calf from our great cow, Sadie Cornucopia Mignone, who has just completed her third consecutive record of over 30 lbs. This time she made 33.37 lbs. butter from 654 lbs. milk in 7 days, and 134.29 lbs. butter from 2,060 lbs. milk in 30 days. His sire is from a 32-lb. cow. Send for extended pedigree and photograph. D. B. TRACY COBBOURG, ONT.

**Riverside Holsteins**—Herd headed by "King Johanna Pontiac Korndyke," a brother of "King Fayne Segis," 38.02 lbs. butter in 7 days, 156.92 in 30 days—world's record when made. His 10 near relatives have official records that average 34.94 lbs. butter in 7 days. His daughters have made good in official test. The present R. of P. cow of Canada was bred here. Choice young bulls for sale. J. W. RICHARDSON, R.R. No. 2, Caledonia, Ont.



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rightly-bred young over cow, import write me. Female O. A. MacFARL

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**Alderley**  
Two yearling bu (Morton Mains J. R. F

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Show type, disti weeks old. For GORDON L. L. Jerseys for S also heifer calves dams. To prevent bull, De La Rocke CHAS. F





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Two yearling bulls sired by Lakeside Day Star (Morton Mains Planet). Write for description.  
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Show type, distinguished pedigree; about eight weeks old. For sale or exchange for females.

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CHAS. E. ROGERS, Ingersoll, Ont.

## Questions and Answers Miscellaneous.

### Hens Ailing.

Can you tell me what is wrong with my hens? They seem to have bowel trouble. At first I thought they were constipated but now one of them seems to be bleeding quite a bit. They have a good run in an old orchard and have been fed wheat, sour milk, and fresh water every day. They are laying as well as usual and seem active.

Ans.—From symptoms given it is difficult to diagnose the case. Evidently the trouble is due to temporary derangement of the system which will probably soon right itself. It is impossible to recommend effective treatment without knowing more about the birds. The feed is a fairly good summer ration for fowl that have the run of an orchard.

### Permanent Pasture—Sweet Clover.

1. What seeds would you recommend sowing for a permanent pasture, on land that is part high and part low? I do not want anything that will be hard to break up.

2. Horse's legs swell and are sore and scabby. When worked the swelling is only partly reduced. He gets a little grass in the evenings.

3. Name the vegetables that contain a high percentage of starch.

4. How long will white blossomed sweet clover stay in the ground as a pasture? E. M.

Ans.—1. Red clover, 2 lbs.; orchard grass, 5 lbs.; meadow fescue, 3 lbs.; Kentucky blue grass, 3 lbs.; alsike, 2 lbs.; white clover, 3 lbs.; timothy, 3 lbs. per acre. Alfalfa is usually included in a permanent pasture mixture.

2. Give a purgative of 8 drams aloes and 2 drams ginger. Poultice the legs for two days, and nights with linseed meal and a little powdered charcoal applied warm. Then dress the parts with oxide-of-zinc ointment to which has been added 20 drops carbolic acid to each ounce. Avoid washing the legs. If they do get wet rub well until dry.

3. Potatoes contain the highest percentage of starch of the garden vegetables. Beans, corn and parsnips also contain starch in fairly large proportions.

4. Sweet clover is a biennial plant, and if prevented from going to seed will die out the second year. If allowed to grow up and produce seed the plant may remain in the soil indefinitely.

### Miscellaneous Crops.

1. What kind of millet would you sow to get the most feed per acre for hay?

2. How would you set drill to sow it?

3. Can rape be sown with drill?

4. How would you set the drill to sow buckwheat?

5. What variety would you recommend sowing?

6. Is molasses meal good for horses?

7. Which do you prefer to feed milk cows, rolled oats or chopped oats? E. B.

Ans.—1. The Japanese panicle variety usually gives the largest yield of any of the millets.

2. The makes of drills vary, consequently it would be necessary to follow instructions which the manufacturers usually send with the drill. If these are not available the only way is to try out the drill on a measured piece of land with a weighed quantity of seed. Many drills do not close sufficiently to sow the small seeds, and the grass seeder attached to the drill must be used. The drill tubes can be wired to the grass-seeder spouts.

3. Rape is sown from the grass-seeder attachment.

4. The kind of drill will make a difference. If there are no instructions on the drill the only way is to try it out and regulate it until the desired amount of seed is being sown.

