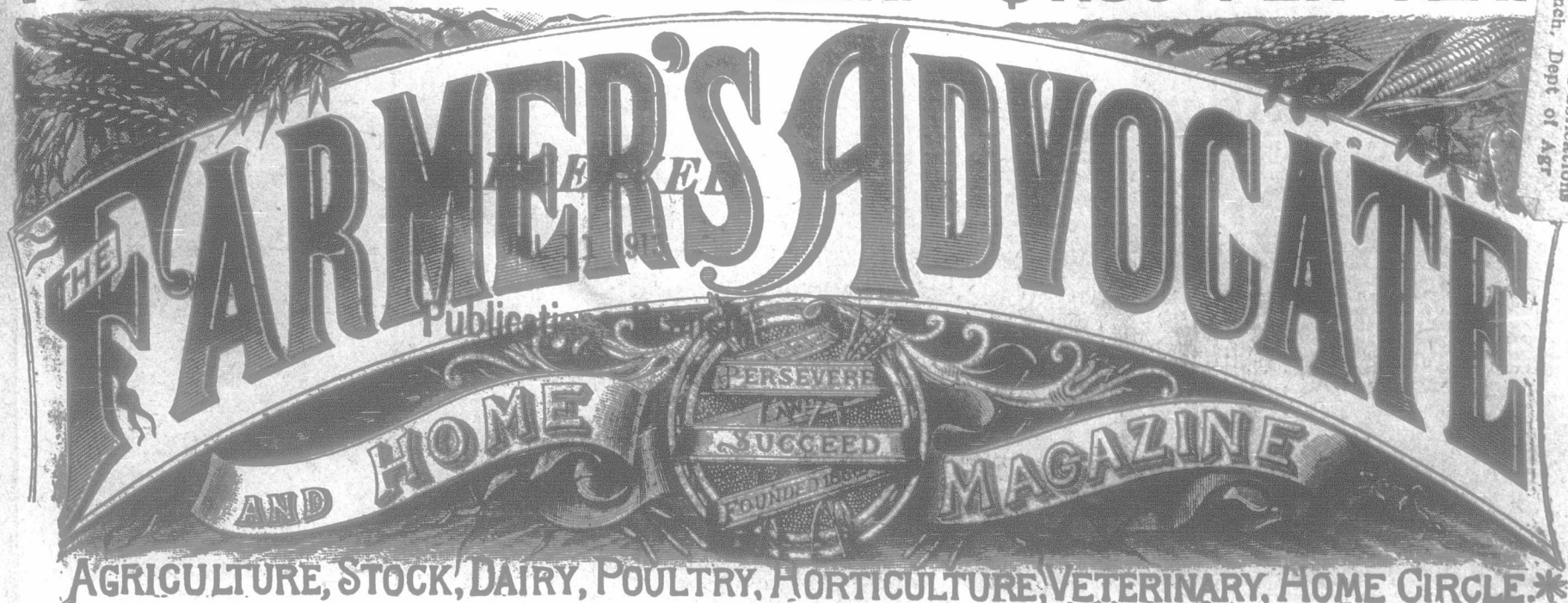


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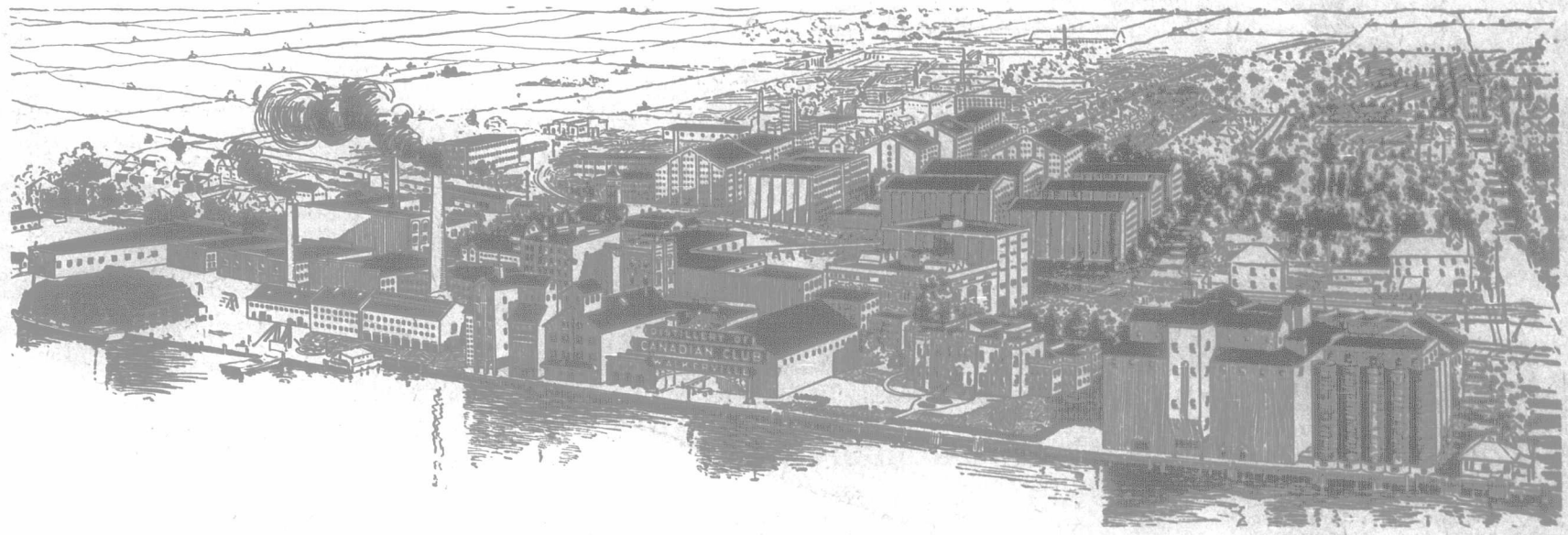


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VOL. XLVIII.

LONDON, ONTARIO, JULY 10, 1913

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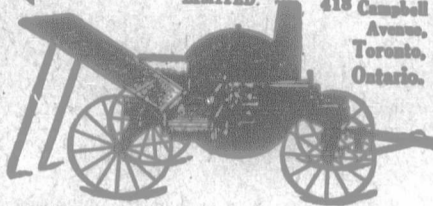
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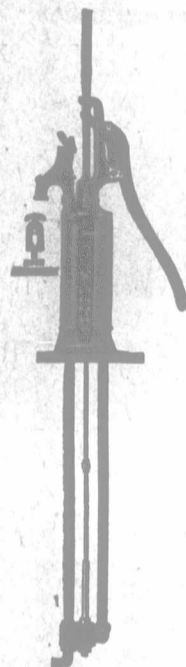
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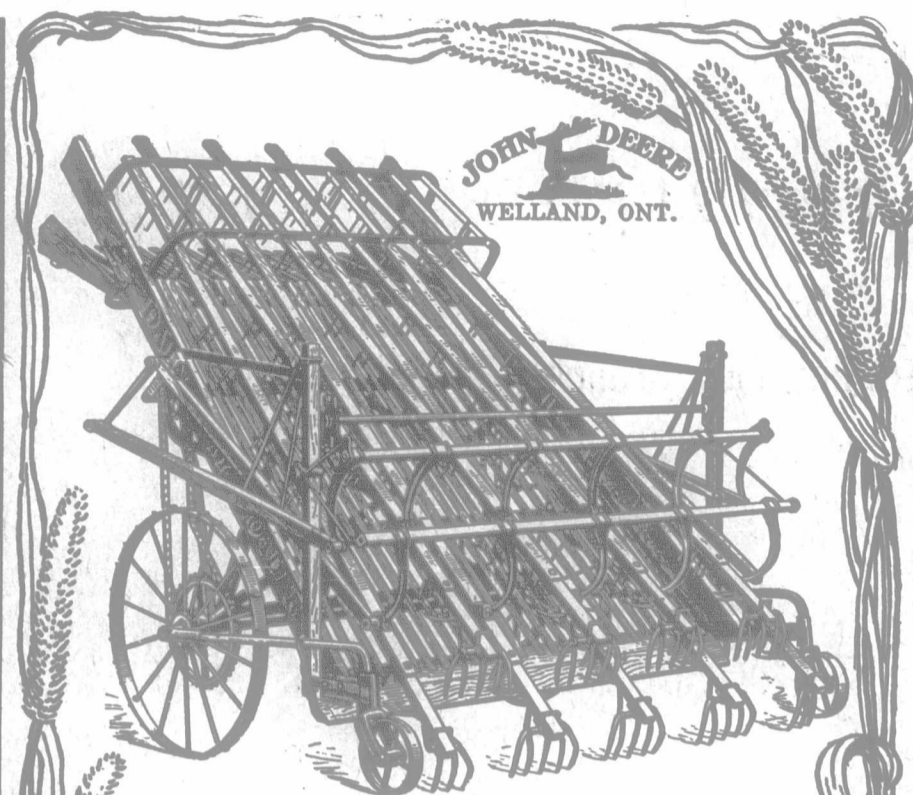
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How long does the trip take over bad roads?

How many trips have you made over bad roads this year?

How many more trips WOULD you have made if the roads had been good?

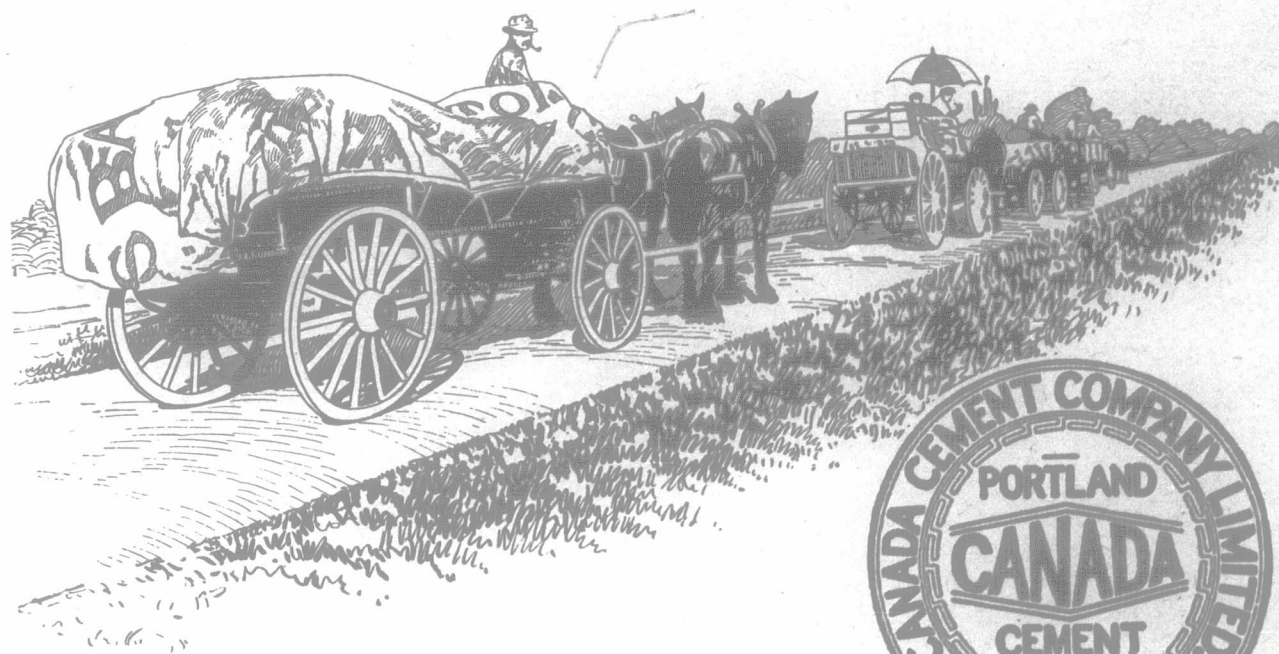
Have you estimated what poor roads have cost you—in time of men and teams wasted—in ability to get to town when market prices were high—in trouble and inconvenience—and in actual taxes for repairs that temporarily made a poor road better, but that never gave you a REAL good road?

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IN THE DOMINION.

PUBLISHED WEEKLY BY  
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JOHN WELD, MANAGER.

Agents for "The Farmer's Advocate and Home Journal,"  
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It is impartial and independent of all cliques and parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.

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### Cropping Roadways.

Bad management may exhaust the crop-producing capacity of a soil faster than excessive cropping. Lack of drainage results in a loss of nitrogen. Working heavy land while wet puts it into unfavorable condition. Letting weeds and injurious insects multiply is unquestionably bad. The soil is more than a repository of plantfood. It is a medium in which vital processes are supposed to go on. Beaten roadways bear no crops, and, according to the old-fashioned "rest" theory, should be very fertile. But what kind of a crop would you expect on such land, if fresh-plowed?

We noticed a striking object lesson a fortnight since at the Ontario Agricultural College. The fifty acres or so devoted to field experiments are divided into numerous plots with narrow paths between, and here and there a temporary cross road in addition to the central lane. Every year a block of these plots is plowed up and sown to annual pasture mixture. This year's area includes a driveway which has been plowed across and seeded with the rest. The course of it was as plain as though a swath had been mown through the field. On this old roadway the oats, sorghum and clover were very thin and short, though vigorous on either side. Yet this roadway had been "resting" for from one to three years. Unnecessary trampling of land is apparently bad, and, on heavier soil than that at the College, results would be even worse. We must keep life in our land by judicious working and cropping. The beaten driveway is all right for a road, but not for farm land.

Bush fires in the North and business difficulties in the West should remind us to be grateful for the manifold comforts, securities and blessings in the steady-going, old-settled East.

### Nature's Diary.

By A. B. Klugh, M. A.

A locality which is well worth a visit at this time of the year is the peat-bog. Here we can secure flowers which cause people on seeing them to exclaim "Oh! What lovely flowers! Whose greenhouse did you get them from?" And they do indeed rival in beauty the choicest productions of the horticulturist.

For the full enjoyment of a trip to a peat-bog two things are requisite; one is a pair of waterproof boots, the other a little bottle of mosquito-dope.

Peat-bogs are of different types, depending upon their age; those of more recent formation have open water in the centre and a very thin layer of peat-moss, upon which it is not safe to walk, at the water's edge; the older bogs are covered completely with peat-moss and much grown up round the margin with Tamarac, Black Spruce, and bogshrubs.

The foundation of the bog is the peat-moss, which belongs to the Genus Sphagnum. A peculiarity of this moss is that it is continually dying at the bottom and growing at the top.

It is in the peat-bog that we find most of our Orchids. Now people generally have an impression that the orchids are all foreign plants, and can be grown only in hothouses; but as a matter of fact we have in Canada a great many species. In Wellington County, Ontario, for instance, I found twenty-five species.

The most striking Orchid which we find in our bogs is the Showy Lady's Slipper. It is a large species, growing from two to three feet in height, and has very handsome pink and white flowers. The lowest petal is, in the Orchids, called the "lip," and this "lip" of the Showy Lady's Slipper is shaped like a rounded sack.

Another Orchid quite common in bogs is the Yellow Lady's Slipper. In this plant the lip is yellow, while the rest of the petals and sepals are striped with yellow and brown, and are spirally twisted. This species is often very sweet-scented.

In the shaded parts of the bog we may find the Stemless Lady's Slipper, a rather low species with a long purple lip. When we see this species we are apt to wonder why it is called "stemless," when it apparently has quite a long stem. The reason is that a stalk which bears only a flower is, botanically, called a scape or pedicel, while a stem bears leaves as well. In this case the stalk bears only a flower.

Out in the open of the bog are other very beautiful and interesting Orchids; there is the purple Calopogon, the sweet-scented Rose Pogonia, and the attractively-shaped, beautifully-colored *Arethusa*.

Among the low bog trees towards the margin we find yet other Orchids; the tall, yellowish-white, ragged-fringed Orchis, the White Lady's Tresses, with its flowers wound closely, and spirally, round the stem, the white-flowered Rein-orchis, with its deliciously fragrant blossoms. There are many other species to be found in our bogs, but those mentioned are the most striking.

It is not in the Orchids alone that the bog flora is interesting. There are the Pitcher Plants with their leaves shaped like pitchers, and delicately colored with red and green. These pitchers contain a little water, and at their mouths are downward-pointing hairs so that insects crawling into them cannot crawl out again, and are drowned in the water. It is believed that these leaves are able to digest the partially decomposed insects, and thus add to the scant nutriment the plant is able to get from the bog soil.

The flowers of the Pitcher Plant are as attractive as the leaves. The petals are dark red and arch over the pale green flat-topped style.

Another remarkable plant found in the bog is the Sundew. There are several species of Sundew, the commonest being the Roundleaved Sundew. The leaves of these little plants are covered with long hairs, and at the end of the hairs are little drops of a sticky liquid. The Sundews catch insects and feed upon them. The insects alight upon the leaves probably mistaking the glistening drops for nectar, and stick fast. Then the hairs begin to fold inward and also secrete a digestive fluid which digests the insect. It is usually insects which feed upon plants, but in this case we see this condition reversed.

Some of the shrubs in the bog have very attractive flowers, for instance, the Sheep-laurel has deep, pink, cup-shaped blossoms, and the Leather-leaf, and the Andromeda, have clusters of little white bells.

There are plenty of other very interesting plants in our peat-bogs, but those mentioned are probably the most striking species.

## THE HORSE.

Tongue trucks on the wide binder relieve much of the strain on the horses' necks.

Give the horses water as frequently as possible during this season, and in small quantities at a time.

It pays to clean the sweat from the animal's coat before turning him out to pasture for the night.

An American veterinarian gives this advice on the shoeing of young horses: "Don't allow young horses to wear a set of shoes more than a month. Have them removed, the hoofs levelled and the shoes reset if they are worth it."

Rich, concentrated feed, high in nutrient value and easily digested, is necessary for the hard-worked horse. This is a good argument for continuing the oat ration, even though the work horses are out on grass.

Be careful not to overheat the horse. Many drivers of drays and delivery wagons in cities take an old straw hat, put holes through it for the horse's ears, and fasten it over his head to protect him from the sun. Why is this not practicable with the farm team?

Occasionally one finds a number of grass quids chewed and rolled into solid lumps lying around the pasture field. This is a sure sign that one of the horses has teeth which are badly in need of attention. No alarm need be felt at the finding of these grass balls, but have a competent man examine the teeth of the horses in the pasture and locate the sufferer.

Give the horse an easy gait during the hot weather, especially if his load is heavy. Investigation has shown that, as the rate of speed increases beyond two and one-half miles an hour, the amount of energy which the horse can devote to drawing the load grows rapidly less, until, when 11.15 miles per hour is reached, less than one-tenth of the maximum work can be performed.

These are the days when the argument that all harness should be removed from the horses during the noon hour seems to carry most weight. When it is ninety in the shade few drivers of the teams keep their coats and collars on at dinner, yet most of the horses are compelled to stand in a narrow stall itching from sticky sweat, and bearing the collar and heavy harness hot and wet from the morning's work. The horse would be more comfortable with the harness on the peg.

This is haying. There is one commendable practice which many farmers follow in putting in their hay crop, and that is to fill that part of the loft or mow which is to be kept for feeding during the spring's work with the very choicest of the season's cut. Some of these days, when the hay is going in in first-class condition, dump a few loads of the greenest, freshest, and most nicely-cured timothy, with a little clover mixed, back where it will remain untouched until next April.

### Toronto's Open-Air Horse Show.

Toronto's eleventh annual open-air horse show was held in Queen's Park, July 1st, with over 550 horses of all breeds, sizes, and classes, making up one of the finest and most complete work-horse shows ever seen in Canada. The fancy-high-stepper was there with his knees almost touching his nose at every step and his hocks flexing in equally wonderful style; the fast roadster, trim and neat, clean-cut, and ready for action was eager to show his best burst of speed; the general-purpose delivery horse, well groomed, and in good condition, demonstrated his utility; the various classes of saddle horses showed riding still to be a popular pastime; the useful pony was not forgotten; and the best of them all were the massive drafters, single, pairs, and three-horse teams, sleek and fit, with muscles bulging, and champing on the bit, eager to test their strength on the heaviest loads. It was a grand show, and the grooms, one and all, deserve praise upon the way their horses were brought out. Such a show is a good thing to keep up the drivers' interest in their horses, and must mean increased attention and better care for a number of animals bearing the brunt of the delivery and dray work in the city. Clean, well-oiled harness and shining, newly-painted wagons added to the attractiveness of this the best of all these shows.

### Treating Sore Shoulders and Necks.

Editor "The Farmer's Advocate." :  
Just at this time of the year, when the horses are bearing the strain of heavy mowing and binder tongues on their necks and shoulders, there are almost sure to be a few injured or disabled horses during the busy season.

Many people are at a loss to know the cause of collar boils, sore necks, etc., but in nearly every case the injury can be traced to an ill-fitting collar or to sweaty deposits on the pads or on the collar itself. A collar should fit. That is it should be just wide enough at the top to take in the neck without pinching in the least, and be large enough at the bottom to make a square pull on the shoulders and not a pinching strangling pull. There should be ample room for a hand to be slipped in between the collar and neck, in order that the horse will not choke nor pull down on his neck when making a hard pull.

The best preventive for a horse's neck is to clip all hair off the shoulders and neck in the early spring before work begins, and to keep them clipped for the rest of the season. Most sores are caused by the collection of hair and dirt on the pad or collar, and these deposits irritating the skin. It can readily be seen that if the horse is forced to pull on this uneven surface, with the continual jerking and pounding of a loose, ill-fitting collar, he will soon have a fair assortment of the common variety of shoulder ailments.

It is too late at this time of the year to consider a preventive, and if a sore has appeared, it must be treated. For the ordinary sore shoulder or skin bruise, which is usually caused by very heavy, sudden or long continued drawing, there is, as a rule, a safe and speedy cure. First, wash the neck thoroughly with a solution of warm water and salt, with the addition of a few drops of carbolic acid. Wipe dry with a clean cloth, and dust the spots with sulphur and leave over night. The sulphur has a drying effect on the sores, and in the morning rub in a liberal application of vaseline. It must also be remembered that to clean the collars thoroughly with good soap and water, taking care to see that it fits properly and will not gall the spots, is most important. If this is repeated each night for one week the sores will be gone. A little sulphur should be applied at noon and the collar taken off if possible, to give the shoulders and neck a chance to dry and heal. One thing about this method is that it does not take the horse from work.

For shoulder boils a little more elaborate procedure is necessary. Not much can be done until the boil breaks, after which it should be well washed with warm, soft water and wiped dry. Obtain from your druggist a twenty-five cent bottle of peroxide of hydrogen and a small stock syringe, and clean the sore out with a solution of one of peroxide to two of water or, in severe cases, it may be used one to one. Only a few drops are necessary at a time as the peroxide requires the air to work upon it before it will act, but as fast as it cleans the wound out more should be dropped in until the preparation ceases to bubble, when its cleansing ability is ended for that time. Wash clear with warm water, and apply vaseline until the hole is coated over. Repeat this each morning, noon and night until the sore is perfectly healed, when sulphur may be used to dry it up and vaseline to heal.

Sore necks and neck boils are far harder to heal. Sore necks may usually be healed by the same method as shoulder bruises, but it takes a little longer time and, in some cases, a few days rest for the horse. Deep-set neck boils are the kind that sometimes lay a horse up for a month, and often cripple for many weeks.

The neck should, of course, be first thoroughly bathed with warm water and carbolic acid, and, if of the deep-set sort a bread or bran poultice applied for the night. This may be done for several nights if the boil has not broken, as it will tend to bring it to a head, after which two or three applications should clean it out. Now take your peroxide solution and shoot it way down into the boil and clean it out. It will take several applications to completely cure the sore, but by perseverance and the use of plenty of vaseline and sulphur, it should be effected in slightly over a week.

Many things are claimed to overcome the tendency to sore shoulders found in some horses, but about the only thing of value is good care and good judgment. However, it is stated that salt and water with a little alum in it will tend to harden the shoulders. Another scheme is to rub the shoulders with black lead such as is used for blackening stoves, and can be bought at most stores at a cent a piece. The lead produces a shiny surface on both shoulder and collar, but it can be easily overdone. Another is the slight

application of dry sulphur on the shoulders and neck each evening when work is over, and then rubbing it out again in the morning. It is not the number of methods tried which cure the sore, but the continued use of the right one.  
Elgin Co., Ont. J. C. INMAN.

### Good Care and Long Life.

Illustrated in this issue is the great old horse Hambletonian X., a horse which, perhaps, did more for the Standard-bred breed than any other sire living or dead. The photograph from which this illustration is reproduced was taken when this grand old sire was twenty-three years of age. Note his type, substance and quality. He is the kind of light horse for the road, and the kind that will last. It pays to take care of a good horse, and, even after three years more than two decades of life, his period of usefulness was not over. Many horses become unsound, or their period of usefulness ceases at an early age through mismanagement. Never abuse your horse. Give him regular feed, work and rest, and stretch out his working life as long as possible. It is short at best. Make the most of it.

### Preventable Horse Losses.

Under the caption "Waste on the Farm," a writer in the "Agricultural Gazette" discusses loss in harness. Very few farms in this country are equipped with harness in as good a condition as it should be. Harness is not kept in the best repair, and is seldom if ever oiled. Here is what our contemporary says: "In the hands of the careless farmer harness deteriorates very rapidly. Collars last many years with good farmers, while in other cases they have to be replaced in two or three years. The loss is chiefly due

"Broken down or weak fences cause much loss. Working horses find a gap and wander on to the road, and a day or so is spent searching for them. Stray cattle walk in and eat grass for which no agistment is obtained, or they find their way to a haystack, and pull out and destroy several dollars' worth of feed. Horses find their way into fields of ripe wheat and gorge themselves and die. A valuable two-year-old, that is a bit frisky gets tangled up in some loose barbed wire lying about, and gets cut up so much that he has to be shot. Not long ago I saw a valuable draft foal have a leg broken through getting caught in a wire fence enclosing a paddock in which it had been put by a careless farm-hand instead of in its right yard."

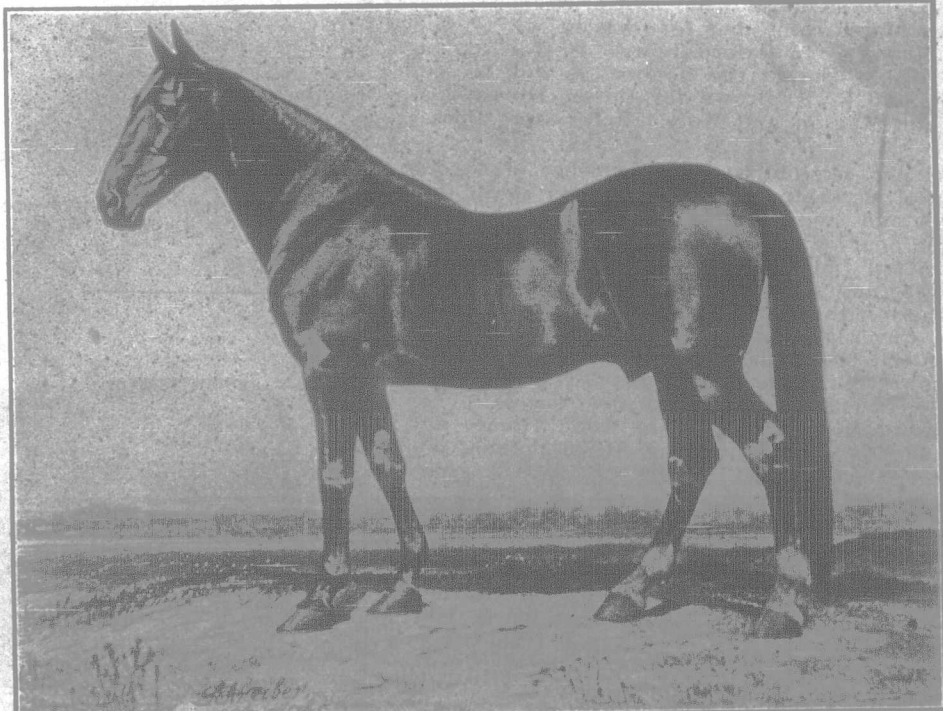
These are some of the losses which need not take place under proper management. Of all live stock losses on the farm, horse losses are generally most severely felt. To work the land the horse is depended upon. The brood mare is a source of revenue with which the farmer can ill afford to part. A certain horse strength is necessary on every farm. When a horse dies he must be replaced, or if he is surplus his loss is a money loss to the extent of his value. Every means should be taken to reduce loss in the horses and thus swell the net receipts of the farm.

## LIVE STOCK.

### Our English Correspondence.

#### ROUND ABOUT THE LEADING SHOWS.

A fine collection of British live stock was seen at the Windsor Show of the Royal Counties Agricultural Society, held June 10th, 11th, and 12th last. In importance the show is scarcely second to the Bath and West, both of them working in the same part of England. The prizes given are substantial with many champion awards, from His Majesty the King and other donors. This year the President was H. R. H. Prince Christian, who opened the Show. H. M. The King sent a number of entries from the Windsor herds, and won numerous prizes. For Shorthorns His Majesty took two first and three third prizes, as well as the female championship, and the Shorthorn Society's prize for the best yearling bull in the Royal Counties; for



A Great Utility Horse.  
Hambletonian X., at the age of twenty-three years.

to neglect in respect of keeping the leather well oiled. If well looked after, it is practically weather-proof, while if neglected it soon cracks and breaks. Collars are specially subject to deterioration. The horse develops a sore shoulder through bad driving or a badly-fitting collar, and a piece is cut out of the lining, so that the sore will not be touched. This weakens the collar, and it soon goes to pieces. In a few cases, the harness is even exposed to all sorts of weather when not in use."

Following this the writer refers to the loss sustained by the keeper of poor horses. It never pays a man to starve his horses. Nothing, says the writer, keeps the farmer down so much as poor horses. The loss in this respect is appalling. He cites the case of a man boasting that he had used only half as much feed in putting in his season's crop as his neighbor had used, and so had saved over \$100 worth of hay. This same man in a few weeks' time had lost two horses worth nearly \$300 through bad weather setting in and the horses being in low condition were not physically fit to ward off disease. Also through not feeding the horses well cultivation was badly done and a poor crop resulted.

"Badly-fed horses are weakened constitutionally and are more liable to disease, and they usually die prematurely. A well-fed horse rarely suffers from disease and has a long working life."

