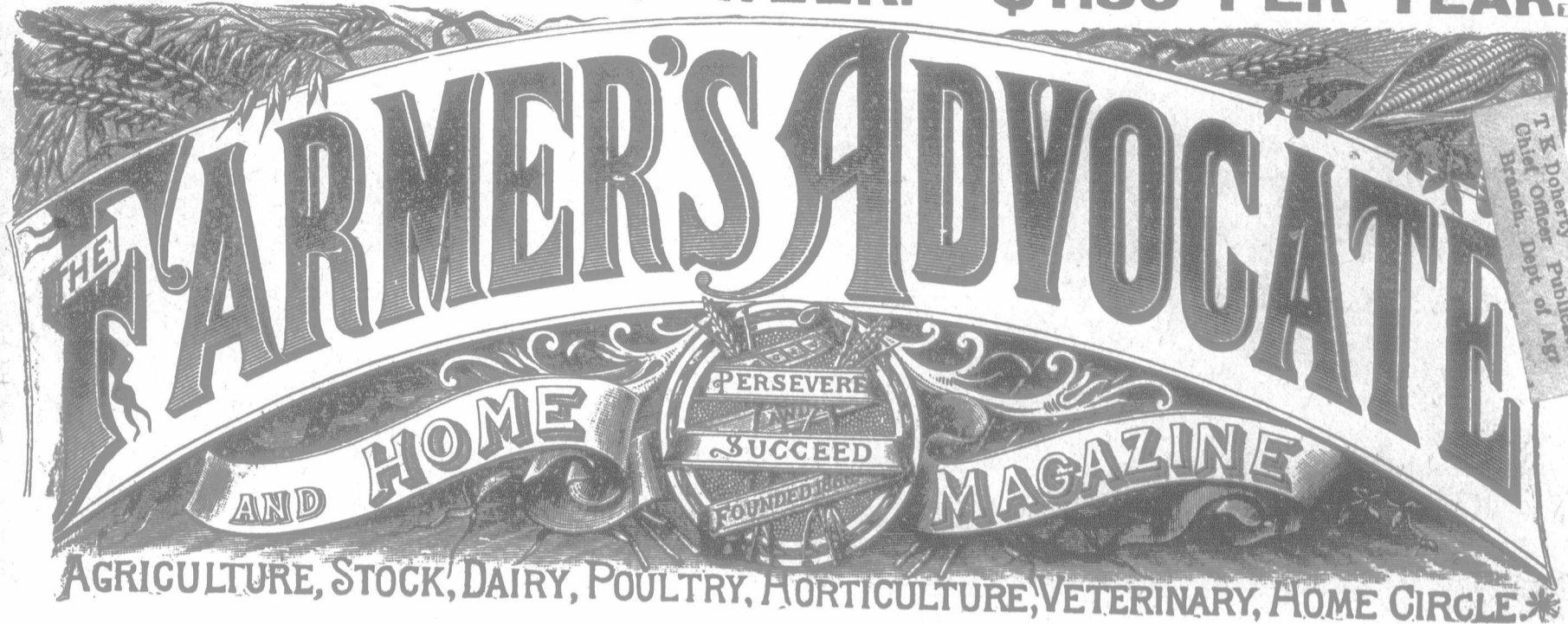


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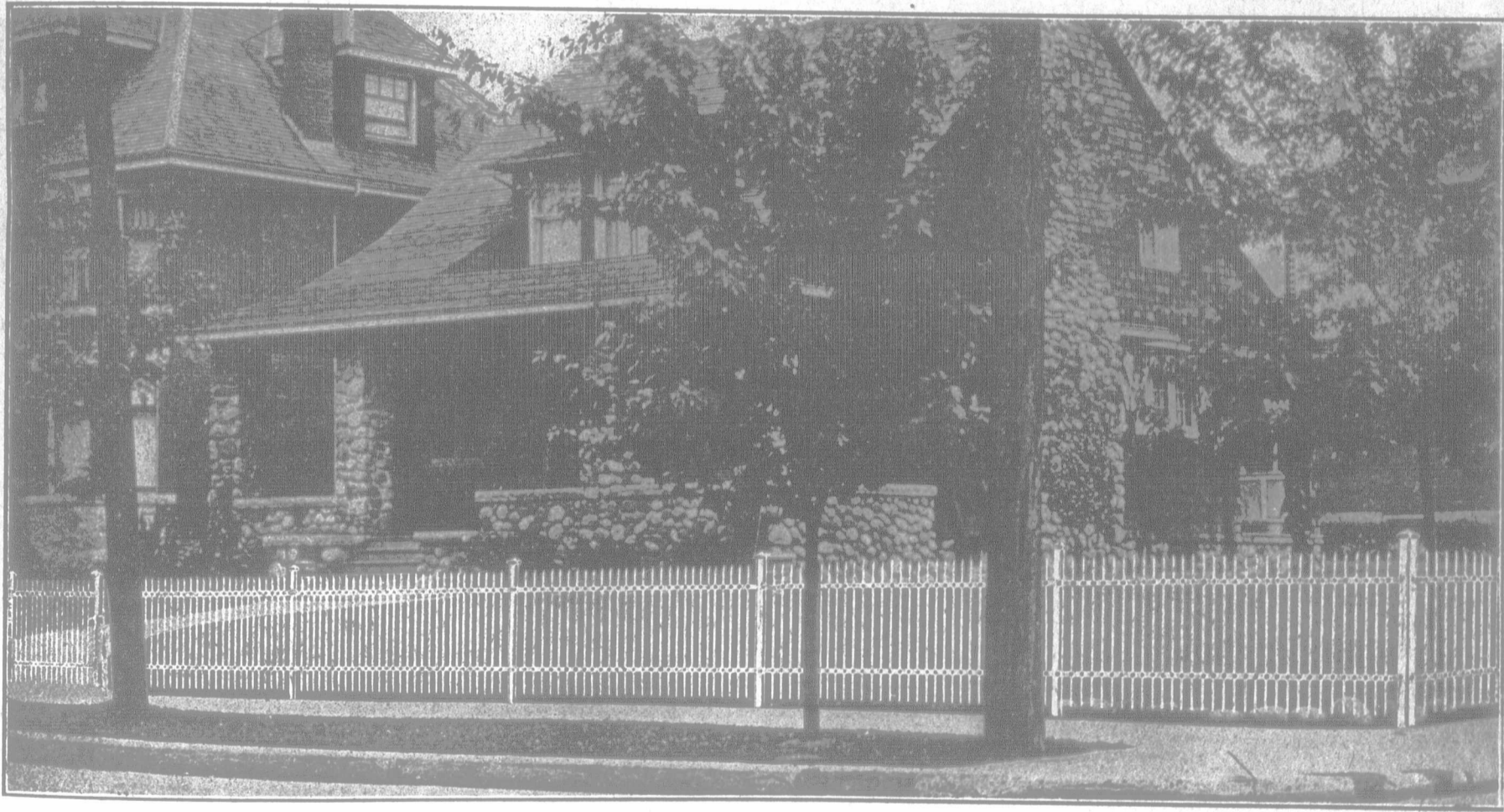


VOL. XLVIII.

LONDON, ONTARIO, JULY 31, 1913

No. 1088

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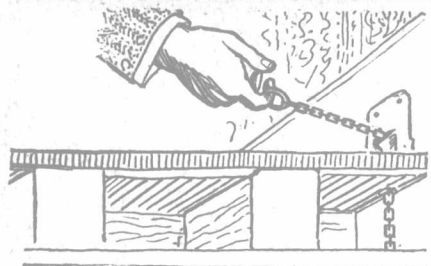
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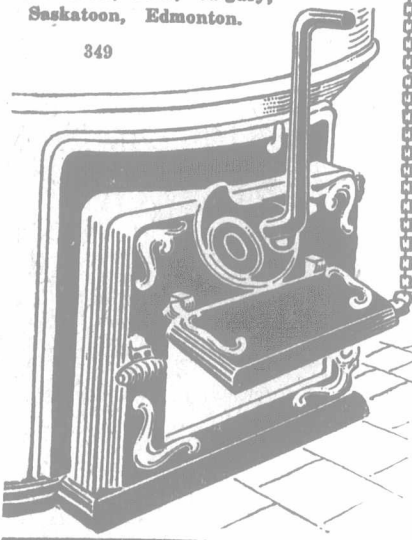
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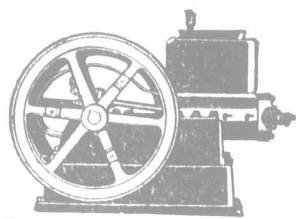
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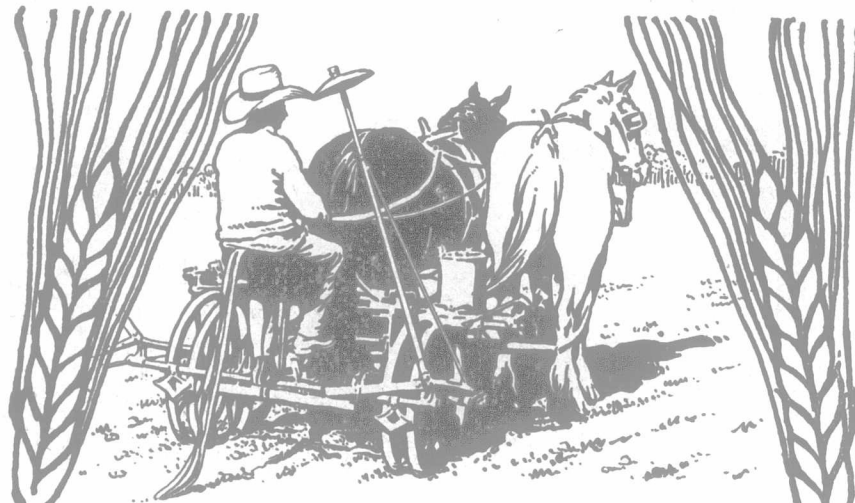
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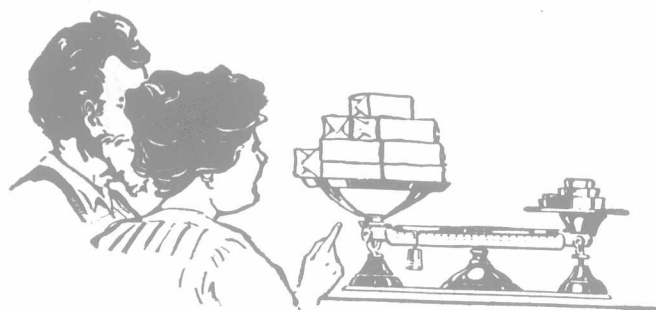
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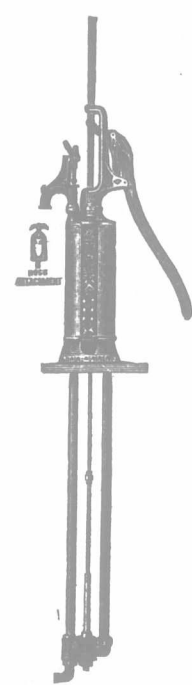
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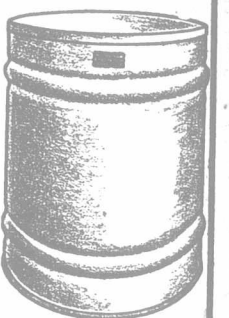
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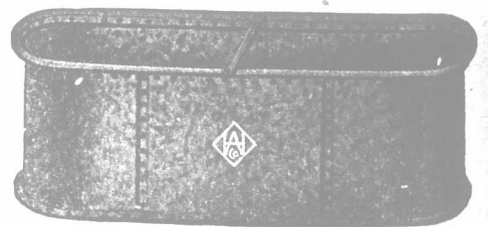
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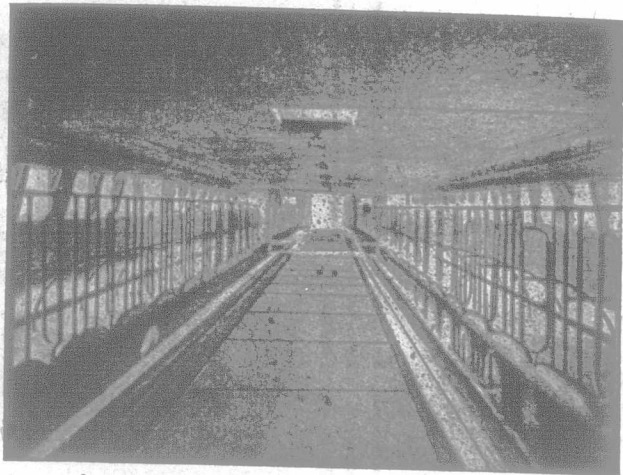


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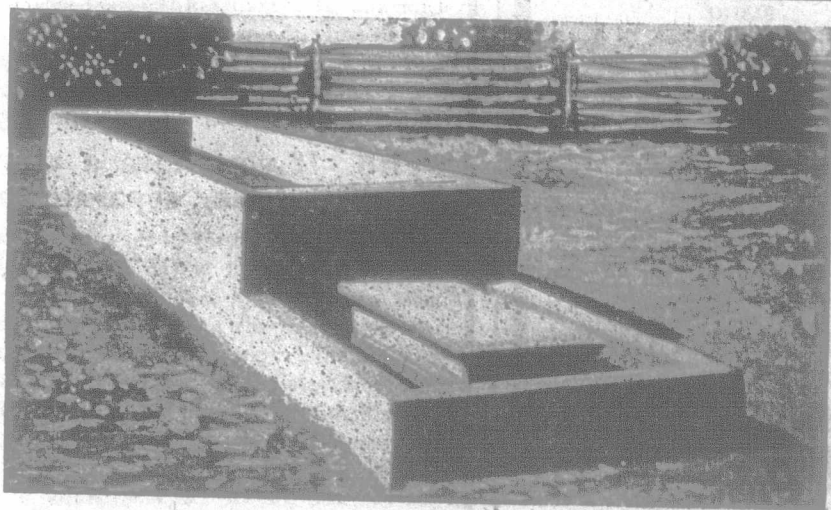
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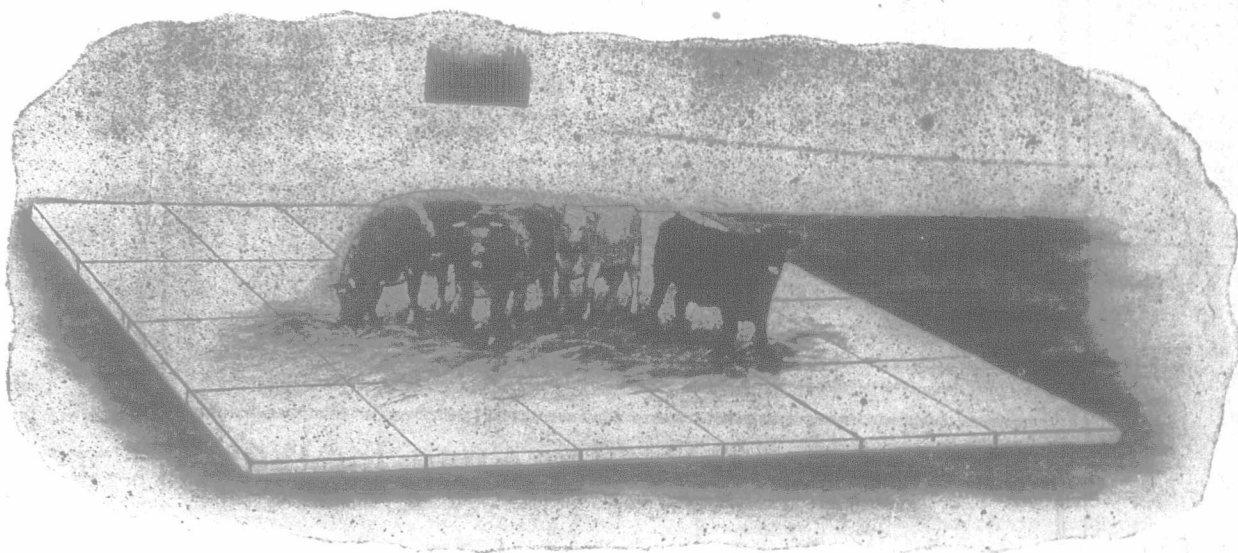
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Because your waste is greatest and quality of product poorest in mid-summer, when the milk supply is greatest.

Because time is of greatest value on the farm at this season and the time and labor saving of the good separator counts for most.