5. Rye buckwheat gives the highest yield of grain, but is a little lighter in yield of straw than the other varieties. Common grey is also a very good variety?

6. A small quantity may be fed with good results.

7. Rolled oats is usually preferred to finely chopped oats.

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NOW those fence posts of yours would not have rotted if you had used Grade-One Creosote Oil. It has been proved that this wonderful wood preservative will keep fence posts and timbers rot-proof for twenty years. Don't think of putting wood into the ground without treating it with Grade-One Creosote Oil. It penetrates farther into the wood than any other preservative. It also lasts longer. And it is so easily applied. Use it wherever wood is exposed to dampness, earth or weather. It saves you money.

### ELASTIGUM WATERPROOF CEMENT

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We are busy. Sales were never more abundant. Our cows on yearly test never did better. We have some bulls for sale from Record of Performance cows. These bulls are fit for any show ring.  
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Morrison Tamworths and Shorthorns. Bred from the prize-winning herds of England. A choice Tamworths both sexes, for sale. Choice Shorthorns, males and females of the deep-milking strain, also Clydesdale stallion, 3-year-old, a dandy.  
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Young sows bred for August farrow and some nice young boars. Write to:  
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Sows bred and ready to breed. Boars fit for service. Younglings, both sexes, from my prizewinning herd.  
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An estors bred from the best herd in Canada. Young pigs ready to wean, both sexes.  
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Young stock, either sex, for sale from our prize-winning sows and boars. Also some from our show herd headed by our stock boar, Ringleader. Terms and prices right.  
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### Avonhurst Yorkshires and Collies

Two choice litters of Yorkshires, both sexes. A splendid litter of pedigree collies.  
B. Armstrong & Son, Godfrington, Ontario

## Questions and Answers.

Miscellaneous.

### Crows.

How long do crow's eggs take to hatch, and how long do the young stay in the nest after they are hatched?  
E. B.

Ans.—It is around three weeks, but the exact time is not definitely known. Many small bird's eggs hatch in two weeks, and the time of incubation increases with the size of the bird. A hawk takes four weeks, and it is reasonable to suppose that the crow will come in about midway between the time required for the small and large birds. The length of time the young remain in the nest is not known exactly.

### Substitute for Clover.

1. What is the best grain to sow to take the place of clover? My clover has been winter-killed.
2. Is sugar cane a good substitute for clover? How much seed is required per acre? Should it be mixed with other grains? How long after seeding before it is ready for pasture? How late in the fall can it be pastured? Does it grow up as it is eaten off?
3. Is millet a good summer fodder? What variety would you recommend? When should it be sown?
4. Is there any other mixture you could recommend to give early feed and plenty of it? Soil is clay loam and well underdrained.

Ans.—1 and 2. A mixture of 51 lbs. oats; 30 lbs. Early Amber sugar cane, and 7 lbs. red clover furnishes a very good feed in many localities, and is ready for pasture within two months after it is sown. Sugar cane alone would not prove satisfactory, but it might furnish a considerable amount of feed when sown with oats and clover.

3. Millet makes good fodder, but it should not be sown until the latter part of June. The Japanese Panicle variety is believed to be the heaviest yielding millet grown.

4. A mixture of two bushels oats to one bushel peas is highly recommended. It can be cut green and fed to the stock, or it can be cured for hay. This mixture usually gives a good yield of fodder with high feeding value.

### Field Beans—Sweet Clover.

1. Last year some of my beans turned brown on the leaf, and on examining them could not find anything wrong, but in pulling the plant found several insects on the roots about the size and shape of a small pearl. Could the seed be treated to prevent them?

2. When is the proper time to plant field beans?

3. I bought a farm that has been rented for a number of years and has been cropped heavily and now is in poor condition, but it is clean. Would you advise sowing sweet clover to build it up?

4. If sweet clover were once sown could I get rid of it?

5. In feeding sweet clover to milk cows will it taint the milk?  
R. M.

Ans.—1. From the description given it is difficult to say what was wrong with the crop. It may have been affected with the bean rust, which, as a rule, does not seriously affect the crop. We know of no treatment to prevent the insects spoken of on the roots. The bean is a legume plant and small nodules form on the roots that contain bacteria, which take nitrogen absorbed from the atmosphere and make it available to the plant. These nodules are essential to the best growth of the crop.