There is another loss directly bearing on horses, and one which the article referred to does not overlook—bad fences.

Devons two first and two second prizes; and for Herefords, two first and one second prize.

In Shire horses Sir Walpole Greenwell sent the London champion, Champion's Goalkeeper, to head a nice group of two-year-olds. Lord Rothschild won in the yearling colt class with Moulton Nonsuch. In a good class of mares with foal at foot Sir Walpole Greenwell won with the London champion, Dunsmore Chessie; Messrs Whitley, were second with Mollington Movement, also a noted winner, and Lord Rothschild took the third prize with Lilleshall Countess, whose foal took the first prize in its class. Sir W. Greenwell was first both for three-year-old and two-year-old fillies. The piece of plate given by the King for the best stallion or colt, went to Sir W. Greenwell's, Champion's Goalkeeper and the champion mare was his Dunsmore Chessie, the same owner's Marden Constance being reserve.

There were average classes of Shorthorns. The King showed his great bull Proud Jubilant in the old class, but he was only third to the exhibits of Messrs Dean & Sons and Sir Berkeley Sheffield. His Majesty, however, obtained in both the two-year-old and the yearling classes. In a capital class of cows M. Scott led with Gray Maiden followed by Mr. Balston's Dewlap. His Majesty took first honors in both the heifer classes, the successful yearling being Windsor Belle, the reserve being the yearling which was first and second champion last year, and the leading yearling, a yearling of the same name.

There were also classes the gold medal for the best yearling bull in the Royal Counties; for Herefords, two first and one second prize. In Shire horses Sir Walpole Greenwell sent the London champion, Champion's Goalkeeper, to head a nice group of two-year-olds. Lord Rothschild won in the yearling colt class with Moulton Nonsuch. In a good class of mares with foal at foot Sir Walpole Greenwell won with the London champion, Dunsmore Chessie; Messrs Whitley, were second with Mollington Movement, also a noted winner, and Lord Rothschild took the third prize with Lilleshall Countess, whose foal took the first prize in its class. Sir W. Greenwell was first both for three-year-old and two-year-old fillies. The piece of plate given by the King for the best stallion or colt, went to Sir W. Greenwell's, Champion's Goalkeeper and the champion mare was his Dunsmore Chessie, the same owner's Marden Constance being reserve.

POOR COPY

### The Barnyard.

Editor of "The Farmer's Advocate":

A barnyard is a lovable thing,  
Guess not,  
Great Scott!  
It's hot.  
The veriest abode of heat,  
And yet some farmers contend  
A barnyard is the place  
To put manure, and let it rot,  
And haul it out when days are hot.  
Manure in barnyards! Nay, but I have a sign,  
'Tis very sure there's none in mine.

The foregoing effusion was suggested by a visit to a neighbor who was hauling out manure on a hot afternoon recently. I presume its destination is the waste-paper basket. However, should you see fit to let it grace the pages of "The Advocate" let it be over a *nom de plume*, as I prefer to remain in obscurity for the present.

Visiting the neighbor is apt to reveal a good many foolish things being done. It may also remind us of some foolish things we are doing ourselves. I ran across a man the other evening who was using a sprinkling can in his garden. It seemed to me he might have been better employed, as I consider a pound of hoe is worth a ton of sprinkling can.

The recent rains, although rather late for the hay, have improved things wonderfully, and crops in general are looking well. Small fruits, especially cherries, are very plentiful.

Farmers in this vicinity have invested largely in commercial fertilizers this spring. I feel doubtful about the wisdom of applying artificial manures to undrained land. I think the tile should come first.

The hired man is conspicuous by his absence on a good many farms this year. Another circus passing through would pretty nearly clean up the bunch. A light crop would look almost like a case of the wind being tempered to the shorn lamb.

I think some farmers are piling up trouble for themselves by neglecting to pull the stray stalks of wild mustard in the grain fields. A stitch in time, etc.

I think I never saw the white clover so abundant as it is this year. The weather conditions must have been ideal for the secretion of honey, since it has been in bloom. There are very few bees kept in this vicinity. It is a pity that such a desirable article of diet is allowed to go to waste.

I think you have materially added to the value of "The Farmer's Advocate" by the addition of the New Public Health Department.  
Oxford Co., Ont. D. W. GARVEY.

### June Seeding of Alfalfa Condemned.

"Prof. Moore, of Wisconsin, gave an excellent address on alfalfa to the corn growers at Windsor last winter, but there were two points he made which I consider very misleading to Canadian farmers. One was the recommendation of common alfalfa seed from Montana and the other was early June seeding," remarked Prof. C. A. Zavitz to "The Farmer's Advocate" lately. "Our experiments here indicate that June is about the worst possible time to seed. June seeding is liable to be followed by severe hot drouth before the plants have gotten a fair start. July seeding is different. If one watches his chance, has his ground ready, and sows in July or even early in August just after a rain, he can get a quick growth; the plants will go right ahead and usually come through the winter all right. If he doesn't get a rain he can keep his seed in the bags till the next spring." Our own experience coincides with Prof. Zavitz' findings, except that we got a pretty satisfactory germination of seed sown July 21st without any rain worth mentioning until the middle of August. The preceding weather had been extraordinarily dry, too. Still, it would be undoubtedly desirable to work the land up fresh immediately after a rain, and seed at once.

The secret of mowing hay easily where a horse-fork is used is to dump most of the loads plump at the back of the mow and keep the hay high right next the boards. Each forkful as it falls here shakes out loose and may be easily thrown to either side and somewhat forward. On the other hand, let the hay drop a short distance from the back and the next forkful wedges in between this pile and the wall, making it very difficult to spread. And if there is any hotter place to work than a hole at the back of a mow with loose hay piled up high in front we trust to be spared the experience. Keep the back of the mow high.

When planning that new barn don't forget a few small hinged doors in the ends to give fresh air and draft at haying, harvest and thrashing.

### Wooden Vise—Threadcutter

Editor of "The Farmer's Advocate":

I have read with great interest Mr. Linklater's article entitled "Steel rail anvil." I note that he made his vise out of hard-wood scantlings. This way is very good. I would only advise anybody making such a vise not to make it longer than eighteen inches. I made mine only a foot long. If made too long the vise has a springy character, which should not be. I find that with my vise I can hold a bolt, for cutting a thread on, just as well as my blacksmith can with his steel vise.

The home-made anvil and wood vise reinforced with three-eighths of an inch iron plates cost together not even one dollar, while you cannot get an anvil and a steel vise at the hardware store for five or six dollars.

Another thing a farmer should have is a threadcutter. This tool costs not much (I paid only \$3 for mine) in comparison with its value. I know how helpless I was when a bolt got a hit, or was punched out, before I had the latter tool. Now all I have to do is take the bolt to my workshop, and in a few minutes I have it in perfect condition again.

Waterloo Co., Ont.

S.K.

## THE DAIRY.

### A Substantial Myth.

A leading American farm journal recently came out so boldly as to call the dual-purpose cow a myth. To prove that she is not a myth all that needs to be done is to quote this paragraph from a statement appearing in a pamphlet on Short-horn cattle recently issued by the American Short-horn Breeders' Association:

"Twelve cows in the herd have records over 10,000 pounds, 51 cows of the herd have records over 8,000 pounds, that average 9,880 pounds; 102 records over 8,000 pounds have been made in the herd, that average 9,122 pounds."

This is just one Pennsylvania herd. There are individual cows in many herds in England, Canada, and the United States making high averages. What about the cows supplying old London with milk? The dual-purpose cow is no myth; she is a real producer of beef and milk.

### Bulgaricus Bacillus in Buttermilk.

To preserve a smooth consistency in buttermilk sold for use as a beverage, many American creameries have been using a culture of *Bulgaricus bacilli*, which prevents the buttermilk dividing into curds and whey. A few experiments with it are being made in the Dairy Department of the Ontario Agricultural College. The effect seems to be to produce a thickish, almost slimy condition with, in some cases, at least, a reddish tinge. It is said the bacillus is one occurring normally in milk, but experts are not unanimous in approving its use or action as an artificial culture. For our own part we did not like the looks of it, and would prefer the good College buttermilk "without."

### More Water in Cheese from Pasteurized Milk.

From experiments in the Dairy Department of the Ontario Agricultural College, Prof. Dean says it seems as though the increased yield of cheese from pasteurized milk were a question of moisture. The amount of cheese made from a given quantity of pasteurized milk is about five per cent. higher than from unpasteurized of the same composition, but this extra five per cent. consists almost entirely of water, according to analyses which have been made by the Chemical Department.

### Buttermilk Cheese.

In the Dairy Department of the Ontario Agricultural College, Miss Bella Millar who succeeded Mrs. W. F. Stephen, (nee Miss Laura Rose) in charge of the Home Dairy Work, has been making some experiments in the utilization of dairy by-products. Cheese is being made from skim milk and buttermilk. The making of cheese from skim milk is comparatively simple, but the buttermilk requires a little more of a process, which is described as follows:

Heat the buttermilk to 80 degrees F., as rapidly as possible, stirring enough to ensure even heating. Leave it undisturbed for an hour.

Heat to 138 degrees rapidly, and with just enough stirring to ensure even heating. Cover it to retain the heat, and leave undisturbed for about an hour.

Without further stirring drain the curd by hanging it up in a cheesecloth bag, or by placing a piece of cheesecloth over a rack or strainer. As the portions of the curd next the cloth will

drain more quickly, lift the cloth and allow the curd to roll over, thus securing more even and more rapid drainage.

As soon as the curd is properly drained it is salted and packed. The amount of salt to use will depend on the consumer. 1 ounce of salt to 5 lbs. of cheese is recommended, but many prefer 1 ounce of salt to 3 lbs. of cheese.

## HORTICULTURE.

### Strawberries and Weeds.

Editor of "The Farmer's Advocate":

Right now is a good time to keep the hoe and cultivator going in the strawberry patch. This time last year, about every other day, it was raining, deluges sometimes, and as a rule it was impossible to get five minutes at the strawberries as every dry minute had to be taken up by something else of more importance (to the farmer). This, of course, is from a farmer's point of view. Market gardeners, however, did their best to keep the strawberries clean, as they are one of their main crops. As a result, the heavy frost of May 24th this year got right down to the root of things and nipped their strawberries in the bud. This is where the farmer, as a rule, scored, myself among the rest. I have only a "home garden" patch, but with so little fine weather last summer, the grass and weeds got the better of me in the strawberry patch. They grew and flourished. This spring, being short of help, I could not find time to go near them until recently. As a result the grass and weeds protected the plants so well that I am having a crop of berries fully as good as last year, if not better. Of course, I would not advise anyone to try letting the grass grow as a protection for next year's fruit, for ten to one we will have no late frosts next spring, but the fact remains that this spring the grass and weeds were a blessing in disguise, although we cannot get around the fact that a great many of the plants will have to be rooted out before the plot can be properly cleaned this year. In fact, in my own case I intend to clear out the second-year plot almost altogether, as well as the third year, and depend on the ones set out last September and this spring, for next year's fruit. As a rule, the spring is advised as the best time for planting almost every kind of small fruit, but contrary to rule, I always do my "setting out" in the fall, chiefly because I have more time to do it, secondly, because when spring comes any plants that have not grown can be replaced and no empty spaces left as must be the case if the spring sets do not grow.

In Carleton Co., Ontario, very little rain has fallen for a month or more, and everything is getting very dry. In order to counteract this drouth nothing is better for all crops than cultivation. Strawberries, especially, do their best if kept well cultivated during their first year's growth. In a dry season excessive surface cultivation helps preserve the moisture, and is of much more value than anything to keep the plants watered artificially. I have the cultivator run between the rows every time the potato field is cultivated, usually once a week, until haying time, and besides keep all weeds, grass, etc., hoed away from about the plants and the earth well loosened up. This, of course, refers to the newly-set patch. The second and third-year plants are cultivated and kept clean when possible by hoeing until blooms are well set. Then I scatter straw all along the rows and among the plants. This helps conserve moisture and forms a clean bed for the ripened fruit. The new plants are not allowed to fruit the first year, nor are runners allowed to root. This causes all the strength to be confined to the plant itself, and results in strong, vigorous plants for next year's fruiting. The second-year plants are kept free from runners until after fruiting when a few of the most vigorous runners are allowed to root. The third-year plants are rooted out after the fruiting season, the ground is well cultivated, and in September set to new plants. In order to make use of the ground between the fruiting season and September one could plant it to garden peas, lettuce, and radish, and so keep the table supplied with fresh vegetables, as well as keeping the ground in good tilth for the new plants.

Carleton Co., Ont.

H.S.

Note.—Taking it one year with another we are afraid that grass and weeds would be rather an expensive protection even in the garden patch, and never advisable where berries are grown on a commercial scale. You were fortunate in getting a good crop this year.—Editor.]

**Spraying to Kill Dandelions.**

Some interesting experiments in the spraying of lawns to kill dandelions have been made by Prof. J. E. Howitt, M.S. (Agr.), Professor of Botany at the Ontario Agricultural College.

The tests were made on badly infested patches on the College grounds, and have now been conducted for four years. Results pointed out to the June excursionists were conspicuous. The sprayed plots were almost entirely free from dandelion plants, while areas outside the plots were full of them. The grass had apparently not been injured much, although the white clover and trefoil were killed as completely as the dandelions. In one place where too much material was allowed to fall upon a certain spot, the grass, too, was injured. The treatment consists in spraying with a knapsack or other sprayer, six times during the season, commencing just after the first few dandelions come into flower, and repeating promptly enough to prevent dandelion leaves forming. Three or four days after spraying rake off the dead dandelion leaves, and if convenient, water well.

The solution consists of two pounds of iron sulphate dissolved in each gallon of water. Iron sulphate may be obtained retail at from two to three cents a pound, and wholesale at a cent a pound. Forty pounds at a wholesale cost of 40 cents will make twenty gallons of the solution, which is enough to spray at least one-eighth of an acre once. Six sprayings would mean a wholesale cost for material of \$2.40 for a lawn of that size. This spring the plots sprayed last year were carefully examined. Each plot contained one hundred and sixty-eight square feet. The dandelions in the several sprayed plots numbered from 91 to 130. In the unsprayed plots there were about 8,400 dandelion plants. Several correspondents also report good results from the treatment.

The question has been raised whether this spraying might induce a growth of moss as it is alleged to have done where tried in England. Prof. Howitt admits that on some land it might tend to cause acidity, which would favor the growth of moss, but the acidity may be easily corrected by an application of lime.

The spring after the spraying, the lawn should be re-seeded to fill up the spaces where the dandelions and clover were killed out. Rake the lawn over well with a coarse rake, sow the seed when the ground is moist; rake in well and roll. A good thick stand of grass helps to keep out dandelions and other weeds.

**A Land and Apple Show.**

A National Land & Apple Show is to be held in Winnipeg, October 10-18. It will provide opportunity for complete displays of the products of the orchard, the land, the forest and waters of Canada. As far as it affects Eastern Canada this Land & Apple Show offers the East an excellent chance to increase its market in the West for its fruit. Some of the big cash prizes will include a \$250 prize for the best 2 bushels of wheat, with a second prize \$150, and a third \$100; for oats and barley \$100 as a first prize, \$75 second, and \$50 for third. In the apple competition there will be awarded \$200 for the best two boxes, \$100 for the second, and \$50 for the third. A cash prize of \$100 is also to be offered for the best sheaf of alfalfa. The Secretary is Chas. F. Roland, Winnipeg.

"The fact has been determined by the United States Secretary of Agriculture," and notice is duly given, that the Browntail and Gipsy moths exist in certain parts of New England. Most of us knew that a good while ago, but this is official.

**POULTRY.**

**Killing, Dressing and Cooling Poultry.**

Very few farmers and smaller poultry raisers properly fatten, dress, and market their poultry to command highest prices. Central feeding, dressing, and packing plants have been established in many cities of the United States, and a few in Canada. A good outline of methods carried on at these plants in the States is given in the United States Year Book just issued. There is a great opportunity for many poultry raisers to improve their output in this country, and many good things may be learned from the Year Book report which follows:—

Formerly chickens were killed to-day and eaten to-morrow, because decay could not be checked for any length of time. Then, as the farms were pushed away from the edges of the

growing cities, crushed ice was used to preserve the dressed birds until they could reach the consumer, a matter of a week, perhaps. The soaking of the birds in melted ice, the dirty heads and feet, and the gradual dissolving out of the soluble parts of the flesh caused a loss in eating quality and induced decay.

The people increased in the cities faster, however, than the chickens multiplied on the near-by farms. The hauls soon became too long for farm wagons, and then the railway was called into service. Each year for 20 years or more the railroads have been carrying to eastern and western cities dressed poultry from a wider and wider radius. Texas turkeys and Oklahoma chickens are sent to New York and San Francisco, and such are the wonders of the modern methods of handling perishable foodstuffs, they usually reach these distant centres in better condition than did the ice-packed chickens years ago after traveling only a hundred miles or so. In these days of food shortage and enforced conservation of foodstuff it is well to know something of the means by which distant sources of production are made available to the nation, and such delicate commodities as dressed poultry delivered in good order to a consumer living a thousand miles or more from the place where the chickens were raised and killed.

Good handling of dressed poultry necessitates facilities which can not be maintained by the individual farmer. Dressed poultry is now a business by itself, and a great industry has grown up to attend this work. Therefore, when the farmer's flock has reached a marketable stage he sells it to the poultry packer, or to his agent, and the birds reach the packing house located in the producing section in great wagon loads.

The fowls are generally hungry and thirsty, and are always nervous and tired; hence they are not in condition to be killed. Many of them are thin, because comparatively few farmers feed their poultry enough to fatten them. The poultry packers have established feeding stations where from 10,000 to 30,000 birds, housed in specially-constructed feeding batteries, are given clean grain mixed with buttermilk for from seven to fourteen days. The seven-day feeding causes a great improvement in the flavor and tenderness of the flesh; feeding for two weeks causes young birds to double in weight if they are vigorous and of a desirable breed for food purposes.

The feeding stations are light and airy. They are also clean, because dirt prevents the birds from gaining weight. What progress this wholesale feeding represents is better understood when the juicy, milk-fed bird is tasted and compared with the "ranger" chicken that forages far and near for a living, and eats from the dung-hill a large part of the time. The new system of crate fattening is an outgrowth of an old custom on many farms of feeding milk and clean grain for several days before killing.

After the feeding period is over the birds should be starved for twenty-four hours, having a plentiful supply of clean water only. This practice results in almost completely emptying the intestinal tract of food in process of digestion and of waste products to be thrown off and has been found to be far better than the practice of eviscerating when the bird is killed. It may be said in passing that the viscera should not be removed until the bird is about to be cooked. A habit has developed, especially in cities, of permitting the butcher to draw the birds before sending them to the consumer. If the housewife had the drawing done in her own kitchen the bird would be in a more sanitary condition, and she would frequently find evidences of unfitness for food that disappear with the removal of the entrails.

**PROCESSES OF KILLING AND PICKING.**

When farmers prepared the poultry for market the process of killing and picking was an individual matter. Some simply chopped off the head, dipped the carcass in water heated to the steaming point to loosen the feathers, rubbed these off, and, if the weather was cool, kept the bird out-of-doors, or in a well-ventilated room until it was taken to the market. Poultry so prepared has a greatly shortened keeping time, and the eating quality is lowered even before decay has begun, because the desirable "ripening" that does so much to improve flesh does not occur.

The undesirable methods used heretofore are many and various, but they are being so rapidly replaced by better methods that it is scarcely worth while to give space to their description. Rather let us pass at once to what are now the best procedures known for the dressing of poultry to preserve quality and prevent decay, for these methods only can be used if the bird is to travel

long distances and be kept fresh for from two to three weeks before it reaches the table of the consumer.

In some houses men kill the birds by cutting the jugular vein with a slender, straight-edged knife, especially constructed for the purpose. Then that portion of the brain tissue which controls the muscles holding the feathers in place is destroyed by a thrust of the same knife and the feathers are so loosened that they are easily pulled out. The cutting of the blood vessels in the proper way permits the blood to drain out of the carcass until it is practically blood free. This is essential, if the bird is to keep well, and is a part of the process of dressing that is too often faulty. In order to accomplish this bleeding the vessels must not only be cut properly, but the bird must be held head down while removing the feathers. The scheme used in the killing room permits this, prevents the feathers from being contaminated with blood, and enables the killer to handle the bird very quickly, less than two minutes being required for killing and the removal of all except the fine down and pin feathers. When the feathers have been removed, the bird still hung by the feet, is taken by women and "pinned" or "tipped" as the Western phrase goes; that is, the fine down and the close-growing feathers are plucked off one by one.

This system of killing is known as the "frame" method and has resulted from a selection and combination of the best features of the "string" and "bench" systems. String killing has been most commonly used. The bird is hung by twisting a cord around the feet, "bled" and "brained" and the feathers removed while it hangs head down. A vessel fastened to the head of the bird catches the blood. In "bench killing" the head of the chicken is held by means of a hook, the legs by the hand of the operator, and after killing the feathers are removed.

"Frame killing" keeps the bird upright, prevents its coming in contact with rough or soiled surfaces as with the string method, and holds the bird even more firmly than does the bench method, because the feet, as well as the head, are supported.

Cleanliness of handling is further emphasized by the system of pinning while the birds are hung on shackles. This scheme permits of quick, good work, and is vastly superior to the old "lap" method.

Pinning by the lap method means that the skin of the bird is constantly being rubbed over dirty, bloody surfaces, and that it is frequently held by the neck, which prevents the draining out of the last portions of the blood.

Cleanliness, being one of the watchwords of modern poultry dressing, the heads must be freed from blood and neatly wrapped in paper, and the feet must be scrubbed if they are dirty. This is generally done just before the birds are sent to the chill room.

**CHILLING.**

The up-to-date packer no longer uses ice to remove the animal heat. He uses mechanical refrigeration and provides clean, insulated rooms in which a temperature of about 32 degrees F. is constantly maintained. The chickens are hung by the feet on racks made entirely of metal.

Low temperature, as we know from household practices, is used to inhibit decay, which it does by slowing bacterial growth and enzym action. When chickens are alive their temperature is 103 degrees F. This must be reduced to 32 degrees F., or less, before the birds can be packed for long hauls in refrigerator cars.

The time required to chill the fowl is usually about 24 hours, and the packer must be sure that the viscera, as well as the skin and flesh, are free from heat before the birds leave the chill room. It is a failure to observe this requirement that is responsible for much of the bad-conditioned poultry in our markets. The range of temperature permitted, too, is small. Below 30 degrees F. the flesh is frosted; above 35 degrees F. decay proceeds too rapidly to permit of long hauls to distant markets, and a routine of marketing such as our urban life now requires. Of course, the birds can be frozen hard after they are chilled, and so shipped, and this is a very excellent plan, especially if the haul is across a hot country.

At the end of the 33rd week in the second North American international egg-laying contest at Storrs (Conn.) Experiment Station, the White Leghorn pen, (5 birds) owned by Tom Barron, Calforth, Eng., were in the lead with 798 eggs.

**No Rival.**

Please find enclosed express money order for \$1.50 as payment in full of my subscription for "The Farmer's Advocate" for one year. No other paper could fill the place of yours in our home. J. S. BURNHAM. Simcoe Co., Ont.



## FARM BULLETIN.

### Hot Weather.

By Peter McArthur.

When the weather is so hot that you feel uncomfortable sitting under a tree, or lying in the shade it is altogether too hot for anyone to be working in the sun. To-day it is so hot that the ducks are panting, and when they do that it gives you an uncomfortable feeling, as if someone had been leaving gates open. When a duck opens his beak and keeps it open it looks as if the top of his head were coming off. Shoo! Get out of there! I feel hot enough without having something around that looks so hot that my temperature rises just from looking at it. Now I think I shall sic the dog at the cows. Although there are plenty of good shade trees in the pasture the whole herd is trying to crowd under one scrubby thorn and the heat of their bodies must make that spot a lot hotter than the hottest hill-top in the full glare of the sun. If they were scattered they would probably wander off to other trees where they would be cooler. But if I send the dog after them he will come back with his tongue hanging out, and will look so hot that I'll feel hotter than ever. Guess I had better leave things alone and stop thinking about the weather. The easiest way to do that is to start thinking about something else. Let me see.

How would it do to meditate on some way of saving unnecessary work? That should prove a good subject for a day when it is too hot to work. Well, it occurred to me some time ago that a great many men waste about one day a year, on an average, by going out to vote at election time. As they always vote for the same party, no matter what happens, it is pure waste of time for them to vote at all. The party managers on both sides know exactly how they are going to vote and simply draw a pencil mark through their names. It will be a pure waste of time to canvass them for either party. All that will be necessary will be for the candidate to shake hands with them when they attend a political meeting—just to keep them in good humor. Now it seems to me that if all these men could save the day that they waste on the election it would help them to catch up with their work so that they wouldn't be so much rushed. How would it do to pass a law making such men life members of their party, and allowing the party manager to cast their votes for them? If that arrangement could be made they would not need to give the matter another thought but could go about their work, secure in the knowledge that their votes were being cast just as they would have cast them themselves. Another good feature of this scheme is that it would save some work for the party managers. After checking off the life members in both parties they could then devote all their energies to the independents and to those whose votes must be bought. It seems to me that in this way a great deal of unnecessary

work could be saved, and the results of the election would be just the same.

(I have just tried this suggestion on a life-member of one of the parties and he got so hot about it that I am afraid I have made a mistake. A matter about which you can start a political argument will not do for the hot weather. Let us change the subject.)

Between the intervals of lying in the shade the young orchard with corn planted between the rows is being cultivated. As the ground was fall-plowed, fertilized, and given six strokes with a disk harrow this spring the cultivating and hoeing are comparatively easy. If all goes well there will not be a weed, thistle, blade of grass, or capillary in that eight acres by the end of the week. With two boys helping in the intervals of playing baseball and pitching horse shoes the work is being done with surprising rapidity. The only difficulty is that we never seem to be working. When people are really working they growl at their meals and get mad if they see the children wasting energy at play. They have been taught that work was laid upon the race as a curse and they do their best to see that it is a real curse. If they happen to get done sooner than they expected and have no work to do they proceed to make work for themselves and everyone over whom they have control. And yet all this is none of my business. "Every man to his taste" as the woman said when she kissed the cow.

The young orchard is proving a surprise. As I have mentioned before, the trees were in a very bad shape when they arrived—"Dry as the remainder biscuit after a voyage." People told me they would not grow, but having prepared the ground for them I took a chance. While cultivating this week I examined every apple tree carefully and find out that out of two hundred and forty-one trees all have lived but twenty-seven, but the rest are growing lustily. I am glad I did not take the advice that was offered when they arrived at the station in a broken box from which the packing had fallen during a disgracefully long trip of twelve days in coming from the nursery. They really should not have been more than two days on the trip for when I began to get noisy and to bother the railroad about them they were brought from Hamilton in one day. The other eleven days were required for the trip from Welland to Hamilton. But after the bad treatment they got about ninety per cent. of them have grown, and from what I am able to learn from others who planted small lots that were supposed to be delivered properly this percentage is unusually high. The McIntosh Reds and Snow apples suffered the most, but the Russetts, Greenings, and Spies did remarkably well. Some of the trees seem to be bursting with life, and as the littlest boy remarked, "They are growing from head to foot." Some of them have sprouts coming out every few inches from the ground up. I suppose I should break off all the sprouts below the head, but I shall ask someone who knows before I do it. I do not want to

give the trees any unnecessary shocks for they have had enough already. And that reminds me that I have heard gloomy forebodings about these trees, even though they are growing so well. "They won't come through the winter. Trees that get badly dried out before the planting always die the second year, if they do not die at first." That sounds pretty bad, but I have known so many prophesies to be defeated by a little care that I am not worrying. If the trees once begin growing vigorously in well fertilized ground, and are kept well mulched so that those pesky capillaries cannot take all the moisture from their roots, I have a sneaking suspicion that they will pull through. The nursery people have been very fair, for when they learned that the order had arrived in bad shape they did not ask for their pay until we had a chance to see how many of the trees would grow. I do hope they make the railroad pay for the ones that did not grow for they were certainly to blame for being so slow in delivering the trees.

We planted one hundred cherry trees as fillers, but I am afraid they suffered pretty badly from the exposure. As yet I have not had time to examine them tree by tree, but while cultivating I noticed that quite a number are certainly dead. A few are showing considerable vigor, and have put out a strong new growth, but the most of them have apparently started and then stopped, with the leaves only partly developed. On some of these the little leaves are beginning to turn yellow and wither. Still I am hoping that most of those that are showing life can be pulled through by careful work. When planting them the cherry trees did not seem to have such good roots as the apples—they were badly broken and in some cases it seemed more like planting umbrella handles than young trees. But I am not worrying so very much about them, for the purpose of the planting was to get a good apple orchard, and as it is making a good start I shall be satisfied even though the fillers may be somewhat scattered.

### Dry Weather in North Perth.

Editor of "The Farmer's Advocate":

I find yours a very interesting paper and enjoy the many letters printed therein. This has been a very backward season with us about Listowel. Growth has been delayed by lack of rain and by heavy frosts till within the last month. Since then we have had rain, but the ground is still very dry. Hay will be a very light crop. New meadows are badly injured by frost. Grain and roots are doing well. Pastures are short, many farmers having turned the stock out too early. Perth Co., Ont. P. T. BRISBIN.

That the banks must be instruments, not masters of business, was the keynote of an address to the United States Congress by President Woodrow Wilson, urging banking and currency reform. From his speech we cull this thoughtful paragraph.

The tyrannies of business, big and little, lie within the field of credit. We know that. If a man cannot make his assets available at pleasure, his assets of capacity and character and resource, what satisfaction is it to him to see opportunity beckoning to him on every hand, when others have the keys of credit in their pockets and treat them as all but their own private possession?"

Dr. J. P. Creamer, V.S., Qu'Appelle, Sask., has been appointed as representative of the Dominion Live Stock Branch in the West. His work will be in the Prairie provinces. It is the intention of the Department to initiate a vigorous campaign to increase live stock husbandry in the West. Dr. Creamer was born in Middlesex Co., Ontario, is a graduate of the Ontario Veterinary College, and has practiced his profession in the Western provinces for over 30 years.

Dr. F. Torrance, Veterinary Director General, informs us that the Ministerial Order of 24th March last, prohibiting the importation of hay, straw, fodder, feed stuffs or litter accompanying horses from Great Britain has been renewed for a further period of three months from 24th June.