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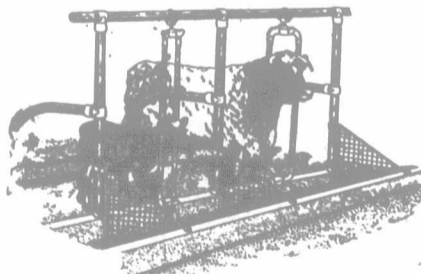


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WHEN you equip your stables, make sure that you get my SUPERIOR fittings, send for my big free book. I want you to know about my SUPERIOR ADJUSTABLE STANCHION, that you can adjust to tie from a calf to the largest steer in your stable, and my six other designs of stanchions, cow stalls, cow pens, calf stanchions and pens, water bowls, horse stalls and horse stall fittings. My SUPERIOR Sanitary Steel Stable Fixtures are the most modern made, and do not cost any more than the ordinary kind. Ask your agent about SUPERIOR STABLE EQUIPMENT.

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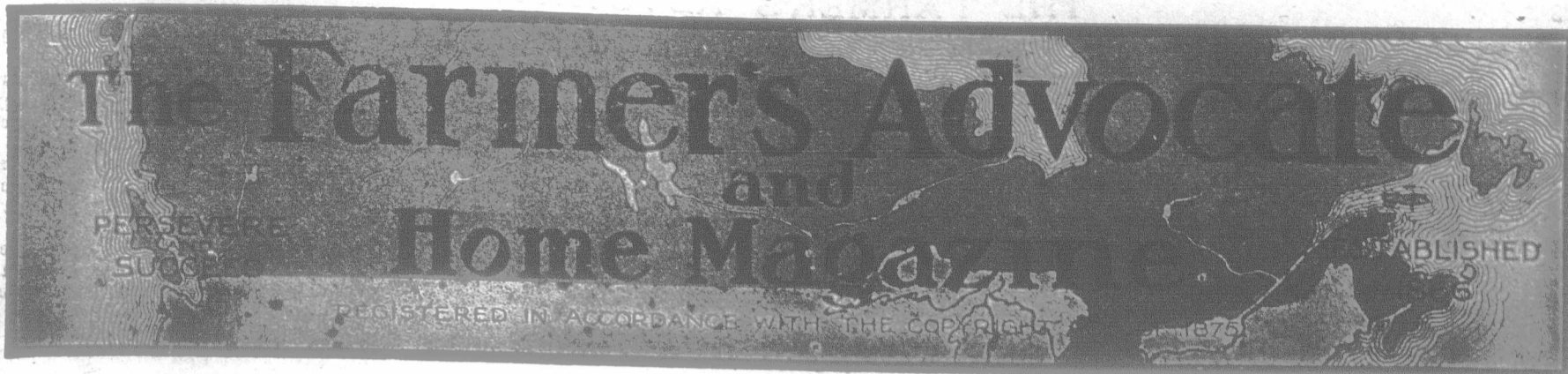
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When Writing Mention Advocate



## EDITORIAL

Canada's foreign trade has passed the billion-dollar mark.

Harvesting may be the rush-season of the year for the farmer, but it is not the most important by a long shot.

We go chasing health, happiness and prosperity to the ends of the earth when usually all the ingredients are lying about our own doors.

Our attention has not yet been called to any more optimistic sight than a glorious corn field waving its luxuriant arms in the summer sun.

We regret that exigencies of space have rendered it necessary to hold over two successive instalments of Nature's Diary. We shall endeavor to avoid further omissions.

Great as well as small folk feel the pinch of the high cost of living. The United States Secretary of State, William Jennings Bryan, finds himself unable to get along on \$12,000 a year, and a farm.

Last year, when thousands of barrels of good Ontario apples rotted in the orchard, Peter McArthur made money by shipping clean, good, well-packed fruit to Edmonton, cutting out three or four of the six middlemen that Mr. Hart tells about in his article. The mouth of the West is watering for good Ontario apples, but some degree of thoroughness, enterprise, and high principle has got to be injected into the trade if we are to hold it against the Pacific Slope.

### A Strike of Agricultural Labor.

Is agricultural labor to become widely organized on the Union principle? In the South-east corner of the industrial County of Lancashire, Eng., a union of agricultural laborers has been formed, said to embrace ninety-five per cent of the workers and to number three thousand men. The demands are for a minimum wage of 24s. a week, a twelve-hour working day and overtime afterwards, a Saturday half holiday, and recognition of the union. These demands represent a concession from the original program, in which the men had asked for a day of ten hours. To enforce their demands a strike was begun on June 21st, and a state of guerilla warfare ensued. The laborers organized a cyclist scout system and arranged outposts to prevent farmers importing free labor or exporting their produce. Judging from British publications to hand, it would appear that most of the employers were disposed to concede the laborers' demands, except the crucial one of recognition of the union.

The lot of the English agricultural laborer has been far from alluring to the ambitious spirit of the age, but it is significant that the strike has occurred in a section where wages at least rule higher than in some other parts of the country. The movement is portentous, and may well occasion thought.

### The Money-making Penalty.

It was a famous and favored saying of Louis Agassiz that he had "No time for making money." And yet in a few short years how enduring was his contribution to the enrichment of American educational life, and how few are the names more imperishably enshrined than that of the great naturalist of whose fiftieth birthday, in 1857, Longfellow sang:

"And Nature, the old nurse, took  
The child upon her knee  
Saying: 'Here is a story book  
Thy Father has written for thee.

"Come wander with me," she said,  
Into regions yet untrod;"  
And read what is still unread,  
In the manuscript of God.

\*\*\*\*\*

And whenever the way seemed long,  
Or his heart began to fail,  
She would sing a more wonderful song  
Or tell a more marvellous tale.

Anticipating more recent movements in nature study, the influence of Agassiz on methods of teaching was prompt and decisive. So the late Prof. William James has well said: "The good old way of committing abstractions to memory seems never to have received such a shock as it did at his hands. There is probably no public-school teacher now in New England who will not tell you how Agassiz used to lock a student up in a room full of turtle shells, or lobster shells or oyster shells, without a book or word to help him, and not let him out till he had discovered all the truths which the objects contained." "Go to nature, look and see for yourself," was his doctrine. He lived by faith, looked forward, not backward, and the memory of him comes up like a breath of morning that makes the world look fresh and young.

What chance has your mere money-maker to shine on the pages of posterity, or to have his name safe-guarded in public affection? Why should it? Why indeed? A few days ago one of the best informed of Canadian public librarians was being piloted on a tour of Fifth Avenue, New York City, where millionaires were thicker than farmers on any township concession line, but not one name in a dozen of them had he ever heard of. Million-dollar mansions are occupied by garbage kings "and others," or inherited from men who, a few years ago, fitted meteor-like across the financial sky, but are already forgotten except in squabbles over their "last will and testament," or in the unsavory divorce court proceedings of their "heirs and assigns." Happily here and there one of them is rescuing himself from oblivion like Andrew Carnegie by his ample library and educational benefactions, or John D. Rockefeller whose endowments move the students of Chicago University to shout the refrain:-

"Praise John from whom oil blessings flow."

Happy the farmer who runs such limited risks of becoming entangled in the ranks of the millionaires! Record crops have their perils, however, if they cause us to be too keenly "on the make," forgetting what ought to be the real purposes of life. The penalty of mere money making without other endowments is just to be forgotten. And, judging by the Fifth Avenue swarms of Cash Kings, it did not seem to our librarian friend on his travels to be any particular achievement. One of these days the twentieth

century will evolve some other measuring stick for success than just the amassment of dollars, however useful they may be as a passing medium of exchange.

### The Cornfield.

Corn is a magnificent crop. Planted in hills or drills with only a few quarts of seed to the acre, it sends up scattering sprouts which suggest but faintly the immense bulk of forage it is afterwards to produce. As days pass the stalks increase in height, but it is weeks before the foliage shades the ground. Then, some day after a warm July rain one looks across his field to behold an inspiring sight. Rank upon rank stand the rows of giant young stalks, tossing their glistening broad leaves toward the morning sun. If the seed was good, the land rich in humus, and the seed-bed well prepared, the plants stand even-topped, though here and there a precocious stalk throws a slight shadow under the arch of its topmost leaves. Wonderful the growth in a few short weeks of sunlight!

Is there anything prettier than a field of corn at this stage, with another of dark-green alfalfa or clover aftermath beside it? How fresh and clean these fields look! How rich with promise of returns in milk and meat! Pick out a farm where broad acreages of these crops flourish, and you will be sure to find a mind with enterprise and vision, and almost certainly you will also learn of a good bank account or, better still, an improving farm. There is money in corn, but money is not all. There is beauty in it, and promise and hope. Interesting to study; magnificent to contemplate; profitable to grow. Themes for sermons and poems abound in the glory of the Indian corn.

### Increasing Cost of Milk Production

The increasing cost of milk production is effectually illustrated by a table of figures presented by Prof. Geo. E. Day, of the Ontario Agricultural College, in his 1912 annual report. This table gives a summary of the cost of feed as well as production and profit of each of thirty cows in the O. A. C. dairy herd, from November 1st, 1911, to October 31st, 1912. This method of computation, as Prof. Day explains, does not do justice to the several cows in all cases, but should work out pretty fairly on the average. The cost of feed ranged from \$38.86 up to \$86.83 for the renowned 20,000-pound cow Boutsje Q. Piertertje de Kol, which, with a yield last year of 16,001 lbs. milk and 502.95 lbs. fat, gave a balance of \$38.91 between cost of feed and value of butter-fat, this being the largest profit shown by any cow in the herd. The cow which consumed only \$38.86 worth of feed ranks fourth in profit. The average value of butter-fat per cow at 27 cents per lb. was \$67.20; average cost of feed, \$56.97; average profit over cost of feed, \$10.01. This ignores, on the one hand, the value of skim milk, calves and manure, but, on the other, it leaves out the very important item of labor, as well as depreciation, interest, housing, risk and incidentals, all together amounting to about \$30.00 or \$35.00 more. Prof. Day explains that a large part of the dairy herd is kept stabled summer and winter, which adds to the cost in their case, especially in 1911-12, when they were short of silage and had to feed considerable hay. In addition the cost of feedstuffs a year ago last winter was very high, and if anything approaching market prices is allowed

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IN THE DOMINION.

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JOHN WELD, MANAGER.

Agents for "The Farmer's Advocate and Home Journal,"  
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Address—THE FARMER'S ADVOCATE, or  
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for feed, it will be found that the cost of keeping live stock has increased very materially of late years. "At prevailing prices for feed, says Prof. Day, who is never rash in valuations, "it takes a good cow to leave any considerable margin between the value of her product and the cost of maintenance, provided the foods are charged at market prices." Just so. And the moral of it is—Give no quarter to the "star-boarder" cow.

**Wages and Progress.**

In matters threatening our pocket-books we are all of us prone to think that what has been should always be. After wheat had been up to two dollars a bushel it seemed like ruin to have it sag back to a dollar, or down to sixty cents; yet the decrease in price of wheat and barley was one of the best things that ever happened Ontario agriculture, because it led to a soil-saving system of mixed farming, dairying and hog raising. So with labor. Farmers once accustomed to get all the help they wanted at ten or twelve dollars a month, look aghast at the thought of twenty-five. Considering the former narrow margins of profit they do not see how any can be made at the advanced scale of payment. Probably it could not by the old methods. Therein lies the point. The old methods have had to pass. The cradle, the self-rake reaper, the scythe, the single-furrow plow, and the narrow implements have had to go, or soon will go. Advancing scales of wages have been the prime cause in relegating them to limbo. Dear labor, by creating a demand for labor-saving implements, first of all stimulates invention, and then expands the market for the inventor's creations. Great changes in farm practice have come about in a decade, and others are due. Electricity may be one of the next means of economizing labor in house and stables. Of course, all these means of economy cost money, and with regard to the labor situation itself, perhaps the most discouraging feature is the scarcity of efficient help at any price. Individual offers of tempting wages

do not wholly avail to attract help in such a case, until enough farmers are offering attractive wages and working conditions to divert a volume of labor from the factory to the farm. Even then the effects of gregarious habit, aggravated by a one-sided system of public-school education will operate against the farmer's securing all the help he wants. But this point is aside from our main text. The chief point we are making is that high wages stimulate progress in methods. A writer in the "Scottish Farmer" illustrates this fact in the following paragraph:

"Where labor is plentiful and cheap, agricultural methods make no progress at all. In some parts of the world practices prevail which have scarcely varied for hundreds of years. I have a letter from a country in the East, and although most of us have read the same kind of thing before, I will quote a sentence referring to harvest work which is going on at present:—'The grain is cut with a hand knife and loaded on to a donkey's back, and then taken to the threshing floor, there to await further progress.' Considering everything, the farmer of this country won't stick yet, though workmen should get somewhat scarcer."

**Nature's Diary.**

By A. B. Klugh, M. A.

To one accustomed to looking down into the water of lakes and streams the floor of the ocean near shore presents a most interesting sight. As we look down into the clear water we see the large brown Sea Cucumbers with their cluster of feathery tentacles at one end; if we touch one of them with the end of the boat-hook

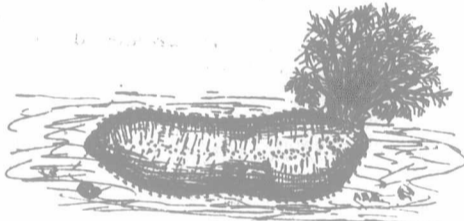


Fig. 1. Sea Cucumber (with tentacles expanded).

the tentacles are slowly withdrawn and the animal then takes on that resemblance to the vegetable which gives it its name. Attached to rocks by their flat bases are the Sea Anemones, with their flower-like rosette of tentacles of various hues—some pink, some purple, some yellow, some orange; touch them and they instantly become mere brownish masses of india-rubber.



Fig. 2. Sand Dollar.



Fig. 3. A Chiton.

Lying on the bottom we see round, flat objects; if we fish one of them up we find it is an animal known as the Sand Dollar, an ally of the Star Fish, which reveals this affinity only in the star-shaped markings radiating from the centre. Adhering closely to rocks with their sucker-like foot are the peculiar animals known as

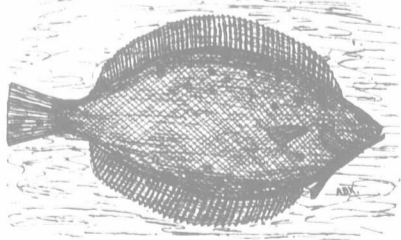


Fig. 4. Flounder.

Chitons, forms which are really allied to the snail, but which look more like Sow-bugs without any head. They are delicately colored in white, pink, and green.

Where the bottom is muddy we see two kinds of fish which look very different from anything

to be seen in our fresh waters. One of these is the Flounder, a flat fish with both eyes on one side. This species has become adapted to swimming on its side, and the side which is uppermost is brown, while the lower side is white. When the Flounder is very young it swims in the usual fish position, and its eyes are placed as in most fishes, but as it grows older it turns on its side and the eye on the underneath side travels round to the other side.

The Flounders are hard to see until one becomes accustomed to looking for them, as they resemble the mud in color and lie partly buried in it. They lie perfectly motionless, but if one touches them, or the mud near them, with the boat-hook, they give a flip and shoot off to a considerable distance.

The other fish commonly found in shallow water on our Atlantic coast is the Sculpin, a fish with an immense head, thus having the appearance of a Chinese dragon. The head also bears several long spines, which add to its ferocious appearance. The Sculpin is colored in black, white, and yellow.

On the bottom we see Starfish of many kinds, the common "Five-finger" red, whitish, or greenish in color, the Sun-star with its numerous rays, which are red, with white-tipped spines, and the richly colored purple stars.

While looking at the bottom we are very likely to witness a sight which will surprise us—a shell moving very rapidly over the sea floor. We may think at first that we have discovered a shell-fish which can move extremely quickly; but we soon make out several red legs projecting from the mouth of the shell. It is a Hermit Crab. This little crab lives in the shells of Whelks and Sea Snails, and has become peculiarly modified, as the posterior part of the body is not protected by a crustaceous covering. The abdomen is quite soft, and has lost all its appendages except the last pair, which are modified into hooks which hold the animal in the top spiral of the shell it inhabits. The front part of the body is protected by a hard covering as in most crabs. The first pair of feet are much larger than the others, and are provided with claws. The first right foot is much larger than the left, and besides the usual functions of capturing and crushing the prey it serves as a lid to close the mouth of the shell. The smaller left claw is shaped to fill out the parts of the opening not covered by the right one, thus making a close fit. The next two pairs of feet are used for walking, which the crab does very rapidly, carrying its house on its back.

As the Hermit Crab grows it is obliged to find a larger shell, and it often tries several before it finds one to fit. If the desired shell is already occupied by a crab inferior in strength it proceeds to take possession by violence. It then carefully examines the empty shell with its feelers and legs, and if it proves satisfactory, the crab withdraws its abdomen from the old shell and darts it quickly into the new one.