2. It depends on locality, soil and variety of beans. They are usually planted the latter part of May or first week or ten days in June.

3. Sweet clover will grow on almost any kind of soil, and by plowing under a crop the humus content of the soil is increased. It is claimed that sweet clover is a splendid crop to improve the soil.

4. The plant is a biennial and will die out the second year the same as does red clover if it is prevented from going to seed.

5. We have never heard of milk being seriously affected by the cows eating sweet clover.



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Customers, beware of imitations of this advertisement.

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## Duroc Jersey Swine, Jersey Cattle

In Duroc Jerseys we have either sex of any desired age, bred from winners and champions for generations back. In Jerseys we have young cows in calf, and young bulls, high in quality and high in producing blood.  
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Sows bred, others ready to breed; boars ready for service; younger stock, both sexes, pairs not akin. All breeding stock imp. or from imp. stock. Prices reasonable.  
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My Berkshires for many years have won the leading prizes at Toronto, London and Guelph. Highclass and Sally's, the best strain of the breed, both sexes, any age.  
ADAM THOMPSON, R. R. No. 1, Stratford, Ontario  
Shakespeare Station, G. T. R.

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For sale—we have a number of choice sows bred and others in breeding and also a limited number of young boars.  
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Full particulars and tickets on application to agents.

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SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa until noon, on Friday, the 16th day of June, 1916, for the conveyance of His Majesty's Mails, on a proposed Contract for four years, six times per week over Thorndale No. 3 Rural Route, from the 1st 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 Thorndale, London and St. Mary's, and at the office of the Post Office Inspector, London.

G. C. ANDERSON, Superintendent.  
Post Office Department, Canada, Mail Service Branch, Ottawa, 5th May, 1916.

**MAIL CONTRACT**

SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa until noon, on Friday, the 23rd day of June, 1916, for the conveyance of His Majesty's Mails, on a proposed Contract for four years, six times per week over Thorndale No. 2 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 Thorndale, St. Mary's and London, and at the office of the Post Office Inspector, London.

G. C. ANDERSON, Superintendent.  
Post Office Department, Canada, Mail Service Branch, Ottawa, 12th May, 1916.

HIGHEST PRICES PAID FOR

**FURS - HIDES - WOOL**

PRICE LIST SPORTSMEN'S CATALOG AND TRAPPERS' GUIDE FREE FOR THE ASKING

**JOHN HALLAM, LIMITED**

NO. 3 HALLAM BUILDING - TORONTO

**"1900" Gravity Washer**

Sent free for one month's trial. Write for particulars.

**"1900" WASHER COMPANY**

357 Yonge Street Toronto, Ont.  
(Factory, 79-81 Portland St., Toronto)

**Rock and Brick Face "METALLIC" Siding**

Gives an armour-clad building that defies time—weather—fire—storms.

PUT heavy, full gauge Galvanized "Metallic" Steel Siding plates on your building and you have a steel coat that simply laughs at old Father Time.

Needn't paint for years unless you want to—unlike inflammable wood that needs constant protection. "Metallic" plates are absolutely wind, snow, rain, fire and storm proof. "Metallic" patterns are many and pleasing, the Rock and Brick-face and Clapboard being the most popular.

Send for price list today. We can save you money.

We also make "Eastlake" Galvanized Shingles; "Empire" Corrugated Iron "Metallic" Ceiling Plates; Ventilators; Roof-lights; Silo-roofs, etc.

**The Metallic Roofing Co., Limited, - Winnipeg and Toronto**

**Homeseekers Excursions**

Every Tuesday, March to October "All Rail"

Every Wednesday During Season Navigation "Great Lakes Route"

Somewhere out on the prairies where last year Canada's Greatest Wheat Crop was produced there is a home waiting for you.

**CANADIAN PACIFIC**

will take you there, give you all the information about the best places, and help you to success.

Particulars from any Canadian Pacific Ticket Agent, or write W. B. Howard, District Passenger Agent, Toronto.

McClary's Blue Flame Oil Stoves make good "Goodies" quickly. No hot summer kitchens. No wicks to trim—no valves to leak—safe, simple, economical, reliable. Costs less than a cent per hour per burner.