A clump of trees conveniently situated in the pasture is far more valuable protecting the stock from heat and flies than it ever could be as firewood. By all means spare the shade, and if the trees are not already provided plant them at the earliest convenience.

R. B. Cooley, B.S.A., a 1910 graduate of the O.A.C. has been appointed Professor of Animal Husbandry at Rhode Island State College.



Main Building at Ontario Agricultural College.

Including President's residence and offices, college post office, students' dormitories, and students' dining-room, the latter soon to be substituted by a new and separate dining hall, for which ground has been broken.

**The International Horse Show.**

With a record of 4,000 entries and many hundreds of them American, the International Horse Show at Olympia held every promise of scoring a great success. Over 300 British and foreign officers took part in the various ring leaping contests. There were cash prizes of the value of £10,000 and other prizes represented a further £2,000.

Transformed into a fragrant, cool, and brilliant hall of beauty by about 50,000 flowering plants and shrubs, the vast space of Olympia was the pleasantest place in London during the festival of horse flesh. The lights in the building were nearly twice as powerful as those of previous years. There were 108 arc lamps in the arena alone, each lamp being of 2,500 candle power, and sixty-two were enclosed in big ornamental shades of golden trellis work crowned with gilded tops and hung with crimson roses. Hence the scene at night was brilliant.

The stabling arrangements were just as elaborate as ever. Alfred G. Vanderbilt stalled his horses in white boxes, with red velvet casement blinds, and further down the same rank were the dozen green and white boxes of his countryman, Edward B. McLean, Washington.

Perhaps the most sumptuously-fitted stalling of all was in the avenue given over to Walter Winans, who has always been a pillar of strength to this show. Mr. Winan's color scheme of dark green, red, and gold, was a magnificent one. J. Sumner Draper, yet another American cousin, had his horses in white stalls, and Miss Ruth Boyd, New York City, had her boxes done up with showers of roses.

Although Judge Moore's novice Hackneys did not shine in the early part of the show, his "coachers" got in to the money, but A. G. Vanderbilt's lot seemed to have the whip hand of the Judge. One of the most important events in connection with the show is the Coaching Marathon from Hampton Court to Olympia, a distance of eleven miles. For three years in succession the event had been won by Judge Moore, but his sequence of victories was broken last week. The first three were thus placed—A. G. Vanderbilt, first; Craig McKerrow, second; W. A. Barron, third.

There was no racing, but a time limit for the journey ensures a fast pace. The competition was decided by the condition of the animals and vehicles at the finish of the drive. The coaches must weigh at least 25 cwt., unloaded, and must carry seven passengers. They followed each other at intervals of one minute. Judge Moore, who started second, was the first to finish, driving a mixed team, with greys leading. Craig McKerrow's Rover coach came next, and there was then quite a long interval before the advent of W. A. Barron on the Venture.

Alfred Vanderbilt, driving the Brighton coach, who started sixth, finished fourth. The team, New Times, of Messrs. Wimbush, which started fifth, was also the fifth to arrive. Another team entered by Craig McKerrow was next. J. W. Harvie's four bays then arrived, despite a slight mishap on the way. Alfred Vanderbilt's other entry came next, followed by Mr. P. H. Hughes' Tantivy coach. The eleven miles were accomplished just under the hour. When the whole of the twelve entrants assembled in the ring and drove round, they presented a splendid exhibition. As the teams paraded the arena, it was noted that Queen Alexandra, who always takes a keen interest in horses, manifested her delight at the excellent condition in which the animals appeared to be after their gruelling drive of eleven miles in the hot weather. The judging, which was carried out by Lord Lonsdale, occupied almost an hour. The teams were put through their paces round the ring, and in the end, having considered appointments and conditions of the horses, his lordship awarded the blue to A. G. Vanderbilt's splendid team of bays. The award was a popular one, and as Mr. Vanderbilt drove round the arena he received loud cheers.

For the Russian Challenge Cup, offered by the Imperial Moscow Association for the best four-in-hand team shown to a road coach, there were six competing teams. These were A. G. Vanderbilt's Venture, town team of greys, driven by Mr. Wilson; Judge Moore's team of light and dark greys, driven by himself; W. A. Barron's Vivid chestnut team driven by Mr. Tilly; the same owner's Venture chestnuts, driven by Horace Smith; R. Craig McKerrow's Reynard team of the same color, driven by T. Tagg; and Miss A. Sylvia Brocklebank's bay team, driven by herself. After some deliberation the judges rightly decided in favor of W. A. Barron's Vivid team, who were clear winners on their combined power and quality. A very good second was McKerrow's lot; it is possible that they might have done even better had not the off-leader been making an undesirable amount of "noise." Mr. Moore was third. By his third successive win in this event, Mr. Barron is to be congratulated on obtaining the cup as his absolute property.

In the class for pairs over 15 hands, and not exceeding 15.2 hands, five competitors came forward. Nigel Colman, having got a new mate in the shape of the five-year-old Royal Simon for his famous old Yorkshire show-yard hero, Authority, was able to show the latter, though a prize-winner for many years, in this novice class; and although Royal Simon at first hung away from the pole, and refused to settle, the pair finished so well that they gained the place of honor for their owner. E. Colston's black mares, Carmen and Cuckoo, both daughters of Mathias, make as handsome a pair as any man might wish for park work, and well deserved the second prize; whilst Howard Frank's Lilian and Buckingham should prove a great pair when the mare settles down to

the 41 hacks entered for the Berlin Cup, a trophy which was deservedly won by Mrs. W. Chapman with her beautiful bay mare, Enchantress, the winner at Croydon. Her paces and manners are so excellent that she was given the lead over M. F. Goodbody's American winner, Beau Sabreur. The third prize-taker, Cora Pear., shown by Walter Winans, was last seen at Richmond, where she stopped second in her class to H. Gaudel Phillips's Tarantella, which was now fourth.

Trotting has never "caught on" in this country, and, except for W. Winans, few of its adherents possess horses good enough for exhibition. W. Winan's success in carrying off the whole of the prize money deserves to be placed on record. He won easily with the veteran Bonnie View, who gave his customary fine display of fast and true movement, second and third honors falling to Nancy Clancy and Haidee.

The pace and action class had a small entry, and it is pretty evident that these classes do not find the favor they did with exhibitors. Mr. Winans had the bulk of the entries, and owned all those noticed by the judges, viz., Bonnie View, Nancy Clancy, Haidee, and Oberon. Progress, owned by H. H. Bishop, of Tregellas, Cornwall, won the high jump, with a leap of 7ft. This compares somewhat unfavorably with the American record of 8ft. 2in., and Biskra's English record of 7ft. 10in. Tradesman, owned by Thomas Glencross, Weston-super-Mare, was second; while Biskra, Miss Mona Dunn's famous leaper, only obtained third place. None of the high jumpers brought over by the foreign Army officers and entered for the competition obtained a place, neither did the representatives of the British Army.

American owners did better as the show advanced from the novice stage to the open classes. On June 23rd the chief feature was the award of the International Gold Cup for four-in-hands. This was won by Judge Moore, who had before him the same team with which he won a similar competition at Richmond. Once again Miss Ella Ross, who drove her own team, was second with her blacks, and thus the Richmond judging was confirmed. W. A. Barron took the third prize with one of his several chestnut teams. All three teams acquitted themselves admirably, and there is probably very little between them in merit. Sir Edward Stern took fourth prize with a team of blue roans, which are, apparently, a good deal slower than any of the teams placed above them.

Mel-Valley's Fame made a fine show in the open pony class, winning for Mr. Foster yet another first prize. Mel-Valley's Flare stood fourth. In the Pace and Action Class Walter Winans had matters all his own way, and his Bonnie View was much the fastest trotter of the six shown. The weight-carrying cobs—18 came in—were a novelty; the winner, Mrs. Chapman's Cafe Noir, has nice manners and appears to be easy to ride. In the class for double-harness pairs under 15 hands Melbourne Princess and Queen of Ayr added another to their long list of victories. Judge Moore's Menella and Phyllis also gave a fine show. Were placed second.

In single harness horses between 15½ and 16 hands figured many previous winners. The American horse Nala was a newcomer with a reputation, but his action, though very decided, did not altogether please the judges, and he was placed fourth. The winner was T. W. Simpson's Argo, who had been beaten at Richmond. He gave a delightful show now, beating Judge Moore's Bountiful, who last year, when known as Terrington Bountiful, carried all before her. Medium-sized pairs of harness horses were good, and here Judge Moore was first with Lord Seaton and Lady Seaton, well-known prizewinners of English pedigree.

Nala, the great American harness horse, got a good hiding in the 15½ to 16 hands class from T. W. Simpson's Argo, a great free going chestnut, full of true Yorkshire blood. Second was R. Scott's Mathias Gelding, a Scotch bred one, and Judge Moore's Terrington Bountiful was third, while E. B. McLean's Nala was only fourth. Judge Moore's Menella and Phyllis and McLean's Lady Dilham and Elegant Dilham were relegated to second and third places respectively. In open pairs over 14 and not exceeding 15 hands Philip Smith's Cheshire pair Melbourne Princess and Queen of Ayr champions all over England for the last few years won.

London, England. G. T. BURROWS.

Canadian horses did extra well at the International Horse Show, Olympia, London, England. Three of Hon. Adam Beck's horses, London, Ont., Sir James, Sir Edward, and Montrose won the team prize against the world. Sir Edward and Sir James won second place in the class for two jumping abreast out of 97 competitors. Sir James won another first prize in a jumping contest, and Frontnac also from the Beck stables won the full course jumping events in a class of 341 entries from all nations. Hon. Clifford Sifton's horses also competed at Olympia, and got in the money in several of the classes.



A Coster at the International.

her work. Perhaps the greatest share of admiration was accorded to the Duke of Portland's Italian-bred greys, Phillip and Venice, a perfectly matched pair, which are familiar to visitors to the Welbeck Agricultural Show as two of the Duchess' team.

Novice harness horses, over 15 and not exceeding 15h. 2in., numbered eleven, at the head of which was placed J. L. Tillotson's Enchanter, a short-bodied but free-acted chestnut by Polonius. J. Sumner Draper's Nimbus, a bay which gave a good display of level action, was second, with C. Colman's Royal Simon, the horse which had in company with Authority, won first in pairs, third.

Seven big novice pairs formed an admirable class, in which Judge Moore won with Marcel and



Friends.

Walter Winans and one of his International winners.

Vida Fayre, a showy pair, but which did not appeal so strongly to English onlookers as did W. A. Barron's Cadogan Princess and Maid, a pair of powerful chestnuts which go perfectly together and are an exquisite match.

In the novice tandems, J. Sumner Draper, all the way from Massachusetts, won first with Nimbus and Rillington Nimble being given pride of place over Judge Moore's Vida Fayre and Marir. A big lot of English horses were behind them.

A really good final collection of 14 represented

### Co-operative Selling in British Columbia.

Gardens and orchards are busy places in the Okanagan Valley of British Columbia these days. Fruit crops the country over seem to be light. Nature, in her almost unprecedented effort of last year, seems to have exhausted much of her store of power to keep things just right for a big crop, and a frost slipped through the lines taking some of the apples and peaches we were to have had this fall. Still, even with this set back there is plenty of work in the orchards and small-fruit ranches to keep us busy.

Some of the later-blooming cherries went down here. Apricots seem to have held their own, and during the past week many acres of apricots have been thinned out. Thinning pays well. One orchardist claims that he increases his profits by over 60 per cent through thinning if he can manage it before the stones form. The effort that the tree must put forth to form the seed in the fruit is what causes the heavy drain. If this heavy tax is prevented, it tends much toward overcoming the condition of one year a heavy crop and the next year a very light one.

Our dreaded enemy of last year is back at us again. The heavy cutting of our trees has not eradicated the "Blight," and those who looked for a crop of apples are having to cut into this crop pretty heavily. Spitzenburgs are the worst, and orchardist after orchardist is "June Budding" this variety, to some other, mostly to MacIntosh Reds or Grimes Golden, which seem to be pretty well immune to the disease. At present we can only cut out the smaller affected branches, the twigs and fruit spurs, but we are hoping the Department of Agriculture may find some way by which we may be able to locate and destroy, during the fall and winter or spring, the "hold-over-canker" from which the blight is spread by insects.

The small fruits, such as tomatoes, were well advanced up to the 10th of June, since when we have had a great deal of cloudy weather with a shower almost every day and one or two regular down-pours, something very unusual in the dry belt. This may put the fruit back a few days, but if it is hard on the fruit it is good for the alfalfa, and there is a splendid crop of this ready to cut. Everybody is using it here. Pigs are getting fat on nothing but alfalfa, two car loads of brood sows, to be fed on alfalfa, were sold here last month. The young pigs when weaned will be fed practically nothing but alfalfa.

Perhaps our great selling movement is the most talked-of among all the business moves in agricultural marketing. From one end of this valley to the other each centre, where fruit or vegetables are grown, has organized a Packing Union of its own, makes its own by-laws and buys its own boxes, paper and supplies. One Central Selling Agency handles all the fruit and sells it all, supervising the pack and finding the market. Already much of the apple crop has been placed, netting the grower \$1.10 per box (pretty good for every 125 or 130 apples). Most of the peaches have been placed at 70 cents per case F. O. B. at the town where they are packed. These pack 60 to 84 per box, some letting them run a little smaller, running into the nineties.

This marketing system is an experiment, and the other companies are still in business. Quite a number of the growers are marketing their own stuff, and, although the outside press is booming this new selling plan, it is not having plain sailing, but must "make good" before it can command the support of all concerned. The Provincial Government is giving strong financial assistance by way of a cheap loan. This alone is one of the best indications that they may make a success of the venture, as it gives them ample capital.

The way in which the new Selling Agency has dealt with the wholesalers to prevent them getting a big slice, or, on the other hand, to prevent an expensive fight by cutting them out altogether till a sure footing has been gained, is to sell through them at a 10 per cent commission. This has its advantages and its disadvantages, and only time can tell whether it is advisable or not.

We all hope the new scheme may prove a success, and this year has more in its favor than any year it will have for some time, for a year of light crops is the best for the fruit and garden men.

B. C.

WALTER M. WRIGHT.

"The Farmer's Advocate" is informed by Dr. F. Torrance, Veterinary Director General, that a Ministerial Order has been issued prohibiting, for a period of three months, from 2nd July, 1913, the shipment into Canada of cattle, sheep, other ruminants and swine from Great Britain, Ireland, and the Channel Islands on steamers carrying horses from Continental Europe.

### Binding the Farmers' Advocate.

Editor of "The Farmer's Advocate":

As the last "Advocate" of the first six months of the year 1913 appeared and contained the index of the half of the year I got at the job of binding them myself.

I saw an inquiry about binding "The Farmer's Advocate" on page 1014. I thought to submit my plan for the benefit of others. First, I take one magazine after another, beginning with the first one that appeared. I lay this on the second one and these two are put on the third, and so on, till I have them altogether. I then separate them into bunches containing from four to six magazines or issues each. These bunches are sewn together with a darning needle and cotton yarn as near the back edge as possible, taking great care that the front edges are even. I punch holes with an awl to make sewing easier.

The next thing is to get the bunches together. The bunches are laid upon each other and a cloth (a strong cloth is best to use as it will stand wear) placed over the back edge. The whole bunch is now sewn to this cloth by sewing between every three issues, letting the threads of the latter sewing catch on those of the former at right angles. If this is done correctly the result is a strong book.

The third thing is to get the cover on. The cloth, placed over the back, must be left at least three inches on each side. A stiff cardboard or two cardboards pasted together will make a good cover. This cover is pasted on the cloth so as to cover the whole book completely and neatly. A fancy cloth is then put over the whole book cover to strengthen and beautify it. The cloth must be a little larger, say two inches, on all sides. At the back of the book as broad as the book is thick, the cloth is turned in and pasted on itself before it is pasted on cover. After it is pasted on, the sides are neatly turned in, the corners made as neat as possible, and a strong paper of the proper size pasted on the inside of both covers. I made this job as neat as possible, and it saved me the expense of a professional bookbinder, and, as I did this work on a rainy day it practically cost me nothing.

Waterloo Co., Ont.

A SUBSCRIBER.

### Road Work and Road Roller.

Editor "The Farmer's Advocate."

GOOD ROADS AND THEIR CONSTRUCTION.

The roads of Canada are, at present, in a notoriously bad condition even for a new country like this. And yet it is not in the newer parts of the Dominion that the worst roads are to be found, but in the older parts of Ontario and the Maritime Provinces. In some districts the roads are but a succession of ruts and mud holes. Some of those districts have acquired quite a bad reputation for the stickiness and depth of the mud on the roads.

The condition of the public roads is a good indication of the status of a community, both commercial and social. Wherever bad roads prevail, the farms and homesteads in that vicinity are also found to be in the same condition of neglect and mismanagement. But, on the other hand, where the roads are well built and kept in good condition by repairs when necessary, the farms are correspondingly well managed and maintained on a paying basis.

It seems that, so far as good roads are concerned, the people of the Eastern Provinces need not depend on the government for their maintenance. It is on the people of the country that the burden of keeping up the public roads will fall, yet they have still to pay taxes that are supposed to go to the building and upkeep of the roads. I have noted that whatever is the reason very little of the money collected by taxes, etc., is spent on the roads, and a large percentage of what is put on the roads is spent where it will do little good.

I can cite one instance in which the sum of three thousand dollars was spent on the construction of a road and bridge. This road was built for the purpose of shortening the road to market for about one hundred people.

The public road here runs in a northerly direction for about a mile, then it abruptly turns to the east for the distance of about one and one-half miles. Across the triangle thus formed the new road was opened; before the road could be of use to the public a bridge had to be built. The three thousand was spent, and the road is yet in an unfinished condition and is likely to remain so. If the road is not finished, the money spent on it will be simply wasted. So far it has been of no use whatsoever, except as an easy way for the nearest farmer to drive his cows to pasture.

If the money spent on this bridge and road had been used to repair the other roads of that district, it would have placed ten miles of road in a first-class condition, and the people of a large part of the country would have the satisfaction of at least one good piece of road.

The farmer usually has two chief causes for

grumbling, and these are bad roads and bad weather. The former he can remedy in many ways. The latter he has only to put up with.

I can mention one case in which the roads of a certain district were in the condition usual to most parts of the country, namely, a succession of mud holes and ruts, with an occasional gutter thrown in. It did not appear as if the government would ever take a hand in the matter, so one day the clergyman of the place, a progressive and up-to-date man, asked the people to spend at least one day's labor on the roads of that district. This part of the country is not very populous, but every one of the male population over sixteen years of age turned out. After one day's work they saw the need of more, some even spent three or four days' labor on the roads.

The results were very gratifying indeed. The ruts were filled, gutters and culverts were repaired, and made as good as new.

Passing a gang of at least twenty men I noticed that they were not working in the manner usual to most farmers when working their statute labor. They did not look as if they were taking their annual holiday, but worked as men should work.

But they lacked one thing and that was a good heavy roller, which is a chief necessity when building a dirt road. For without rolling, the dirt generally used on country roads is almost useless.

When building a dirt road the best method to follow is to first level off the foundation and roll till it is as hard as it is possible to make. Then spread a layer of earth not thicker than four inches, roll this and put on the next layer and roll, continue in this manner till the road is the desired height. It is best also to have the middle of the road slightly high, so the water may flow into the drains instead of remaining on the road to render the soil soft and easy to dig into ruts.

In some districts a steam roller is an impossibility owing to their distance from a large town, yet it is possible to construct a home-made substitute that will do creditable work, and, at the same time, last a number of years.

To make one, proceed as follows:—Get two logs, preferably of hardwood, about six feet long and about one foot in diameter, bore a two-inch hole in each end of the logs, in these holes insert old bushings from a carriage. Next, construct a frame of 4 by 4 inch stuff, large enough to have two logs fit inside. Have the side pieces six feet long, and eighteen inches from each end bore a hole and insert a piece of iron large enough to fit in the bushing as axles. Now, you have two rollers in one connected by the frame. Beneath the rollers a platform is built on the side pieces of the frame. On this frame a load of stone or other suitable weight can be placed so as to make the roller of any weight desired. To save time in turning such a machine, hooks are fixed on to each end so the pole may be attached to either end. Thus, when the roller is hauled one way on the road, to take it the other all that is needed is to unhook the pole from the frame and drive the horses around and hitch the rings on the pole to the hooks on the other end of the frame. The turning of the machine is its only drawback, and this is quite overcome by the device of rings and hooks. One of the chief considerations in favor of this type of roller is that it can be adjusted to any weight desired.

Unless very heavily laden four horses should, at any time, be enough for this roller, and will do very good work, especially in places where it is hard to get a steam roller. Its use on the roads of a district where rolling was not before practiced will result in a marked improvement in a very short time.

The advantages of this roller can readily be seen, and its first cost is comparatively small, as the woodwork can be done by any handy man, and the "village blacksmith" will do the ironwork for a very small sum. A road rolled by this roller is far better than if left unrolled, as the surface will be level and hard, being impervious to moisture, the water will not soak into it, rendering it soft and muddy.

Cape Breton, N. S. JOHN H. MacDONALD.

### The Soldier Bug.

Editor "The Farmer's Advocate":

I met a good friend this morning while hoeing potatoes, and, as I have neither seen nor heard anything about him as yet this season, I thought I would like to tell you about him.

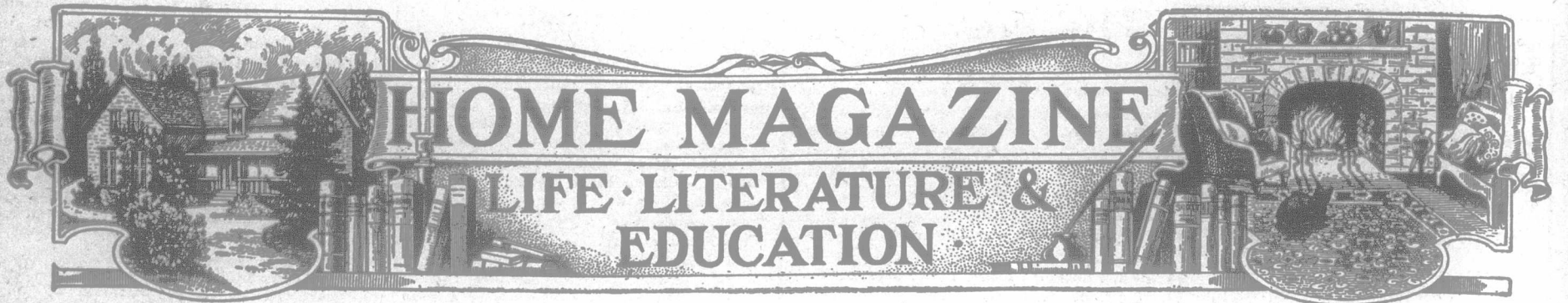
He wore a coat of arms, yellow in color, and was securely fastened to a good-sized young potato beetle. I believe his name is "Soldier Bug," which matters little to me as long as he continues to destroy these pesky things, for which he evidently has a greater love than most of us.

I would like to see reports in your paper of others, if any, who have seen this, "bug-eating desciple of arms," as I believe him to be valuable to all potato growers.

Ont. Co., Ont.

"BURNBRAE."





### The Common Road.

(By Martin Schutze, in "Forum.")

And now for reaches of open road,  
With sun and flowers and fragrance  
abroad,  
With sun and breezes and birds in the  
leaves,  
And the year on the turn in yellow  
sheaves.

A road not so new it troubles the mind,  
Nor so storied, memories limp behind,  
Where hoof and foot and tire unite,  
One large, inseparable tale to write.

Each bird has a voice and different air;  
Is it thrush or yellow-throat? What  
do I care!

The trees tell tales, and the hill streams  
shout;  
I do not trouble to make them out.

I do not strain after clues that fail,  
I do not camp on the edge of the tale,  
Nor teach my feet to falter and stray,  
But hold to the immemorial way.

I hear but one great voice abroad,  
Singing the song of the common road,  
When the season's traffic burdens the air,  
And the sun spreads blessings everywhere.

And it's :Ever to keep on an even way,  
Never to hasten, never to stay,  
Nor vainly linger, nor backward yearn,  
Onward and sunward, and never turn;

Attuned to the one great voice abroad,  
Heeding the call of the common road,  
When the season's traffic burdens the air,  
And the sun spreads blessings everywhere.

### Letters from Abroad.

ON MEDITERRANEAN SHORES.  
XIV.

Florence, June 2, 1913.

My dear Jean,—After a week of hill-top life in Siena we have descended to the Arno, and I think the mercury went up as we came down—and it has been going up higher ever since. Yesterday it was hot enough in the sun to pop corn. When we were shivering in Taormina last winter, they told us it was so warm there in mid-summer that the town was like a fiery furnace, and the pavements so hot that the peasants fried eggs on their front steps. I rather doubted the statement at the time, but now I am inclined to believe it was true.

Florence is a wonderfully attractive city. It has all the comforts of a town, and all the allurements of a big city. It is a Mecca for art students, and a perfect paradise for shoppers. The social life is so charming that about four thousand Anglo-Americans live here permanently. One hears almost as much English as Italian on the streets, and there are English tea-rooms galore, each one packed every afternoon. There is an English newspaper, and a fine English library—said to be the best in Europe. If one is in Florence for any length of time, there is no excuse for remaining in historic ignorance, for books are within walking distance, so to speak. In fact everything in Florence is within walking distance. From almost any street you can see the limitations of the city, and the country and hills beyond. There are many wide, modern streets, but if you stray into the side streets you get into the middle ages at once. In the old part of the town there are whole sections of fourteenth-century palaces which look like fortresses—high, stone buildings, with all the windows of the lower floor heavily barred like jails. I can't help thinking what uncomfortable places they must have been to live in when the weather was damp and cold.

Yesterday was the national holiday. There was the usual review of troops in the day-time and fireworks at night. I wonder if national holidays will ever be dissociated from gunpowder! We went for a drive in the evening to see the illuminations. The old Medici palace was all ablaze with candles, which were placed in glass globes and suspended from fancy, iron hooks. It was most effective, and gave one a fine idea of what they could do in mediæval times. The Palazzo Vecchio (Old Palace) was outlined with rows of gas jets concealed by shades, so that all the light was thrown on the stonework. The effect was marvellous. The tower looked translucent, and the fluttering of the gas in the breeze gave the whole structure an unsteady appearance as if flames were about to burst through.

We sat for a while at one of the open-air restaurants on the Square in front

pictures. When I first wandered through the Uffizi Gallery, I saw so many familiar scenes and faces that I was reminded of that old lady who was taken to see "Hamlet" for the first time, and remarked afterwards that she liked it because it was so full of quotations. To help us out in our visits to the galleries, we have purchased Grant Allen's "Historical Guide," Ruskin's "Mornings in Florence," and the very latest and most popular tourists' assistant, "A Wanderer in Florence," which is inconveniently large and red and heavy, but a great comfort to weary wanderers if they can find a chair and a prop for the book. In addition to this list, Harmony has invested in a small-sized "Book of the Saints," which seems to perfectly fascinate her. She pores over it at all hours of the day, and even carries it in her shopping-bag so that she can look at it at odd moments. She says it has

means. Many of them were women. The one I am especially fond of at present is St. Catherine of Alexandria. She was young and beautiful, and talented and intellectual, but she refused to give up Christianity and marry an elderly pagan emperor, so they clapped her into prison and nearly starved her to death,—but she still refused to marry. Then they bound her between four spiked wheels which turned in different directions and tore her body all over. But even that did not make her change her mind, so, finally, she was scourged and beheaded.

While I am on the subject of saints, I must tell you a good story I heard the other day. An old lady who was a devout Roman Catholic was calling at the house of her niece whose baby girl had been christened a few days before.

"And what did you call the baby?" asked the old lady.

"Hazel," said the mother.

"What!" exclaimed the old lady in amazement. "Five hundred saints in heaven, and you call your child after an old nut!"

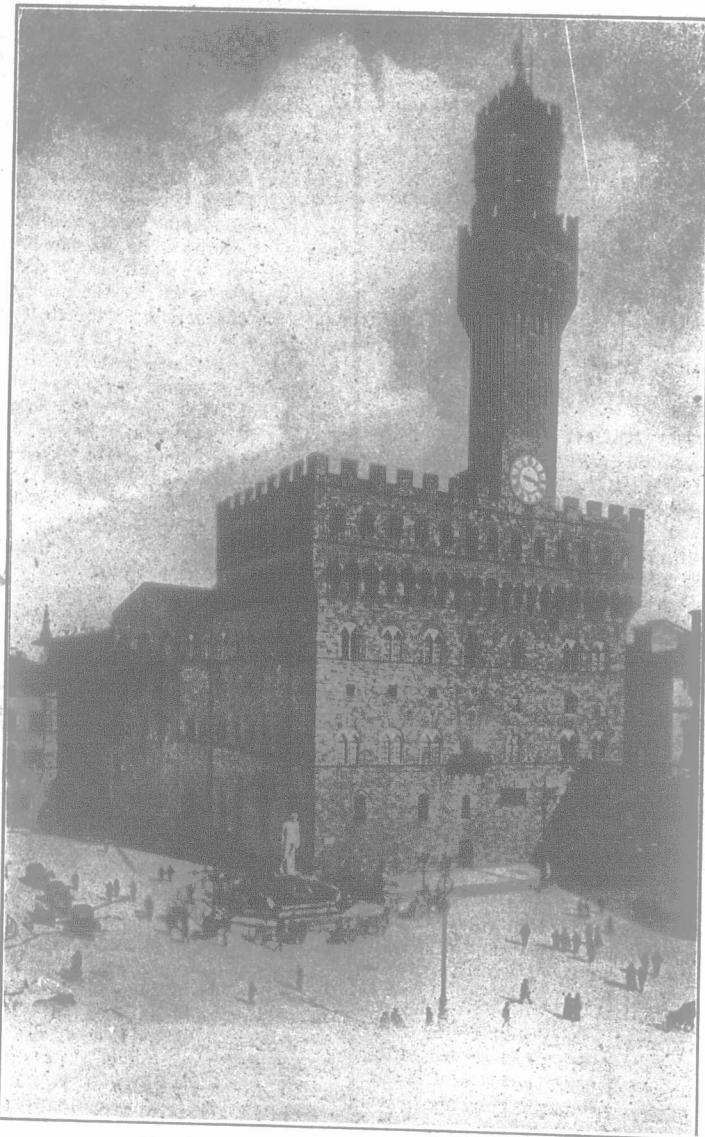
The Uffizi and Pitti Galleries are on opposite sides of the river, and connected by a covered passageway over the Ponte Vecchio. An enterprising American took a stroll through these two galleries with a pedometer attached to his ankle. When he emerged, it had registered five miles. I should think he would have been a good subject for the Misericordia about that time.