**Night Thoughts.**

By Peter McArthur.

The question is "Who left the gate open?" Well, I was not the last one through it anyway. What's that? I would probably have left it open if I were? O, very well, but I wasn't the last one through, so there! Anyway, I was the one who had to get up to chase out the stray horses, and because I didn't wait to put on my boots or anything else I had a cold id by head and had bid sneezing aw day. This is the first time I have tried the Kneipp cure which recommends that middle-aged and elderly people should run about in their bare feet on the dewy grass. I don't think much of it. But there seemed to be nothing else for me to do. Three smashing big horses had strayed in from the road about half-past eleven, and I was awakened by their wild rushing around the house. The dog was after them and making things lively. They got mixed up with a loose piece of wire fencing, upset a hen coop with a batch of chickens in it, wakened the ducks, and then stopped in the corner of the lawn to snort and defy the dog. As it was bright moonlight I saw that they were strangers and proceeded to drive them out. By clapping my hands and yelling I so much increased the noise that was being made by the dog that they started around the house in the other direction, snubbed themselves on the clothes line and finally reached the lane and galloped towards the road. In the midnight stillness their hoof-beats sounded hollow and thunderous and they disappeared so quickly that I could understand some of the old ghost stories in which phantom horses disappeared in the twinkling of an eye. One mo-

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ment they were in front of me and the next they were gone, and as they swept down the lane they seemed to be going faster than mortal horses could possibly go. I stood and waited until they had turned down the road, and our own horses in the pasture field had galloped to the fence to find out what was the matter. There was much pounding of hoofs and whinnying and snorting, but finally everything quieted down, and I was able to go back to bed with cold feet.

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After getting to bed I worried for a while because I had driven the horses out on the road again. There are railroads in every direction, and as these horses had probably broken out of someone's pasture I should have turned them into the field with our own horses, so that they would be safe until morning. If they got in front of a train and were killed I would reproach myself for being so unneighborly as to dog them out on the road when they were astray. But they had turned away from the nearest railroad and that eased my conscience some and then I began to get sleepy and that eased my conscience entirely—and then something began to worry me in the vague way that things worry one when half asleep. I worried along miserably for a while and then I wakened up and tried to figure out just what was the matter. A moment later the dog let out a desolating howl and I knew what was the matter. The dog was holding a long-distance conversation with another dog about a mile away. They were evidently talking about something very mournful for every once in a while he would intersperse his remarks with a long howl. People used to say that when a dog cries somebody is going to die and the sound they make is so mournful that I do not wonder at the superstition. I had hoped he would soon get through with his troubles and tried to cover my ears so that I could not hear him. But it was no use. He seemed bound to tell all his troubles and to have a real good cry with that other dog. The other dog was evidently very sad also. I could hear his remarks faintly when our dog was listening, and he seemed to have a lot to cry about too. At last I simply had to get up and put a stop to the howling if I was to get any sleep. But though I was provoked I was still curious, so before beginning to scold I took a look at the dog. He was sitting on his haunches out in a clear moonlight, and when he cried he would point his nose straight up towards the sky and let out the grewsome noise. If Shakespeare was a true observer, and he usually was, this kind of performance usually takes place on a moonlit night. He speaks of "Irish wolves baying at the moon," and again,

"I'd rather be a dog and bay the moon  
Than such a Roman."

But between one and two o'clock in the morning in the harvest time when one needs sleep was no time to stop and think up poetical quotations over a dog's howling. Though I couldn't help feeling that Sheppy was really to be pitied if he felt as badly as his howling seemed to indicate I called him to go and "lie down" and "be quiet!" When I spoke to him he got up and hung his head and actually looked ashamed as if I had caught him revealing his private affairs. He probably thought there was no human being listening to him, and he was pouring out his whole heart to his friend in the distance. Anyway he looked so crest-fallen at being interrupted that I suspect it was me he must have been gossiping about. I wonder if he was telling a sad story of how I treat him, and of how much he has to put up with while living with us. If he understands half of what is said to him when he doesn't drive the cows right his feelings may be hurt somewhat. But if I was to get any sleep that night I had to interrupt the sad story of his life, and I doubt if he had told half of his troubles to that other dog.

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The glimpse I got into the moonlit world after midnight made me wonder if we are not missing chances of getting all the enjoyments of travel while staying at home. The doctors often recommend a change of scene and we hear much about the good that may be derived from a change of air, and certainly I found the scene and air different. The buildings, the trees, and the fields all looked different under the moonlight. I would have to travel a long way to get a more complete change of scene than I got by getting out of bed. As for the air, one doctor once told me that we get as complete a change of air every time the wind changes as we could get by going to the mountains or the seaside. I wonder if people could not get much of the enjoyment they are supposed to get from travel by learning to observe and see things in a new way around home. I have heard people rave about sunsets and sunrises they had seen on the mountains or on the ocean, who could not tell what a sunrise was like over their own fields. When people learn to observe properly they find that

every walk and every turn about the place reveals new beauties that they would be delighted with if they saw them on their travels. But let no one suppose that these remarks are intended to discourage travel.

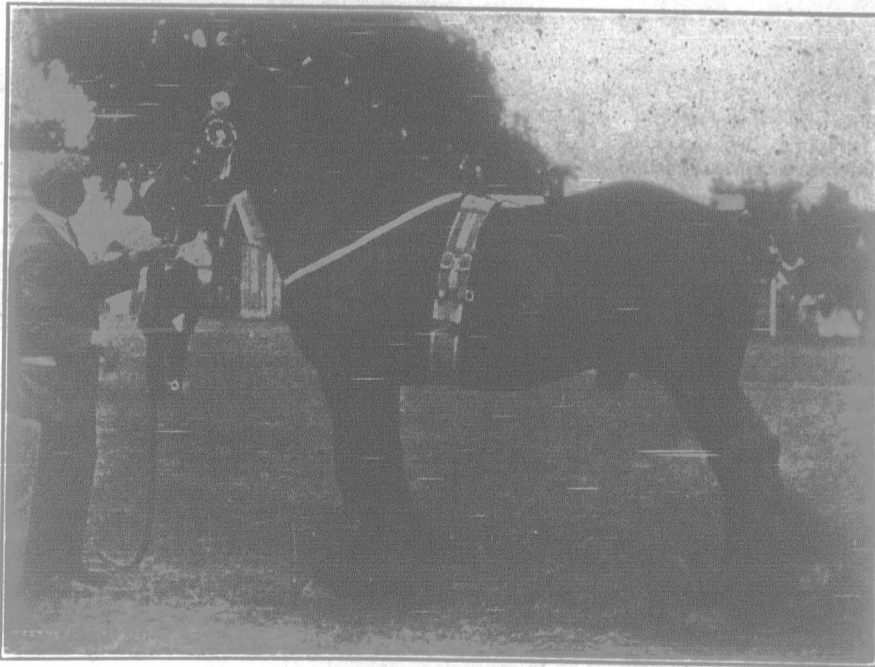
Travel has its uses. Though you can get a change of scene and a change of air by learning to be observant at home it is worth while to travel once in a while to get a change of people. I suspect that meeting the same people all the time and talking about the same things is more wearing on one than anything else. An occasional trip from home throws us in contact with other people who introduce us to new subjects for thought and please us with new stories. I am inclined to think that a change of people occasionally is more beneficial to the health than a change of scene or air. I wonder if that is not what the doctors have in mind when they order people away, though they are too diplomatic to say so.



Shire Mares and Foals Parading at Peterborough, England, Show.

### Taxes for Road Improvement.

The newspapers recently announced that about sixteen thousand automobile licenses for Ontario had been issued by the Provincial Secretary's Department so far this season, with certainty of more to follow. There are 650 dealers' licenses, and 3,000 licensed chauffeurs, while motor cycle licenses number 2,500. All these represent an income of \$85,000, and the motor fraternity want it ear-marked for purposes of road improvement. That idea is in the right direction, but the license fee ought to be made something worth while. Motor vehicles will have to be heavily taxed to compensate for the injury they cause to the roads, the fields, and to persons using or living near the highway. An average license of seventy-five dollars a car would yield revenue to the extent of over a million dollars a year. The license fee



Shire Stallion, Rowington Dray King.  
First and Champion, Royal Show, Bristol, 1913.

should be graded according to horse power, running from forty to fifty up to, say, a hundred and fifty dollars—with motor cycles about a hundred.

We look for "The Farmer's Advocate" every week, and would not like to be without it. I am glad to see it fighting for the revision of the Bank Act. It would be a good thing for farmers if the banks would lend money to us on longer terms.  
JAMES WEDDERBURN.  
Halton Co., Ont.

## THE HORSE.

A few weeks on grass will do the driver's feet good. If he can be spared pull off his shoes and let him have a rest.

During the six months' previous to April 30th, 1913, American breeders and importers sold 134 Percherons to Canada.

A well-known American Clydesdale breeder gives these as the six essentials of a model draft horse: Suitability for the purpose intended; soundness; enduring qualities; docility; constitution and vitality; action.

The same writer says: "The farmer in a great majority of cases is careless and unscientific, and is frequently carried away with minor side issues such as colors and weights and individual fads. As an illustration, I may state that a black color is most popular among American farmers, whereas it is the poorest of all colors, and least valuable in the market." (This refers to Clydesdales.)

Many farm horses waste almost enough hay to keep another of their kind fairly well. You don't like to have two meals piled around your plate at once, neither does the horse relish two feeds of hay in his rack or manger at once. Nothing works more against his appetite than such a practice, and a horse without an appetite soon fails in flesh.

Those who claim to know tell us that a horse which works on the pavement, or on hard roads, requires his shoes re-set every four weeks during hot weather. Farm horses kept shod may not need so frequent changes, but one thing is sure, many horses' feet are ruined by carrying shoes too long without having them moved. New shoes are more easily obtained than new feet.

How long is it since you have visited those colts in the back pasture? Have they been there since the 24th of May, or the first of July, without attention, or was it only last Sunday that you salted them and looked them over? Was particular attention paid to the growth and shape of their feet? Colts' feet do not always grow exactly right. In fact, very few colts run a summer without needing their feet trimmed to shape and levelled up. You want a sound, straight true-going horse when he is old enough to work. Aid him to grow into this kind of animal by giving his feet needed attention as he grows.

Every authority on horses warns against feeding too much hay, but the majority of feeders are still inclined to err. Stuffing a horse with hay is hard on his wind, and generally ascribed as a primary cause of heaves, along with dust in the feed. Veterinarians especially warn against allowing too much hay at noon in hot weather to a horse that is inclined to pant. Such a horse, they say, should have little but water and oats for his noon feed.

There is nothing better for the farm horse than a run on grass at night. The grass eaten keeps the digestive and secretory systems in order; the exercise and cool, fresh air contribute to comfort and health, while the dewy moisture toughens the texture of the hoofs.

## LIVE STOCK.

Give the young pigs plenty of "slop" feed. As they grow substitute more solid rations.

"As a four-cylinder hindrance and handicap to the progress of any farmer, there is nothing that can beat a poor cow," says Hoard's Dairyman most truly. "But that is not the worst of it. There is no other affection and attachment known on earth, not even the love of man for woman, that can equal the clinging adherence of some farmers to their poor and profitless cows."

In selecting a brood sow it is always worth while to pick one from a prolific dam, and one with a large number of teats. Each pig farrowed at a litter must eventually have a teat of his own from which to nurse, or he dies, or at best is a bad "runt." No class of farm stock stamps its female offspring with its own proclivities regarding prolificacy to a greater extent than does the sow.

As summer advances into autumn care should be taken if possible not to allow the stock to graze the pastures down so close as to leave no winter protection. Leaving the grass roots too much exposed in a cold climate like ours causes injury to them which means a late and comparatively slow growth next spring. Move the stock from field to field occasionally where practicable, and get more and better pasture and leave a better winter covering.

Choose the breed you have a fancy for, or like better than any other, but have also an economic reason. Choose one which is sure to make cash returns under proper management. It is well to understand something about the breed and the more the better. It is also well to be more familiar with your choice than the young couple who moved from the city to the farm and selected Rhode Island Red poultry because red was his favorite color, and her father came from Rhode Island. Know why you make a selection.

Weeds seem to be encroaching on many of the old pasture fields. They drain on the fertility of the land, and shade and crowd the grass so as to do unlimited injury. Many pastures could be profitably mowed over to prevent weeds seeding, and a spud could be used to good advantage in many instances. All things considered, where the land can with a reasonable amount of work be brought under cultivation, breaking up and re-seeding after the land has been thoroughly worked and cleaned, is most advisable in many cases. A better and cleaner stand of grass results.

If intending to found a flock of sheep study the differences which appear in the teeth of the sheep according to age. Never buy a ewe which has a "poor mouth," that is, one which has lost a large number of her teeth. The difference between permanent and temporary incisors is marked. The first pair of permanent incisors appear when the lamb is about a year old, and they attain full growth in a few months. A second pair, one on each side of the first two, appear when the sheep is about two years old. When the sheep is slightly over three years old a third two appear, and the last or fourth pair come soon after the sheep is four years of age, a full mouth being usually formed at five years. As the sheep grows older the teeth show wider and wider apart, and as this goes on the animal has greater difficulty in eating. Some ewes have lost most of their teeth at seven to eight years of age, while others do well for a few years longer.

### Silage and Corn Stover.

At the Nebraska Experiment Station H. R. Smith conducted tests to determine the relative value of silage and shredded corn stover (stalks) for cattle feeding. In order to determine the amount of stover fed each steer, it was necessary to husk the corn from the stalk, and as the cattle were kept in the barn, shredded stover was more convenient although more expensive.

The use of bundle-corn, however, would greatly reduce the cost, as it can be harvested and shocked as easily as the ears alone can be husked from the stalk and cribbed. During the fall and early winter the use of bundle-corn, containing ears, might prove as profitable as the use of silage.

In sections where enough grass cannot be grown to carry the number of cattle wanted through the year, but where a large tonnage of corn can be grown on a relatively small acreage, the silo will become an important factor for use in summer as well as in winter.

## Notes from Australia.

### PROLONGED LACTATION PERIODS.

How long will a cow milk? It is a question which is being answered in an interesting way in Australia. There are quite a number of candidates for the record-milking stakes. The competition began by the publication of a paragraph to the effect that a cow at Clifton, belonging to a Mr. Bishop, had been continuously in milk for a period of six years, starting the long spell with her second calf at four years of age. Each spring she brightens up her flow and is soon in the flush again, gradually easing off till the winter is over. The next claimant for the record was a cow belonging to Mr. M'Shane, of Asel-

Glen Innes, N.S.W., farmer got £2,500 for his potato crop, this off 80 acres. From 22 acres at Kooweerup swamp, Vic., a farmer's potato crop was worth £850. A cob of maize which won the prize at the recent Casino show weighed 1½ lbs. It contained 935 grains. Lucerne (alfalfa) grown at Tamworth, N.S.W., sold this season up to £8 per ton. It was in small bales pressed by the bundle press. Mr. Rutler, of Canowindra, during a year got 10 cuts of lucerne, and but for shortage of labor would have got another.

### A TEST STANDARD FOR HERD BOOKS.

The Australian stock-breeding societies are favoring a test standard for the herd books, the entries in these to be made the basis of entry for the shows. The movement, which is revolutionary as compared to the old fancy show-type system in dairy cattle, is being favorably considered by the various societies. The same breeders are discouraging the cross-breeding craze for producing dairy cows.