**McClary's FLORENCE OIL COOK STOVES**

*Wickless, Valveless, Blue Flame, Automatic*

You can have a slow simmering fire on one burner and a quick hot fire on another and also two others regulated exactly to any heat you want. Just set the levers to exactly the heat you want—you can go away for hours and find all the burners giving exactly the same heat when you come back. That is because the oil supply is automatically kept constant.

A glass bull's-eye always shows you how much oil is in the tank. The upper reservoir holds a gallon.

Ask your dealer to show you the Florence—if he cannot, write to our nearest branch.

**GOODY! GOODY!**

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ST. JOHN, N.B. CALGARY EDMONTON SASKATOON 826

**CREAM WANTED**

We think we have the longest experience. We try to give the best service. We need your cream and will make it "worth your while" to ship to us. A card brings particulars.

**Toronto Creamery Co., Ltd.**  
TORONTO

**CREAM**

Where are you shipping now? And what are you getting for your cream?

We want more individual shippers and more men to gather cream for us.

Write for our proposition.

**Silverwoods Limited**  
LONDON, ONTARIO

**Sweet Milk WANTED**

Delivered daily to Union Station, Toronto. Write for particulars to

**PRICE'S DAIRY**  
TORONTO

**Brant Creamery**

Brantford, Ontario

Guarantees to you a high-priced market for cream every day of the year. Write for our book.

Reference: Bank of Nova Scotia

**CREAM**

We are prepared to pay the best price for cream at all seasons of the year. We pay express charges and furnish cans. Write for particulars.

**WESTERN DAIRY, LIMITED**  
ST. THOMAS, ONTARIO

**CREAM WANTED**

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

**Ontario Creameries Limited**  
London, Ont.

**Seed Peas for Sale**

\$2.50 per bushel

**JNO. LLOYD-JONES, Burford, Ont.**

**100 Shropshire** Shearing Ewes Wanted—I pay the top price for choice wool. Drop me a card and state prices. Am also agent for Canada of Minor's Fluid Sheep Dip. Every farmer should keep it on hand.

**JOHN LLOYD-JONES, Burford, Ont.**

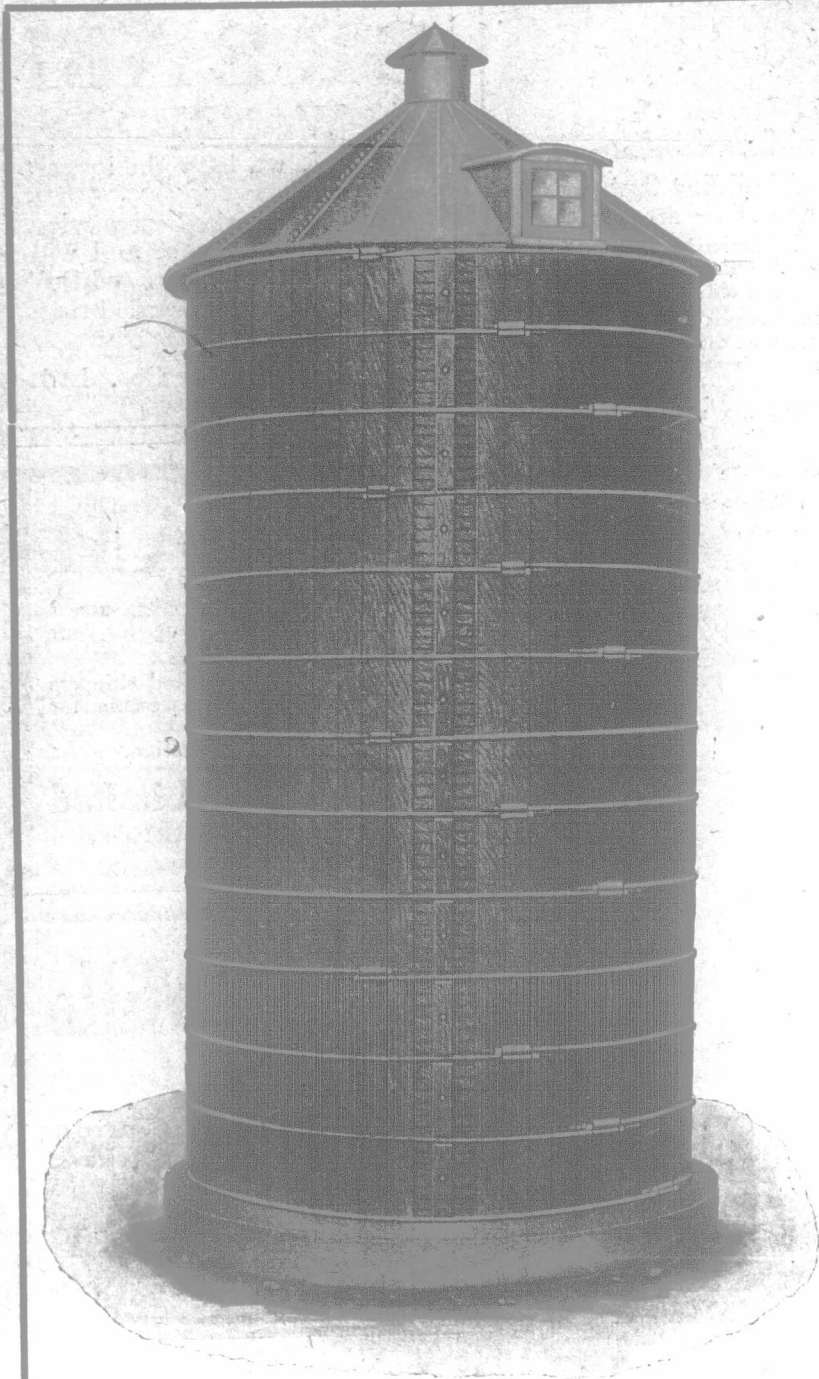
**For Sale** A 22 h.p. Traction Engine in good working order and all ready for work. It has 18 in. front wheels, large tire box with water tank.