Do you know about the Misericordia? It is one of the most interesting institutions in Florence, and has been in existence over six hundred years. It is a Brotherhood of Mercy, and at all hours of the day or night its members may be seen on the streets carrying the sick or wounded to the hospitals. Men of all ranks belong, but their identity is carefully concealed by the masks and gowns they wear when on duty. These gowns are black, and have a large hood, which entirely covers the face, leaving only round openings for the eyes. They reminded me of horse-blankets when I first saw them. One of the old regulations of the society stated that boots, not shoes, must be worn, so that the difference in the color of the socks would not be noticeable. There is a saying in Florence that the social status of a member can only be guessed at by his boots. When on duty the members never speak more than is absolutely necessary, accept no money, and take no refreshment except a glass of water. The sick and injured are carried in litters. Twelve men go with each litter and take turns in carrying it. When those who are carrying the litter are tired, they tap on the poles and stop, and four others take their places.

The first time I encountered this spooky-looking procession was on the Ponte Vecchio. The bridge was jammed with people and vehicles, but suddenly there was silence, the crowd parted, the men lifted their hats reverently as a black litter carried by black-gowned, masked men, passed by. But still more spooky was the glimpse I had down a dark side street one night of flaring torches, sheeted figures, and a white bier covered with flowers. The attendants on this occasion wore white. As they moved along they chanted mournfully.

In the turbulent days of old, when family feuds were fought in the streets, the Misericordia must have had its hands full, so to speak.

The origin of the society is so curious that I must tell you about it. Away back in 1240, a group of porters used to pass their spare time in a cellar gambling and drinking. One of them organized a society for the suppression of swearing, fining every member who in-



The Palazzo Vecchio, Florence, Italy.

of the Palazzo and watched the crowd—a very orderly, good-looking crowd, quite different from the fiery, passionate mobs that used to swarm there in the fourteenth century. It was in the tower of the Palazzo Vecchio that Savonarola was imprisoned for a month before his execution. A stone marks the spot where he was hanged. Many men have dangled from the windows of this old palace, and the Square in front of it has been the scene of many a bloody riot.

Of course, when you are in Florence, you MUST go to the art galleries. A stern sense of duty drives you there, even if you have no special inclination to go. There are miles and miles of

great educational value, and helps her to appreciate the pictures. Before she got it she had great difficulty in telling the saints from the sinners (or "the good from the no-good," as one of the guides naively remarked), but now she has occasional gleams of intelligence. The little reference-book is full of the most blood-curdling tales about martyrs who have been boiled in oil, torn limb from limb, buried alive, and tortured in all sorts of heinous ways—and all these gory stories have been made subjects for the painter's art, and can be studied in a leisurely way in the Florentine galleries.

The martyrs were not all men by any

...duged in profanity. In an incredibly short time the society had so much money it didn't know what to do with it, but finally decided to buy six litters for conveying the sick and injured to hospitals. From that time to the present day the society has been in active existence. They still use the primitive litter for relief work, but they also have motor ambulances, and as a concession to modernity, the automobile corps are allowed to leave off their face masks.

I would like to tell you something about the old palaces here, but there are so many of them and there is so much to tell, that it would take too long. But there is one—the Palazzo Davanzati—that has been restored and is now open to visitors. It costs a lire to get in, but more to get out, as there is a guide on each floor who trails around after you and explains things to you in Italian, which you can't understand, and then fixes his eye on your hand expectantly. Whenever they do this it means they are looking for a tip. In the large salon over the vestibule of this palace there were four trap-doors in the floor. These were used in olden times for purposes of defence, the besieged party dropping down heavy stones through these apertures, or pouring hot water or boiling oil on the intruders in the vestibule. I saw some of the stones, and I can assure you there wouldn't be much life left in any person who was hit by one. In this salon, which was completely furnished in the fourteenth-century style, I noticed some very peculiar musical instruments, brass trumpets that were coiled like a snake; the mouthpiece was the tail of the snake, and the sound came out of the head, which was tremendously large, and painted like a snake's head, and had a long, pointed, wobbly tongue inside. I asked the guard if he could play it, but he humbly confessed his inability. It seemed to me that the sight of a brass band of snake trumpets such as these would be apt to produce a delirium-tremens effect on the mind of a man who was addicted to the whiskey bottle.

Florence is encircled with hills, and on the summit of one of them is the old Etruscan town of Fiesole. There isn't much of it left now but a church, a monastery, and a museum, but they have excavated and restored an old Roman theater, and have been giving Greek plays there this summer. The theater is hewn out of the solid rock, but fortunately we were provided with cushions. The play was tremendously interesting, and most impressive. The voices sounded as distinct as if we were in a small room. The grouping and costuming was most artistic, and the stage-setting and background enchanting. I had the misfortune to sit next to an elderly American woman who was boiling over with enthusiasm, and kept up a running commentary on the performance which was simply maddening. These are some of her remarks:

"Oh! aren't their voices lovely?  
Oh! how I wish I knew Italian!  
Oh! I am so glad I came!  
Oh! Isn't the Prince handsome?  
Aren't his legs lovely—so shapely. I should think he'd be rather chilly with so little on, but I suppose that's the way the Greeks dressed in those days. I wish I didn't have so much on. I'm nearly roasted."

Fortunately the people who sat near us were all Italians, so her remarks were lost on them; but unfortunately we found out later that she was staying in the same pension as we were. I do hope she won't attach herself to us. She says I look like a daughter of hers who died of consumption, and she sits and stares at me in a way that makes me feel like a resuscitated corpse.

I'm looking feverishly forward to your arrival in Europe. What a fine time we will have!

Miss Morris deserted us several weeks ago, and went off to England on a grand visiting tour. Since then, Harmony and I have been by ourselves. Good-bye.  
LAURA.

NOT HIS FAULT.

Tommy's Aunt—Won't you have another piece of cake, Tommy?  
Tommy (on a visit)—No, I thank you.  
Tommy's Aunt—You seem to be suffering from loss of appetite.  
Tommy—that ain't loss of appetite. What I'm sufferin' from is politeness.

The New Public Health.

QUESTIONS, ANSWERS, AND COMMENTS.

Conducted by Institute of Public Health, London, Ont.

[Questions should be addressed: "New Public Health, care of 'The Farmer's Advocate,' London, Ont." Private questions, accompanied by a stamped, self-addressed envelope, will receive private answers. Medical treatment for individual cases cannot be prescribed.]

Meat or Eggs During Hot Weather.

(a) Some farmers give up eating meat and use eggs instead during hot weather. Is this a safe practice for hard-working men?

and 78 per cent. of it is water. Milk is 87 per cent. water. Break an egg into a tumbler. Pour into another tumbler of the same size, enough milk to equal the egg in bulk. Then pour in about as much more of the milk, and you will have in the two tumblers just about the same amount of solids. That is, the egg is only about twice as "strong" as the milk, provided the milk is ordinary milk and the egg is an ordinary egg. The actual fuel value of an egg is only a little more than twice that of milk, weight for weight, i. e., 700 against 310.

Of course, the fat in the egg is yolk, in the butter, it is butter-fat; the protein in the egg is "white of egg," in the milk, it is casein. The carbohydrate in the egg is so little as to be scarcely worth mentioning; in the milk, it is chiefly lactose, or sugar of milk.

The chief point in diet is to take food that agrees with you, and take enough. The exact constituents of the food doesn't

also, which is carefully milked by cleanly people, free from disease; handled in clean receptacles; promptly cooled, and quickly used, does not require boiling or pasteurizing to insure safety. "But there's many a slip," and if you cannot keep all these points ("cow, cleanliness, cold, and quickness") under your own eye all the time, cooking the milk is safest. As things are, the only immediately available method of excluding cattle tuberculosis from the human race is to boil (or pasteurize) the milk.

It is sufficient to bring the milk to a boil, but this should be done in a covered receptacle, otherwise a scum is apt to form; and the germs sometimes survive in this scum.

Boiled or pasteurized milk should be cooled quickly and kept clean and cool, for germs admitted from the air, etc., will grow in it even better than when it was raw.

(b) The diet of a consumptive should consist of the most nutritious things that he can digest, given in as great a quantity as he can stand, varied as much as possible, to avoid making the meals disagreeable to him, and combined, above all, with a continuous outdoor life, and with rest. This sounds simple, but every consumptive requires supervision by an expert physician to insure the maximum results; and as even the maximum results may not be enough to save him, you want to be sure that you are giving him every chance.

Meat, chicken, fish, eggs, milk, bread, whatever he will have, if he only takes enough, and "gets away with it."

(c) The nurse should, for her own protection, avoid the mouth spray and hands of the patient, washing her own hands faithfully when she touches his hands or his mouth discharges, or things his mouth discharges or his hands have touched. The bowel and bladder discharges are usually dangerous also, and she should be careful in handling these, and wash her hands faithfully after each such contact.

The keeping of hands clean is not difficult. The trouble is to "dodge" the mouth spray when the patient is talking or coughing or sneezing. The patient should be taught, if possible, to hold gauze in front of the mouth in coughing or sneezing spells, and never to talk into another person's face. If the patient is outdoors, as he should be, danger from mouth spray is much lessened.

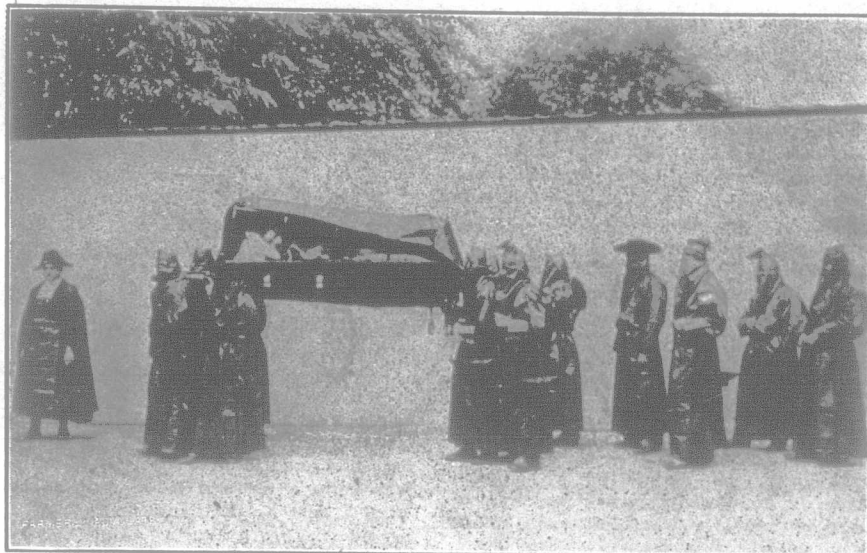
The following rules are useful:

I. What is Tuberculosis?  
The growth, in any region of the body, of tiny masses of diseased tissues; each mass (or "tubercle") being surrounded and produced by an irritating growth of tubercle bacilli. The bacilli reach the particular region concerned (a) from other parts previously affected; (b) from the outside, through skin wounds (seldom); (c) through the lungs (sometimes); (d) by absorption from portions of the alimentary tract (most often).

II. What are the Effects of Tuberculosis?  
Very different, according to the region in which it is located. If confined to the glands, say of the neck, it is slow, seldom painful, and without much obvious injury; if to the hip joint, it produces swelling, lameness, and pain; if to the brain, kidney, etc., the results correspond to the organ affected. A great danger to the patient with tuberculosis of glands, joints, bones, etc., is the likelihood of spread to other organs, and especially to the lungs. When it attacks the lungs it interferes with a most vital function (breathing); much fever, coughing, and expectoration result, and the tubercle bacilli are thrown out in the expectoration, and are dangerous to others.

Lung tuberculosis is generally slow. The patient suffers for months, or years. Those affected are usually in the prime of life; their helplessness means financial burden to others, upsets their life plans, results often in poverty, always in distress. Finally, unlike the other forms (except where discharging wounds exist), lung tuberculosis is highly infectious.

Lung tuberculosis is not a private affliction, but a public calamity. If you suspect any form of tuberculosis, skin, joints, glands, etc., have an examination made before it spreads to the lungs; and never neglect a "cold." Call on your physician, or the Provincial or Local Health Department, for advice. It is not only your right to do this; you owe it as a



The Misericordia, Florence.

(b) My baby is fifteen months old, and I have, of late, been giving her an egg, with some bread and butter, for one of her meals during the day. I have been told that an egg is too strong for her at this age, and that it will "wear out her stomach." Is this true? At what age is it safe to give a child a whole egg at a meal?  
MRS. A. W. D.

Ans.—(a) I hardly know what you mean by "safe." If the eggs agree with them, and they take the equivalent in eggs of the meat they would otherwise have taken, I cannot imagine what harm it would do.

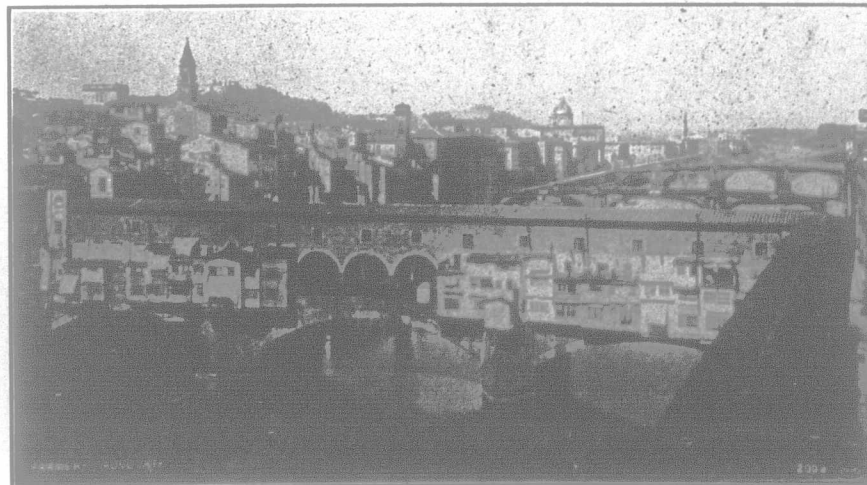
Of course, some people have a very exaggerated idea of eggs as food, "believing them to be wonderfully "hearty." They are afraid to eat enough of them

seem to matter much, as a rule, if these other two rules are observed.

(b) I think that the answer to the previous question, (a), will very nearly answer this one also. Babies thrive on milk, why not on eggs? An egg, with one-fourth its bulk of water added, would be no stronger in solids than whole milk is. Of course, if the baby's digestion, or sleep, or bowel movements are upset, or if it shows any untoward symptoms of any kind, it would be best to vary the diet, but as long as it is getting on well, its stomach will not wear out!  
H. W. HILL.

SHOULD MILK BE SCALDED.

(a) Should all milk be scalded before



The Ponte Vecchio, Florence.

lest they should overfeed. In actual weight, a pound of meat is equal to a dozen ordinary eggs, while the fuel value of the meat is 1,100 calories per lb.; that of the eggs only 700 calories per dozen. If a man holds the entirely false, but quite prevalent belief, that one egg is equal to a pound of beefsteak, and restricts his diet to one egg per day or per meal, you will see that the man really starves himself, for in fuel value one egg is only about equal to one-nineteenth of a pound of beefsteak! Remember, an egg does not weigh much,

using it as food? If so, is it sufficient to bring it just to boiling point, or should it be actually boiled for a few minutes?

(b) Of what should the diet of a consumptive consist?

(c) Will you kindly state the precautions necessary to be taken by the nurse of a consumptive in order that the disease may not be transmitted to others.  
Middlesex Co., Ont. M. L.

Ans.—(a) Milk from tuberculin-tested cows, which are healthy in other ways

duty to the patient, to yourself, and to the community.

### III. If Well Now, How Remain Well?

Tuberculosis may come—

- (1) From the hands of careless tuberculous patients;
- (2) From handling anything careless tuberculous patients handle;
- (3) From using food, milk or drink, handled by tuberculous patients;
- (4) From flies carrying discharges (sputum, feces, urine, pus) of tuberculous patients to food;
- (5) From handling the undisinfecting clothing, eating utensils, etc., of tuberculous patients;
- (6) From houses and rooms recently occupied by careless tuberculous patients;
- (7) From the indoor air, near careless tuberculous patients;
- (8) Through milk from tuberculous cows.

If you do not get discharges (sputum, feces, urine, pus) from tuberculous patients, or milk from tuberculous cows, into your mouth (or nose), you will never contract tuberculosis.\*

Be governed by the following:

Tuberculosis is taken in wholly\* through the mouth (or nose), sometimes by inhaling infected air, generally from infected hands, milk, food, or drink.

Therefore, watch everything that goes into the mouth. Do not eat or drink anything which has not been cooked unless you know its source and all who have handled it.

Especially boil or pasteurize all milk that you do not know comes from tuberculin-tested cows, and has been handled exclusively by healthy persons.

Refuse to have a tuberculous domestic, cook or waiter, or a tuberculous nurse for your children.

Sacrifice anything to get fresh air, good food, and proper clothing.

Live, work, and sleep out of doors, just as much as possible—the apparently impossible often becomes possible if you try hard enough. "Out of doors" often cures tuberculous patients—It is even better for well persons.

### IV. If you are well now, but have a Tuberculous Associate:

See that no one, friend or stranger, sick or well, talks or laughs into your face, for this often sprays their saliva into your mouth or nose. Sit side by

side, not opposite, in conversation with tuberculous patients, for the same reason as just given.

Eat only cooked foods, unless certain of origin and handling.

Keep flies away from food.

Do not handle your own food, or food intended for anyone else, except with hands that have been thoroughly washed since touching anything connected with tuberculous patients. Do not allow tuberculous patients to touch your food, or eating or drinking utensils, at all.

Do not put your fingers into your own mouth or the mouths of your children without cleansing the fingers before and afterward.

The tuberculous member of the family or household must systematically and effectively protect you. If from youth, age or carelessness, he will not, then you must bear the burden yourself, or refuse further association with him.

### V. How You Should Act if Tuberculous.

The danger from you to others consists wholly\* in getting your discharges (sputum, feces, urine, or pus from wounds) into their mouths (or noses), by any route—chiefly through the hands, food, milk, drink, or air.

Touch nothing of your own, and especially of others, except with hands just washed. This applies to shaking hands.

Talk and laugh as you will, but never towards anyone else, lest you spray your saliva into their mouth or nose.

Do not kiss any person, except after careful cleansing of your lips.

Never cough or spit except into something held close to the mouth, and that can be boiled or burned.

After each spitting, wash the lips and hands.

Day clothing, bed clothing, all dressings, and eating utensils—everything you touch—must be disinfected with boiling water or disinfectants after use by you. Paper napkins, or worthless rags, should be burned.

Never feed a child from your plate, and never serve meals to others.

Keep flies away from your discharges—sputum, feces, urine, pus.

Stay out of doors all day—sleep out of doors all night, or with your windows wide open. See visitors only out of doors.

H. W. HILL.

\*Except in rare cases of infection through wounds.

\*Except in rare cases of infection through wounds.

### Poison Ivy.

At this season of the year there is a good deal of discussion about poison ivy, and a positive cure and relief from the poisoning is often a valuable piece of knowledge.

Many remedies are widely subscribed to, and some of them may sometimes be of use, but I have never known plain, hot water to fail, and it has invariably given instant comfort.

The outbreak usually begins on the wrists and hands, and it is necessary to put the affected parts into hot water. Then make it hotter, and keep on increasing the heat until a limit of endurance is reached. Let the parts soak for ten minutes altogether, and relief will then be obtained. In the course of two or four hours, or a day, the trouble may recur, when the same treatment will again be successful. Mild attacks may yield to one heating, while severe attacks may take a dozen, but the relief given by this method is positive, and is very grateful to the sufferer.

W. E. SAUNDERS.

### Hope's Quiet Hour.

#### A Chain.

"The chain of second causes,  
However long it be,  
Has always one last link:  
'Tis held, O God, by Thee!"

To-day, instead of talking to you myself, I am going to give you some passages from a beautiful book called "Rain-blossoms," which was written especially for sick and afflicted people. A copy was lent to me, and I found it so useful that I sent to England for a copy for myself. The author's name is Edith Harvey-Brooks.

"Perhaps one of the greatest trials of illness is the feeling that it is such terrible waste of time! Illness, like death, is absolutely arbitrary. It does not only select the idle and the pleasure-seeking. Its hand is laid upon the earnest student—the bread-winner—the mother upon whom the little ones are hourly dependent—the daughter whose arduous toil alone stands between her parents and the workhouse.

"When this is so, the sensation that

time is slipping past, leaving the necessary duties neglected, the opportunities for advancement lost, the occupation perhaps forfeited, is indeed an almost maddening one, and may well suffice to increase the suffering a thousandfold, and even to heighten and accelerate the progress of the disease itself. It is a terrible position, but God's power and goodness are quite equal to coping with and conquering it. Your difficulties are not unknown to Him. Your burdens and responsibilities were His appointment. He knows that you can no longer carry them, and He has pledged Himself to provide.

"Do not let your weakness of body dim your faith. Surely this is not the first time you have had to test the love and power of your Heavenly Father? Things are not as bad as they seem. . . . 'It is almost always when things are blocked up and impossible that a happening comes! God is turning the world round all the time!"

"You who sleep so badly know how desperately dark it seems when the night is absolutely moonless and starless; yet you are not afraid then, you feel positively assured that God is turning the world round, and that before long the little portion of it upon which you live, will be brought under the power of the warming, cheering rays of the sun. Is it so very hard to believe the same with regard to your life? God holds it—as He does the world—in the hollow of His hand. He does not forget that you are lying in darkness, much more trying to bear than the dreariest night. He is only waiting until the right moment has arrived to cast His bright beams upon you, and to arise as the Sun of righteousness with healing in His wings. . . . It may be His will that in due time you should be raised up and restored to your place in the world. If this is so, you have an opportunity NOW which perhaps will never be yours again. Any one can give praise to God when all is going well (though many, alas! omit to do so); but in sorrow it is a very different thing, and in no sort of sorrow is it so difficult as in sickness:

"From any other ill can man escape . . . But sickness holds the sick man in a chain."

"Yes! but it is a chain of many links, and the last link is not in the hand of a tyrant or a despot, but 'is held, O, God, by Thee!' by Him Who does not



"Thistle" Print Copr. Detroit Publishing Co.

The Lily Pond.

Painting by Chas. H. Eaton, Detroit Museum of Art.

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opportunities  
occupation per-  
almost mad-  
suffice to in-  
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It is a terri-  
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afflict 'willingly'; by Him Who numbers the very hairs of your head; by Him Who is the one omnipotent Physician; by Him Who Himself bore our griefs and carried our sorrows; Who Himself took our infirmities and 'bare our sicknesses!'

"Perhaps you think it is mockery to talk to one who is chained, of 'special opportunity'; what can be done by fettered prisoners?"

"Let me quote to you some sweet words written for people exactly in your own case, for they are dedicated to sufferers in a hospital.

"I speak to those who suffer. . . . If, impatient, thou let slip thy cross, Thou wilt not find it in this world again.

Nor in another: here and here alone Is given thee to suffer for God's sake. In other worlds we shall more perfectly Serve Him and love Him, praise Him, and work for Him,

Grow nearer and nearer Him with all delight;

But then we shall not any more be called To suffer, which is our appointment here. Canst thou not suffer then one hour—or two?"

If He should call thee from thy cross to-day,

Saying, 'It is finished! that hard cross of thine From which thou prayest for deliverance.'

Thinkest thou not some passion of regret Would overcome thee? Thou would'st say, 'So soon?"

Let me go back and suffer yet awhile More patiently: I have not yet praised God."

And He might answer to thee, 'Never more,

All pain is done with. . . . Let us take heed in time.

That God may now be glorified in us; And while we suffer, let us set our souls To suffer perfectly: since this alone—

The suffering which is this world's special grace—

May here be perfected and left behind."

"Do not these words make you desire to exchange dull acquiescence into willing and joyful acceptance? Nay, more—into a rich gift, which God will tenderly receive as an offering which indeed does not 'cost you nothing,' but which includes your most valued and your best! It may never be in your hand to present again. You will, perchance, recover from this illness and live for years, and the next time the messenger is sent, he may conduct you to the presence of the King with very short parley. At any rate, whatever the future may bring, a great chance is with you NOW:

'Here, and here alone, is given thee To suffer for God's sake.'

"You have often longed to do things for God, have you not? There is not one of us who, from time to time, has not been stirred by the recital of what others have achieved, and we have thirsted to have something also to offer. In the solemn hours of night it has, from time to time, been borne in upon us very convincingly that life is passing with appalling swiftness, and perhaps we start up with a wild regret in our minds; because there is so little to show for it! But God does not measure life with our poor, human scales. By Him, truly actions are weighed, but He also looketh upon the heart. If those also serve who only 'stand and wait,' what will not His tender love impute to those who not only wait, but SUFFER! . . . . . When the Great Day comes, when many that are last shall be first, perhaps the humblest of earth's forgotten ones may find even more astonishment than joy, in the acknowledgment of service which God owned and prized, though they themselves never thought of it as such!

"God knows that in your best moments you, too, desire, above all else, to fight His battle in the world, and He is giving you a glorious opportunity at this present time. Upon your couch of pain there is a battle to be won, a kingdom to be obtained which will make you greater in His sight than 'he that taketh a city,' and He will accept and tenderly value your effort as much as if it were years of labor in an apparently glorious campaign, or the heaped-up riches which you desire to possess that you may pour them at His feet. . . . . Man may

never know the contest in which you are engaged—may never give you credit for the effort you are putting upon your poor, exhausted frame, when you force yourself to keep back the impatient word, the weary murmur; but God does so truly appreciate the smallest attempt to 'glorify Him in the fires.' Your life may be 'hid' with Christ in God, but it is the hidden life which He so tenderly watches."

I pass on this inspiring message to my "shut-in" friends—such as dear "Lankshire Lass"—hoping that it may cheer and encourage them in their hard fight. It does us all good to be reminded of God's personal interest in the warfare we are waging. A great and glorious life is one that gives great joy to Him—and we all have the chance to live gloriously just where we are. HOPE.

### The Beaver Circle OUR SENIOR BEAVERS

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

### The Wild Flowers I Love Best.

Nine Beavers won prizes in the competition on the above subject.

They are: Winifred Colwell, Brookville Stn., St. John Co., N. B.; William Avery, Stayner, Ont.; Zilpha Adams, Brantford, Ont.; Maggie Bell, Canfield, Ont.; Lindsay McLennan, Guelph, Ont.; Lucile Glass, Thorndale, Ont.; Amy Seburn, Longwood, Ont.; Douglas Cleg-horn, Guelph, Ont.; and Amy Speirs, New Flos, Ont.

Those whose drawings were best were Lucile Glass, Winifred Colwell, Amy Seburn, William Avery and Maggie Bell. Lucile Glass's were paintings, beautifully done in water color, but the colors were not those that would reproduce well for publication.

Honor Roll—Richard Curtis, Effie Stoltz, Barbara Martin, Rita Coyle, May Lemendin, Sarah Bruce, Florence Branton.

#### ORANGE LILY, TWIN FLOWER.

When spring deepens into summer berries ripen, small birds are learning to fly, and school lessons have seemingly become things of the past, then come the flowers that I love best; and if you follow me some summer afternoon I will lead you to a moist, damp part of the nearby woods.

But as it may be that we can never go through these woods together in reality, let us go through them now in imagination. Imagine us now resting in a neglected meadow "far from the madding crowd."

Curiously we examine the soil on which we are sitting. It is rather a dry, sandy loam, possibly that having been the cause of the meadow's neglect. But it reminds us that if our "botanics" be true we possibly might find the Wild Orange Lily here. There it is, not far away, with its large open bell of a rich reddish-orange spotted with dark purplish-brown spots on the inner side, and a pale orange on the outer raising itself gracefully above the ripening grass. Jesus says: "Consider the lilies of the field how they grow; they toil not, neither do they spin, and yet I say unto you that Solomon in all his glory was not arrayed like one of these."

This quotation runs through our heads as we stoop to examine the flower which almost looks out of place on account of its loveliness. It contains six stamens, the filaments of which are rather long; the anthers are covered with pollen of a reddish-brown color, and the stigma is three cleft. The leaves are narrow and pointed and whorled at intervals on the stem. The plant itself is from one and one-half to two feet high. The plants have, in many cases, been cultivated, and have been so greatly increased in size and deepened in color.

After gathering as many as we can conveniently hold we pass on, as we wish to reach the appointed place before nightfall. So, blind to varied beauties which surround us on every

side, we soon arrive at our destination, the habitat of our little twin flower.

Bryant says:—  
"Nestled at its root is beauty  
Such as blooms not in the glare  
Of the broad sun. That delicate forest  
flower  
With scented breath and look so like a  
smile  
Seems, as it issues from the shapeless  
mould,  
An emanation from the indwelling life."



Twin Flower. (Drawn by Winifred Colwell.)



Wild Phlox. (Drawn by Amy Seburn.)



Wild Orange Lily. (Drawn by Winifred Colwell.)

To me these flowers are far prettier growing in their haunts than in the most beautiful vase procurable. Their beauty seems spoiled when gathered into a bunch.

The twin flower, as I remember it, consisted of a pair of blossoms on a fragile naked stem. These blossoms were a whitish-pink, striped with deeper pink on the inner side. Their shape is

somewhat bell-shaped. The round leaves are evergreen, and opposite each other on the stem. The plant is a vine from six to twenty inches long, and belongs to the honeysuckle family. It was given its botanical name by Linnaeus, the great botanist, often called the Father of Botany, who chose it as his own flower, called it the *Linnaea borealis*, and adopted it for the crest of his coat of arms. When Linnaeus died a cenotaph was erected to his memory, and, at its base was planted by request, the *Linnaea borealis*.

The day is going fast as we retrace our steps towards the village whose lights increase every minute, while behind us an owl hoots farewell.

I. WINIFRED COLWELL. (Age 15 years.)

Brookville Stn., St. John Co., N. B.