### ROTATION AND YIELDS.

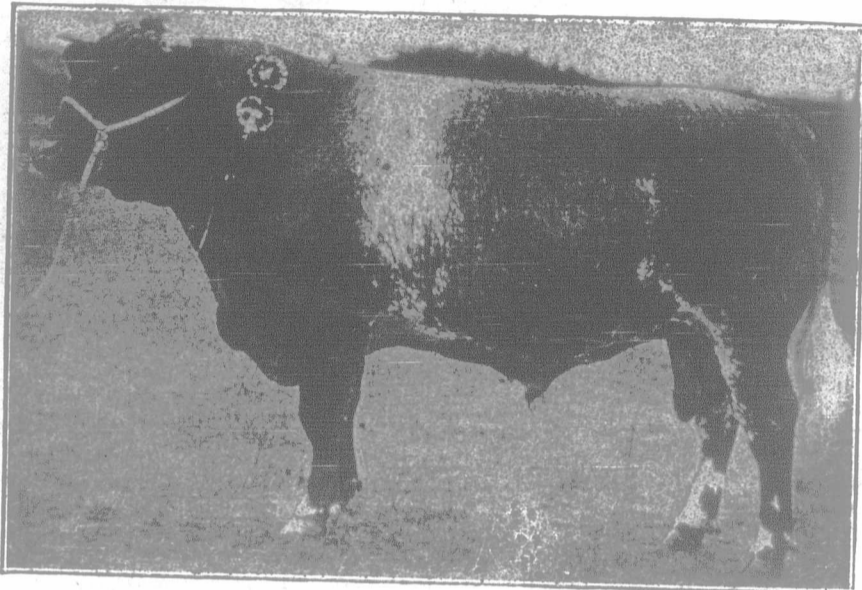
Tests have proved in New South Wales that wheat has shown a steady decline in yield where there has been no systematic attempt to spell the land, as against those sections where a fodder crop has been grown in a rotation. An official report shows that the averages for the first three years on the best of the unmanured plots where wheat was grown every year was 21 bushels, but for the last two years the return was less than eight bushels. Fallowed land for the first three years gave an average of 26 bushels, and for the last two years slightly under 20 bushels. Where fodder crops were grown every alternate year the average for the first three years was 27 bushels, and for the last two just under 22 bushels. The use of fertilizers in all these sections was amply justified by results. In some cases the average was raised by four bushels to the acre.

### FAST WORK IN FRUIT PACKING.

Richard Leitch and Walter Page engaged in a fruit-packing contest at Huonville (Tas.) for a wager of £20 a side. Page secured a lead shortly after starting and held it to the finish. He worked with a sloping bench, and his rival worked from a flat bench. Page completed his 50 cases in 1 h. 30 min. and 16 sec., and Leitch 1 h. 54 min. 38 sec. The winner's time worked out at a little over two minutes per case.

### TO EXPERIMENT WITH PRICKLY PEAR.

A couple of American chemists have come to Australia under the belief that they have a good thing on in regard to the prickly pear country in Queensland where there are twelve million acres given over to the pest. O. C. Roberts, of California, has signed an agreement with the Government to eradicate the pear within ten years off 100,000 acres if he gets the freehold of the land when he completes his task. He is to begin operations by May of next year. His plan of treatment will be to cut roads through the pear jungle and then use these roads for carts which will carry gas sprays, the fumes of which, he says, will destroy the plant to the roots. As he clears portions of the block he will be given possession and the areas will be put into use as farms. The other speculator is Mr. Rassmussen, also of California, who has just arrived, and he says he intends to do some wonderful things with the spiny curse—make paper pulp, sugar, fibre, spirits, and other commercial articles out of it. He is also going to convert it into fodder

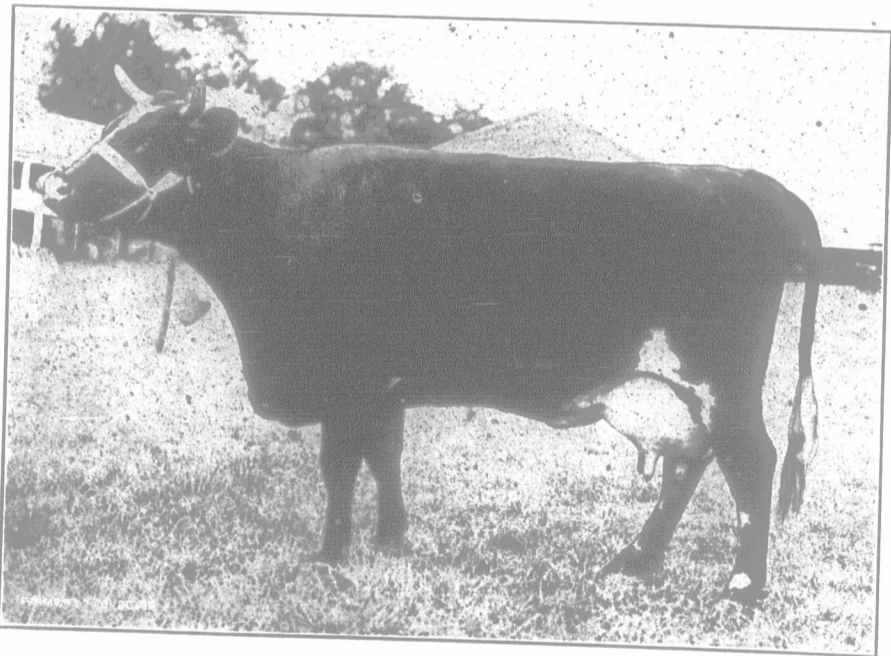


Woodend Stamp.

Champion Shorthorn bull, at the Royal Show, Bristol, England, 1913.

hide, which has been going continuously for ten years, with no signs of cessation, and is still averaging six pounds of butter per week. Mr. Bishop, of Lime Not, Walmer, N. S. W., puts in his claim with a cow which has been milking without a break for eight years, two years behind the last case. Unlike the other animals, however, she has given birth to five calves during the time. The surprising part of this case is that the arrival of the calf on each occasion has not made any difference to the character or quality of the milk other than to slightly increase the quantity just before and after calving. The owner claims that the cow will average one pound

of butter on the best of the unmanured plots where wheat was grown every year was 21 bushels, but for the last two years the return was less than eight bushels. Fallowed land for the first three years gave an average of 26 bushels, and for the last two years slightly under 20 bushels. Where fodder crops were grown every alternate year the average for the first three years was 27 bushels, and for the last two just under 22 bushels. The use of fertilizers in all these sections was amply justified by results. In some cases the average was raised by four bushels to the acre.



Heather Queen 3rd.

Dairy Shorthorn cow, 2nd at Royal Show. Yield of milk, 41½ lbs.

of butter throughout the year. Naturally he refuses to part with the animal.

### SOME BIG RECORDS.

A few points as to return and yields and records. At Narre Warren, Vic., apples this season have given a yield of £100 per acre. Twenty-three acres of canning peaches at Bairnsdale, in the same state, gave 253 tons of fruit. Between November of 1910 and March of this year a cow belonging to Mr. Kopp, of Peak Hill, N.S.W., produced four lots of twin calves. Seven of them are alive. A hide was recently sold at Brisbane for 14½d. per lb. It weighed 77 lbs., and after tare was taken off it was worth £4 8s. 6d., claimed to be a record price for Australia. A



for stock. But Mr. Roberts' ideas seem to be much more feasible. The Queensland Government and scores of other people have built up hopes about the commercial side of the pest, but so far every test has failed and dashed these hopes to the ground. As the leaves of the cactus contain something like 90 per cent of water there is not much of it left to turn into marketable commodities. The best laboratories in the world have said so. And, as for the fodder value, it has been proved that the pear which flourishes in Australia is not nearly so nutritious as that which is raised in Texas and other of the United States. At the present time there is a board of experts conducting all manner of tests, including the possibility of utilizing the cochineal insect of India to destroy it. These imported insects are being kept within bounds for fear that they may develop new tastes in this country and thus add another curse to the many imported ones with which we are burdened.

SHEEP AND WOOL.

The question of tariff reform in America is attracting great attention in Australia. It is certain that if the rates are reduced on fine wool the bulk of the high-grade output from this country will go there. There is also great hope that when the Panama canal gets under use the trade in all products between the two countries as well as Canada will be largely increased.

It was thought that the days of high-priced Merino rams were passed, but in June a ram of the Boonoke type was sold for 1,600 guineas, which is as high as any previously paid. This class of sheep does not belong to the coddled type and produces a medium fine-combing wool. They are hardy sheep, well able to weather the hardships of the plains.

An inter-state conference of veterinary surgeons has recommended that uncertificated stallions should not be permitted to stand for public purposes. This is another step in the reform which was started a few years ago to get rid of unsound sires.

The success of the world's record India Runner ducks at the Hawkesbury College is sure to give this breed a lift. Six ducks produced in 12 months 1,601 eggs, or an average of 267 eggs per bird.

Giving evidence before the Imperial Commissioners in Melbourne. Mr. Cook, of Thos Cook & Sons, the largest meat exporters in Australia, referring to the American Beef Trust, said that if the meat supplies of Great Britain came under the operation of dangerous trusts it would mean starvation eventually for the masses of people in Great Britain. The only way in his opinion to fight the trusts was the investment of British capital in the oversea Dominions. In Australia there was room for endless expansion of the meat and wool trade.

A new Australian record for a horse's high jump was recently made at Quirindi by a horse called Landlark, who cleared the bar at a height of 7ft. 1in.

FARMERS CO-OPERATING IN POLITICS.

Co-operation amongst farmers in Australia and New Zealand is making tremendous strides. Both Queensland and Victoria have large co-operative companies, not only handling their produce, but acting as suppliers of goods and requisites for the members. The capital in each case is over £250,000. The capital of one big co-operative company in New Zealand is £300,000. It also buys and sells and exports. An attempt is now being made to combine the whole of the co-operative factories in Australia and New Zealand into an organization for the purpose of selling their united produce on the London market. The Agent-General for Victoria has sounded the Canadian Commissioner in London as to the chances of joining Australia in establishing a big selling floor in London. The seasons in the two countries being so opposite there would be no clashing.

Farmers are stirring themselves politically as they never moved before. The defeat of the Labor Government at the elections in May is due to the change in the farming vote. Labor aggression is too much for the men on the land, more especially as threats were made of imposing further taxation on land-holders. In New Zealand there are 20 direct farming representatives in the House, and in Queensland State Parliament there are 26. In West Australia the Farmers' Association has decided to fight the next state elections as a distinctive political party. This will probably be done in the other states also later on. The increase of land settlement in Australia dur-

ing the next ten years promises to utterly rout the power which organized labor has held during the past three years. Sydney, Australia. J. S. DUNNET.

A Maritime Sheep Extension Car.

Quietly but with every indication of having stirred up much interest in sheep raising, the Dominion Government Department of Agriculture's Sheep Extension Car toured the provinces of Nova Scotia and New Brunswick, spending upwards of a month in each, starting from Moncton on the 26th of May and finishing on the 15th of July. The car was equipped by the Live Stock Branch, Ottawa, under the direction of their Maritime representative, J. A. Telfer, late of Telfer Bros., Paris) now of Moncton, N. B. It exhibited everything pertaining to the industry, carrying several specimens of the different breeds most suitable for the average farmer in the provinces by the sea. With these a short judging course was held, pointing out the proper type to be sought from a mutton standpoint, and following this a talk was given upon the care and attention of the ram before and through the breeding season, much neglect having been given both the ewe flock and the ram at breeding time on most of the farms in the Maritime Provinces. The proper care of the fleeces through the winter months, and at the shearing time was also taken up, farmers being encouraged to roll their fleeces up in the grease, and abandon the old system of tub-washing their fleeces. A strong plea was made for flock owners to try the dipping of their flocks to rid the sheep of all parasites, as the losses are heavy in the provinces from the ravages of these pests. To better illustrate the dipping operation, a full-sized dipping tank could be seen in the car, as also a small model of dipping tank and dripping pen. A well-arranged ex-

keep them inside during the day, letting them out at night. This allows an opportunity to give them a little chop once or twice a day to carry them over the trying period, and at night clover, alfalfa, corn or roots may be used to good advantage. No more profitable work can be done than giving calves good care.

THE FARM.

Build a Silo.

Editor of "The Farmer's Advocate":

With hay less than half a crop in Ontario, and alfalfa largely killed out, and prospects for an average crop of corn it is of the greatest importance that the cultivator should be kept going in the corn fields, not only to kill the weeds, but to conserve the moisture and thereby develop the very best corn crop possible. Never was this more required than it is to-day, as practically all grain crops are below the average in quantity of straw. Now, assuming that the corn crop is going to be a bumper one, what are we going to do with it? Are we going to follow the old path and stook the crop in the field and then have to chop the stooks out of the ice and frozen ground during next winter, only to find that mice, rats, crows, turkeys, etc., have secured the plums, and our live stock will have to be satisfied with the stalks which are, to say the least about them, largely woody fibre? To anyone who is planning such a practice, let me say, don't do it, but erect a silo. It is not necessary to build an expensive one, a silo large enough for the average herd, viz., 12ft. in diameter, and 28ft. to 35ft. high can be built at from \$85 to \$300 or even more, and the silage will be just as good feed from the

cheap as from the more expensive structure. The ideal plan which many of the most progressive dairymen are now practising is having two silos, one fair-sized one for winter feeding, and a smaller one for summer feeding, and wherever you find this practiced, hard times are a thing of the past. The man who provides silage to tide his herd over such a long, dry spell as we have experienced this summer, (and, in fact, is experienced more or less every summer) certainly has the laugh on his neighbor whose cows are almost dry, and who is anxiously looking skyward for signs of rain, hoping to have his pastures refreshed. What applies as being good to tide



A Unique Tandem.

hibit of the different fleeces, and many different samples of wool could also be seen in the car, showing the bad effects of foreign material in the wool, while, at one end of the car, the process of manufacture of wool underwear from the sheep's back to the finished article was displayed. Utensils of all kinds needful for the flock-master were on hand, as well as charts on all phases of the industry. Much interest was displayed wherever the car stopped, and many expressed their intention of entering upon the industry, which, for a number of decades, has suffered a severe loss in these provinces.

When the Calves are Weaned.

The time of year is arriving when the calves will be deprived of their supply of milk. Whole milk has been replaced by skim milk, and, after four months or so on this latter feed, the calf is thought by many to be able to shift for himself. Very often he is turned away to grass with the older cattle, and gets no more attention. Hot miasma or a little later, when the pastures have been robbed of their succulency by the continued action of the blazing sun and none too frequent falls of rain, is one of the worst times in which to put the calves in a far-off field already grazed bare by older cattle. They require more attention just after than just before weaning. Where a bunch of calves are ready to wean, a good place to put them is on a field upon which the grass had grown up afresh after the removal of a crop of hay. If at all possible keep them separate from the older cattle. Flies retard greatly the progress of growth in young calves, and for this reason it is recommended to

over a dairy herd is equally good for the beefing herd. To anyone who intends to put up a stave silo, I would say by all means roof it. The chances of your silo being staved in by the wind are greatly lessened by being bound together with a roof. Of course, the cement silo, although considerably more costly, has the advantage over the wooden silo in that it will neither blow down nor burn down, and if well plastered both inside or out, should keep the silage quite satisfactorily. Now, having the silo built, the next question is in what condition should the corn be to make the best and sweetest silage? After sixteen or seventeen years' experience with the silo, I am thoroughly convinced that to make sweet palatable food, corn should be matured sufficiently for husking, or, if for any reason this is impossible, I would prefer to have the corn frosted rather than put it into the silo in such a green state that the sap would squeeze out and run away around the foot of the silo, leaving pickled corn silage instead of preserved corn silage. I believe fully nine-tenths of the cases where the silo has been discarded can be traced right to the above practice of putting corn into the silo too green. I might go further and say that I believe a slight freezing is a benefit to corn for silage, but perhaps it is a dangerous practice to advocate. Some might be inclined to freeze the very heart out of the corn.

In order to have the silage free from mold, it is very important to have it thoroughly mixed. Where pipes are not used on the inside of the silo to conduct the corn directly to where you want it, it requires three good hands to keep it all well mixed and tramped. The draft from the

blower carries the leaves into bunches and if they are not constantly scattered there are sure to be some moldy spots in the silage.

While there are still a great many who are prejudiced against the silo, it is pretty generally acknowledged that corn is one of our cheapest crops to grow when quantity and quality are both considered. We must all admit that after about February 1st the silo is the only practical way of preserving the corn for future use, when it will keep for years without any appreciable deterioration, excepting a little on top where it is exposed to the air.

Don't neglect to build silos.

Don't build one large one in preference to two smaller ones, thinking you can feed out of that large one during the summer. There is too large a surface exposed to the air, and it will ferment faster than you can use it.

Don't make the mistake of building too large a silo. Twelve feet in diameter for a winter silo, and 9ft. or 10ft. for a summer silo is large enough for the average herd.

Middlesex Co., Ont.

R. H. HARDING.

Note.—This is an excellent article, but we have to dissent from the advice against building one large silo. Last summer we fed twenty cattle for two months from the bottom three or four feet of silage in a 14ft. x 40ft. cement silo, built two and a half feet under ground. The silage came out in excellent condition, and was fed with every satisfaction and profit. We advocate one good deep silo for the majority of cases.—Editor.]