**GEO. M. HENDERSON, Egmondville, Ontario**

**For Sale** IRISH COBBLER SEED POTATOES. Home grown, clean, set well, stock. Price reasonable. Write:

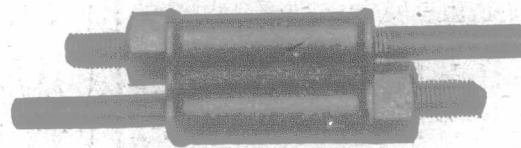
**T. J. WILHELM** Formosa P. O.  
St. Catharines, Ont.





## A SILO OF GENUINE MERIT

You will recognize the many exclusive features of the silo illustrated herewith as being points of genuine importance. We know how to make good silos, and we do it. The experience which we derive from the manufacture of all kinds and sizes of water tanks enables us to use good judgment in the selection of suitable materials for building a silo—material that is strong, and that will withstand the pressure of wind and silage. Every stave is double tongued and grooved, and is end slotted to receive a galvanized-steel spline. The hoops are heavy, and are carefully threaded and bent to the circle of the silo. All wood parts are soaked in creosote and are rot-proof.

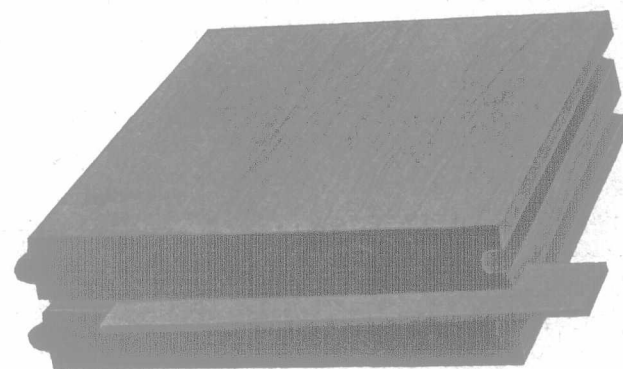


Cut of Lug and Hoop End.

## A TORONTO ECONOMY SILO

is an insurance against feed shortage. You can produce more ensilage on an acre of land than of any other kind of feed, and if it is properly preserved in a good airtight silo, it will be an ideal winter food for your live stock—it will take the place of the green grass of the pasture. The feeding of ensilage to your live stock will keep them healthy and will make them thrifty and productive.

We have issued a book on Silos and Silo Equipment which you will find interesting. There are a few of them left, and we want you to have one. Send your address to-day.



Showing Steel Spline in End Joint and Double Tongue and Groove.