#### JACK-IN-THE-PULPIT, MAY-FLOWER.

Dear Puck and Beavers,—The wild flowers I like best are Jack-in-the-Pulpit or Indian turnip, and the May-flower.

All though the season from early spring Jack stands in his pulpit preaching his sermon of wonder. Strong and sturdy he stands, and what does he stand on? Take him up root and all, and examine him; Jack's head is something like a cat-tail rush. If you go back to the place he grew in a few weeks and see if there are any more flowers, probably not, but where he grew there will be groups of bright-red berries which are called the "children of the Jacks," which were left behind, after the pulpit dried away. His root is like a turnip, but so pungent in taste that one who has ever bitten it will never forget, and some people call it "memory root."

The May-flower comes out in the month of May, and that is how it got its name. It is very pretty; the colors are white, yellow, and purple. The flower is small, and grows about six inches high. The leaves are almost round with notches around the edge. They only grow in shaded places. They make nice bouquets, and are beautiful for decorating. Their roots are spread about the ground, and they spread all about in the bush and fence corners. They are also not harmful, because they will not grow out where the crops are. Most people are like myself; they love such pretty flowers. Well, I think I have told all. WILLIAM AVERY. Stayner, Ont.

Do you mean, by "May-flower" the beautiful trailing arbutus, with its tiny, fragrant, pinkish or purplish-tinted flowers with a bit of yellow at the heart? I have never found them growing, but was once lucky enough to have a tiny box of them sent to me. They are not very common now, I am sorry to say.

Perhaps, however, you do not mean trailing arbutus (often called May-flower) but some other that I do not know by that name. I shall be glad if you will send me one in a letter sometime. It may be that those you mean are "Spring Beauties," which also are pinkish with a dot of yellow at the heart, and are also sometimes called "May-flowers."—P.

#### VIOLETS, ADDER'S TONGUE, SPRING BEAUTIES, BLOOD ROOT.

The Wild Flowers I Love Best.

Dear Puck and Beavers,—I noticed in your valuable paper the new competition on "The wild flowers I love best," so I thought I would write.

Well, all the flowers are favorites with me, but the dear little "violets" "yellow adder's tongue" and "May-flowers," or as some call them "spring beauties" are the ones I like the best. The fragrance of the violet is beautiful at a certain time, but later they turn lighter in color and then they do not last long after that.

The May-flowers die earlier than the violets, always leaving one kind when another is withered or dead. If there is a place in the woods that is quite low and not too much shaded and is covered with them, there cannot be a prettier place unless it is a bed of "violets or ferns."

The trilliums are very nice when they are large and pure white, but when they are beginning to turn pink and the fine green leaves begin to turn kind of a brown, their beauty is fading. I once found a lily with four white leaves and



four green ones, and I pressed it and kept it for a long time, but now I cannot find it or I would send it to you.

The adder's tongue generally grows in a damp place, and in one mass together. I think the roots of them are very interesting to study, as the roots of all the flowers are different.

The blood-root has rather peculiar flowers. They are of such a pretty yet odd shape, and the leaves seem of such a pretty color of green, yet odd, too. The roots are of good use to make medicines of different kinds.

The little "Johnny-jump-ups" are cute flowers, although they are so very tiny. They resemble the violets so much they still seem beautiful to us. The leaves seem all on one stem and flowers, too, making them more difficult to be seen, as the little but numerous leaves cover their faces nearly all up.

This time of the year the woods are green with ferns and different kinds of weeds, bushes and all sorts of small shrubbery. It is a perfect flower-garden, not of our own, but of "Nature's" making, and it is all inviting to the "camera." If you go in the woods, the first thing to greet you is the gentle welcome of the bird's merry tune, and the smiling faces of the flowers.

In a wood I was recently at, there is a small stream running through the centre of it, and on either side of it, was a low, moist place, which was literally covered with violets of the darkest blue.

Well, I will close now, wishing the Beaver Circle every success, and also the Beavers with this competition.  
Brantford, Ont. ZILPHA ADAMS.

Have you ever found wild, blue violets with much fragrance, Zilpha? I have never found any of the really wild ones that had, although English violets escaped from garden have a delightful fragrance. The wild, white violet, however, whose petals are bluish on the back, has a very delicate sweetness of odor.

The Johnny-jump-up, which you mention, can hardly be called a wild flower. When you find it growing wild you may be sure it has escaped from some old garden.

#### VIOLETS, PHLOX, IRIS.

It seems rather a hard thing to decide "which wild flowers we love best," but I have chosen three, "the large, white violets," "wild phlox," and "blue flags" (iris.—Ed.).

The large, white violets are my favorites, and are not very common around here. I know of only one patch; it is in the centre of a wood in rather a low place. The plants grow about a foot high, and the flowers do not have separate stems. They resemble the pansies in many ways. The flowers are shaded like them, having yellow centres, and are slightly veined with purple near the centre. The backs of the petals are light purple, and turn darker as the flowers grow older. The leaves are somewhat heart shaped, only a little long. They bloom from about the twenty-fourth of May till the first of June.

The wild phlox can be easily recognized by its likeness to the tame phloxes. The flowers are light blue and loose in clusters. The petals are notched at the end, and there are five on one blossom.

The leaves grow opposite on the stems, and are lance shaped and slightly hairy. They grow in open sunny woods, and grow larger in decayed wood or near old fallen logs. They also blossom from the middle of May until June, and are very sweet-scented flowers.

The large, blue flags look very pretty along about the middle of June when all other flowers have died, and there are but few colors to be seen outside. They grow in wet, moist places, in marshes or bordering ponds or swamp land. They are a deep blue-yellow at the base, and are heavily veined with purple. The flowers grow on long, tapering stems, two to three feet high. The leaves are lance shaped and stand up around the stems.

I enclose three drawings to illustrate.  
Longwood, Ont. AMY SEBURN.

#### SELECTIONS FROM HONOR ROLL LETTERS.

"Of all the joys of boyhood, the one I love best is to go into the cool woods and pick the violets."—Richard Curtis.

"The apple-blossoms, the cherry, raspberry, strawberry and the peach, belong to the rose family."—Richard Curtis.

"Here I sit in my father's bush with wild flowers all around me, but I do not think there is any that I like more than the dear little blue violet."—Rita Coyle.

"If any of us country people were to go to the big city of London, Eng., and did not see any wild flowers from year to year, I think we would be very glad to get back to the dear old country again."—May Lemendin.

#### Junior Beavers' Letter Box

Dear Puck and Beavers,—I like to read the little girls' and boys' letters. I thought I would have to tell them about my pets. We have six little lambs. Papa gave me one, and I call it "Sweet-face." We have two snow-white rabbits, and we call them Lewis and Trixie. I have three sisters, one older and two younger than myself. I have over two miles to go to school. I can not get there very regularly. I guess I will close for this time.

FLORENCE GRANGER.  
(Sr. Part II., Age 7 years.)

Ruthwen, Ont.

Dear Puck and Beavers,—This is my first letter to the Beaver Circle. My father has taken "The Farmer's Advocate" for as long as I can remember. I have one sister aged six. Her name is Blanche. For a pet I have a yellow kitten named Goldie. I have a mile and a half to go to school. I don't miss many days unless I am sick or the weather is stormy. We work 180 acres. We built a new barn last summer, and expect to build a silo this summer. My teacher's name is Mr. Morrow. As my letter is getting long I will close, hoping this will escape the w.-p. b.

FLORENCE ARTHUR.  
(Age 10, Jr. IV.)

Branchton, Ont., R. R. No. 1.

Dear Puck and Beavers,—This is my first time to write to your Circle. My brother has taken "The Farmer's Advocate" for one year, and likes it fine. I read the Beavers' Circle nearly every Thursday when I come home from school. I go to school nearly every day. I am in the third book, and like it fine. My teacher's name is Miss Crossly, and I like her too. I have one sister and two brothers. My sister's name is Hazel, and my brothers' names are Fred and Jack. For pets I have two calves, a white-and-black, and a red-and-gray one. I have a white cat too. I will close now, hoping this will escape the large w.-p. b.

LAURA SULLIVAN.  
(Class III, Age 9.)

P. S.—My sister Hazel says she would like some of the Beavers to correspond with her. She is eleven years old, and her address is the same as mine.

Dear Puck and Beavers,—This is my first letter to your Beaver Circle. My father has taken "The Farmer's Advocate" for as long as I can remember, and likes it very much. I enjoy reading the letters in the Beaver Circle. I have one mile to go to school. My teacher's name is Mr. Harvey. There are twenty-nine going to our school. One day last summer all the girls of the school went to the woods, and we got back about four or half past four. I have a little kitten and a dog named Collie. My father owns a two-hundred acre farm three miles west of Bradford. I have two sisters and four brothers older than myself.

ALEXIA WILLIAMS.  
Bradford, Ont.

(Age 10, Class Jr. III.)

Dear Puck and Beavers,—I wrote to your Circle before, and, as I saw my letter in print, it gave me the courage to try again. We have taken "The Farmer's Advocate" for a number of years, and like it fine. I like to read the

Beaver's letters, and the story called "Rebecca of Sunnybrook Farm." I am another bookworm. Some of the books I have read are "Black Beauty," "All Aboard," "Cleared at Last," and "Little Curiosity."

I go to school nearly every day. I like my teacher fine. Her name is Miss Walker. I would like some of the Beavers of my age to correspond with me. I wish the Beaver Circle every success. I remain, your friend,  
Renton, Ont. MABEL VAIL.  
(Book Jr. III, Age 10.)

## Mending Basket.

### In Behalf of the Teacher.

Editor "The Mending Basket":  
After reading with interest Greybird's letter re the school teacher, I felt I must take up the cudgels on behalf of those of that profession.

I think the time when the teacher "looked down from her or his pedestal of learning" on the farmer folk, is a thing of the past.

I know there was a time when the teacher was placed almost on a level with the preacher, as these two were the only ones in the community who had a higher education. The teacher's society was greatly desired. He was constantly invited to the homes, and was given the most honored positions in public. His advice was asked by all, and he was considered, both by himself and by the whole section, a very superior being.

Now, circumstances have changed. The farmers in this district are almost all very prosperous, and can afford to educate their sons and daughters. A great many have attended high school, some ladies' college, others business college, or agricultural college, so that they do not feel one whit inferior to the teacher in education. Indeed, I am sorry to say, some are foolish enough to rather pity her because she has to earn her own living.

I feel a great deal of sympathy for the strange teacher, going into a long-settled district, near a large city. I think, unless she has a very magnetic personality, is remarkably gifted, or is connected with some of the influential families, she is very apt to be ignored instead of placed on a pedestal. Perhaps the farmers' sons show more kindness to these lonely ones than their mothers and sisters do. In many cases, the teacher is considered merely a human machine, hired by the ratepayers to teach their children. If the said children get along quickly with their studies and do not get a whipping, she is a good teacher, but if there is an occasion when a child belonging to one of these leading families has to be punished, then that poor teacher's time of reckoning has come. Of course, the children hear all the criticism and abuse. This has been repeated time and again in different school sections. I consider this one of the greatest mistakes parents can make. There should be the utmost sympathy and co-operation between teacher and parents. There is scarcely ever any serious trouble in school with pupils who are taught at home to respect the teacher and obey her rules.

Each one of us mothers know how much patience and wisdom it needs to guide a-right two or three little ones. When we think of a teacher with forty or fifty restless little tots (with as many different dispositions) to discipline and teach, I'm sure we ought to do all in our power to strengthen her authority and the children's love for her.

Last fall the Women's Institute here did a very praiseworthy act. They presented each school section with a large number of bulbs to plant in their school plots. This spring the plots were judged, and the Institute gave a prize for the best production.

I believe the children were much interested, and the teachers, without exception, took up the work gladly, thus showing their readiness to co-operate.

As to the advisability of the teacher preparing papers for the Institute meetings, I would judge it would depend very much upon what the subject was to be. For instance, for a teacher whose time is spent in child-study and development, to prepare a paper on bread-making and read it before a company of farmers'

wives experienced in cooking for years, would seem almost absurd. She would feel rather presumptuous in doing so. Probably, if the subject chosen were along the line of her present activity, she would gladly do her best.

I would not say, with Greybird, that it showed ignorance on the part of the teacher because she felt unfit to give a paper on cooking. We would not expect a minister to know much about agriculture, nor would he be asked to prepare a paper on farming at an Institute meeting. Yet, for all that, he may be a most successful pastor. Nor is a farmer supposed to understand medicine. He would not attempt to read a paper before a medical association. Yet he, too, may be an up-to-date, practical man, along his own line of business.

In this great world of ours each one has his or her special work to do, and if each does this work faithfully and intelligently, the grand result of the united efforts will be all that is to be desired.

It is a lamentable fact that the housewife has not always done her work intelligently, and has not always trained her daughters wisely. I believe the giddy teacher Greybird speaks of, also the foolishly-vain one, and the girl ignorant of the beauties of nature, are all the result of unwise parents, and perhaps are not so much to blame.

Oh, how thankful we should be for those blessed mothers who do guide their daughters wisely and well, who sympathize with them, and gain and keep their confidences, who love all that is beautiful and pure in nature and literature, and instill this love into their little ones from the beginning.

I thoroughly agree with Greybird concerning the "dignity of labor." All honest work is equally honorable, provided it be done well. I quite enjoyed her picture of the farm-reared teacher coming home full of interest and pleasure in all the simple joys of country life. All teachers have not had the privilege of being brought up on a farm, so the animals and out-door life does not appeal to them in the same way. Of course, they miss a great deal of the joy of living.

I have known, personally, dozens of teachers, and this I observe: That the sensible, energetic ones have, almost without exception, become first-class housekeepers when they gave up their profession for that of a housewife.

The systematic methods used in teaching, and the training in patience, together with common sense, quick-observing powers, and a good cook-book, unite to make of her a success in woman's most important work—that of homemaker and nation-builder.

York Co., Ont.

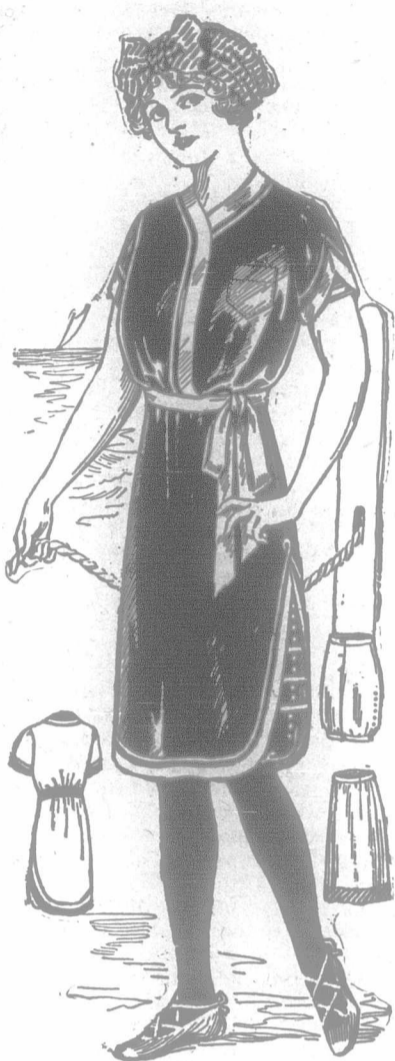
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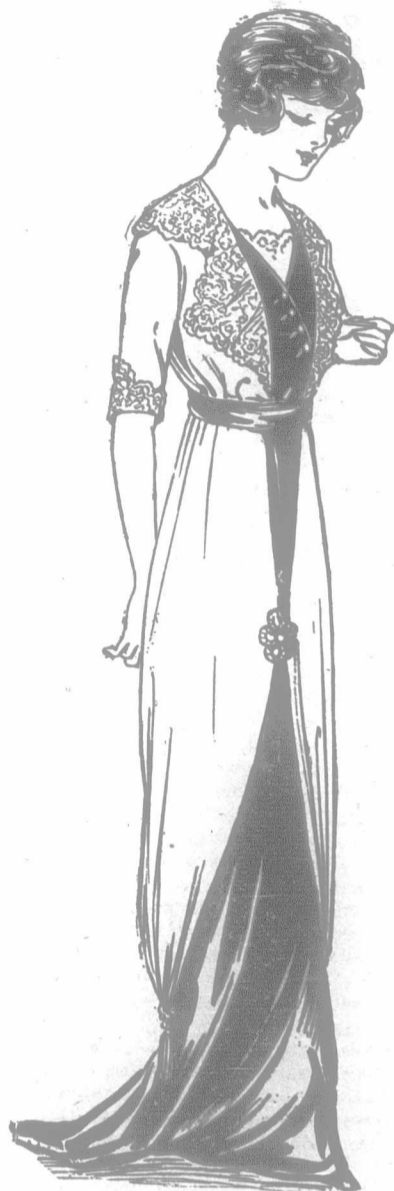


DESIGN BY MAY MANTON.  
7850 Short Coat,  
34 to 40 bust.

ing for years, She would in doing so. chosen were present activity, st. Greybird, that e part of the nt to give a ould not ex- much about e asked to e at an Insti- that, he may r. Nor is a and medicine. read a paper on. Yet he, late, practical of business. ous each one k to do, and fully and in- of the united to be desired. at the house- her work in- always trained believe the eaks of, also- the girl igno- ature, are all ts, and per- plame. ould be for do guide their who sympa- and keep their at is beauti- and literature, eir little ones



DESIGN BY MAY MANTON.  
7835 Bathing Suit,  
34 to 42 bust.



DESIGN BY MAY MANTON.  
7655 Fancy Bodice,  
34 to 40 bust.  
7622 Two-Piece Skirt with Drapery,  
22 to 30 waist.



DESIGN BY MAY MANTON  
7726 Fancy Waist, 34 to 40 bust.  
7669A—Accordion Plaited Skirt for  
Women and Misses, Small 22, 24, 26,  
Large 28, 30, 32 waist.

Perhaps, to a certain degree, and certainly in the hands of certain short-sighted teachers, this has been true, yet it is hard to see wherein the curriculum for the public school could be greatly changed with the solitary exception of the introduction of school-gardening and nature study, which are still lacking in a few places.

The fact remains that country children, as well as city children, are born with certain likes and dislikes, some of them with great talent or genius along certain well-defined lines: Here is a boy who may be developed into a good doctor, but is likely to do nothing else happily or satisfactorily. . . . Here is another of whom can be made a first-class farmer. . . . This one has a perfect genius for argument, and for working from premise to conclusion; he would make a good lawyer. . . . Yet another is never happy save when working with tools,—and so the story goes, ending up with a few nondescripts who appear to have no very especial aptitude for anything, who are never likely to shine very brightly in the world, but who have their place, and will find their work in it all the same.

Now, surely the sane method in dealing with the primary education of such an agglomeration must be: (1) To give all a good working grasp of the "three R's." (2) To touch upon enough subjects to give a perspective, and to make all so attractive that the boy with especial aptitude will be ready to recognize at once that especial work which he likes best, and for which he will be best fitted. Keep a boy who would make a first-class doctor on a farm, and he will be always an indifferent, half-satisfied, not wholly successful man.

Of course, in a rural district, with a teacher, who recognizes the possibilities in agriculture and respects those engaged in it, the majority of the boys will choose to be farmers, especially if not discouraged by grumblings and sneerings at home. Why should they not? They are born to it.

In all reason, however, the boy should choose his own vocation. He has to live his life, and he is the one who must suffer if a mistake be made. The responsibility is far too great for any parent who is wise to dictate or to exercise compulsion, the more especially since, granted a fair chance, any boy of sixteen who has any especial aptitude, will be pretty likely to be aware of the fact.

"The greatest folly which parents can commit," said Dr. Bernard Hollander, in a lecture given in England last year, "is to force their children into callings for which they have no aptitude. It is a step that can seldom be retraced with safety or advantage. A mistake may destroy the health of the mind and tranquility of the heart.

"Often ambition is mistaken for capacity, and it is believed that if a young man only starts in life with a sufficiently vehement desire to get to the top of the tree, he cannot fail; thus many parents get disappointed.

"The father who entertains a vague and complacent conviction that he is rearing an Archbishop, or a Lord Chancellor, or a great author, is often amazingly pleased ten years later, to learn that his lad evinces a genius for book-keeping by double-entry."

Neither should the blame be thrown wholly on the teacher, as it so often is, if a boy continues invariably on a dead level in his classes, evincing from start to finish no predilection for any calling, no interest in anything that demands especial exercise of brain power. In the words of the same lecturer, "Even if we all had the same opportunities of education, there would always be some whose organization would fit them only for the position of shoe-black or kitchen-maid."

This is true, yet we should always grant to the budding youth the benefit of the doubt. As another educator has said, "A youth should always be regarded with respect. How do we know that his future may not be superior to our present."

And if the youth should turn out to be fitted for no more ambitious calling than that of shoe-black or kitchen-help, there is no need to make his or her life miserable the more of that. He is still a human, a suffering, struggling human, and the thing most important to impress upon him is that his work is

honest, and that it is a credit to him to do it well.

The great consideration, then, is to give the boy an all-round chance to look into life from this starting-ground of his long race; to give him the essentials, reading, writing, and arithmetic, and let him taste enough of other studies, agriculture included, to enable him to make intelligent choice.

"Make a man, and he will choose his work," said President Hibben, in his inaugural address at Princeton a year ago.

"Make a man," by keeping the boy happy, interested in worthy things, and busy most of his time, either with hands or head. Play-time has its place, but, on the whole, the human brain, whether of child or adult, "gains nothing from repose but rest. The really busy man of wide interests does not suffer from overwork. The men who suffer from exhaustion are those who work very little, or work badly."—(Dr. Hollander.)

In one respect, however, the unconscious influence of the home may greatly, and often deplorably, affect a boy's decision in regard to his life-work.

If the boy, from his cradle up, hears nothing but money, money, money, if he sees in his own home as well as elsewhere the money god given the highest throne, if he hears constantly only those spoken of as successful who have accumulated riches, what wonder if he be inclined to throw aptitude—the thing he was made for—aside in order that he may plunge into whatever business may seem to offer the shortest and easiest road to such "success"?

Of course, in this age of strenuous competition, some attention has to be given to the question of sure bread and butter, and a few extras, but probably few of us realize how constant and insidious is the invitation to the youth of to-day to barter brains, humanitarianism, soul itself, for the chance of being numbered with the "successful." And perhaps fewer still among us ever notice how often we ourselves are parties to building up this idol with its head of gold and feet of clay.

We hear someone spoken of who has gone out West, and we ask, "Has he done well?"—"Not even a fool would pause to query, "In what way?"—A wisest man among the wise possibly might, but he would, at the same time, be quite cognizant of exactly what the enquirer meant by the question. . . . When a girl marries, the question immediately is, "Did she do well?"—"Not, "Is he good?" "Is he wise?" "Is he of fine character?" but "Did she do well?"—and the answer flies to the lip,—a statement in regard to "his" financial standing.

Yes, yes, few of us who can other than plead guilty to assisting in mammon-worship, and assisting mightily, in this way.

People need, of course, enough money to be independent, enough to pay their way through the world and ensure a reasonable amount of comfort and liberty. But, that assured, it is surely better to be INTERESTED than to be merely rich; better to be interesting than to be merely rich; better to know something of the marvels of this mysterious universe in which we are placed; better to know something of the satisfaction of being of some use in the world; better to have a little time in which it is possible to just live and enjoy with clear conscience, friends and nature, books and music, and art;—better all this than to be exerting every moment of time from waking to sleeping in the pursuit of merely selfish gain.

To quote from "The Simple Life," a book known to many of you, and of which you have all heard: "Money will not answer for everything; it is a power, but it is not all-powerful. Nothing complicates life, demoralizes man, perverts the normal course of society like the development of venality. Wherever it reigns, everybody is duped by everybody else; one can no longer put trust in persons or things; no longer obtain anything of value. We would not be detractors of money, but this general law must be applied to it, 'Everything in its own place.' When gold, which should be a servant, becomes a tyrannical power, affronting morality, dignity, and liberty; when some exert themselves to obtain it

HOW TO ORDER PATTERNS.

When ordering, please use this form:

Send the following pattern to:—

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

Address: Pattern Dept., "The Farmer's Advocate and Home Magazine," London, Ontario.

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.]

Selecting a Vocation for Life.

"I am going to make a preacher of this boy," said a father, laying his hand on the head of one son, "and a doctor of this one," indicating in the same way the other.

Now, surely the assumptions of this man were rather preposterous. Utterly disregarding the likes or aptitudes of his children, he would make a preacher of the one and a doctor of the other.

The writer of this has always held, notwithstanding the unending talk about "keeping the boys on the farm," that to exercise undue pressure or argument in the matter is a mistake; even that to make education in rural schools so one-sided as to exercise undue influence in the matter is a mistake.

Of course, it has been argued that the system of rural-school education so far has been such as to educate children away from rather than toward the farm.

## High Quality Builds Big Telephone Business

**T**HIS business was organized to manufacture telephone equipment for independent, local and municipal systems. Right from the start our equipment made records for efficiency. It did not take long for our goods to acquire a reputation for quality and reliability. As a result, our business has grown by leaps and bounds.

It is a well-known fact that we have been securing over 80 per cent of the new telephone business in Ontario. This business, too, has been secured with less effort than business secured by competitors. The satisfaction our telephones and equipment have given under all conditions has paved the way for easy business getting.

To judge how fast our business is growing, you'll remember we stated in a previous announcement that our business last year doubled that of the year before. Well, this year the first two months' sales total more than twice the 1912 sales for the same period. More and more is it being recognized by those in the local telephone business, that we are the legitimate people to deal with. There are those in the telephone business who are interested in depreciating the success of the Independent Telephone Movement and the development of Municipal systems. On the other hand, our business lies wholly and directly with the independent telephone systems, and it is to our own best interests to look after these systems well, as on their success depends the growth of our business.

If you would like a list of the large Independent Telephone Systems built in Ontario during the last twelve months, just drop us a line. We would be glad to send you a list of the systems, with the make of the telephones they are using. In fact, if you'll name over the large Independent Systems built during the last year in Western, Northern and Eastern Ontario, you'll find that nine out of every ten are using our telephones and equipment.

You are absolutely safe in equipping your system with our telephones. We guarantee them as regards material and workmanship. In fact, we guarantee all our equipment and materials. And, in addition, we offer to send our telephones for **FREE TRIAL**, so you can test and compare them with others right on your own lines before risking a dollar.

Ask for our NO. 3 BULLETIN containing the latest information about building telephone lines. Also NO. 4, describing our magneto telephones, is free on request.

SEND FOR A COPY

**CANADIAN INDEPENDENT TELEPHONE CO.**  
LIMITED  
20 DUNCAN STREET TORONTO, CANADA

## LIGHTNING RODS

The Authorities and Insurance men in Canada are gathering valuable statistics about Lightning Rods. **THEY RECOMMEND THEM.** In the United States they have been at it longer. They have more records. **THEY KNOW** what rods are doing. The Secretary of the Union Mutual Insurance Company in a recent public address said that 80% of the losses sustained by that Company had been by lightning, but that \$2.50 was all they had ever paid on damage to rodded buildings by lightning since their organization in 1873, and in that case the rod was not properly put up.

Of 40 Insurance Companies meeting in the Indiana State Association, not one had ever had a loss on a properly rodded building. The best rods are those with the copper on the outside, where the current flows, which is known as

### THE SHEATH ROD

The best Sheath Rod, because of the "Lock Joint" is "THE UNIVERSAL". Drop us a card for sample. Made in Canada by

**The Universal Lightning Rod Company**  
HESPELER, ONTARIO



"TWEED" Steel Troughs are made of heavy galvanized steel, thoroughly riveted and soldered. Finished round the top with heavy angle steel, so making them very strong and rigid. Reinforced along the sides, as shown.

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Are strong, rigid, clean and sanitary. Will last a lifetime. Never rust, never leak, and are frost-proof. Infinitely superior to wooden troughs, which rot, become slimy, and are disease breeders. "TWEED" Steel Troughs are provided with an outlet for drainage.

Send for illustrated catalogue of "TWEED" Steel Equipments for farmers and stockmen.  
**STEEL TROUGH AND MACHINE CO., LTD.**  
5 James Street, Tweed, Ont.

at any price, offering for sale what is not merchandise; and others, possessing wealth, fancy that they can purchase what no one may buy, it is time to rise against this gross and criminal superstition and cry aloud to the imposture, "Thy money perish with thee." The most precious things that man possesses he has almost always received gratuitously; let him learn so to give them."  
JUNIA.

### A Sign of the Times.

For the last three or four weeks our city of London here has been overrun with men from afar. First there was the Methodist Conference, then the Anglican Synod, then the big Medical Convention, to which doctors from all over Canada came, until the problem was where to house them all.

After it all, one reflects how vastly better, after all, the old world is growing. In the savage old ages such gatherings as these, for the helping of humanity one way or another, were never heard of. It was "every man for himself, and the devil take the hindmost," so far as any concerted action for such purposes was concerned.—Bull-fights and gladiator-fights, drinking and carousing unshamed, buccaneer attacks and brigand raids, fierce face to face fighting, and war a fine thing—with, no doubt, some milk of human kindness existing somewhere under it all.

To-day there is evil, too; the mad scramble for wealth, no matter who is trodden into the very uncomfortable old bog-hole of poverty in the race, is a thing of which we should be ashamed, and yet, after all—surely the world is growing better.

Some of us, it is true, get a little impatient because it moves so slowly, yet we cannot but be glad to recognize by these signs and such as they, that it is at least on the upward track.

\*\*\*\*\*

And I want to tell you this for fear I forget to tell you before next year: During the past week we have been to see two beautiful rose gardens, and have picked up a few points. At the one we were told, "Tell your readers not to prune roses too sharply." At the other, we inquired what had been done to keep off insect pests, and were informed that hellebore dusted on the leaves had been found very effective. Roses need a very rich, mellow root-bed, and, in dry seasons, frequent mulching about the roots with lawn-clippings. Rather than this, some prefer to carpet the ground between with low-growing plants, such as pansies, forget-me-nots, and alyssum.

JUNIA.

### DUSTLESS DUSTER—HOMEMADE HAMMOCK.

Dear Junia,—Can you tell me how to make a dustless duster? Also, can anyone give me suggestions about making a hammock?  
ANNIE R. M.  
Lanark Co., Ont.