### Ridding a Farm of Thistles.

While the Canadian thistle is not one of our worst weeds, it becomes serious when a whole farm is overrun with it. Two years ago, the property which comprises the major part of Weldwood was thoroughly infested. We do not remember ever having seen a whole farm so bad with thistles. Every field had them in abundance, including the woodlot. The new-seeded fields were a mess of them, and the remnant of the straw stack appeared to be about one-third thistle stalks and thistle down. The previous owner made light of thistles, explaining that he always shocked his grain with a fork. We were since told that when offered the previous season, he had jocularly remarked that he might as well take them, for they were as good as any of his own. Of course, these thistles, thick as they were, were not a circumstance compared to the eighteen acres of bindweed that we have since been fighting. Still they were a nuisance and an eye-sore, not to be tolerated on any well-managed farm, let alone a semi-public one such as ours. So, without going to very much extra expense on account of the thistles, we went after them pretty thoroughly, and have already succeeded in reducing the numbers by about eighty per cent. The grain fields this year have scarcely any thistle tops showing above the heads, though in one field there will be a good many stalks under the hands to remind the harvesters of what once was. The field was in corn last year, and was kept fairly clean until the middle of July, when incessant rain prevented further scuffling. A two-acre strip on one side, which missed the last touch that the bulk of the field got, was about three times as bad with thistles in the fall as the other part, showing what one extra cultivation at the right time will often accomplish.

The plan of campaign was to prevent seeding in the meadows and grain fields, and to exterminate the root stocks, one field at a time, with hoe crop, the hoe crop being followed by grain and seeded down, using a plentiful quantity of seed (red clover, 8 lbs.; alsike, 2 lbs.; timothy, 5 or 6 lbs.) We always aim to cut all our hay before any of the thistles go to seed, usually before they are in bloom. This early haying is effective against many other weeds as well. The frequent mowing given alfalfa and clover fields effectually subdues Canada thistle. Fence bottoms, waste places, and pastures we endeavor to run over with scythe or mower, preferably when the thistles are in bloom.

For cultivating the hoe crop we rely chiefly upon the wide sweeps or weed cutters, which may be attached either to walking scuffler or riding two-row cultivator. We plant our corn in squares with the check-row planter, and count on six or eight cultivations, commencing soon after planting, following the wheel marks, perhaps, for the first time through. With the riding cultivator we sometimes cover two acres an hour if straddling each alternate row, or one acre if straddling every row. After the corn is three or four feet high the single scuffler is used, and we aim to get through the corn once with the hoe to cut thistles growing close to the hills, and odd ones missed in the mid spaces. By this means a corn field may be left as clean as a whistle when the crop is removed, and few thistles will come in the ensuing crop of grain.

"TOPPING" THISTLES IN GRAIN.

In the grain fields, "topping" with the scythe is the best practice. Spudding is slower and less

effective, for it is practicable only when the grain is small, and two or three thistles will come where each one has been spudded out. Topping is done just before the grain commences to head. At this time the thistles stand above it, and if the blossom head is cut off it will be set back; the grain will soon shoot up past it, and if any thistle seed is produced at all before the grain is cut it will be down below the level of the grain heads, and will not likely scatter very far. We have had one man top twenty acres of pretty thistly grain in either two or two and a half days, we do not remember which it was. He did a good job, too.

We cannot give the cost of the work involved in fighting thistles during the two and a half seasons we have been on the place, because it has been incidental to the production of each particular crop, but we should judge that a hundred dollars would cover all the extra expense incurred in fighting this weed. The farm is now comparatively clean, the grain fields are a picture, and, while we expect to have a few thistles for some time to come, they no longer give any serious concern. As compared with the old-fashioned plan of hoeing them out of summer fallow (as we had to do when boys), the modern practice has much to commend it.

### Down on the Farm.

When Pa, he gets just awful cross  
And quiet, and won't laugh or play,  
And says he cannot sleep at night,  
We know its time for Ma to say  
"You's better take a holiday.  
Don't worry so, John, over bills,  
Just pack your grip and get away  
Down on the farm at Uncle Will's."

Then Pa, he says "Goodbye" and goes,  
And spends, well, say a week or two,  
Out in the air and cats and sleeps,  
And works just like he used to do.  
He writes "Life wears a rosy hue,  
I guess I'm cured of all my ills;  
There's nothing in this world can beat  
Down on the farm at Uncle Will's."

When Ma gets peaked and loses weight,  
And doesn't greet me with a smile  
When I come home from school at night,  
And sighs just every little while,  
Then Pa, he gets a "wee bit" scared  
That Ma is going to be ill;  
He says, "Come, Mother, take a rest  
Down on the farm at Uncle Will's."

Then Ma, she goes, and all the house  
Seems different; things just won't go right,  
Tho' Pa, well, he's just awful good  
And takes me out most every night;  
And Ma writes home "I'm getting strong,  
A better tonic far than pills,  
Or tabloids, or that kind of thing,  
Is life down here at Uncle Will's."

And then it comes my turn at last,  
The fellows talk about vacation,  
Bout hunting, fishing, camping out,  
You'll hear the name of every station,  
And Pa, he says "Which is it, son?  
Just take your choice, seaside or hills,"  
And then I say, "Well, mv choice, dad,  
Is on the farm at Uncle Will's."

I drive the horses, bunch the hay,  
And help until the harvest's through,  
And eat and drink, and play and work,  
Well, just about enough for two.  
My folks, they say it's better far  
Than paying needless doctor bills,  
So go and spend a holiday  
Down on the farm at Uncle Will's.  
Ottawa, Ont. LILLIAN RUTH MILNER.

### Weed Seeds Broadcast.

Editor "The Farmer's Advocate":  
Recently hearing some comments on the unsightly weediness of the roadsides along our public highways, we were struck with the truth of the statement and regret that our beautiful country is being marred by these existing conditions, yet when one considers the lack of interest displayed by the majority of farmers with regard to the extermination of weeds (not alone bordering their farms but throughout the fields and grain) the wonder is our roadways are not more unsightly. About one farmer in ten systematically fights the weed nuisance, keeping the fields clear of thistles, docks and other common species. Realizing that eternal vigilance only can master the situation, how discouraging when probably one's adjoining neighbor carries on at best but a half-hearted attempt at weed eradication!

Even what seems to be the very worst species met yet—the sow thistle—is allowed by many to bloom and scatter seed broadcast, not alone through their own fields, but liberally seeding the farms of the more careful proprietors who have painstakingly mastered them on their own farms thus far.

In this way is progress hindered, and the diffi-

culties in presenting an attractive farm and roadway multiplied. More attention given to the small patches of weeds when starting would prevent, perhaps, years of trouble later.

Such disregard of the dangers from weed seeds which are carried by the wind is a sore trial to any who are earnestly striving to keep in subjugation these more serious pests, and as example and even persuasion have no effect, some more effectual method should be adopted when each would be compelled to do his part toward this end, thereby presenting cleaner farms and farm surroundings.

Lambton Co., Ont.

ELSPETH WILSON.

## HORTICULTURE.

### Spraying Potatoes for Blight and Rot.

Will you please let me know through your valuable paper, what I should spray, or what cure there is for the black streaks, or a kind of rot, in potatoes. I have noticed it starts at the stem end, and I have been troubled with it the last two years. Do you know whether the variety of potatoes has anything to do with it? I have three. Early harvest has some, Davies Warrior has not any, Empire State was nearly all diseased.

W.G.

Some varieties of potatoes are more liable than others to blights and rots. The form of potato rot that is associated with late blight may be usually controlled by thorough spraying, which pays exceedingly well by keeping the foliage green and healthy late into the season, thus increasing the yield even in seasons when rot is not prevalent. In some co-operative experiments in New York State, the yield was increased 41.1 bushels per acre for an average of seven years.

Begin to spray early—just as soon as the earliest hatching of the eggs of the Colorado beetle, or when the plants are about five inches high. Keep the leaves well covered with Bordeaux, using a poison with it in each case, until the insects are destroyed, but no longer. After that, keep using Bordeaux, but without poison. If the weather is wet at any time from the 25th of July up to the end of the growing season, take extra precautions to see that the foliage is well covered with Bordeaux, lest the late blight get a start. In no season should there be fewer than three sprayings, and in most seasons there should be from six to eight. Bordeaux may be used at the strength of 5-5-40 (five pounds lime, five pounds bluestone, and 40 gallons water), instead of the usual 4-4-40. One pound of Paris green or three pounds arsenate of lead are strong enough as a poison for a forty-gallon barrel of Bordeaux. Detailed instructions for preparing Bordeaux mixture have often been published in "The Farmer's Advocate" and may be found in connection with the spray calendar in our issue of March 27th, 1913.

Spraying for blight is unlike spraying for bugs in this respect: it must be preventive, and should be done before signs of damage appear. Bugs may be poisoned: the blight fungus must be prevented from getting into the leaf-tissue.

### Refrigerator Cars for Fruit to Montreal (export).

At the request of the Dominion Department of Agriculture, the Grand Trunk System has undertaken, during the period August 1st to October 1st, 1913, inclusive, to furnish, when practicable, refrigerator cars for transporting to Montreal shipments of fruit for export.

Shippers desiring cars under this arrangement will make a written application stating quantity of ice to be placed in cars before loading, and if cars are to be re-iced in transit, the quantity of ice to be supplied in each instance. The cost of icing in transit will be waybilled to forwarding station for collection.

When refrigerator cars are ordered, and it is not possible to furnish ice at shipping station, the agent will at once notify the Trainmaster or Superintendent, who will arrange to have the cars iced at the most convenient point, and the cost of same will be waybilled to stations at which the cars are to be loaded.

The cost of icing (not exceeding \$5.00 per car) must be waybilled to Montreal as an "advance charge" against the property, but when the total cost of icing exceeds \$5.00, the amount over that figure must be paid by shipper, as same cannot be charged forward on ocean bill-of-lading.

A similar arrangement obtains with the C.P.R. It has now been in force for several years. The Department pays icing charges to the extent of five dollars per car on carloads of fruit intended for export in cold storage.

**Good Ontario Apples Wanted in the West.**

Editor "The Farmer's Advocate":

"Why don't you send us fruit like that? We never see that kind of apples out here."

Such was the remark we heard from numerous people who passed through the "Made-in-Canada" train in the West, and saw the Ontario Government display of fruit, butter and cheese, and honey. And because the complaint was so general and was made so earnestly, we could come to no other conclusion but that something was wrong with the Ontario apple trade.

The West is peopled with folks from Ontario—folks who know a good apple when they see it. Many a Huron and Bruce man came in the door of the car, exclaiming, "This smells like Ontario." It can be truthfully said that the West knows Ontario apples, and if they could get them, the people would buy fruit from this province in preference to British Columbia or the Western States apples. The market belongs to Ontario if we but send the right kind of goods.

The difficulty seems to have been a past experience with dishonestly packed barrels from Ontario—apples marked No. 1, and retailing for \$6.00 a barrel—so that at the present time fruit cannot be sold unless the purchaser can see practically every fruit in the package. British Columbia and the West have been quick to take advantage of this fact, and practically all of their stuff is packed in boxes. These boxes are marked with the grade and number of apples in the box, so that the purchaser knows exactly what he is getting for his money. With Ontario fruit he has been fooled once too often. This dishonest packing may not have been as general as we have been led to believe, but the result has been the same as if it had been. A small amount of dishonesty can destroy the whole trade. The fact remains that Ontario does not hold the market at the present time.

One must visit the West and hear the heartfelt comments of the people, and their plea for Ontario fruit to realise the seriousness of such mistakes, even from a business standpoint.

Another serious drawback in placing Ontario fruit in the West is the excessive number of dealers through whose hands the fruit passes before reaching the consumer. A dealer in Calgary buys from a dealer in Regina; he buys from a dealer in Winnipeg; the Winnipeg dealer buys from the Toronto dealer; the Toronto dealer from the apple buyer, who gathers his fruit from the producer. The consumer is six profit-taking men from the producer; which means that the consumer pays a large price for his fruit. One of the main objects of the exhibit was to put the dealer in the West in direct touch with the producer in Ontario, through our co-operative apple-producing associations. Many communities in the West are organized into associations of one kind or another, and through these fruit may be bought direct from apple associations in Ontario. In districts where there are no organizations in the West, the people, by clubbing their orders, can have their dealer buy direct. In this simple manner the consumer in the West may buy Ontario quality at Ontario prices.

An outstanding feature brought out by the trip was the preference expressed for Ontario apples. A large number of those passing through the car were firm in the belief that the flavor and quality of Ontario fruit was much better than fruit from anywhere else. This fact makes the mistake of a poor pack all the more glaring, and explains our belief that Ontario could hold the market if she but sent the goods.

It is essential at this time also that the co-operative associations be very careful of the pack sent West. I found one Farmers' Union in Alberta which had obtained a carload of apples from an Ontario association. Some of the apples in this carload were quite satisfactory, but one or two of the varieties caused serious dissatisfaction. In this particular instance the Farmers' Union was recompensed, but business of this kind is not satisfactory, and could do an immense amount of harm to our co-operative packing association.

I am glad to say that in the whole trip the above is the one occasion where dissatisfaction was expressed, and as the mistake was remedied, it could not have been intentional. Mistakes will happen. Dealings with our Co-operative Association have been uniformly satisfactory.

In the large cities of the West the market demands, and, perhaps always will demand, the box pack. I am of the opinion, however, that a large proportion of our fruit could be sent in barrels, especially where apples are bought through the Farmers' Unions or other associations. It is certainly much the cheaper method and where the purchaser has proper storage, is just as satisfactory. In the cities the consumer would rather buy in smaller quantities and buy oftener.

Ontario has good apples. The West knows that, and wants them. If we sent nothing but the best, Western Canada would eat every good apple grown in Ontario, and would eat no other. Waterloo Co., Ont. F.C. HART.

**An Illustration Orchard.**

Editor of "The Farmer's Advocate":

In the year 1904 in glancing through a government report on horticulture I happened to notice a paragraph regarding the setting out of illustration orchards in New Brunswick. I had been intending to start an orchard for some time as I had no improved fruit on my farm at all.

The conditions of setting out these orchards were as follows:—The Government would furnish the trees free, and send a man to set them out, and the owner of the land was to care for the trees according to their directions for ten years, and have all the proceeds of the orchard. I immediately sent in an application for an orchard, and they at once notified me to prepare the ground by plowing and liberal manuring, and they would set me out an acre the following spring. On May 9th, 1905, an experienced man was sent from the department of agriculture with fifty trees of the best known varieties, adapted to New Brunswick, namely, Duchess, Fameuse, Wealthy, Arctic, Stark, Wolfe River, Ben Davis, Baxter, McIntosh Red, Milwaukee, Yellow Transparent, Pumpkin Sweet, North Western Greening, and Stark King David, and one crab tree, Martha. We measured off the ground, arranging to set the trees thirty feet apart each way. Where each tree was to go we drove a stake, then the holes were dug, and as each tree was set the roots were carefully trimmed, being careful to cut off all dead or broken roots. The holes were large, so the roots would lie in their natural position and not be crowded. The tree placed in the hole and held upright by one man while the other filled in the dirt, putting the surface soil in first, and lastly that dug from the bottom of the hole. When almost full it was then firmly tramped in and a pail of water poured around each tree to wash the small particles of earth in among the roots and also to thoroughly dampen the roots so that they would start growing more quickly. After the water had soaked into the soil the loose earth was then drawn in around the tree to form a mulch and to prevent the wet earth from baking. The holes had been dug deep enough so that the trees were planted an inch deeper than they had been in the nursery. Great care was taken to get every tree set just right, so they would range in line three ways in looking at them from the corner tree, that would be along each side and across the centre. When they were first set out I felt certain they were too far apart, taking up too much ground, but I soon found it was none too much.

As the trees grow it gives plenty of room to work and thorough cultivation is necessary to the success of the trees. Many men to this day make the mistake of setting their young trees only fifteen or twenty feet apart or sometimes closer, but for my part I would rather have an orchard set forty feet apart than twenty. The same spring my orchard was planted, I sowed it in buckwheat, just leaving about three feet around each one, which I used to dig up every week with a potato digger until the first of July when I sowed a little clover around them as the horticulturist directed. This was to slightly retard the growth of the trees in order that they might ripen up for the coming winter, and not winter-kill, and the following spring in plowing the ground again the clover is turned under thus enriching the soil for the growing trees again. No spraying was done the first two years, but I kept watch for the army worm or any leaf-eating insect which might attack them and picked them off and burned them. Each fall before the snow comes I wrap them with building paper or the veneer wrappings and hill them up slightly, this helps to keep the paper on and prevents the surface water from lying near the trees as the ground is very flat. The paper and the hilling up also prevents the mice from destroying the trees and keeps the sap from starting in the warm days in March and April, which is often followed by a cold snap freezing the under branches, killing them, and causing sun-scald. After the warm weather really set in, which is usually the first of May, I remove the wrappings, plow and manure the ground and prepare it for any crop I wish.