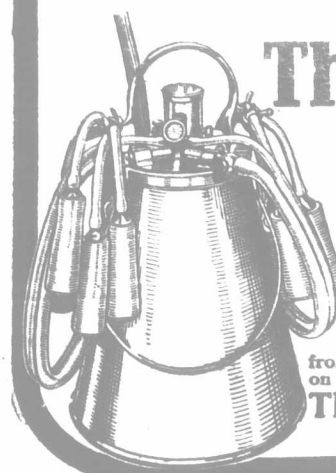
**Ontario Wind Engine & Pump Co., Ltd.,**  
93 Atlantic Ave., Toronto.

# No Man Can Milk a Cow as well as the Calf-Way Milker Does

Milking is the latest form of farm work to be done by a machine and the question "Can Machine Milking excel Hand Milking?" is answered, "Yes," by the CALF-WAY MILKER. It is the only Milker that gives the DOWNWARD SQUEEZE—the exact reproduction of good hand milking. The cows take to the Calf-Way Milker and like it; they do not "hold back" but give full yield. One dairyman says the Calf-Way Milker gets him considerably more milk a day from his thirty cows than he got by hand milking. No injury can come to the cow from using the Calf-Way Milker no matter how long the milker is left working on an empty udder as the action of the downward squeeze is harmless, the teat being protected from the direct vacuum. Mr. Louis Mayor writes he has used the Calf-Way Milker four months and he is "more than pleased" and gets more milk than by hand milking. An expert farm manager states that he had used all other makes of Milkers and found them troublesome, but "has found the Calf-Way Milker not only the best, but entirely satisfactory in every particular." These Milkers are great labor savers and money makers. They save hired help, they produce more milk, they improve the cows, they are clean, sanitary, fast and thorough. When using the Calf-Way Milker "pail stripping" is unnecessary, in fact we are opposed to the practice, because the Calf-Way Milker should be left on until the udders are milked dry and you can easily see through the glass connection at bottom of teat cup if the flow from each quarter has ceased. It is bad to train a cow to expect any further milking after the machine is removed.

## The Calf-Way Milker

Awarded the Grand Prize at the Panama-Pacific International Exposition. Pronounced by Experts "The WORLD'S BEST MILKER."



If you contemplate putting in mechanical Milkers, it is vital to your interests to secure the information we can give you regarding the value and service you have a right to expect from any Milker you buy. We will send a folder, a Booklet, "A B. C. on Milkers," and copies of letters from famous Dairymen, all giving up-to-date information on Mechanical Milkers. Write us Today; use the coupon.

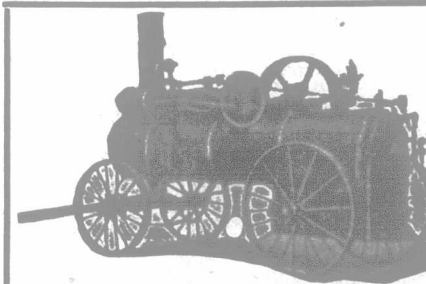
**The Farm and Dairy Machinery Co.,**  
1109 Lumsden Building, - TORONTO



Farm and Dairy Machinery Co.  
1109 Lumsden Bldg., Toronto

Dear Sirs:—I am interested in the subject of Mechanical Milkers and would like your FREE booklet, "A B. C. on Milkers" and your Illustrated Folder, postage paid and without obligation.

**CUT OUT the Coupon NOW**  
Send it in TO-DAY



### Rebuilt Portable and Traction Engines and Threshers

All sizes for sale cheap. Complete threshing outfit, traction engine with cab, separator, wind stacker, in good operative condition. **\$875**

**The Robt. Bell Engine & Thresher Company, Limited**  
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### RIDER AGENTS WANTED

In every community to ride and exhibit a sample 1916 Hyslop Bicycle.

**10 DAY'S TRIAL.** If owner is not entirely satisfied after riding any Hyslop Bicycle 10 days it can be returned and money will be promptly refunded.

**TWO CENTS** is all it will cost to write us a postal and we will mail free, postpaid, catalogue and colored art folder showing complete line of bicycles, tires and supplies and particulars of most marvelous offer ever made on a bicycle. You will be astonished at our low prices and remarkable terms. **MAKE MONEY** taking orders for Bicycles, Tires and Sundries. **DO NOT BUY** until you know what we can do for you. Write to-day. **HYSLOP BROTHERS, LIMITED**  
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### WHITWASH SPRAYER For \$5.50

Delivered anywhere in Ontario. Holds 4 gals. Will spray fine or coarse. Absolutely guaranteed. Write for catalogue.

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