Directions for making a dustless duster appeared in "Scrap Bag" of our issue for May 22nd. This is not, of course, the preparation used for the commercial article (which is secret), but it suffices. Some simply keep the ordinary duster in a covered can containing a little coal-oil.

A strong hammock may be made of heavy duck, ticking, or sail canvas. Put a broad hem at each end, at least ten inches in depth, and sew it strongly with waxed shoemaker's thread, then put a seam across, six inches from the end, dividing the "hem" into two parts. The outer of these divisions is to run a slat through. Cut circles in the inner one about as large as a penny, and "buttonhole" firmly with the waxed thread. Now put in the slats at each end, run pieces of clothes-line through the holes to serve as suspenders, lacing it up and down to iron rings at what are to be the extremities of the hammock, and your hammock is all ready to suspend from the hooks.

### THE NEED OF APPRECIATION.

Dear Junia,—I, like many others, have been a silent reader of your columns for years.

What brought me to your Nook was Pansy's letter of June 5th, asking for help to make her feel more at home on

the farm. Junia thinks Pansy is overtired. I do not. She has my sympathy.

I, like her, came from town, and am situated very much like her. Everything was new to me in the line of farming. I did not care about working with fowl, but think I could have done better through time, but my least little failure was laughed at again and again until I became discouraged, or, shall I say, resented it; but I do love to work with butter. I have been making butter for about twenty years, yet to this day, if my husband came in while I was tending it, I would set it away, for he would only find fault with my way of doing it.

I have a large family, and have always done my own sewing and baking, and many a time when he was obliged to be away all day I have had his stables cleaned and all the other chores done, yet he never acknowledged it in any way. I did not do it for praise, yet I think that is something of Pansy's trouble. She never gets any credit for anything she does, therefore she feels she is not appreciated.

Now, I would like to tell Pansy that all my troubles and worries (and they have been not a few) have brought me closer to my Heavenly Father. I have had to go to my Bible oftener, and on my knees for help and guidance. I can always take my little worries and cares to Him Who careth for us. If it were not for that, life to me would be unbearable, either on a farm or any other place.

I can hardly think or believe that any man means to neglect his wife, but the little acts of kindness that he first showed her dwindle down so gradually, that he himself is down before he realizes it, and then some women, as well as men, think it beneath them to acknowledge their error to one another.

ONE WHO SYMPATHIZES.

### Seasonable Recipes.

**Gooseberry Tart.**—Stew gooseberries with sugar to taste, to make about a pint of rather thick preserve. Line a pie-plate with crust, then add a border of the paste about an inch wide, pressing it down lightly with a fork. Add the gooseberries, and make a lattice-work of narrow strips of pastry, twisted over the top. Moisten the strips at each end to make them adhere. Bake in a hot oven. Serve very cold, with cream, plain or whipped.

**Gooseberry Fool.**—Put 1 quart green gooseberries in a jar with very little water and plenty of sugar. Put the jar into boiling water and leave until fruit is tender, then press it through a colander. Add 1 quart thin cream, very gradually, pour into individual glasses, and set in a cool place until needed.

**Strawberry or Raspberry Sherbet.**—Clean 2 quarts berries, and let come slowly to a boil in a graniteware vessel. Add about a cup of sugar. When soft, drain through a jelly-bag. To the juice add nearly a pint of water and the beaten whites of 2 eggs. Put all in the ice-cream freezer and freeze 15 or 20 minutes. For the packing, use one-third salt to two-thirds ice. Any fruit may be used in this way to make sherbet.

**Green Peas.**—Cook the peas in just as little water as will keep them from burning. Do not cover the kettle in which any green vegetable is cooking, as, if you do, they will lose their fresh, green color. When the peas are tender, add a mixture of 1 tablespoon flour mixed with 1 tablespoon butter. Season, and serve.

**Breakfast Rolls.**—Put 2 quarts sifted flour into a bread-pan. Pour into it 1 pint of milk which has been brought to a boil, then cooled until lukewarm, 2 tablespoons butter or lard, 1 tablespoon sugar, 1 teaspoon salt,  $\frac{1}{2}$  cake compressed yeast, blended in a very little lukewarm water. Knead and let rise over night. In the morning, cut off pieces and shape lightly between the hands into rolls of the desired size. Do not knead them. Put the rolls in a buttered pan and set them in a warm place to rise. When light, brush them over the top with milk, or sugar and water, and bake.

**Cheese Omelet** (appetizing and nourishing for those who cannot eat meat in hot weather).—Grate 1 ounce cheese. Mix the yolks of 2 eggs with  $\frac{1}{2}$  teaspoon salt and same of pepper, and 2

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**Recipes.**

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tablespoons cold water. Beat the whites stiff, and slowly fold in the yolk mixture. Place a frying-pan with a teaspoon butter over the fire. When hot, pour in the mixture. As soon as it is brown underneath, sprinkle over it the grated cheese. Place the pan for a few minutes in a hot oven, then fold the omelet to meet in the center, and serve at once on a hot plate.

**Sago Cream.**—Cook 1/2 cup sago in 1 pint milk until clear; add a pinch of salt and 3 tablespoons sugar. Beat whites of 3 eggs stiff, add to the mixture, and cook two minutes. Flavor with lemon when a little cool, and fold in lightly 1 cup whipped cream. Pour into a mould, and set on ice.

**Cheese Custard.**—Put into a saucepan 1 egg, 1/2 teaspoon salt, 1/2 teaspoon mustard, and beat well. Add 2/3 cup milk, and stir in 1/2 cup grated stale cheese. Stir over the fire until it begins to thicken. Remove at once, and serve on hot, buttered toast, or biscuit. If you like, you may add 1 tablespoon butter to the mixture while cooking.

**Raspberry Custard.**—Mix together the beaten yolks of 2 eggs, 2 cups milk, 2 level tablespoons sugar mixed with 1 small tablespoon cornstarch. Cook slowly in a double-boiler, and remove as soon as it reaches boiling point. Mash 1 pint raspberries and place in a glass dish. Pour the custard over, and set away to cool. Just before serving, whip the two whites stiff, add a table-spoon of powdered sugar, and spread over the custard.

**The Scrap Bag.**

**IRONING WAISTS.**

When ironing waists, do the collar-band first, then under the arms, then the sleeves, then the cuffs, and, last of all, the body of the waist. This will prevent crumpling. You will find it excellent to add a teaspoonful of borax and one of turpentine to boiled or cold starch. Very little stiffening is put in either waists or dresses nowadays, except in cuffs and collars; indeed, many of the one-piece dresses and wash skirts are not starched at all. Always iron embroidery on the wrong side over a thick pad. Iron the strip on which buttons are sewn in the same way. To iron a waist trimmed with both tucking and embroidery, iron the embroidery or lace on the wrong side, with a narrow "gathering" or "sleeve" iron, then turn the garment over, stretch the tucking, and iron on the right side. Have an ironing-board, if you have to make it yourself. Nothing so simplifies the work of ironing-day.

**TO SALT GREENS.**

Here is an idea from Pictorial Review: Select any greens desired—young beets, Swiss chard, or spinach. Wash them thoroughly. Have ready a large receptacle, a wooden one being best, although a large stone crock may be used successfully. In the bottom of the vessel sprinkle a layer of salt, then a layer of greens, and continue until the jar is full. Then put on a wooden cover and weight it. When desired for use, soak the greens over night; they will be found delicious.

**CORKS FOR CATSUP BOTTLES.**

Boil the corks in water for twenty minutes. This will make them pliable, so that they may be easily driven into the necks of the bottles. No further sealing will be necessary.

**POLISH FOR PATENT LEATHER.**

One part linseed oil, two of cream. Apply with flannel and polish off with a soft cloth.

**TO MAKE HARD SOAP.**

In a stone jar or iron pot dissolve one can of lye with one quart of cold water, stirring with a stick. Allow solution, which will immediately become hot, to cool. Melt six pounds of grease, tallow, or lard, clean and free from salt; and when entirely melted, allow to cool sufficiently to bear your hand in it. When grease becomes of this temperature, and not before, stir in the cooled solution of lye until the mixture is thoroughly combined and drops from the stirrer the thickness of honey. Stir thoroughly, but no longer than necessary. Pour into wooden box lined with muslin. Cover with blanket or carpet, and set in a warm place for two or

three days; empty out and cut to convenient shapes.

If soap is streaky, it has not been stirred thoroughly. Cut small and re-boil with one quart of water. Pour into box again and proceed as before.—Selected.

**Making a Vacation Pay.**

[A paper read by Miss Kate Fraser at a meeting of the Croton branch of the Women's Institute.]

What a miracle of change is wrought in our city population between the months of June and October! Pale, nervous, care-worn, excitable, fractious, touchy men, and women, too, are transformed as if by magic. Sunburned cheeks replace faded ones; dull, tired eyes regain their lustre, and lagging steps are quickened into vigorous ones—if the owners of them can but get a vacation.

There are multitudes of people in the country, as in the city, whose work would improve immensely if they could only learn how to renew themselves. Our mental faculties depend greatly upon this. How quickly our courage begins to weaken the moment the brain fags! One cannot expect the brain in second- or third-class condition to do first-class work. Most people under-estimate the tremendous importance of mental freshness. Good thinking can only come from a clear brain, and a clear brain depends upon pure blood, and only good food, plenty of sleep, lots of play, healthy recreation (or work?—Ed.) in the open air can make pure blood.

People in limited circumstances cannot afford to take long trips. It is not always necessary to go to a distant country for a vacation, but people might, if they just knew how, get any amount of benefit in their own homes, in our own country,—there is no better on the globe.

People work too hard, too long hours. Many of us work so hard during the week that we do not get sufficient rest or recreation on Sunday to get rid of the "brain ash," the broken-down tissues from the week's work. Forced recreation for the sake of lost health amounts to very little.

One has to forget drudgery; learn how to play; learn how to stop. Some people take a vacation because they have to, are forced to, not because they want it, but because they think they need it, just as one would take disagreeable medicine. Whatever their vocation may be, they have worked at it so strenuously that they are not likely to know much about any sort of pleasure or amusement; may not be able to play games such as golf, tennis, croquet, or even cards; perhaps never acquired taste for reading or music; never travelled much. In fact, they are ignorant of everything outside their business.

Now, when a person like this retires, as he will shortly, what has he to retire to? What he has been doing every day for perhaps half a century, seems now to hold him like a vise.

Many of us do not turn off mental power after we are through for the day. We carry it to the table, take it to bed with us, think, plan, and worry, waste energy in all sorts of ways, and so are unfitted for the next day's work.

When people are so weary and worn-out they have no power of resistance, and little self-control.

What good is a woman, no matter what she has accomplished or accumulated, when she has paid for the achievement with a slice of her constitution, and developed some disease tendency that would never have shown itself but for her run-down condition?

It is a heavy mortgage on our health to be hustling every minute. A little call or visit to your neighbor, even, at intervals, will count more for you than grinding every minute in your home. One of the best vacations is the increasing of one's acquaintances or making new friends. Sometimes, in this way, the best things have come to us.

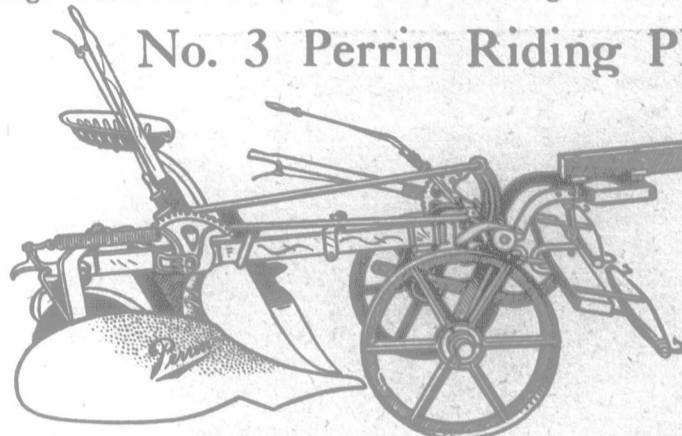
It is a mistake to be niggardly in the matter of our vacation. If we are, we rob ourselves of what we can never get back. Economize on anything but this. Whatever makes you better or healthier is cheap at any price.

Whether we make money or lose it, we should keep up our physical and mental standard. The most important invest-

**To the Farmers of Ontario**

Owing to increased trade and with the aid of our large and modern equipped plant, we have been able to considerably reduce the cost of manufacturing Riding Plows; and are in a position to sell our No. 3 and No. 7, similar to illustration below, at a price where YOU get advantage of this reduction in cost of manufacturing.

**No. 3 Perrin Riding Plow**



- Equipped with Rolling Colter.....\$29 50
- Equipped with Straight Colter..... 27 50
- Equipped with Skinner and Fin. Points..... 27 50

(Freight prepaid to any station in Ontario)

- Equipped with 30-horse Evener Bar and Single-tree (add) ..... 1 50
- Equipped with Steel in place of Cast Point (add)..... 1 50

Furnished with Doubletrees and Neckyoke; extra point and wrench. **TERMS:—NET CASH WITH ORDER.**

**GUARANTEE:—**All castings broken because of defective material during first year, replaced free. Your money will be refunded if this plow does not do satisfactory work in practical field operation.

This "Perrin" Plow is widely and favorably known throughout Ontario. It is a general-purpose riding plow that will work satisfactorily in the hardest clay soil; is light in weight, yet strong in construction and is so constructed that a boy can operate it.

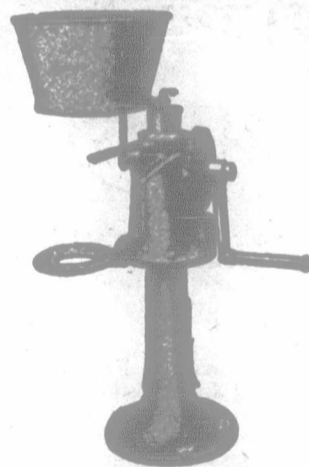
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ST. JOHN, N. B.

TORONTO, ONT.

WINNIPEG, MAN.

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LONDON, ONTARIO

September 5th to 13th, 1913

THE GREAT LIVE STOCK EXHIBITION

\$2,000 in cash added to the Live Stock Prize List this year.

Some new sections and good specials in the Horse Department.

Several silver cups in the Dairy and Poultry Department.

Stockmen and breeders, get ready for London's Exhibition.

Special rates over all railroads for exhibitors and visitors.


Send to the Secretary for Prize Lists and all information.

W. J. REID, President

A. M. HUNT, Secretary

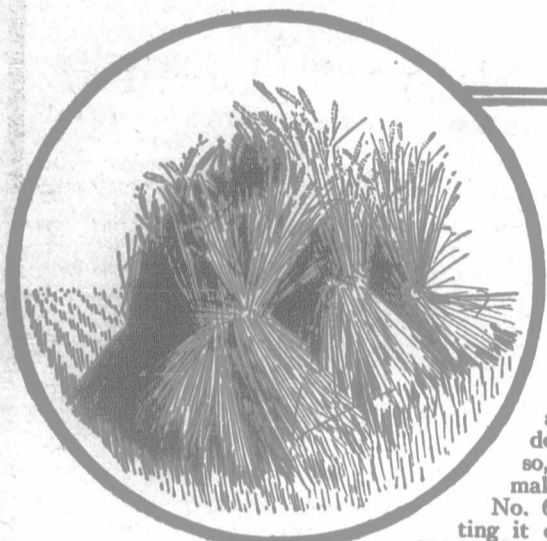
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School for Girls and  
Young Women



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Matriculation  
English  
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Careful training under  
competent teachers.  
Fall term  
opens  
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Write for Calendar and  
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**MOULTON  
COLLEGE**  
34 Bloor Street East  
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**Progressive  
Jones Says :**  
"Get More  
Bushels  
Per Acre"

**I** KNOW of farm lands in Ontario, and in the West, too, that are now yielding only 10 to 15 bushels of wheat to the acre. They used to yield 30 to 40. What a loss to their owners!

I wonder if you have any wheat land that is not doing its duty by you. If so, I strongly advise you to make an application of Harab No. 6 (cereal) Fertilizer, putting it on at the rate of about 300 pounds to the acre.

# Harab FERTILIZERS

will put back into your soil the plant food that continual cropping has taken out. Your worn-out land will become the rich, profit-making soil of former years. And all at a small cost.

Harab Fertilizers are natural Fertilizers. They are manufactured from blood, bones, etc., from the big Harris Slaughter Houses, with the addition of Potash and just enough quick-acting Nitrates and Superphosphates to produce well-balanced Fertilizers, which feed the plant as required and develop it to early maturity in a natural way.

But what you want first is the Fertilizer Booklet issued by the Harris Abattoir Co. It gives complete information about choosing the correct Fertilizers for barley, oats, rye and other crops, and the quantities to use. It's a mighty interesting booklet. I know, for I've read it myself. The Harris people assure me they'll gladly mail you a copy free. It's up to you to show you're "A Progressive."

*Years for bigger grain crops  
Progressive Jones*



**The Harris Abattoir Co., Limited**  
TORONTO, CANADA

ment we can ever make will be that of developing and cultivating what will give us interest, occupation and happiness in our declining years. We will finally be forced out of our old rut by age and ill health; it will be a grand thing to have some interest to fall back upon for satisfaction or enjoyment.

There are plenty of rich, broken-down people in this country to-day who would give half their fortunes if they could go back and take advantage of the bitter lesson they have learned from trying to get along without a vacation. Many a millionaire who has bartered his health for dollars, sighs in vain for that for which his wealth cannot restore.

### Canning Fruit.

[A paper given by Mrs. Pane, at a meeting of the Sunderland branch of the Women's Institute.]

I find in canning fruit, that berries, currants, and all small, mellow fruits, require but little cooking, only long enough for the sugar to penetrate through them. Allow them first to stand a few hours with sugar strewn over them to draw out the juice, or moisten the sugar with water and let the syrup come to a boil, then add the fruit, cook a few minutes, and seal. Peaches, plums, pears, and larger fruit, require more cooking, say about from twenty minutes to half an hour, or until cooked thoroughly.

Scald jars, also tops. I always keep a pot of boiling water on the stove and scald the jars thoroughly.

I think the great secret of canning fruit is to have the fruit as fresh as possible, also to cook quickly, as fruit that stands or cooks too slowly has not as good a flavor and is not as bright in color.

As the fruit cools, tighten the tops on the jars and set in a cool, dark place. In a week or two examine the jars; any that are not airtight will begin to show, and will require scalding over.

Berries, currants, plums, and almost any kind of fruit, can be cooked in the jars, and to have them whole. I would recommend this way. Select the largest and firmest fruit, fill the jars, moisten the sugar, and let it come to the boil, and skim, then pour over the fruit. Put on the tops and screw loosely, and have a boiler with lukewarm water ready, with paper in the bottom to prevent heating too quickly or breaking the jars. Put in the jars and let boil, for berries about ten minutes; larger fruit require longer. Lift off the boiler and let cool, tighten the tops, and set the jars away.

Peas, corn, tomatoes, and pumpkins, can be canned very satisfactorily.

Tomatoes.—Select nice, ripe tomatoes, put in a pan, pour boiling water over them to remove the skin, fill the jars, and cook in the boiler, adding nothing else; or cook in a kettle and seal. By adding salt or sugar, they will not keep as well as if done without.

Beans.—String beans are cut as for cooking, and canned. No seasoning of salt, pepper, or sugar, should be added. Cook as corn or peas.

Corn.—Split the kernels lengthwise with a knife, then scrape with the back of the knife, thus leaving the hulls on the cob. Fill the cans full of cut corn, pressing it very hard. It will take from ten to a dozen ears of corn for a quart jar. Screw the top on loosely and place in boiler with cloth or paper in the bottom to prevent breakage. Boil steady for three hours; lift off boiler and let cool. Take out jars and tighten tops. Keep in a dark place.

Peas.—Fill cans full of peas. Shake well, as you cannot press the peas down as you can corn. By shaking, they can be filled quite full. Pour cold water over the peas to overflowing, then proceed exactly as canning corn.

Another Recipe.—Eight cups of peas, 4 cups water, 1/2 cup salt, 1 cup sugar. Boil twenty minutes.

Pumpkins can be done the same way, and are much handier for winter use than drying or trying to keep them any other way.

Pineapple.—For about 6 lbs. fruit nicely cut in squares, make a syrup with 2 1/2 or 3 lbs. sugar. Add three pints of water. Let boil five minutes, skim, add fruit, let boil two or three minutes, and seal.

Grapes.—Squeeze the pulp from the skins and let boil to remove the seeds.

Something Entirely New for Housekeepers, Mothers and Daughters.

## An Ideal Hot Weather Dress

The only House Dress on the market that can be worn without corsets and still keep your neat and tidy appearance

SEND FOR SAMPLES



Patented Canada, United States, Great Britain, France, Germany and Australia.

You will save much work and worry if you wear the

### BALDWIN (Four-in-One) House Dress

A new idea that is fast growing in popularity. It is a real help and convenience. Answers every purpose of work dress, house dress, yet always looks neat. Slips on and off in a second, just like a coat. Merely shifting the belt adjusts the garment to any figure instantly. Snap at the back holds the garment securely in place. Its double-breasted feature gives double service. It has a hundred uses in every home.



Prices  
Post-  
paid  
\$2.00  
and  
\$2.15

### "She Always Looks Neat!"

You can't catch her looking untidy, because — while about her household duties she always wears a

#### Baldwin House Dress

A veritable BOON to the busy housekeeper. Made in popular patterns of high-grade parcales and chambray. As advertised in Ladies Home Journal, Womens' Home Companion, Good Housekeeping, Vogue and others.

#### Baldwin Garment Co.

96 CARLING STREET  
LONDON ONTARIO

Kindly send me your free samples and illustrated booklet.

Name.....  
Street.....  
Town or P. O.....  
Province.....

for House-Daughters.

Hot Dress

the market corsets and appearance

PLES



REVERSED WITH BELT DETACHED



THE ONLY FASTENING

ates, Great Australia.

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growing in up and taking purpose of ret always in a secondly shifting ment to any back holds place. Its double ser-



tested

Prices Post-paid \$2.00 and \$2.15

Neat!"

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usekeeper. of high- Journal, n, Good hers.

t Co.

NTARIO

e samples

When the pulp seems tender, put through a sieve. Have the skins boiling in another kettle, and add the pulp with a large coffee-cup sugar to the quart.

[Note.—Should be glad to know why putting a little salt in tomatoes when canning tends to prevent them from keeping well. As a rule, salt is a preservative.

We may add that vegetables, with the exception of tomatoes, require very long boiling to ensure their keeping well. Boiling on three successive days is recommended. Jars, tops, and rubbers, must be thoroughly sterilized.—Ed.]

The Windrow.

Professor Bergson has accepted the Presidency of the English Society of Physical Research, a position which has been formerly held by F. W. H. Myers, Sir Oliver Lodge, Sir William Crookes, A. J. Balfour and Andrew Lang.

The late Alfred Austin will probably have been the last post-laureate of Great Britain. The office is now looked upon as useless and antiquated.

According to recent reports made to the United States Department of Agriculture, Alaska possesses about 20,000,000 acres of strictly agricultural land. The climate is said to be more favorable for farming than Finland, which has long been under cultivation.

Many women have entered the medical profession in Russia proper, and not long ago a number of Siberians sent a petition to St. Petersburg praying that women be admitted to the medical faculty in the University of Tomsk. There are many Mohammedan women in Siberia, and only women doctors are permitted to attend them.

Infantile paralysis is now recognized as a summer disease, at least as taking its origin in summer when stable-flies, which carry the germs, are active. These flies stay out of doors in fine weather, but some of them are likely to seek shelter in houses during rainy weather, and may be known by their "bite." Ordinary house-flies do not bite. Sticky fly-paper and poison are practically useless against stable-flies, which live on the blood of warm-blooded animals; the only way to reach them is by keeping manure, in which they breed, continually cleaned away.

The centenary of the birth of George Borrow, who, notwithstanding the fact that he translated the Bible into many foreign languages is best described by the title which has been given to him, "The Walking Lord of Gipsy Lore," was celebrated on July 5th at Norwich, Eng., where steps have been taken for the preservation of the house in which he lived while there as a permanent Borrow museum. Borrow's best known books are "Lavengro" and "Romany Rye."

Dr. Carrel, head of the Rockefeller Institute for Medical Research, visited Paris recently, and in a lecture there he said that surgeons can now open the chest to treat its organs as safely as we have been able for a few years to open the abdomen to perform operations of laparotomy. He also says that in such operations the heart can stop beating for ten minutes and be revived. Already as the fruit of his research the kidney can be kept alive in cold storage for months. Possibly one of these days a heart kept in cold storage may replace one that has to be removed. Who knows?—The Independent.

"In factories where the work has been organized and the responsibility vested in individual men, first-aid methods are often antiquated. The present-day surgeon knows a great deal that is of practical value in this work which was not taught by his predecessors of a generation or even a decade ago, and he should be given the opportunity to bring shop methods up to date. Take, for example, the treatment of lacerated wounds, which form the bulk of the

Extensive Clearing Sale of Used Cars

Must be cleared out by August 1st—the end of our year. No reasonable offer refused.

The cars offered were taken as part payment on new Knight Models. They are in good repair, with first-class equipment.

- 1. A FULL LINE OF HIGH-CLASS CARS for pleasure, to be sold at a sacrifice. Particularly suitable for farm and country service—an excellent opportunity to own a high-grade car at a very low price.
2. ALSO SEVERAL COMMERCIAL TRUCKS of 1,500 lbs. capacity, in splendid shape. Excellent for conveying produce to market, and will soon earn their cost and more by speedy deliveries.
3. TWO AUTOMOBILE ENGINES, 4-cylinder. Suitable for motor boats.

All must be sold before August 1st, as this stock cannot be carried into next year. Full description and prices sent on request.

RUSSELL MOTOR CAR COMPANY, Limited
100 Richmond Street West, Toronto



You can't buy gold dollars at a discount—nor Ford cars at special prices—any time—anywhere. We've never made enough cars to satisfy the demand—at regular prices. Don't be deceived. Ford prices are wonderfully low—but absolutely net.

Here's the test: 300,000 Fords now in service. Runabout \$675; Touring Car \$750; Town Car \$1,000—f.o.b. Walkerville, Ont., with all equipment. Get catalogue and particulars from Ford Motor Car Company of Canada, Limited.

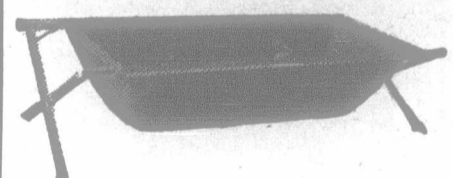
POULTRY AND EGGS

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

WANTED—Poultry man who thoroughly understands running incubators, dressing and general care of poultry for private place. Must be Protestant and temperate. Married man with not more than two children, one of which is old enough to assist with poultry. House on plant to live in. Apply to Box 436, Cobourg, Ont.

Wanted—Shetland Pony Mares or Fillies. State age, color, exact height in inches, sire and dam's sire, and whether registered in Canadian, Scotch or American Stud Books; lowest price. Box 2,610, Montreal.

A Boon to the Country Home



CAN you think of anything more refreshing or satisfying after a hard day's work in the field than a bath? Thousands of Country homes are now enjoying this privilege through our Folding Bath Tub, and we want you to do so. This bath tub is 5ft. long, 2ft. wide, 18 inches deep (inside measurements), and weighs only 15 pounds. Each tub carries a guarantee for 5 years.

Price, delivered anywhere in Ontario \$7.50, and after a fair trial, if you are not perfectly satisfied, return at our expense, and your money will be cheerfully refunded.

Folding Bath Tub Co., Ltd. Gananoque - Ont.

accident work, and vary from slight cuts of the fingers to severe injuries of the hands. The old approved method of treating these injuries is to scrub them with soap and water, using a sterile nail brush, then to wash them in bichloride of mercury, and afterwards wash off with sterile water. This treatment is effective but painful. It sometimes kills already partly devitalized tissues and, in some cases, requires an anesthetic before thorough cleansing is possible without unbearable pain. One company which has been using the gasoline and iodine method of cleansing for the past year has not had a case of infected wound. The method is to wash thoroughly the injured part in gasoline, with gauze, thus removing rapidly all dirt and grease. The wound and surrounding parts having thus been cleansed, the wound and adjacent skin are painted with two or more coats of tincture of iodine. The wound is then sutured or dressed, as the surgeon sees fit. This is but an example of the possibilities which are now open to the shop man in taking care of injured employees.—The Iron Age.

Might not this method be of use as a "first-aid" measure in case of accident on farms?

News of the Week.

CANADIAN.

The C. N. R. Transcontinental railway will be completed to the Rockies by November.

The forest fires in Northern Ontario, which caused so much devastation during the week, were quenched by the copious rains which fell over the greater part of the Province on July 4th. Among the places burned out were Earlton, Belle River, and the Peter Brown Creek settlement, 200 miles east of Cochrane.

BRITISH AND FOREIGN.

The Bulgarians suffered several defeats at the hands of the Greeks during the week. The Bulgarians, on the other hand, repulsed the Servians at several points. Roumania is now mobilizing her army.

The United States Democratic tariff reform bill is now ready for consideration of the Senate, and will be known as the Underwood-Simmons bill. It approaches free trade more closely than any bill

## SHARPLES MECHANICAL MILKER

### The March of Mechanism

ONCE perfected, a mechanical device inevitably overcomes every barrier against its use. The invention of the reaper swept away ten centuries of the scythe.

Mechanical progress is swift and certain.

Men have milked by hand since the dawn of husbandry. Yet in four years over 2,000 Sharples Milkers have been installed. This is prophecy of the new era in dairy science.

That such progress should be made in so short a time is largely due to the universal confidence of the dairymen in the Sharples product. For thirty-two years the name of Sharples has stood for correct principles and sturdy quality.

The elimination of the drudgery of hand-milking will effect a great economy of labor in the dairy and on the farm.

Cows are more contented when milked by the Sharples. The milk flow is greater, and teats and udders are kept in perfect condition.

There is a dairy near you in which a Sharples Milker is working successfully. Let us tell you how you can inspect it.

Illustrated Booklet on Request.

**The Sharples Separator Co.**  
West Chester, Pa.

#### Branch Offices

Chicago, Ill. San Francisco, Cal.  
Portland, Ore. Dallas, Texas  
Winnipeg, Can. Toronto, Can.

Agencies Everywhere



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situation Wanted and Pet Stock.