After the first year to the present time I cultivate a strip each side of each row of trees about four feet wide, cultivating weekly until July 1st, then seeding down to clover and vetches for a cover crop, whichever the Government sends me, these late years since the soil is getting richer makes very rank growth, collects, and holds the snow about the roots of the trees, and is then plowed under the spring following. I never use it for feed, or allow it fed off, as I consider it bad practice to allow stock to run in the orchard.

As for spraying, the first four years I used the Knapsack Sprayer, as it was easily carried, and

very handy in spraying the small trees with. Since my trees are now eight years old, and have made excellent growth, and nearly all bearing heavily, the Government furnished me with a barrel sprayer with hose and rod attachment with double nozzle so that I can spray the large, high trees more easily and quickly. The past two years they have also furnished the spray mixture, all ready to be diluted to the necessary strength, and in place of Bordeaux and Paris Green, lime-sulphur with arsenate of lead is used, which I apply as follows: "First application, one gallon lime-sulphur solution to eight gallons of water, applied just before growth starts. This is for aphids, and also intended as a cleansing to the bark of the trees. Second application, just before blossoms open: One gallon lime-sulphur to 40 gallons water, and two-and-a-half pounds of arsenate of lead, this is for the bud-moth and any leaf-eating insect. Third application, immediately after blossoms fall, and before the calyces close or (more plainly speaking, before the little apples turn down), this application is used same strength as second, and is for the codling moth.

Should a fourth application be necessary it is applied two weeks later, a little stronger if necessary. The fourth spray is scarcely necessary if first three have been applied in good shape, and at the proper time. I always try to spray thoroughly, and have, I think, learned what each spray is applied for, it is a poor plan to start out to spray and not know what you are going to spray your trees for, but, of course, that must be learned. In spraying, to make a thorough job, as soon as the trees dry after it is applied and the lime shows up white on the trees, if I see that some parts are not covered I go over these again, while I have my sprayer all ready, and it is very seldom I have to give the fourth spraying in that season.

If any reader intends setting out an orchard by all means care for it in every particular and it will not only be a beauty spot on your farm, but will add greatly to its value, and soon reward you with plenty of easily-earned cash. But to set out an orchard any old way and leave it to care for itself is not only money thrown away but is an unsightly spot on your farm. My first exhibit of apples was at the St. John apple show in 1911, and I got second prize for best collection, which I thought very good for a beginner, considering the fact that Nova Scotia, the leading apple province, also exhibited at the same show. Only a few trees in my orchard died out, but were always promptly replaced by the Government, who also at different times added others, until my orchard now contains sixty-five trees.

This illustration orchard, as well as others in New Brunswick is intended as an object lesson to fruit growers. The supervision of these orchards for several years past has been under A. G. Turner, Horticulturist, Fredericton, New Brunswick, and by the satisfactory returns and the good appearance of these orchards testifies to that gentleman's superior knowledge of the business in both the illustration and demonstration work. New Brunswick. BARRY I. WHITEHEAD.

**San Jose Scale in Western Ontario.**

Editor of "The Farmer's Advocate":

In reply to your inquiry letter regarding the prevalence of the San Jose scale as revealed by my tour of inspection, I will say that I have found it in the following places: The township of Mosa in Middlesex is generally infested. There is also a small area at Byron, just west of London.

The southern part of Lambton is more or less infested, and there are also one or two cases in the central part of the county.

In the vicinity of Tillsonburg, in Norfolk county, there are several orchards that are very badly infested.

There is a small area near Woodstock, and one at Beachville in Oxford county.

I also found it near Burlington in Halton and Wentworth counties.

I have not been any further east than Oakville, so am not in a position to say anything regarding the country east of here.

You are doubtless aware that the western half of Elgin county and the counties of Kent and Essex are generally infested. Norfolk Co., Ont. JAS. A. NEILSON.

In the New England States fruit crops generally are said to be suffering from a lack of moisture. The prospect is for a fair crop of apples in carefully-sprayed orchards, while unsprayed orchards will have little salable fruit. In Western New York State the apple crop, while a little less than 1912, is expected to be good. A heavy windstorm on July 13th had done great damage, however.

## THE DAIRY.

Fast milking is not necessarily good milking, though as a general rule a fast milker will do better work than a slow one.

A good fly repellent or fly destroyer used regularly in the stable will return from ten to twenty dollars for each dollar invested in material.

What doth it profit a dairyman to toil hard all summer producing big crops of feed for his cows unless these be of the kind to cash in those crops at a price which leaves a decent margin over cost of production? Marketing is a great big problem, and it begins with the cow.

What we must have in dairying, before satisfactory progress can be made, is a "sublime discontent" with poor cows. You keep a cow a year at a total cost of sixty to ninety dollars. What have you to show for that money? What is the value of her milk, manure, and five-days-old calf? There is need for earnest figuring.

### Why the Cream Test Varies.

The majority of creamery patrons are puzzled at times over variations in the test of their cream as reported by the company receiving it. Often dishonesty is unjustly imputed. In her book, "Farm Dairying," Miss Laura Rose discussed this point, enumerating the following influences which may cause cream tests to vary from day to day.

1. Speed of the bowl. Slow turning gives a cream of low test, and a greater loss of fat in the skim-milk.
2. Amount of water or skim-milk used to flush the bowl in proportion to the amount of cream.
3. Amount of milk in the supply can: the less milk, the richer the cream.
4. Partial closing of the faucet of the supply can.
5. Clogging or imperfect cleaning of the cream and skim-milk outlets.
6. Temperature of the milk when separated.
7. Variations in the per cent. of fat in the milk separated: the richer the milk in fat, the richer the cream.

Very often when the cows freshen in the spring and when the grass stimulates the milk-flow, no change is made in the adjustment of the cream screw. Usually, the fresher the cows in milk and the heavier the flow the lower the percentage of fat; and so the necessity for turning in the screw, so as to have less skim-milk in the cream.

To this might be added the fact that various factors cause the average test of milk from a hard to vary on different days, thus modifying

the cream test as explained above. Sometimes this occurs without the reason being easily ascertainable. Official testers find cows testing as low as one per cent. at one time, and much higher at another. A flush in the flow is very liable to be accompanied by a decrease in the percentage test. "Dogging" cows generally lowers the test considerably, as will poor or indifferent milking, which leaves a percentage of the rich strippings in the udder. Any of or all these factors may enter into the case. Be sure of your facts before indulging suspicions of unfair dealing. If in-doubt have occasional tests made by a disinterested party.

## FARM BULLETIN.

### Weldwood Notes.

Haying was finished at Weldwood July 22nd, the last piece being five acres of pasture that had not been closely eaten down. Exclusive of this, we finished on the eighteenth, taking from forty-five acres, what we estimate will feed out about 65 tons of cured hay. Twenty-eight acres of oats and barley promise a satisfactory yield, and twenty-eight acres of corn run from fair to extra good. Twelve acres of bindweed-infested summer fallow and corn stubble is only fair owing to lack of manure and humus, but the sixteen acres of spring-plowed sod, which was mostly manured with the spreader before plowing, promises a very heavy crop. Nearly all the seed corn was ear-tested and the stand is excellent, averaging about four stalks to the hill. Including roots and beans, we have 32 acres of hoe crop, most of it reasonably clean and thrifty, except a few mangels, the seed of which did not prove very good, though sugar-beet seed from the same source was all right. An experimental plot of O.A.C. No. 72 oats on spring-plowed clover sod is from five to five and a half feet tall. The general oat crop, however, comes short of that.

### The Crop in York and Ontario Counties.

South Ontario and South York are producing another fairly good crop, all things considered. The season has been somewhat late, and at first it looked as though the hay crop would be a failure, but later rains came and the cut which is now being harvested has been an average one, running about a good load and one-half to the acre, and the hay is of finest quality, being not so coarse as it sometimes is, and the ideal weather of the past few weeks allowed farmers to get it harvested without getting it injured by rain.

At present writing, July 23rd, there is still a large portion of the crop to harvest and the timothy is ripening up rapidly, although cool weather of late has helped to hold it back. The acreage of hay increases in this section yearly as

the labor supply decreases and hundreds of tons will surely be sold from this section this fall and winter, as reports from many other districts indicate a very short crop, and it is more than likely that profitable prices will prevail for first-quality hay during the winter of 1913-14.

There is a considerable acreage of alsike grown for seed this year, but while it bloomed profusely the hot weather during the latter part of June interfered materially with its filling, and the seed is reported in many cases as being shrunken and small.

Early barley harvest and the cutting of a few fields of winter wheat have commenced. The wheat crop seems to be up to the average. Much of the barley is rather short, but is fairly well headed, and is likely to give a fair yield to the straw. The oat crop is late, many fields showing no signs of change of color as yet, and some are not fully headed out. The straw is short, but they are well headed and if a few rains come soon the yield should be nearly up to the average.

A very noticeable point in connection with the oat crop is the difference between the early-sown and the late-sown fields. The former are very good indeed, while many of the latter are disappointing in the extreme. This just bears out what "The Farmer's Advocate" has always urged upon its readers, viz., the importance of early seeding. The crop on wet land has also suffered, not only from late sowing, but also from the land running together badly after being sown. While this section has very good natural drainage and many fields are underdrained, there are still hundreds of acres which would be greatly benefited by underdraining.

All hoed crops are doing well. Some fields of corn are past cultivating already. Mangels seem to be growing well, and most of the turnips have been thinned and are getting a good start.

Pastures are much better than in some other parts of the Province, and live stock of all kinds are looking fine. There is a great scarcity of calves. Many people have ceased to milk cows owing to the scarcity of labor, and are rearing calves, or going into the production of baby beef, but great difficulty is experienced in procuring calves to put on the cows. Pigs have proved very profitable, and many farmers are making a specialty of pork production.

Perhaps as many sheep are bred in this section as in any other district of equal size in the Dominion, and still many farms have not a fleece on them.

Ontario county is a good apple section, but the crop does not promise large, perhaps 50 per cent. of a full yield. Strawberries were a failure and raspberries are not a full crop. Cherries were very abundant, but found a ready market at \$1 per basket. Plums are a shy set, but are grown for home consumption only. If nothing unforeseen happens, this fertile district will again have harvested a very good all-round crop ere the snows of December descend once more.

## Some Useful Weather Proverbs.

The frequent failure of the Weather Bureau to predict rains and other conditions long enough in advance to be serviceable to the farmer, or with sufficient particularity as to hour and locality, compels him often to fall back upon observations and folk lore. It is encouraging to find in the 1912 United States Year Book of Agriculture that many of the old signs and sayings have a basis of scientific fact, and we feel warranted in quoting an article on the subject by W. J. Humphreys, Ph. D., Professor of Meteorological Physics, United States Weather Bureau.

It can be argued, of course, and apparently with good reason, that weather proverbs can not now have any practical use, since nearly every country has a national weather service whose forecasts, for any given time and place, are reliably based upon the known immediately previous conditions all over a continent—conditions that are followed from hour to hour and day to day; that are minutely recorded and carefully studied.

It is true that when one is supplied with such information his horizon becomes world-wide; that he sees the weather as it is everywhere; knows in what directions the storms are moving and how fast, and that therefore he can predict the approximate weather conditions for a day or more ahead. But in general it is not practicable officially to forecast for definite hours nor for particular farms and villages. In the making, then, of hour-to-hour and village-to-village forecasts, though often of great value, one must rely upon his own interpretation of the signs before him. Besides, in many places it is impossible to get, in time for use, either the official forecast or the weather map upon which to base one's own opinions, and under these conditions

certain weather signs are of especial value—signs which everyone uses to a greater or less extent but with an understanding of their significance that, according to such experience as only real necessity can give, varies from the well-nigh full and complete to the vague and evanescent.

Thus the fisherman to-day, as in the past, will weigh anchor and flee from the gathering storm when to the uninitiated there is no indication of anything other than continued fair weather; and the woodsman, as did his remotest ancestors, will note significant changes and understand their warning messages, when the average man would see no change at all, or if he did, would fail to comprehend its meaning.

The prescience of these men is phenomenal, and it is with some of the useful weather proverbs they know so well, the causes of the phenomena they describe, and the relation of these phenomena to others they precede that the following is concerned.

### THE SEASONS.

Naturally everyone asks: "What of the coming season?" And especially is this an important question for the farmer, for a correct answer to it would tell him what crops to plant and where; whether upon hill or lowland, in light or heavy soil, and how best to cultivate them—vital points, everyone, for his success. But whatever we may hope ultimately to accomplish, seasonal forecasting to-day is beyond the pale of scientific meteorology, though proverb meteorology is full of it. However, a few of the seasonal proverbs that deal with results rather than types of weather are rationally founded. Among them we have

Frost year,  
Fruit year.

a

Year of snow  
Fruit will grow.

Or, in still another form:

A year of snow, a year of plenty.

That these and similar statements commonly are true is evident from the fact that a more or less continuous covering of snow, incident to a cold winter, not only delays the blossoming of fruit trees till after the probable season of killing frosts, but also prevents that alternate thawing and freezing so ruinous to wheat and other winter grains. In short, as another proverb puts it,

A late spring never deceives.

A different class of proverbs, but one meaning practically the same thing as the foregoing, and justified by substantially the same fact—that is, that an unseasonably early growth of vegetation is likely to be injured by later freezes—is illustrated by the following examples:

January warm, the Lord have mercy.

If you see grass in January,  
Lock your grain in your granary.

January blossoms fill no man's cellar.

January and February  
Do fill or empty the granary.

There are hundreds of other proverbs dealing with seasonal forecasts, but, except those belonging to such classes as the above, they have very little to justify them. Many are purely fanciful and others utterly inane.

### THE SUN.

While proverbs concerning the seasons, in the most part, are built upon the shifting sands of fancy and of superstition, many, but not all, of

those that concern the immediate future—the next few hours, or, at most, the coming day or two—are built upon the sure foundation of accurate observation and correct reasoning. Among these perhaps the best are those that have to do with the color of the sky and the appearances of the sun, the moon, and the stars, for we see the first because of our atmosphere and the others through it, and therefore any change in their appearances necessarily means changes in the atmosphere itself—changes that usually precede one or another type of weather. A familiar proverb of this class runs as follows:

A red sun has water in his eye.

Now, the condition that most favors a red sun is a great quantity of dust—smoke particles are particularly good—in a damp atmosphere. Smoke alone in sufficient quantity will produce this effect, but it is intensified by the presence of moisture. The blue and other short wave-length colors, as we call them, of sunlight are both scattered and absorbed to a greater extent by a given amount of dust or other substances, such as water vapor, than is the red; and this effect becomes more pronounced as the particles coalesce. Hence when the atmosphere is heavily charged with dust particles that have become moisture-laden we see the sun as a fiery red ball. We know, too, that this dust has much to do with rainfall, for, as was first proved many years ago by the physicist Aitken, cloud particles, and therefore rain, will not, under ordinary conditions, form in a perfectly dust-free atmosphere, but will readily form about dust motes of any kind in an atmosphere that is sufficiently damp.

A red sun, therefore, commonly indicates the presence of both of the essential rain elements—that is, dust and moisture; and while the above is not the whole story, either of the meteorological effects due to dust in the air, or of formation of rain, it is sufficient to show how well founded the proverb under consideration really is. And also this other one, that says:

If red the sun begin his race,  
Be sure the rain will fall apace.

SKY COLORS.

There are many proverbs, ranging from the good and useful to the misleading and absurd, concerning the color of the sky at sunrise and sunset. From Shakespeare we have the well-known lines:

A red morn that ever yet betokened  
Wreck to the seamen, tempest to the field,  
Sorrow to the shepherds, woe unto the birds,  
Gust and foul flaws to herdsmen and to herds.

Besides these stately verses, there are many proverb jingles that express substantially the same idea. One of them puts it thus:

Sky red in the morning  
Is a sailor's sure warning;  
Sky red at night  
Is the sailor's delight.

But in many ways the most interesting of all those proverbs that have to do with red sunrise and red sunset is the one which, according to Matthew, Christ used in answer to the Pharisees and Sadducees when they asked that He would show them a sign from heaven.

He answered and said unto them: When it is evening, ye say, It will be fair weather: for the sky is red.

And in the morning, It will be foul weather to-day: for the sky is red and lowering.

It will be noticed that an evening red is here declared to indicate exactly the opposite type of weather from that indicated by a morning red. This, however, is only an apparent contradiction, for the origin of the red is not the same in the two cases; but the full explanation of the physical difference, while well known, is too long to include here.

If the evening sky, not far up, but near the western horizon, is, yellow, greenish, or some other short wave-length color, then all the greater is the chance for clear weather, for these colors indicate even less condensation and therefore a dryer air than does red. Hence we can accept the following lines from Shakespeare as the expression of a general truth:

The weary sun hath made a golden set,  
And by the bright track of his fiery car,  
Gives token of a goodly day to-morrow.

If, however, the evening sky has none of these colors, but is over-cast with a uniform gray, then we know that numerous water droplets are present, and that the dust particles, in spite of the heat they absorbed from sunshine, have become loaded with much moisture. Obviously, then, to produce this effect the atmosphere, at considerable elevations, must be practically saturated, a condition that favors rain and justifies the familiar proverb:

If the sun set in gray  
The next will be a rainy day.  
If the sun goes pale to bed  
'Twill rain to-morrow, it is said.

Additional good examples of weather proverbs based on sky colors are as follows:

Evening gray and morning red  
Make the shepherd hang his head;  
An evening gray and a morning red  
Will send the shepherd wet to bed.  
Evening red and morning gray  
Two sure signs of one fine day.  
Evening red and morning gray  
Help the traveller on his way;  
Evening gray and morning red  
Bring down the rain upon his head.

CORONAS AND HALOS.

Many proverbs foretelling rain and bad weather are based on the appearance of solar and lunar halos and coronas, and as these form only when there is much moisture in the air and some condensation, the proverbs of this class are well founded.

Coronas are the small colored rings of light that encircle any bright object when seen through a mist, though the term commonly is used to designate only the colored rings around the sun and moon. They are due to diffraction (the bending of light at the boundary of an object into its geometric shadow) caused by water globules, and have one or another angular diameter, depending on the size of the droplets that produce them, in the sense that the larger the droplets the smaller the corona. Hence a decreasing coronas implies growing drops and the probability of an early rain.

Halos, on the other hand, are the rings of large diameter, usually colorless or nearly so, due to reflection and refraction by ice spicules, and are often seen in the high cirrus clouds that have been caught up from the tops of storms and carried forward by the swiftly moving air currents that always prevail at such elevations. It is this usual position of halos relative to

commonly is underestimated, impresses one as being correspondingly small. Now, the higher the clouds the swifter the winds that carry them along and the farther removed they become from the storm center. Hence, a halo that appears small is due to clouds far removed from the storm that produced them, while one that seems large, since it is caused by relatively low and therefore slow-moving clouds, usually indicates that the storm is comparatively near.

THE MOON.

Many people have supposed, and some still hold, that the moon appreciably controls the weather, and there are numerous proverbs based on this assumed relation. But careful study of the records shows that the moon's influence on the weather, beyond a very small tidal effect on the atmosphere, as indicated by the barometer, is negligible, if indeed it has any influence at all. As has been well said:

The moon and the weather  
May change together;  
But change of the moon  
Does not change the weather.  
If we'd no moon at all,  
And that may seem strange,  
We still should have weather  
That's subject to change.

However, the appearance of the moon depends upon the conditions of the atmosphere, and, therefore, proverbs based upon phenomena of this nature are more or less sound and have much value. Thus,

Clear moon,  
Frost soon,

Moonlit nights have the heaviest frosts, and others of this class are true enough, because on the clearest nights the cooling of the earth's surface by radiation is greatest, and hence most likely to cause, through the low temperature

reached, precipitation in the form of dew or frost. The meaning of halos and coronas about the moon has already been explained, and the proverbs connected with them foretelling bad weather fully justified.

The following is a somewhat interesting moon proverb:

Sharp horns do threaten windy weather.

When the air is clear, bad seeing is due to atmospheric inequalities which the free mixing caused by winds will eliminate. When the moon's horns, then, appear sharp—that is, when the seeing is good—we know that these inequalities do not exist, and the natural inference is that they have been smothered out by strong overrunning winds which later may reach the surface of the earth.

THE STARS.

The stars, like the sun and the moon, have furnished a number of proverbs concerning the weather, and, while most of them are only nonsense, a few have decided merit, as, for instance,

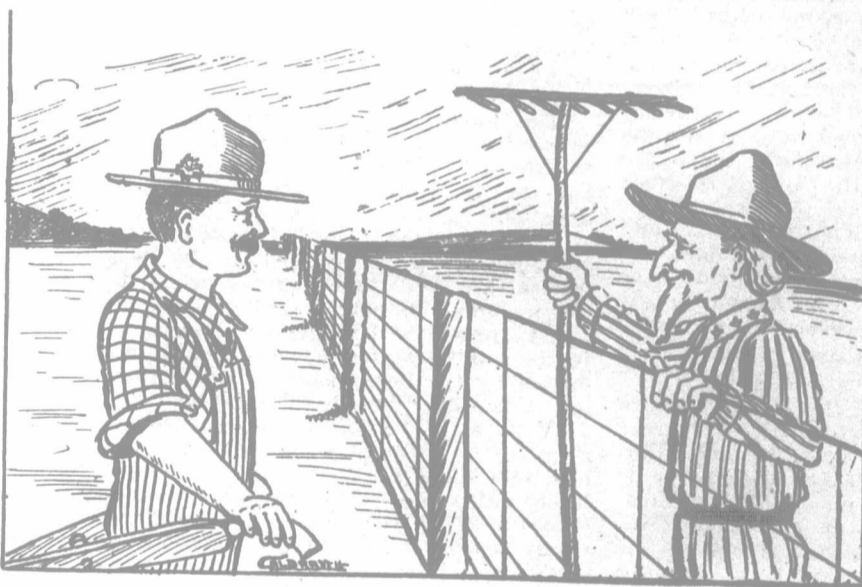
When the stars begin to huddle,  
The earth will soon become a puddle.

This proverb furnishes, in general, a correct forecast. It also affords a curious illustration of the ignorance that once was—perhaps it would not be far wrong to say still is—so prevalent in regard to stars.

When a mist, due to the beginning of condensation, forms over the sky the smaller stars cease to be visible, while the brighter ones shine dimly with a blur (really a faint corona) of light about them, each looking like a small, confused cluster of stars. Hence the idea, as above expressed, that stars can huddle together at one time—before a rain—and be scattered asunder at another.

There is also some ground for the proverb that declares the number of stars within a lunar halo to be the number of days before a storm, for the nearer the storm the denser the condensation, therefore the smaller the number of stars seen through it. However, as an entire day is a pretty long unit of time to use in sign forecasting, it would be better simply to say that the fewer the stars within the ring the nearer the rain, though even in this form it is not very trustworthy, owing to the fact that the brighter stars are unevenly distributed.

An entirely different star phenomenon that has given rise to a few proverbs is twinkling, or the



Worth Celebrating.

Johnny Canuck—"Isn't it about a hundred years since we settled our little trouble across this line fence?"  
Uncle Sam—"I reckon it must be, Johnny. Let's take a day off and celebrate."

storm centers—that is, in front of them—that makes them the good indicators they are of approaching bad weather. Typical of such proverbs is that of the Zuni Indians, who say:

When the sun is in his house it will rain soon.  
Several others refer to the apparent diameter of the circle. Thus we have:

Far burr, near rain.  
The bigger the ring, the nearer the wet.  
When the wheel is far the storm is n'ar;  
When the wheel is n'ar the storm is far.

These latter cannot refer to the corona, which actually does change in angular size, because in that case just the reverse is true; the bigger the ring the farther off the storm. Clearly, then, they apply only to the halo, and as the apparent size of an object of constant angular diameter depends upon its seeming distance away, it follows that the supposed changes referred to are optical illusions, due to erroneous impressions of distances. A good illustration of this kind of illusion is furnished by the moon as seen by different people, or as seen by the same person at different elevations above the horizon. When high in the heavens, where it appears to be comparatively near, it looks smaller than it does when close to the horizon, where it seems to be farther away; and yet careful measurements show but little change in its angular diameter, and that little just the reverse of appearances.

Hence, when the actual distance to a halo is less than it seems to be, as often happens when the clouds are low, it appears to be unusually large; and, conversely, when the clouds are very high a halo in them, because the distance to it

irregularities with which they shine. This fluctuation in their light is caused mainly by irregular refraction, due to numerous inequalities in the distribution of temperature, such as necessarily accompanies the over and under running of air currents, of different temperatures and different humidities, a condition that often precedes a storm. Hence the justification of the prosaic proverb that says:

When stars flicker in a dark background rain or snow follows soon.

#### THE WIND.

There are numerous proverbs based on the directions and changes of the wind, but their value, in the main, is only local, except when taken in connection with the height and rate of change of the barometer. However, in middle latitudes the direction of ordinary undisturbed winds is from west to east. Therefore a radically different direction commonly indicates an approaching, or, at any rate, not very distant storm. There is, then, some justification for such proverbs as the following:

When the smoke goes west,  
Gude weather is past.

When the smoke goes east,  
Gude weather comes neist.

When the wind's in the south.

The rain's in its mouth.

The wind in the west

Suits everyone best.

#### THE CLOUDS.

The height, extent, and shapes of clouds depend upon the humidity and upon the temperature and motion of the atmosphere, and consequently they often furnish reliable warnings of the coming weather. One proverb correctly says:

The higher the clouds the finer the weather.

The formation of clouds is caused mainly by cooling due to convection, the rising mass of air expanding and losing heat because of the work it does in lifting the weight that presses upon it. Now, the greater the height reached the colder, correspondingly, is the air, and hence we correctly infer that high clouds are formed only at the expense of much cooling, and therefore that the amount of moisture they contain can not be great enough to produce falling or bad weather.

This proverb must be restricted to stratus and other of the more common clouds. It does not apply to those thin, wispy, or cirrus clouds, the highest of all, that float from five to eight miles above sea level, for, as everyone knows:

Mackerel scales and mares' tails

Make lofty ships carry low sails.

Part of the air that forms the strong upward currents near the center of a storm rises to great heights, where, in middle latitudes, it gets into the swiftly eastward-moving layers that carry it and its ice particles far ahead of the rains. There are other ways by which such clouds can be formed, but that just explained is one of the most common, and as in this case they are only the overrunning portion of a storm that is coming on in the same general direction, the proverb just quoted evidently is well founded.

When the air is rather damp and the day is warm, great cumulus or thunderhead clouds are apt to form, as a result of strong convection, and produce frequent local showers. Hence the following proverb:

When clouds appear like rocks and towers

The earth's refreshed by frequent showers.

Another interesting phenomenon, familiar to all who live among the mountains, is the formation of a cloud along the highest ridges, due, of course, to the upward deflection of the wind as it blows against their sloping sides. This mechanical or forced convection produces the usual cooling, which, when the air is damp, results in the formation of cloud. Hence the truth of the proverb that tells us:

When the clouds are upon the hills.

They'll come down by the mills.

#### SOUND.

When the air is full of moisture its temperature tends rapidly to become equalized; the colder places are warmed by condensation and the warmer cooled by evaporation. In this way the atmosphere is freed from the innumerable temperature irregularities that prevail during dry weather, irregularities that, as Tyndal showed many years ago, strongly reflect and dissipate sound. We see, then, that when the air is homogeneous, which it is far more likely to be when damp, it will convey sound much better than it will when filled with inequalities, and hence there is good reason to accept the proverb, and other similar ones, that say:

Sound travelling far and wide

A stormy day will betide.

Not only the hearing, but the seeing as well, is improved by the homogeneity of the atmosphere; and this, too, has its appropriate proverbs, of which the following is a good example: The farther the sight the nearer the rain.

#### MISCELLANEOUS.

Under this heading one could include a great variety of proverbs—mostly foolish. However, there are two causes, decrease in atmospheric pressure and increase in humidity, that have led to a number of well-founded proverbs, or rather accurate observations, for they are seldom jingled in the typical proverb manner.

Thus we find it stated that the approach of a storm is marked by the rising of water in wells, by the more abundant flow of certain springs, by the bubbling of marshes, by the bad odors of ditches, and by various other phenomena, all of which are due to that decrease of atmospheric pressure that ordinarily precedes a storm.

The increase of humidity—favorable to precipitation—is noted by the gathering of moisture on cold objects, the collection of perspiration on our own skins owing to diminished evaporation, and the dampness of many hygroscopic substances. The last effect is illustrated by the packing of salt, the tightening of cordage, and of strings of musical instruments, the dull or damp appearance of stone walls and columns, the settling of smoke, and by a number of other similar phenomena, all of which have been appealed to, with more or less justification, as evidence of a gathering storm.

Of course, many other weather proverbs, of which those quoted in this article are typical, might be given and explained, but it is hoped that enough from each class have been justified to indicate their importance in all those cases and circumstances where, unfortunately, a weather service can not take the place of weather signs.

#### Prince Edward Island Notes.

Editor of "The Farmer's Advocate":

The rainy weather continues, and all crops are making excellent growth. Timothy blossomed on Monday, July 21st, and if the weather clears haymaking will be on next week. The crop will be about 80 per cent. average.

All other crops are making excellent progress.

The summer series of educational meetings in connection with the Farmers' Institutes are about completed. They have been very satisfactory, and the live-stock interests have received quite an impetus.

Entries in the Fields of Standing Grain Competitions are being received at the Department of Agriculture, and there is every prospect of a very large number of entries and of keen competition.

At present the summer science course for teachers is engaging attention. It is being conducted by the Department of Agriculture co-operating with the Education Department. It opens July 28th. The number of applications is now over 300, and more are expected. A good staff has been engaged, and a step will have been made in bringing the rural schools into closer touch with the life of the people, which will undoubtedly result in better salaries and consequently better teachers and better schools.

The agricultural staff has been further increased by the engagement of Mr. Davison, a recent graduate of the Ontario Agricultural College, who will teach in Prince of Wales College and assist in the work in field crops.

July 22nd.

F.R.

#### The Ontario Honey Crop.

On the basis of replies from 543 out of 700 members, the Crop Report Committee of the Ontario Beekeepers' Association have estimated an average crop of 63 pounds per colony, being located largely in the south-western counties. The eastern counties have practically no honey at all, and much the same may be said of the northern part of old Ontario, and the greater part of Quebec province. As these are usually great honey-producing sections, their failure will greatly reduce the total crop. Where there is a crop, however, the quality is reported to be extra good. The number of colonies reported, as per spring count, was 25,418 pounds of white honey, estimated 1,618,489. In considering the price, the high price of berries and the great shortage of the apple crop are taken into account. In fact, some large sales of honey have already been made at the prices named, as follows:—No. 1, light extracted (wholesale), 11c.—12c. per lb.; No. 2, light extracted (retail), 14c.—15c. per lb.; No. 1, comb (wholesale), \$2.25—\$3.00 per dozen; No. 2, comb (wholesale), \$1.50—\$2.00 per dozen. These prices are f. o. b. in 60 lb., 10 lb., and 5 lb. tins, the former being net weight, with the tin supplied, the two latter being gross weight. The difference in time and trouble filling the small tins about equalizes the price. The Committee adds:—"In selling to the wholesale commission merchant the lowest price should be asked; while the retail grocer should pay the highest wholesale price. The retail price to the consumer might vary according to the quantity he takes at any one purchase, and whether he supplies his own package."

#### Registered Seed Centres.

During the present summer season L. H. Newman, secretary of the Canadian Seed Growers' Association, and T. G. Raynor, and W. J. Lennox, of the Seed Branch Department of Agriculture, Ottawa, the former acting east of Toronto, and the latter west have addressed some 35 or 40 meetings of farmers in the Province of Ontario, called largely through the offices of the District Representatives of the Provincial Department of Agriculture. As a result it is expected that upwards of 300 additional growers of registered seed under the regulations of the Canadian Seed Growers' Association will be secured in Ontario, and large quantities of such seed be made available at reasonable prices at many more seed growing centres, composed of men with good, clean, farms already growing excellent crops. The object is to extend the use of pure, clean seed of high quality, beginning this summer with fall wheat, and next spring other cereals, grass, alfalfa, and clover, and potatoes.

The plan being followed is to have each man who desires to undertake the work procure at least three or four bushels of registered seed to begin with, wherever this is possible. In the case of oats and barley this amount of seed will usually sow a large enough patch to produce enough seed to sow all of the land devoted to the growing of oats or barley the following year, thus enabling the member to have on his farm only the one variety of the special crop he is working with. In the case of wheat, corn, potatoes, and alfalfa, slightly different arrangements will be made.

The need for having a number of such centres widely scattered is apparent when one realizes the fact that every year, almost without exception, some districts in Canada suffer from unfavorable weather conditions, and not only have no seed to offer the trade, but are themselves in serious need of better seed.

In some 30 Ontario counties such centres have been organized already. The initial registered seed is to be supplied to those who take up the work through one of their members, conveniently located, through whom payment will be made. To those taking up this work the inducement will be not only stocking their own farm with good seed, but the disposal of the surplus at prices which such seed usually brings. The growing crops will be inspected for the Seed Growers' Association, and the seed itself subsequently inspected, sack by sack, and tagged by its officers before shipment to others. The plan is also being extended into other provinces.