**TERMS**—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

**ALL** kinds of farms. Fruit farms a specialty. W. B. Calder, Grimsby, Ont.

**FOR SALE**—Sable and white Collie puppies. Males only. \$4 each, ship at 6 weeks, July 31, from working strain. George Bilton, Hagersville, Ontario.

**FOR SALE**—122 acres, Township of Maryboro, County of Wellington, 1½ miles from Drayton, rich clay-loam, 100 acres cultivated and thoroughly drained. 3-acre maple bush, 19-acre cleared pasture with ever running spring, well fenced, drilled well at house, water forced to barn, good orchard, seven roomed stone house, brick kitchen, woodshed, cement cellar, furnace, cistern, large bank-barn, stabling good, litter carrier throughout, implement shed, hen house and work shop. This is one of the best farms in the Co. of Wellington, for particulars write to W. E. Kells, R. R. No. 2, Drayton, Ont.

**HELPFUL** literature for Bible students free on application. Secy. International Bible Students' Association, 59 Alloway Ave., Winnipeg.

**WE** will pay you \$120 to distribute religious literature in your community. Sixty days work. Experience not required. Man or woman. Opportunity for promotion. Spare time may be used. The International Bible Press Co., 180 Spadina Ave., Toronto.

**WANTED** by married man, a position as herdsman on stock farm, used to Ayrshires, and capable of taking charge of a dairy. Strictly temperate and reliable; best of references. Address Box D, Farmer's Advocate, London, Ont.

**WANTED**—Married man for dairy farm, forty dollars month, free house and milk. If wife milks, fifty dollars. Good milkers with references essential. Thorn, Hill Farm Dairy, North Bay, Ontario.

previously introduced into Congress. An income-tax provision is planned to make up for the difference in revenue.

Two militant suffragettes, Kitty Marion and Clara Given, were sentenced in London last week to three years' penal servitude, on the charge of setting fire to the Hurst Park race-course stands.

The division in China steadily increases. Yuan Shi Kai, taking advantage of the money secured through the five-power loan, continues to build up his army, and the lives of Dr. Sun Yat Sen and other revolutionists are in constant danger from assassins. Civil war seems imminent.

### Trade Topic.

Hickman & Scruby, live-stock exporters and commission agents, Court Lodge, Egerton, Kent, England, write that they have just shipped the champion Suffolk Punch stallion, Bawdsey Laddie, to Mr. McCallum Smith, Western Australia. This stallion made the highest price ever realized for one of this breed. By the S. S. "Royston Grange," sailing from London on June 14th, they shipped 2 Devon bulls and 6 heifers selected from the herd of C. Morris, St. Albans, and 10 Romney rams selected from A. J. Hickman's flock, to Alfred Hunt, of Corrientes, Argentina. At the same time they bought and shipped 60 bulls of the Shorthorn, Aberdeen-Angus and Sussex breeds, together with 100 Romney rams, for an old friend, Julio Pueyrredon, of Buenos Aires. This is probably the largest order from a private individual that will come to England this year. By the same steamer, they also shipped 15 Shorthorn bulls that were purchased for G. Lawson Johnston, Cnairman of the Argentine Estates of Bovril, Ltd. A short time back they shipped a high-class Shire stallion to Clifton Chambers, Sadorus, Ill., U. S. A., and they have now received another order from him for 2 Shire stallions and 2 fillies, also a good Welsh pony mare. From the Government of Rhodesia they have just received an order for 78 bulls, chiefly of the Shorthorn, Hereford, North and South Devon, and Lincoln Red breeds, and have also received an order for 2 North Devon and 2 Hereford bulls, from the Congo Government. They are shortly shipping some Romney rams and Red Poll bulls for Capt. Braga, of Monte Video. To South Africa they have recently sent 2 high-class South Devon bulls, to C. W. Van der Merwe, of Ladygrey; 3 in-calf S. Devon cows, and a very fine heifer, to Harding & Parker, of Frankfort, O. F. S. They are also buying 3 good in-calf S. Devon heifers and a good bull, for the Bloemfontein Board of Executors and Trust Co. To W. H. Weeks, of Sandflats, Cape Province, they are sending the 2 best Lincoln Red heifers available.

### Gossip.

Duncan Brown & Sons, breeders of Shorthorn cattle, Iona, Ont., inform us that they have sold all their bulls that were fit for service last spring, but they have four more now that are twelve months old, color red, and dark roan, big, sappy fellows. Two of them are from the best milkers in the herd, and are all sired by Trout Creek Wonder. They are just the kind farmers want, and at reasonable prices.

John Miller, importer and breeder of Clydesdales, Shorthorns, Cotswolds and Shropshires, Brougham, Ont., writes that he has sold all his bulls old enough for service, and has just shipped one of his best fall calves to R. C. McCullough, of Georgetown. This calf is out of Lady Madge 4th, by Langford Eclipse, and her dam was the imported Marr-bred cow, Lady Madge. His sire was Imp. Diamond Cross. Mr. McCullough paid a long price for this calf, and Mr. Miller thinks he will have one of the best stock bulls in Canada. In his recent importation of sheep are some of Minton & Nock's best show rams and ewes, and an extra good lot of field rams from Nock & Dakin. In Cotswolds, he has show rams and ram lambs from Houlton & Swanwick, and yearling show ewes and ewe lambs from same breeders. Any of these sheep will be offered for sale at a small profit.

Attention is called to the advertisement of the Federal Life Assurance Company of Canada, which appears in another column. Up-to-date Limited Payment Life and Endowment Policies are issued by this company, whose head office is at Hamilton, Ont.

Robert Miller, Stouffville, Ont., writes: "Have been doing some business all the time, and find that better cattle are in demand, even those who live in districts where they say good prices are beyond them, are inclined toward better animals, even if they cost a little more. I make an effort to meet the wishes of men in such districts, and in that way have secured customers that were afterwards amongst my best for high-class and higher-priced animals. The inquiry is beginning to come for sheep, and I am prepared to furnish Clydesdales, Shorthorns, Shropshires and Cotswolds, that will be a credit to all concerned, and that will suit any pocket in any district. I have two bulls that should be at work, one of them fit to head a good herd, the other a useful bull, at a low price."

For four entire hours the lady remained in the shop. She had visited every department and worried the majority of the salesmen without spending a penny. Towards the close of the afternoon one of the salesmen, feeling somewhat exasperated, ventured to make a mild protest. "Madam," he asked sweetly, "are you shopping here?" The lady looked surprised, but not by any means annoyed. "Certainly," she replied. "But what else should I be doing?" For a moment the salesman hesitated, then blurted out: "Well, madam, I thought perhaps you might be taking an inventory." Then the lady melted away among the shadows by the door.

An Irishman walked into a men's furnishing goods store the other day and said: "Oi want to get somethin' fer mournin' wear, but Oi don't exactly know what the costum is. What do they be wearin' now for mournin'?" "It depends," explained the salesman, "on how near the relative is for whom you wish to show this mark of respect. For a very near relative, you should have an all-black suit. For some one not so near you may have a broad band of black on the left arm, or a somewhat narrower one for somebody more distant." "Och! Is that it? Well, thin, gimme a shoestring. It's me woife's mither."

### Questions and Answers. Miscellaneous.

#### Late Crop for Feed.

What do you consider the most profitable crop to be sown on or about July 15th, for late fall and early winter feeding for milch cows? Is this too late for a paying crop of corn?

A SUBSCRIBER.

Ans.—For sowing at this season, to make cow feed, we can suggest nothing better than millet.



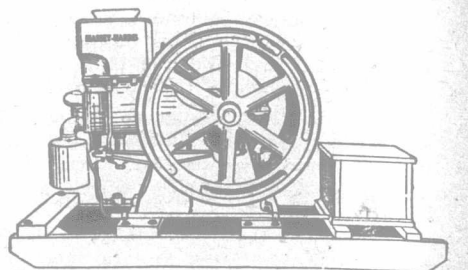
### MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 15th August, 1913, for the conveyance of His Majesty's Mails on a proposed contract for four years, six times per week, over Rural Mail Route from Granton (South-west) (Middlesex, N. R.), Ontario, from the Postmaster-General's pleasure.

Printed notices containing further information as to conditions of proposed contract may be seen, and blank forms of Tender may be obtained, at the Post Office of Granton, and at the Office of the Post-office Inspector at London.

G. C. ANDERSON,  
Superintendent.

Post Office Department,  
Mail Service Branch,  
Ottawa, July 3rd, 1913.



### Cheap Hired Help for the Farm.

A Massey-Harris Engine mounted on Skids can be moved around to any place where you need help in the way of power.

You will be surprised to find the many uses to which it can be put and the small cost as compared with manual labor.

And perhaps the most interesting part of it is that an Engine costs nothing in "salary" or "keep" when not running.

The Massey-Harris Cylinder, Cylinder Head and Water Jacket are cast solid. There are no gaskets or packed joints about the Cylinder or Jacket to leak or cause trouble in any way.

There is a large water space around the Cylinder and both Valves, giving ample protection from excessive heat.

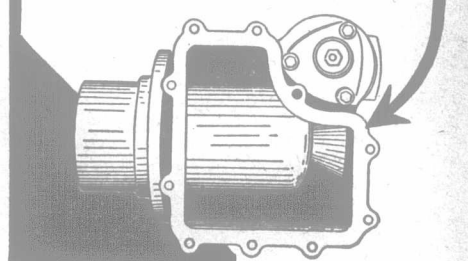
Illustrated Circular for the asking.

**MASSEY-HARRIS CO., Limited.**  
Head Offices—TORONTO, CAN.

— Branches at —

Montreal, Moncton, Winnipeg, Regina, Saskatoon, Yorkton, Calgary, Edmonton.

— Agencies Everywhere —



## SWEET MILK WANTED

Shippers required to send milk daily in eight gallon cans to Toronto. Good prices. Write for particulars to:

**S. PRICE & SONS LTD.,**  
Toronto

## "1900" Gravity Washer

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

**1900 WASHER COMPANY**  
357 Yonge St. Toronto, Ont.



### Lice Murder Chicks

check laying, stunt growth, ruin the plumage, torture the hens  
**PRATT'S LICE KILLER**  
(Powdered) murders lice and so insures greater profits.  
25c, 50c. Guaranteed. Pratts 100-page poultry book 10c. by mail.

**Pratt Food Co. of Canada, Ltd.**  
Toronto

"Nothing lost here but the squeal," declared the pork packer. "Are you as economical in conducting your business?"

"Just about," answered the visitor. "I'm in the lumber business. We waste nothing but the bark."

# On the Farm



## Old Dutch Cleanser

is of greatest value. Besides its many household uses, it is just the thing for cleaning and scouring milk pails, the cream separator, the churn and everything connected with the dairy. Makes everything clean, sweet, sanitary.

Many uses and full directions on large Sifter-Can, 10c.



## The Excelsior Life Insurance Co.



Incorporated 1889  
Assets nearly \$3,500,000.00

Excelsior's liberal up-to-date policy contracts. The best for protection, for investment or to provide a fund to liquidate mortgages, etc.

Absolute Security, Liberal Profits  
Company being foremost in all desirable features  
Desirable vacancies for agents to devote either entire or spare time to work. Apply to any branch office, or to:

HEAD OFFICE, TORONTO

## COMPLEXIONAL COMPLAINTS

Are our specialty. We treat successfully at home pimples, blackheads, eczema, blotches, rashes, discolorations, and remove permanently Moles, Warts, Red Veins, Superfluous Hair, etc. Booklet "F" mailed free. HISCOTT INSTITUTE, 61 College Street, Toronto. Established 21 years.

Whatever the piano you are thinking of buying, it cannot be a better musical instrument or a more durable one, than the

## Sherlock-Manning

20th Century Piano  
"CANADA'S BIGGEST PIANO VALUE"  
Write for full particulars. The Sherlock-Manning Piano Co., London. (No Street Address Necessary).

## Wood-Block Paving.

The paving of city streets with wood is again coming into favor, new methods of laying the pavements making this one of the most satisfactory of pavements. Vancouver's pavements are largely of the same material. Eighty-two per cent of the new paving in Minneapolis is wood-block, and Saskatoon and other Western towns are giving the wood-block paving the preference.

Best results are obtained from rectangular-shaped blocks cut from Southern or Norway pine, which are thoroughly seasoned and creosoted. This latter process not only lengthens the life of the wood but reduces its absorptive capacity for water, thus preventing the weakening of the wood-fibres and reducing its tendency to buckle. The most approved method of laying this pavement used in London, New York and other large cities, is to first make a concrete foundation four or six inches thick, on which is laid a thin layer of sand, or better still, of moist Portland cement, into which the blocks are closely set.

The blocks are from five to nine inches in depth, and must be free from defects. Care must be taken to place them with the grain perpendicular to the road-bed. If laid with the long edges at right angles to the curb the joints are apt to become worn by the calks on the horses' shoes, so to prevent this and to best provide for possible expansion, the paving is laid at an angle of about sixty-seven degrees with the curb. The joints are usually filled with ground cement, and the surface of the paving is then covered with a thin dressing of coarse sand, which beds into the pores of the blocks and roughens them.

Such a pavement has the smoothness of asphalt, and will last almost without repair for fifteen years under ordinary conditions. It is sanitary, noiseless, easily kept clean and has a certain springiness lacking in asphalt, and so is much easier on horses' feet. Expert labor is not required in its laying and the cost of maintenance is practically nil, so that from the standpoint of cost as well, it compares favorably with the asphalt, macadam and brick now being used in Canadian towns and cities.

The manufacture of wood-blocks for paving would furnish sawmill owners with a means of utilizing the many defective logs of Norway pine unfit for saw material, and, could a steady market be developed, much of the waste in connection with present lumbering and milling operations could be avoided. —Forestry Branch Bulletin No. 99.

## Trade Topic.

SOIL CULTURE.—The Deere Company, of Illinois, manufacturers of agricultural implements, have, as an active branch of their publicity propaganda, a soil-culture department under direction of Dr. W. E. Taylor. Lately he has issued a volume of 275 pages, substantially printed, devoted to "Soil Culture and Modern Farm Methods," containing a great deal of information in popular garb, with the object of promoting a more general and intelligent comprehension of the materials and processes with which the farmer works. This is designed to react to the benefit of agriculture and industrialism by causing the better use of a superior class of tillage and other implements. It treats of the nature of the soil, tillage, the principal crops, those on corn, alfalfa and potatoes being particularly complete, manures, silo construction, septic tanks (with diagrams), chapters on feeding, live-stock husbandry, and several reference tables. In the swine section, Canadians might incline to be amused at the omission of Yorkshire swine among the "chief bacon types," those given being Hampshires, Cheshires and Tamworths. The statistical tables relate to the United States. For the nominal sum of 25 cents per copy, any reader may obtain a copy by writing the Publicity Dept., Deere & Co., Moline, Ill., which is certainly deserving of commendation in the policy of information which the volume expresses.

## Questions and Answers.

### Miscellaneous.

#### Statute Labor.

In our township some beats did not do their statute labor in 1912. Pathmasters were waiting for Council to get stone-crusher in working order, which Council neglected to do till late in the fall, when wet weather prevented it from being done. Road lists were not returned to Clerk, and the undone work was not put on the collector's roll. A sells his farm to B; statute labor for 1912 not performed.

1. Can Township Council collect statute labor for 1912 if parties refuse to do it and pathmaster returns it undone?  
2. B, refusing to do A's statute labor for 1912, can Council collect it from B's farm?  
PATHMASTER.

Ontario.  
Ans.—1 and 2. It is possible that the corporation of the township can collect from A by taking proper steps; but we doubt very much its being in a position to realize a commutation amount in respect of such statute labor by sale of a portion of B's farm, as suggested.

#### Ditching.

A's outlet of water off his farm is on to the public road, and the municipality has ditches and a culvert to carry water up to B's land on opposite side of road where there has always been a kind of a ditch across B's land to a creek. Now A wants this ditch enlarged, for in freshets, water backs up on to the road and on to his farm. What steps has A to take to get this ditch opened? If it is opened, has it got to be tiled or left open? B claims that C's farm, the next above, has a right to take the water that flows down the road ditch past his farm, which is quite a down grade to where this ditch is concerning A. Can there be a ditch dug off the road into C's farm?  
Muskoka.

Subscriber.  
Ans.—The whole matter is one to be arranged by the Municipal Engineer, under The Ditches and Water-courses Act, if the parties interested—including the Municipal Council—are unable to agree upon a suitable disposition of it.

#### Administration of Estate.

1. Who should settle the estate—the will or the administrator? A dies, and the heirs find no will until an administrator had been appointed. They had advertised in a local paper for any claims against said deceased, and arranged for all that was necessary to make a settlement. After some money had already been paid to the heirs, the will turns up.

2. Who has the legal right to settle the estate?

3. What is the limit of age of the deceased's wife, so that she may claim her third of the estate if the will does not allow her that amount?  
Ontario.

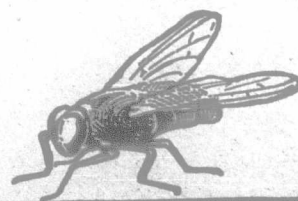
Ans.—1. It should be administered under the will.

2. The Executor of the will, upon his obtaining probate thereof from the Surrogate Court.

3. We are not aware of any limit such as suggested; but she ought to make election promptly whether she will accept the provision made for her by the will—or take her dower—that is a third of the lands for life; unless, of course, she is entitled to both legacy and dower—as to which she would do well to consult a solicitor personally.

## Gossip.

Henry Arkell & Son, breeders of Oxford and Hampshire Down sheep and Shorthorn cattle, Arkell, Ont., write: "Our sheep are all in good condition. Pastures have been very good. Our rams are strong, vigorous fellows, and of good quality. The ewes are a nice lot, and any person wishing to commence a flock would do well to order early. The sheep business promises to be good, as there is an ever-increasing demand for sheep, with much better prices for wool and mutton. Where is there anything on the farm as little trouble and expense, and quick return?" See the advertisement in another column.



## Don't Let the Flies Poison Your Cows or Horses

Flies are filth-carriers and disease-breeders. Every time a fly bites your cows or horses there is danger of poisoning and disease. And cows won't milk well—horses won't work well—cattle won't fatten well—if you let the flies worry them, bite them, poison them.

## INTERNATIONAL FLY WAY

keeps Flies, Mosquitoes and other insects away from your stock. To any farmer who wants sleek, contented cows and horses it pays for itself a hundred times over in the gain in milk and flesh.

Sold on your positive guarantee to drive away flies and other biting, irritating insects.

For sale by Dealers everywhere in 50c. and \$1.50 sizes.

International Stock Feed Co., Ltd. TORONTO

## GRAND TRUNK RAILWAY SYSTEM

### ONLY LINE REACHING ALL SUMMER RESORTS IN HIGHLANDS OF ONTARIO

including Muskoka Lakes, Lake of Bays, Georgian Bay, Algonquin Park, Maganetawan River, French River, Timagami, Kawartha Lakes. Full summer service now in effect to all of above resorts. Write for full particulars and illustrated folders to any Grand Trunk Agent.

HOMESEEKERS' EXCURSIONS. Each Tuesday until Oct. 28, inclusive. WINNIPEG AND RETURN ..... \$35.00 EDMONTON AND RETURN ..... \$43.00 Low rates to other points. Return limit two months. Pullman Tourist Sleepers leave Toronto 11:35 p.m. on above dates running through to WINNIPEG via Chicago and St. Paul without change. Tickets are also on sale via Sarnia and Northern Navigation Company. The Grand Trunk Pacific Railway is the shortest and quickest route between Winnipeg, Saskatoon and Edmonton. Tickets now on sale at all Grand Trunk Ticket offices.

## COLUMBIA DOUBLE DISC RECORDS

DOUBLE VALUE FOR YOUR MONEY

## DO YOU NEED FURNITURE?

Write for our large photo-illustrated Catalogue No. 7—it's free to you. The Adams Furniture Co. Limited. TORONTO, ONT.

## MOLASSES FEEDS For Dairy Stock and Horses

Write for FREE samples to CHISHOLM MILLING COMPANY TORONTO

## Cream Wanted


We guarantee highest Toronto prices, full weights and prompt returns. Our 15 years' experience ensures satisfaction. We furnish cream cans and pay express charges. Write:

Toronto Creamery Company, Limited Toronto, Ontario

What is it which you can easily put into your left hand, but which you cannot possibly put in your right hand? It's your right elbow, of course, but not one person in ten will be able to guess this unless they already know the answer.

Chief Editor—"Look here, Sharpe, here's a fiddler been hanged for murder. How shall we headline it?" Musical Editor—"How would 'Difficult Execution on One String' do?"





**St. Lawrence Sugar**

**For Preserving**

—buy St. Lawrence Extra Granulated by the bag. You get the choicest, pure cane sugar, untouched by any hand from Refinery to your kitchen—and **FULL WEIGHT GUARANTEED**

Bags 100 lbs., 25 lbs., 20 lbs.  
Cartons 5 lbs., 2 lbs. 3

Best dealers can supply you.


St. Lawrence Sugar Refineries, Limited, Montreal.

## A BIG CHANCE.

"Here, hold my horse a minute, will you?"  
"Sir! I'm a member of Congress!"  
"Never mind. You look honest. I'll take a chance."

## AFTER EATING.

Uncle James couldn't read. He went into a restaurant one day, and when the waiter handed him a bill of fare he said: "Thankee, son, but Ah never reads befo' meals."



**"My butter is always just right"**

### What's The Matter With Your Butter?

Does it lose its flavor quickly?  
Does it acquire a bitter taste in a few days?

Are you receiving any complaints about the butter not keeping well?

Use the salt that does make good butter every time and all the time—

## WINDSOR DAIRY SALT

It is always the same in purity and strength. It won't cake—dissolves evenly—and makes the most delicious butter you ever tasted.

The prize-winners at all the fairs, used Windsor Dairy Salt—that's why they won all the prizes.

72D

### Questions and Answers. Veterinary.

#### Lame Colt.

Colt has been lame in fore leg for two weeks. There is a swelling and soreness between knee and shoulder, which feels like a hard cord. R. P.

Ans.—This is either a sprain or a bruise. Keep the colt quiet in a loose stall, bathe the parts long and frequently with hot water, and after bathing rub well with a lotion made of 2 oz. laudanum, 1 oz. acetate of lead, and water to make  $\frac{1}{2}$  pint. V.

#### Contents of the Mouth of Foetus.

Why is it the foal's comb or cud is in its mouth at birth? Why do some foals swallow it while others throw it out? Has swallowing it any effect upon the nourishment of the foal? G. I. S.

Ans.—Some fetuses, possibly all, have during the later stages of gestation a substance that in this country is usually called "the bit." We do not know that it has any special function, neither do we think that some foals "swallow it". In cases of very easy birth it is often noticed in the mouth, but in other cases it is frequently seen among the membranes when they are expelled, while in many cases it is not seen at all, but we are of the opinion that if the membranes were carefully examined it could be found, as we do not think it is ever swallowed, hence cannot have an effect upon the nourishment of the foal. V.

#### Lame Cows.

Cows, in good condition, were turned out on good pasture with a brook running through, on May 15th. In two weeks they began to go lame, first on one foot, and gradually all four. They lie a great deal, and when they rise they are stiff and sore and can hardly walk, but become a little better after walking a few steps. I have examined their feet and limbs and can detect nothing wrong. T. C.

Ans.—It would require a personal examination to enable a man to make a valuable diagnosis. The symptoms given indicate rheumatism, which should be treated by keeping in dry, comfortable quarters at night, giving each 2 drams salicylic acid three times daily, and rubbing the joints well three times daily with hot, camphorated oil. There is some local cause for the trouble. Examine the feet, and between the clouts well again, as it may be foul-in-feet, which might be caused by walking through swampy ground, rushes, etc. V.

#### Hard Milkers.

1. Heifer calved in April. Her teats were very large, but I could get only a very small stream of milk. Her udder and teats were tender. I turned the calf on but it nursed from the hind teats only, which were a little smaller and milked a little easier. I made sharp wooden pins which I put into the front teats. This caused soreness, and I had a serious time with her. I got a teat syphon but it does not work satisfactorily, and when extracted I cannot get milk, as there appears to be a valve that shuts off the calibre of the milk duct.

2. Another heifer calved in April, and I could get no milk out of front teats. I passed a knitting needle, but it did no good. G. M.

Ans.—1. We frequently state in these columns that the passing of needles, etc., into cow's teats is very liable to be followed by "serious complications." To enlarge the opening of the milk ducts little guta-percha plugs, made especially for the purpose, can be purchased from dealers in veterinary instruments, but, in many cases, even these fail to be effective. The irritation caused in your case has probably caused the formation of a growth which occludes the passage when the syphon is withdrawn. It is possible that a veterinarian might operate successfully with an instrument especially for the purpose, but we are of the opinion that it would be wise to get her dry as soon as possible and fit her for the butcher, as she will not likely make a satisfactory milker.

3. There are tumors in the ducts. As in No. 1 a veterinarian might be able to operate successfully, but we think that this case also should be dried and fitted for the butcher. V.

## THE SAFEST SUMMER DRINK

# "SALADA"

Iced Tea brings no harmful results to those who use it. Cooling, refreshing and gently stimulating. Black, Mixed and Green. Sealed packets only.

Allow the tea to steep for five minutes and then pour off into another vessel to cool gradually. Never use artificial means of cooling until ready to serve; then add sugar, ice and lemon.

## Central Canada Exhibition

Ottawa, Sept. 5 to 13, 1913

### FREE TRANSPORTATION

Freight paid to Ottawa from last shipping point on all live stock exhibits from Ontario and Quebec. Railways will carry these exhibits home without charge. This is the best opportunity ever offered breeders, large and small, to show animals at one of the world's great fairs.

### \$20,000 IN PRIZES

Acres of most modern pavilions filled with dazzling displays of farm implements, novel demonstration features and a splendid array of manufacturers' products. New \$100,000 Machinery Hall completed.

Two daily aeroplane flights of 10 minutes' duration, starting from the grounds. Free band concerts, unrivalled vaudeville and other magnificent attractions. Six monster night shows—Siege of Delhi.

Entries close August 29th. Lowest rates on all railways.

Write for programme, prize list, etc., to

E. McMAHON, Manager,

26 Sparks St., Ottawa

## THE COLD SIDE OF YOUR HOUSE

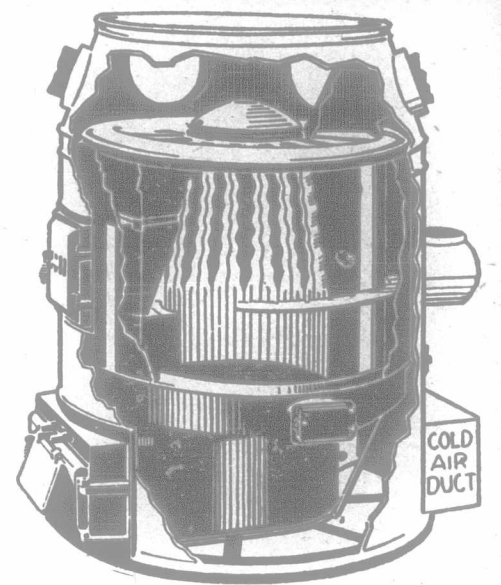
An ordinary furnace often fails to heat where the wind strikes.

That is because warm air travels in the line of least resistance. In an ordinary furnace no provision is made to thoroughly distribute the heat.

An ordinary furnace has an empty space between the fire-grate and the circulating pipes. A Kelsey Warm Air Generator is different.

Surrounding the fire-grate, there are from 8 to 16 heavy cast iron tubes. Each of these tubes is really an independent heat generator. The weight of these tubes in the average size generator is about 90 pounds.

All the heat from the coal is concentrated in these heavy tubes. Once this great mass of iron becomes hot it stays so for



hours and hours and maintains a uniform pressure of warm air throughout the building.

Making these tubes Zig-Zag, increases their heating surface and gives extra pressure without waste to all parts of the house,

With the Kelsey Generator the heating of the attic bedroom or the cold side of the house is no more a problem than the heating of the down-stairs living rooms.

Our booklet, "Achievements in Modern Heating and Ventilation," tells all about these Zig-Zag tubes. Write for it.

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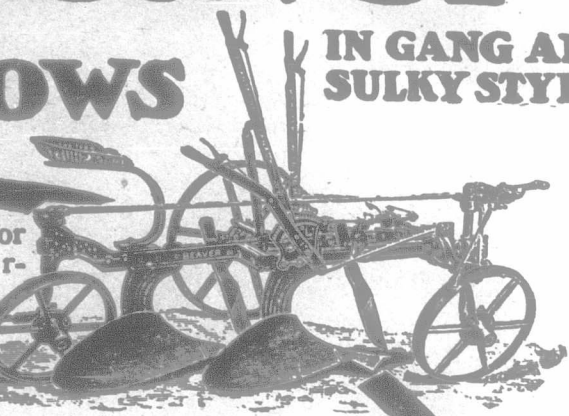
# Cockshutt Beaver Plows

IN GANG AND  
SULKY STYLES

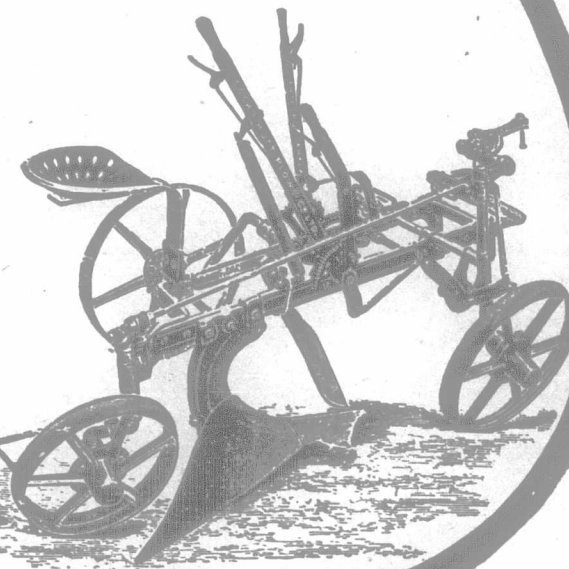
THIS line is for general purpose plowing. Both plows have a strong, all-steel frame, with easily-operated and convenient hand levers. Each frame is carried on a large land-wheel and on front and rear furrow wheels, which have dust-proof, self-oiling bearings.

Both furrow wheels are connected to and controlled by the pole. This arrangement results in easy guidance.

Bottoms, with knife or rolling colter, for any kind of soil, are supplied to meet the needs of each buyer.



THE "Beaver" Plows are prime favorites. They have remarkable sales. They meet general farming needs perfectly. Get the "Cockshutt" Catalogue for full details.



Write to-day for full particulars and Catalogue detailing "Beaver" Plows. It comes for a post card. Write to-day.

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For Sale in Eastern Ontario and Eastern Canada by  
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Montreal, SMITHS FALLS, St. John, N.B.



## Electric Steel Wheels with Wide-grooved Tires

Are the ideal wheel for farm and road. Built to fit any axle or skein, of any height, any width of tire and capacity.

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When in want of a high-class Clydesdale stallion or filly, or something that has won and can win again in Hackney stallions or fillies, visit our barns at Hudson Heights, Que.

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E. WATSON, Manager, Hudson Heights, Que.

CLYDESDALES, PONIES, BULLS  
2 Imported 3 year old Clyde fillies  
2 mares 4 years old, in foal.  
ponies broken to ride and drive, safe and quiet for women and children. Bulls consist of 4, from 12 to 15 months old. All this stock is for sale at reasonable prices. Myrtle C. P. R. and G. T. R. 38 miles East of Toronto.

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IMPORTED CLYDESDALES.

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Both imported and Canadian bred always on hand at SMITH & RICHARDSON, Columbus, Ont. Phone Connections: Stations, Myrtle C.P.R., Oshawa C.N.R., Brooklyn G.T.R.

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## Clydesdales for Sale

My first importation for 1913 landed in March. One dozen fillies of the highest standard will be offered at rock-bottom prices during June and July. Write for particulars and prices or phone.

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CLYDESDALES Imported and Canadian bred of large size, good colours, and the best of pedigrees always on hand. Pure-bred Jersey cattle of the choicest breeding, and Rhode Island Red Poultry of an excellent egg-producing strain. If you want a good start in such stock at lowest prices write me - D. McEACHRAN.

## U.S. Yearbook 1912.

The nineteenth volume of the U. S. Department of Agriculture Year-book has been printed. The edition will, as usual, be distributed by Senators, Representatives, and Delegates in Congress, as the Department's allotment is reserved for official correspondents and others rendering valuable voluntary service.

The previous volumes, aggregating 9,000,000 copies, have been thus distributed, and those who received copies, knowing their value, will doubtless be expecting the new volume, which contains 781 pages, 60 half-tone plates, 10 lithographic plates, and 19 text figures.

The form of the Year-book being prescribed by law, there is little variation from year to year in its general style. The Report of the Secretary for the fiscal year, 1912, which occupies the first 259 pages, has already appeared in separate form. Twenty-four special articles prepared by direction of the Secretary, that relate to the subjects of general interest which have received special consideration during the year by experts in the respective bureaus of the Department, and have not heretofore been published, will be issued as separates or extracts, so as to make them available for a wide distribution to those not securing a copy of the Year-book.

These subjects are not treated with exhaustive detail, as the articles are restricted in length in order that the number might be increased and a wide range of information covered. The table of contents of the new Year-book comprises titles of articles on "Promising New Fruits," by William A. Taylor and H. P. Gould; "Our Meadow Larks in Relation to Agriculture," by F. E. L. Beal; "The Handling of Dressed Poultry a Thousand Miles from the Market," by Mary E. Pennington; "Some Results Obtained in Studying Ripening Bananas with the Respiration Calorimeter," by C. F. Langworthy and R. D. Milner; "Crop Safety on Mountain Slopes," by J. Cecil Alter; "Insects Injurious to the Onion Crop," by F. H. Chittenden; "Condensed and Desiccated Milk," by Levi Wells; "How the Produce Dealer May Improve the Quality of Poultry and Eggs," by H. C. Pierce; "A Successful Method of Marketing Vegetable Products," by L. C. Corbett; "The Chestnut Bark Disease," by Haven Metcalf; "Some Useful Weather Proverbs," by W. J. Humphreys; "Some Important Insect Enemies of Live Stock in the United States," by F. C. Bishop; "Relation of Birds to Grain Aphides," by W. L. McAtee; "National Forest Timber for the Small Operator," by William B. Greeley; "Truck Soils of the Atlantic Coast Region," by Jay A. Bonsteel; "Seed Collection on a Large Scale," by Henry H. Farquhar; "Improved Methods of Handling and Marketing Cotton," by Charles J. Brand; "Dairying and Its Relation to Agriculture in Semi-Arid Regions," by A. K. Risser; "Agriculture in Public High Schools," by Dick J. Crosby; "The Settlement of Irrigated Lands," by Carl S. Scofield; "Some New Grasses for the South," by R. A. Oakley; "Raisins, Figs, and Other Dried Fruits and Their Use," by C. F. Langworthy; "Possible Sources of Potash in the United States," by Frank K. Cameron; and "The Commercial Weather Map of the United States Weather Bureau," by Henry L. Heiskell.

The portion devoted to the Appendix comprises the "Review of Weather Conditions," the names of officials of the agricultural colleges and experiment stations and State officials in charge of agriculture, statistics relating to agriculture in aspects of production, acreage, and value of crops, of the number and value of farm animals, of price of farm products at the farm and in the wholesale market, of foreign trade in farm and forest products, and of railroad rates for the transportation of principal farm products.

Beginning with the earliest years for which statistics were obtained, tables are given exhibiting the acreage, production, value, prices, exports, and imports of the corn crops of the United States, and for all or most of the items mentioned, of the crops of wheat, oats, barley, rye, buckwheat, potatoes, cotton, tobacco, flaxseed, rice, and cane and beet sugar. These statistics provide a great variety

## Horse Owners! Use

COMBAULT'S  
**Caustic  
Balsam**

A Safe, Speedy, and Positive Cure  
The safest, Best BLISTER ever used. Taken the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSTIDES ALL CAUTERY OR FISHING. Responsible to produce cure or Mania. 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.  
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## Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use  
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Use it under our guaranteed—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 5-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of  
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TRADE MARK REG. U.S. PAT. OFF.  
will reduce inflamed, swollen Joints, Sprains, Bruises, Soft Bunches; Heals Boils, Poll Evil, Quittor, Fistula, or any unhealthy sore quickly as it is a positive antiseptic and germicide. Pleasant to use; does not blister under bandage or remove the hair, and you can work the horse. \$2.00 per bottle, delivered. Book 7 K free.

ABSORBINE, JR., antiseptic liniment for manking. Reduces Painful, Swollen Veins, Gout, Wens, Strains, Bruises, stops pain and inflammation. Price \$1.00 per bottle at dealers or delivered. Will tell you more if you write. Manufactured only by  
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## NOTICE TO HORSE IMPORTERS

**GERALD POWELL,**  
Commission Agent and Interpreter,  
Nogent Le Retrou, France,  
Will meet importers at any port in France or Belgium and assist them to buy Percherons, Belgians, French Coach horses. All information about shipping, banking and pedigrees. Many years' experience; best references. Correspondence solicited. P.S. Nogent is in the heart of the Perche horse district.

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**C. CHABOUDEZ & SON**  
205 rue La Fayette, PARIS, FRANCE.  
If you want to buy Percheron Horses and Mares, I will save you time and money and all trouble with papers and shipment. Will meet importers at any landing port. I am acquainted with all breeders and farmers. 30 years experience. Best reference. Correspondence solicited.

## MESSRS. HICKMAN & SCRUBY

Court Lodge, Egerton, Kent, England  
Exporters of Pedigree live stock of all descriptions.  
Illustrated catalogues and highest references on application. We are doing a very large business in draft horses of all breeds, but especially Percherons, and we are offering unsurpassed values. All over the world there is a shortage of wool and mutton, sheep will go higher, and we solicit orders for show flocks. Our prices on big bunches of field sheep will surprise you.

## PERCHERONS

I have now on hand and for sale one carload of Mares which I recently purchased from the best breeders in Illinois and Iowa, from 3 to 8 years old, 1600 to 2000 in weight, and all bred to great sires again; also stallions, 2 dark dapple greys, heavy, and one two-year-old black, a champion colt. Come and see this stock—you won't be disappointed.  
F. J. Sullivan, Importer and Dealer  
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**Two Thoroughbred Stallions**  
Good size, to lease for \$50 per year. I have the privilege of the use of either, if wanted, in any year.

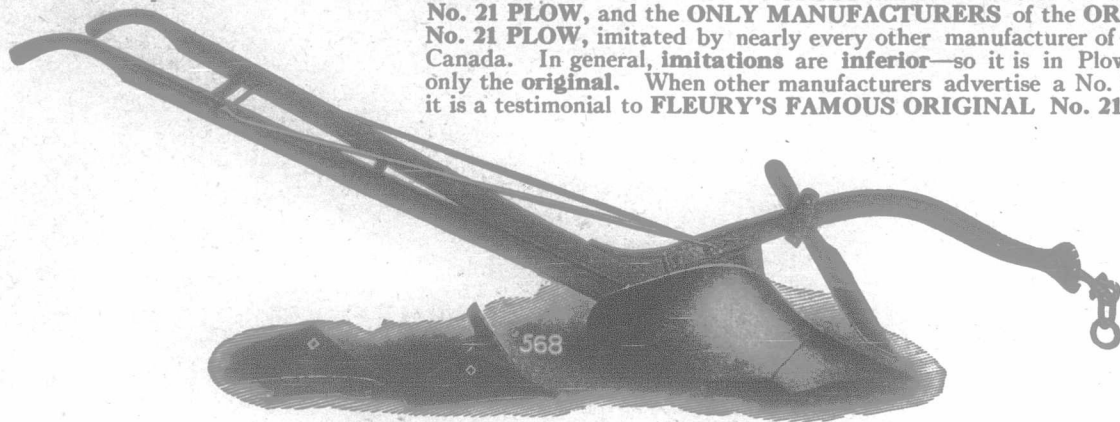
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Veterinary Medical Wonder. 10,000-\$1.00 bottles FREE to horsemen who will give The Wonder a fair trial. Guaranteed to cure Inflammation, Colic, Coughs, Colds, Distemper, Fevers, etc. Agents wanted. DR. BELL, V.S., Kingston, Ont.

## THE NAME "FLEURY"

on a Plow means **GOOD WORK** in the field, **LIGHT DRAFT** for horses, **COMFORT** for plowman—"EVER THE BEST" from the few plows of 1859 to the **THOUSANDS** of 1913. We are the **ORIGINAL MAKERS** of the **FAMOUS No. 21 PLOW**, and the **ONLY MANUFACTURERS** of the **ORIGINAL No. 21 PLOW**, imitated by nearly every other manufacturer of Plows in Canada. In general, imitations are inferior—so it is in Plows. Buy only the original. When other manufacturers advertise a No. 21 Plow, it is a testimonial to **FLEURY'S FAMOUS ORIGINAL No. 21 PLOW**.



### FAMOUS FLEURY PLOWS

No. 21 "DANDY," No. 13 and 15 A (one horse) surpass all others in lightness of draft, ease of holding, quality of work in the field.

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We pay highest prices for **WOOL, HIDES, SKINS**, etc. No lot too small. Ship direct to us. Write to-day for prices.

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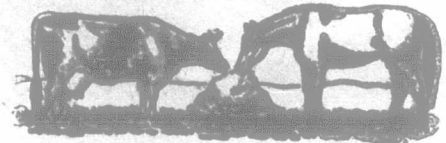
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Be sure that you buy your batteries with this trademark

**XCELL DRY BATTERIES**  
are guaranteed to outlive and outlast all other makes. Extra lives have been given to the Black Cat. Write for Catalogue.

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Our present offering is a number of superior **OXFORD DOWN YEARLING AND RAM LAMBS** for flock headers, by our imported Royal winning rams. Also ninety field rams and eighty ewes, either by imported sires or g. sires imported. Also fifteen yearling **HAMPSHIRE** ewes.

**HENRY ARKELL & SON, ARKELL, ONT.**  
Phone Guelph 240-2.

### Alloway Lodge Stock Farm

**ABERDEEN-ANGUS CATTLE**  
**SOUTHDOWN SHEEP**

Now is the time to select your sire for use this fall. The first choice is guaranteed to those ordering now. Send for circular and prices to

**ROBT. McEWEN, Byron, Ontario**  
R. R. Sta. and Tel., London.

### MINSTER FARM

We are sold out of Tamworths also females in Holsteins but still have some choice bulls for sale from 2 to 6 months, officially backed and right good ones.

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**Morrison Tamworths and Shorthorns**—bred from the prize-winning herds of England; have a choice lot of young pigs, both sexes, pairs no. akin; and also the dual-purpose Shorthorns. Satisfaction guaranteed.

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**Tamworths**—A few bred sows; also some very choice spring litters, ready to wean.

**HERBERT GERMAN, St. George, Ont.**  
Bell Telephone.

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What's more—they are cheaper in the long run than wood or slate, can be laid for **one-half** the cost of laying wood shingles, or **one-sixth** the cost of laying slate.

We have some intensely interesting and valuable information to send you regarding this subject of roofing. A post card request will bring it by return mail.

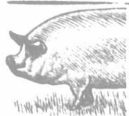
Simply scribble the one word, "Roofing" on the back of a post card, together with your name and address. If you haven't a post card handy, tie a string around your finger so you'll be sure to remember.

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### Large White Yorkshires

Have a choice lot of sows in pig. Boars ready for service and young pigs of both sexes supplied not akin, at reasonable prices. All breeding stock imported, or from imported stock from the best British herds. Write or call **H. J. DAVIS, Woodstock, Ont. Long-distance phone. C. P. R. and G. T. R.**



### ELMHURST LARGE ENGLISH BERKSHIRES

Present offering: Select sows. Choice boars, ready for service; also younger stock the get of Duke of Somerset, imp., and out of imported dams. Satisfaction and safe delivery guaranteed. **H. M. VANDERLIP, Breeder and Importer, Cainsville, P.O. Langford Station. Brantford and Hamilton Radial.**

**Cloverdale Berkshires**—Present offering: Sows bred and others ready to breed; also younger stock of both sexes. Prices reasonable.

**C. J. LANG, Hampton, Ont. Durham Co.**

**Duroc Jersey Swine and JERSY CATTLE**  
Grand stock, either sex, constantly for sale. Price reasonable. **MAC CAMPBELL & SONS, Northwood, Ontario.**



### NEWCASTLE TAMWORTHS

I am now offering young sows, bred, and young boars of breeding age, chuck full of imp. blood and show ring quality; I think the best lot I ever bred. Also younger ones of both sexes.

**A. A. Colwill, Newcastle, Ont., L.D.' Phone**

## Questions and Answers. Miscellaneous.

### Pasteurizing Whey.

Would it be a paying proposition to pasteurize whey for hogs that are fed at a cheese factory? **N. M. K.**

Ans.—In our judgment it would pay to pasteurize whey to be fed to hogs at the factory. Such a method properly carried out would eliminate the possibility of conveying disease germs, especially those of tuberculosis to the hogs when mixed whey is fed. **F. H.**

### White Grub.

Would you please answer through "The Farmer's Advocate" what is the cause of my strawberry plants being eaten off by a white grub with yellow head, about an inch long? **JAS. M.**

Ans.—The grub is the ordinary white grub larva of the May beetle or June bug. These bugs take from two to three years to develop from the egg to the mature beetle. The eggs are laid by the female in sod or grass land, and the young grubs live on the roots of the grass and other plants. The best way to avoid their injury in strawberry plantations is not to plant strawberries on land which has been lately in sod. It is best to grow potatoes or some such crop on the land for a year or two before planting strawberries. About the only way to deal with them in a patch where they are troublesome is to dig out the larvae, and destroy them whenever dead plants indicate their presence.

### Gravel and Cement for Building.

1. How much gravel and cement would it take for a wall 5 ft. by 15 ft. by 2 ft.?

2. How much gravel would a box hold, the box being 40 inches by 10 feet by 10 inches.

3. How much lumber would it take to side a building without the gables, 50 ft. by 15 ft. by 6 ft.?

4. Which is the best, a hip roof or an ordinary one? **R. P.**

Ans.—1. Such a wall will contain 150 cubic feet. In estimating gravel to be provided, add one-fifth for compression and waste. This would figure out to 180 cubic feet, or between one and a third and one and a half cords. The cement mixed one to eight—would come to about 12½ cubic feet. Perhaps the amount of gravel actually scraped up and used would require only about 20 cubic feet of cement. Four cubic feet of cement equal a barrel, so that about five barrels of cement would be needed.

2. 27.7 cubic feet, if level full or practically a cubic yard. There are 128 cubic feet in a cord.


3. About 800 feet.

4. Opinions differ, but the so-called hip or gambrel roof is generally preferred, partly on the score of appearance and partly because the mow can be filled to better advantage with hay fork or slings.

### Sulphur in Well.

I have a well in which the water has gone bad. The well was put down over thirty years ago, and had first-class water until 1912, when it got tainted with sulphur and not fit to use, but in the winter it got all right again, and this spring has gone bad again. Could someone tell me of some way or what to do to make the water all right again? **W. R.**

Ans.—There must be a sulphur spring in close proximity to the well. It may have always been there, but, up to the time when the water went bad, may have had its outlet in another direction, and this outlet may have been blocked from some cause or it may not have been blocked, but the water from the spring may have found a new channel which leads to the well. It is strange that the water is all right in winter and bad in summer. Is it possible that the sulphur water is running in from the surface, or at a point in the ground not below the frost line? If this were so winter freezing might stop the channel or turn the water in another direction. Further than to advise you to clean out the well thoroughly and see if you can locate the entrance of the sulphur, we can suggest nothing. Have any of our readers had any experience with trouble of this kind?



WILSON'S  
FLY PAD.  
POISON

Will kill every fly in your house or store. All you have to do is to get the flies to the Pads.

Directions in each packet show how to do this.

## The Call of the North

Do you know of the many advantages that New Ontario, with its millions of fertile acres, offers to the prospective settler? Do you know that these rich agricultural lands, obtainable free, and at a nominal cost, are already producing grain and vegetables second to none in the world.

For literature descriptive of this great territory, and for information as to terms, homestead regulations, settlers' rates, etc., write to

**H. A. MACDONELL**  
Director of Colonization  
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## CUNARD LINE

Canadian Service  
IMMIGRATION DEPARTMENT  
Special Interest to Farmers' Clubs

We secure "Help" for farmers from the country districts of the British Isles. Requisitions must be filled up. Copies sent on application. Average time to get your "Help," about six weeks. No fee charged. Only regular fare on ocean and rail to pay.

You need not be without "Help" this summer or fall if you send requirements early.

Write for further particulars.

**CUNARD STEAMSHIP CO., LIMITED**  
114 King Street West, Toronto

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CHIMES AND PEALS  
MEMORIAL BELLS A SPECIALTY  
FULLY WARRANTED  
McSHANE BELL FOUNDRY CO.,  
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Established 1864



**PATENTS** procured everywhere  
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Toronto. Booklets on request, 20 yrs. experience

**When writing mention Advocate**

### Corns in Horses.

The term corns is applied to nearly all bruises of the rear half of the horse's hoof. There is a rupture of the blood-vessels from injury, pressure from an improperly-fitted shoe, or permitting the shoe to remain on for more than five weeks. Corns are apparent to the eye as yellowish, reddish, or bluish-red discoloration of the horn of the sole and white line. The horn tubes are penetrated by blood from the ruptured blood-vessel. The discoloration may be so slight that if the foot be improperly pared the corn may be entirely overlooked. We have corns of the wall, sole and bars. Corns affect principally the inner half of the hoof, and the fore feet are almost exclusively the seat. There are two reasons for this:

1. Dry corns. This type is dry, and seldom causes lameness.
2. Suppurating corns. Considerable pus is formed, causing severe lameness.
3. Chronic corns. This type is either soft, moist, or lardy, and there is an intermittent lameness, aggravated by improper shoeing.

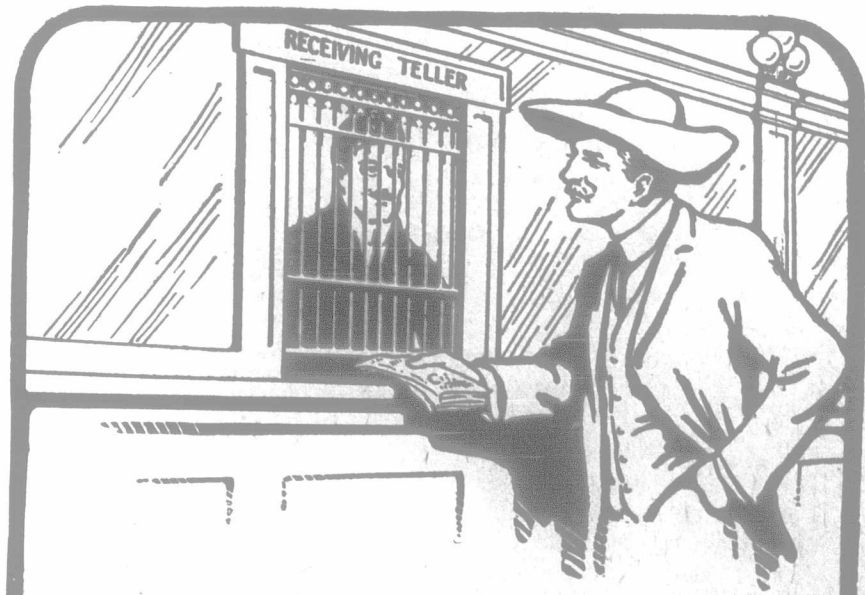
Some feet are predisposed to corns, viz., narrow, deformed hoofs, deformity of the limbs, badly trimmed, wide, flat feet, excessively weakening the sole bars and frog, permitting the toe to grow too long, shortening one quarter too much, so that the foot is unbalanced, shoeing a heavy horse with too light a shoe, thus permitting the shoe to spring down on the heel. Permitting the feet to become too dry and brittle, thus reducing the elastic properties of the horn. Nailing the shoe too far back, thus preventing the natural spread of the hoof, when placed upon the ground. Applying the shoe too hot while being fitted. Insufficient concavity of the shoe in flat feet. Horses which have never been shod rarely have corns, thus proving that corns are due to errors in shoeing.

To treat, first remove the cause by paring the hoof to the proper angle; shorten the toe and cut down the quarters if too high. Put on a level shoe. If calks must be used, use both toe and heel calks, never toe without heel, nor heel calks without toe, unless for a special purpose. A leather sole should always be used under the shoe, and place a dressing over the sole of the following mixture: Pine tar, eight ounces; Venice turpentine, one ounce; spirits camphor, one ounce; compound tincture benzoin, two ounces. Mix and smear plentifully over the sole, after which apply oakum and the leather pad.

When there is a suppurating corn, the shoe should be left off for several days and drainage for the pus established. Poultices of flaxseed should be applied in which has been placed about two ounces of creolin. When the lameness has been removed, the horse should be carefully shod, using a bar shoe with a leather sole and the above dressing. The after care of the hoof consists in keeping it cool, moderately moist and pliant.—[R. E. Mitchell, San Francisco, Veterinary College.]

- #### EXHIBITION DATES.
- Canadian Industrial Exhibition, Winnipeg, Man., July 8-16.
  - Dominion Exhibition, Brandon, Man., July 15-25.
  - Regina, Sask., July 26 to August 2.
  - Saskatoon, Sask., August 4-8.
  - Edmonton, Alta., August 11-16.
  - Cobourg Annual Horse Show, August 12-16.
  - Canadian National, Toronto, Ont., August 28 to September 8.
  - Canada Central, Ottawa, Ont., Sept. 5-13.
  - Western Fair, London, Ont., Sept. 5-13.

The Scottish Farmer reports the sailing of Dr. T. H. Hassard, of Markham, Ontario, with a dozen high-class Clydesdale stallions and fillies, and as many Percherons.



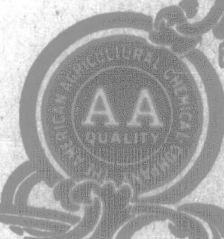
### It is like putting money in the Bank to USE HOMESTEAD FERTILIZERS

EVERY bushel raised in excess of the usual crop means that much gained and gives you a great advantage over those who farm by old methods and do not feed their crops. By building up the fertility of the soil you directly make more profit and at the same time increase the value of your farm. You gain at both ends. Land value is based upon the productiveness of the soil. Therefore fertilize and increase its productiveness.

There is no money in poor crops or in poor fertilizers. Good high grade fertilizers are always the most profitable to use. We have spent fifty years and a great deal of money to find out how to make the right kind of fertilizers for all crops, and the farmer cannot go wrong when using them.

Write us and we will tell you more. We want agents for unoccupied territory under our consignment contract.

**The American Agricultural Chemical Co.**  
Dep. E., Michigan Carbon Works, Detroit, Mich.



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need no insurance—because they are permanent. They cannot burn; they will not blow over; last a lifetime.

### Built of Hollow Vitrified Clay Blocks

The most lasting material known. Blocks are air-tight and moisture-proof. They are glazed and keep silage sweet and palatable. No hoops to tighten; no staves to paint. Never swells or shrinks. Attractive in appearance—a silo that will improve the looks of your farm.

### Any Mason Can Build a Natco Everlasting Silo

Once up—it will last a lifetime without needing repairs. We have a 50-page illustrated book on silos and silage. Every stock owner should have it for its valuable feeding information. It contains articles by prominent writers, including Prof. Hugh G. Van Pelt. Sent free on request. Ask for catalogue 6.

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THE TRINIDAD-LAKE-ASPHALT  
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gives real resistance to sun, rain, wind, snow, heat, cold, and fire. And the Kant-leak Kleet waterproofs the seams without cement.

Write for samples and the Good Roof Guide Book, free.

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Lewis Bros. Ltd., Montreal, Ottawa Toronto  
The Canadian Asphalt Company, Ltd., Winnipeg, Man.

## An "Empire" Separator Pays Its Cost Six Times in Eleven Years with Twelve Poor Milk Cows

ON June 19 we showed you here, how one of the famous "Empire" Separators could pay for itself and earn about \$500 in saved butter-fat over ordinary methods in 11 years of service.

We want to sell you an "Empire," partly because it can do this with 12 very poor milk cows, giving very poor milk, and very little milk.

This comparison means in effect that an "Empire" is a paying machine to own under the very worst dairying conditions. It will pay any farmer to own and use an "Empire."

The underlying reason for this is that the "Empire" design is based on proper mechanical principles for a cream separator. One of the hardest things to build is a good separator. Scores and scores have been designed, have been sold for a year or two, then have failed.

The "Empire" has been used many, many years. Grandfathers of present-day users have used "Empire" Cream Separators "Empire" after "Empire" has been bought for one farm, with years of service for each machine before the next has replaced it.

If you are anxious to get the most out of your farm, the "Empire" has a great many profits of an indirect nature. It makes possible farm profits that are impossible with the creamery or the cheese factory.

If you are within shipping distance of a city, it pays to ship cream and not whole milk. By using an "Empire" Separator, you skim your whole milk while warm, and have the warm milk for calves, pigs and chickens.

You feed your heifer calves fresh, warm skim milk, and affect that calve's future milk production infinitely for the better as to quality and quantity than when you feed cold, skim milk, milk partly turned, milk icy cold from the cooler, or milk returned from the cheese factory.

In the meantime, your separated cream is a much less bulky package, quicker to ship, less costly for handling and freight, and easier to handle.

The skim milk, fresh and warm, pays to feed to young pigs. Litters of pigs must show constant and rapid growth. Check this growth even once, and 100 lbs. of pork will cost you \$4.00 in feed thereafter, where before it would have cost you only \$2.50 to \$3.00. Use milk.

The skim milk pays when fed to hens and chickens—especially to hens. Earlier egg production, and more egg production both pay materially. There is many a farm in Ontario in which the only cash for months is the egg money obtained.



By having an "Empire," and separating your milk, you get a constant income from cream, and use the milk to get an increased income and a lengthened season from the poultry, to get an increased income from hogs, to get heavier and better beef stock, and to get heifers that will become heavy milkers, either for grading up your dairy, stable or for sale.

It pays to own on "Empire" Separator. Go down south to the state of New York. It is full of abandoned cheese factories. It is full of prosperous farms.

Visit one of these farms. You will find they own separators—very many of these are "Empire" Separators. These farmers are working their farms for full profit—cattle, hogs, hens, cows. Many of them ship their milk, but most of them ship cream to the cities, and especially to New York city.

These men are feeding their farm produce to stock, and getting 80% of it back as fertilizer to go on the land, and enrich their fields. As much of their produce as possible is farm fed—what they sell is the highest-priced farm products they can grow.

Without the cream separator, the quality of these products would be impossible. The steady income all the year round would not be practicable.

We want to see every one of our customers run his farm to the very limit of productive efficiency. The "Empire" plays a big part in this effective farm operation. Even an ordinary separator can play a big part, but an "Empire" will run better and give a longer service because of its construction.

Supposing you plan out the way you will run your farm to use fresh, clean, warm, skim milk to the very best advantage as a feed.

Lay out a plan by which you will go more into beef and dairy farming and less into straight grain farming. Work this beef and dairy farming in such a way as to give you a better income and an all-the-year income.

Buy an "Empire" Separator and have that expense out of the way for 10 to 15 years, besides making the new plan possible.

Write us a letter. Tell how many cows you have. We will tell you in return the size "Empire" machine you will need, and what it will cost you.

If you want to buy an "Empire," ask for our SPECIAL EMPIRE OFFER.

If you want to trade in your present separator for a long-service "Empire," ask for our EMPIRE EXCHANGE OFFER.

If you want to try an "Empire," ask for our "EMPIRE TRIAL OFFER."

We will send you our offer for your consideration, suited to your needs as nearly as we can judge for the size of your farm and the cows.

If you have only ONE cow, we have a separator for you known as the "Baltic."

This machine is used on the small mountain farms of Sweden, famous for its butter and cheese.

Even with one cow the "Baltic" lets you obtain the advantages of cream separation at a corresponding size of investment.

In this case, write for our BALTIC OFFER.

We have open for you a way to make your farm pay you better during the next 10 to 12 years. The first step is to write us for the particular "Empire" offer or Baltic offer you need. The material is shown in this advertisement, and in the Advocate of June 19.

Read them both. Weigh them carefully. Put all your farm judgment into the facts given. Then write us regarding the "Empire" Separator you need.

**The Empire Cream Separator Co. of Canada, Ltd.**  
77 King St. E., TORONTO