#### The Panama - Pacific Exposition.

Preparations are well advanced for holding in 1915 the Panama-Pacific International Exposition at San Francisco, California, to celebrate the opening of the Panama Canal, regarded as one of the greatest maritime events in the world's history. The site will occupy 625 acres, extending two miles long, facing the Pacific ocean, affording unique opportunity for spectacular features. Instead of being white as in the case of the Columbian Exhibition at Chicago in 1893, the color scheme of the buildings will be rich to match the floral and other glowing tints of the Pacific coast. Horticulture will naturally be a brilliant feature of the exhibition. A great deal of planting has already been done. On the water's front, covering thirty acres, will be the live stock exhibits, for which \$175,000 has been set aside by the management for premiums and cash prizes. At former great expositions of this character the Columbian at Chicago, the Pan American at Buffalo, and the Louisiana Purchase at St. Louis, Canada was largely represented in the live stock department, and won many distinguished trophies.

James Murray, of the noted firm of horsemen, Crow and Murray, and known to followers of live stock exhibitions, and readers of "The Farmer's Advocate" throughout Canada, met with an accident early last week, which caused his demise on Sunday last. A runaway horse struck his carriage while he was driving on a Toronto street and he was thrown violently to the pavement, sustaining injuries not at first thought serious, but which culminated fatally. Mr. Murray was born in Perthshire, Scotland, fifty-six years ago, and had been in this country about thirty years. He was always an ardent admirer of a good horse, and from his youth was directly connected with the horse business. Before coming to Canada he was in charge of large stables in London, England, and as a partner of T. A. Crow had been successful in winning highest honors at all the leading horse shows of America, and also of the old land. His special favorites were saddlers and carriage horses, and his ability as a trainer was unexcelled. The horse has lost a good friend, and horsemen in large numbers will regret to learn of Mr. Murray's untimely death.

Brandon's Dominion Exhibition.

It has been suggested that this year will see the last of the Dominion exhibitions that have been held in every province of the Dominion, and if so, the great agricultural exhibition recently held at Brandon was a fitting climax to the series of these Dominion displays.

Some classes of stock have been more prominent at Western shows before, but never has there been a larger or better balanced display of live stock than occupied the Brandon exhibition grounds this year.

displays in Percheron and Canadian-bred Clydesdale horses, in Holstein and Ayrshire cattle, and in Yorkshire swine. In the latter class over 200 individuals were shown making it an outstanding exhibit for the Canadian West.

In Clydesdales such well-known strings as those owned by W. H. Bryce, Arcola; W. Grant, Regina; A. McPhail, and Alex Galbraith, Brandon; T. H. Hassard, Markham, Ont., and R. W. Caswell, Saskatoon, with many splendid shorter strings were out.

In Shorthorn cattle, H. L. Emmert, Oak Bluff; R. W. Caswell, Saskatoon; W. H. English, Harding, and Anoka Stock Farm, Waukesha, Wis., were out strong.

O. Clifford, Oshawa, Ont., and Mossom Boyd Co., Prince Albert, had out Herefords, and J. D. McGregor, Brandon, and Jas. Bowman, Guelph, Ont., Aberdeen-Angus. W. J. McComb, Beresford, was there with his dual-purpose Red Polled cattle.

In dairy breeds, A. C. Hardy, Brockville, Ont.; H. Hancox, Dominion City, Man; W. J. Cummings, Winnipeg; Jas. Harriot, Souris; A. B. Potter, Langbank, and Logan & Robertson exhibited Holsteins. Ayrshires were shown by Rowland Ness, De Winton, Alta.; R. R. Ness, Howick, Que., and W. J. Mortson & Son, Fairlight, Sask. In every one of these breeds strong displays were seen.

Provincial displays by Saskatchewan and British Columbia were extra good, while the industrial displays easily excelled anything of its kind ever seen in Brandon. A fuller report will appear in next week's issue.

Gossip.

WINNIPEG EXHIBITION PRIZE WINNINGS, 1913.

Clydesdales.—Aged stallions: 1, H. Galbraith, Hartney, on Meritorious; 2 and 3, Alex. Galbraith, Brandon, on Proud Edward, and Diamond Royal. Three-year-old stallions: 1, A. Steele, Glenboro, on Cowden Duke; 2, Trotter & Trotter, Brandon, on Craigie Commander; 3, John Graham, Carberry, on Speculation. Two-year-old stallions: 1, A. Galbraith, on Charneck; 2, Wm. Grant, Regina, on Royal Dragoon; 3, R. H. Bryce, Winnipeg, on Doune Lodge Revelanta. Yearling colts: 1, W. J. McCallum, Brampton, Ont., on Royal Actor; 2, Andrew Graham, Pomeroy, on Count Again. The champion stallion was A. Galbraith's two-year-old Charneck, by Criterion. Yeld mares, with a dozen out, were placed: 1 and 2, W. Grant's Bloomer, by Benedict, and Vanity, by Gartyly Pride; 3, A. Galbraith's Ruth Marion, by Boreas. Three-year-old mares: 1, 2 and 3, W. Grant, on Lady Hopetoun, Elona and Snowflake. Two-year-old fillies: 1 and 2, on Royal Maid, and Kismet; 3, A. Graham, on Forest Lady. Yearling fillies: 1, W. J. McCallum, on Scottish Princess, by Lord Scott; 2 and 3, W. Grant. Female champion, W. Grant's yeld mare Bloomer. Judge, Jas. Dunro, Scotland.

Percherons.—Aged stallion, class: 1, J. C. Drewry, of Cowley, on Jureur; 2, A. Galbraith, Brandon, on Garou; 3, Finch Bros., on Hamon. Three-year-old stallions: 1, Drewry, on Pontiac; 2 and 3, Finch Bros., on Rambler, and Ansel. Two-year-olds: 1, J. C. Drewry, on Nolan; 2, A. Galbraith, on Hercules, Jr.; 3, Finch Bros., on Marcus. Grand champion stallion J. C. Drewry's Jureur. The champion female was Drewry's yeld mare, Flossy, and the reserve was his three-year-old filly, Rosette.

Percherons were shown by nine exhibitors. Professor W. B. Richards, of North Dakota, and E. W. Jones, of Manitoba, made the awards.

Shires were shown by four exhibitors—A. C. Shakerley, Pekisko; John Stott, Woodnorth, and M. C. Weightman, Morden. In aged stallions first and second awards went to Shakerley's, Leos and Lynn Laddie. Leos was declared male champion. Wm. Graham, of Claremont, Ont., judged the class.

Shorthorns.—In the aged bull class the awards were made by Judge James Durno, Jackston, Scotland, were: 1, R. W. Caswell, Saskatoon, on Gainford Marquis imp.; 2, Anoka Farms, on Sultan's Stamp, by Whitehall Sultan; 3, Caswell, on Marshal's Heir. Two-year-old bulls: 1 and 2, H. L. Emmert, Oak Bluff, Man., on Missie's Prince, and Choice Goods. Senior yearling bulls: Emmert, on Sittyton's Selection. Junior yearlings: 1, 2 and 3, Emmert, on Oak Bluff Wanderer, Royalist, and Sittyton's Sultan. Senior bull calves: 1, Emmert, on Margrave Gloster; 2, Anoka Farms, Fond Lavender; 3, Caswell of Saskatoon on Gainford Marquis. The senior and grand championship went to Caswell's Gainford Marquis, and the junior cham-

pionship to Emmert's Banner Bearer. Aged cow: 1, Emmert, on Fairstart 2nd; 2, Caswell, on Dale's Gift 2nd; 3, Caswell, on Merry Maid. Two-year-old heifers: 1, 2 and 3, Emmert, on Duchess of Gloster 78th, Thelma 2nd, and Emma of Oak Bluff. Senior yearling heifers: 1, Caswell, on Burnbrae Wimple; 2, Emmert, on Duchess of Oak Bluff; 3, Anoka Farms, on Duchess of Gloster. Junior yearlings: 1 and 2, Emmert, on Sittyton Lady 3rd, and Sittyton Rosebud; 3, Caswell, on Sultan's Gem. Graded herd: 1, Emmert; 2, Caswell, 3, Anoka Farms. Breeder's herd: 1, Anoka Farms; 2, Caswell. Cows in milk: 1 and 2, H. O. Ayearst, on the dual-purpose cows, Cinderella and Crimson Tulip.

Aberdeen-Angus were shown by Jas. Bowman, Guelph, and J. D. McGregor, Brandon. Awards were: Aged bulls: 1 and 2, Bowman, on Elm Park Wizard, and Magnificent. Two-year-old bulls: 1, Bowman, on Beauty's Prince; 2, McGregor. Senior yearlings: 1, Bowman, on Beauty's Erwin. Junior yearling: Bowman, on Elm Park Mailbag 3rd. Senior bull calves: 1 and 2, McGregor. Juniors: 1 and 2, Bowman. Male Champion and reserve: 1, Bowman, on Elm Park Wizard, and Beauty's Erwin. Aged cows: 1, McGregor, on Pride of Cherokee; 2 and 3, Bowman, on Elm Park Beauty 3rd, and Elm Park Rosebud 11th. Two-year-old heifers: 1 and 2, McGregor, on Queen Mother of Glenarnock, and Glenarnock's Pretty Rose; 3, Bowman. Senior yearlings: 1 and 2, McGregor, on Black Rose, and Ella of Morlick; 3, Bowman, on Elm Park Pride 12th. Junior yearlings: 1, McGregor, on Glenarnock Isla 2nd; 2, and 3, Bowman, on Elm Park Keepsake 13th, and Elm Park Rosebud 15th. Senior heifer calves: 1 and 2, McGregor, on Queen Mother of Glenarnock; 2 and 3, Bowman, on Pride 14th, and Matilda 4th. Junior calves: 1, Bowman, on Rosebud 16th. Female championship and reserve: McGregor, on Pride of Cherokee, and Black Rose of Glenarnock. Graded herd: 1, McGregor; 2, Bowman. Junior herd: 1, Bowman. Championship, female: 1, McGregor, on Pride of Cherokee.

Herefords were well shown by J. A. Chapman, Hayfield, Man.; L. O. Clifford, Oshawa, Ont., and Mossom Boyd Co., Prince Albert, Sask. In three-year-old bulls the rating was: 1 and 3, Clifford, on Refiner, and Bonnie Brae; 3, Mossom Boyd Co., on Excellent Son. Bulls, two years old: 1, Chapman, on Beau Albion. Senior yearling bull: 1, Clifford, on Bonnie Brae 49th. Junior yearling: 1, Mossom Boyd Co., on Bullion 4th; 2, Chapman, on Governor Hadley; 3, Clifford, on Bonnie Brae 52nd. Senior bull calf: 1, 2 and 3, Clifford, on Bonnie Braes' 61st, and 63rd, and Refiner 10th. Junior bull calves: 1, Clifford, on Lord Fairfax; 2, Chapman, on Beau Albert; 3, Mossom Boyd Co., on Foundation 5th. Champion bull: Clifford's Refiner; reserve, Boyd's Bullion 4th.

Ayrshires.—Aged bulls: 1, R. R. Ness, Howick, Que., on Hobbsland Masterpiece; 2, J. W. Briggs, Winnipeg, on Hobbsland Pride; 3, W. Baird, Cherrybank, on Dandy Jim. Two-year-old bulls: 1, Ness, on Burnside Lucky Cavalier; 2, W. H. Mortson, on Silver Prince; 3, Rowland Ness De Winton, on Admiral Beau D'Eurfe. Yearling bulls: 1 and 2, R. R. Ness, on Hobbsland Charms, and Rowland Ness, on Burnside Royal; 3, Thos. Hazelwood, on Buster Milkman. Senior bull calves: 1, Rowland Ness, on Lakeview Laddie; 2, R. R. Ness, on

Burnside Burland; 3, Mortson. Male championship: R. R. Ness, on Hobbsland Masterpiece. Aged cows: 1, R. R. Ness, on Torr's Bunch; 2, Rowland Ness, on Ravensdale Countess; 3, Briggs, on Stonehouse Irene. Three-year-old cows: 1, Rowland Ness, on Burnside Clara 12th; 2, R. R. Ness, on Auchenclegh Chatty; 3, Hazelwood, on White Pearl. Two-year-old heifers: 1, R. R. Ness, on Hobbsland Barbara; 2, Rowland Ness, on Lakeside Clara; 3, Mortson, on Rowland Modesty. Yearling heifers: 1, Mortson, on Lady Lottie; 2 and 3, R. R. Ness, on Hillhouse Randy, and Burnside Adalia. Senior heifer calves: 1 and 2, R. R. Ness, on Burnside Ina, and Ryanoko Janet; 3, R. Ness, on Lakeview Cherry. Female champion: R. R. Ness, on Torr's Bunch. Graded herd: 1, R. R. Ness; 2, Rowland Ness; 3, Baird. Junior herd: 1, R. R. Ness; 2, Rowland Ness; 3, Baird.

M. R. D. OWINGS JOINS THE RUMELY COMPANY.

An important step in the reorganization of the executive staff of M. Rumely Company is the election of M. R. D. Owings as Director and Vice-President in special charge of the Credit and Collection Departments of the business. Mr. Owings has had long and varied experiences in the implement business. Beginning with a preliminary training in the business of the Sandwich Manufacturing Company, he entered the employ of the Milwaukee Harvester Company about the time he became of age, and was soon after appointed its auditor. He then became Assistant to the General Manager, head of the purchasing department, sales manager, and in 1898 was made secretary of the company, which office he held at the time of the organization of the International Harvester Company. Mr. Owings took an important part in the organization of the International branch houses, establishing the credit bureau, re-organizing the office system at the various plants, and assisting in much of the organization work at the head office of the Company, thus extending his experience into all parts of the business. For the past eight years Mr. Owings has been in charge of the advertising and publicity departments and service bureau of the International Harvester Company and has broadened the scope of this work until it has become recognized as a substantial factor in the development of agricultural education and betterment, not only in the United States, but throughout the world. He was one of the first men in the implement business to recognize the fact that making and selling farm machines is more than a business enterprise, because of its vital connection with the food supply of the world, and he has been largely instrumental in enlisting the great resources of the I. H. C. in the encouragement of improved methods in agriculture. In his new position of Vice-President of the Rumely Company, Mr. Owings will bring to his work an accumulated experience as an organizer on a large scale, as a trained advertiser, and as a credit and collection man of long and successful experience. His training in all departments of the implement business will be of especial benefit in his new field, in which he will be a strong factor. He leaves the International organization on the friendliest terms, and, no doubt, his connection with the re-organized Rumely Company

will have a marked benefit upon the trade.

Attention is called to the advertisement on another page of the O. K. Canadian stalls and stanchions. It pays to make the cattle comfortable and "The Proper Housing of Cows" is the title of a book presented by the Canadian Potato Machinery Co., Ltd., Galt, Ont., manufacturers of these machines, who will gladly mail you one on application. Don't fail to see the advertisement and write for the booklet.

RIBY LINCOLN SALE.

The dispersion sale by auction, on July 9th, of the noted Lincoln long wool flock, belonging to the estate of the late Henry Dudding, of Riby Farm, Great Grimsby, Lincolnshire, was, as expected, a very successful event, the entire flock of 1,986 head selling for \$76,180, an average of \$38.00. 189 yearling rams averaged \$285, the highest price being \$3,000, paid for this year's Royal Champion by Mr. Martinez de Hoz for the Argentine, who bought four other rams for prices ranging from \$200 to \$1,050 each. Three yearling Show ewes, first at the Royal, sold for \$240.

CLYDESDALES AT THE HIGHLAND SHOW.

The Clydesdale section at the 1913 Summer Show of the Highland and Agricultural Society at Paisley is reported as having been one of the strongest seen in many years. In a large class of aged stallions first award was given W. Dunlop's five-year-old Dunure Footprint, by Baron of Buchlyvie; second to A. & W. Montgomery's Signet, by Alhandale; third, A. Rennie's Drumley, by Montrave Ronald. In three-year-old colts first and third went to Messrs. Montgomery on Baronet of Ballindalloch, by Baron's Pride and Baron's Crown, by the same sire. Two-year-old colts, said to be the best class of the age ever seen at the Highland, were led by Baron's Seal, shown by Messrs. Montgomery, who had also the third on Baron's Signet, second going to Wm. Dunlop's Dunure Stephen, by Baron of Buchlyvie. In a very fine class of yearling colts Robert Brydon's Royal winner, Philipine, by Buchlyvie, led again, Robert Bryan's Lord Bute, by Dunure Footprint, being second, and P. Sleigh third with a Hiawatha colt. The male championship went to Montgomery's Baron's Seal, reserve being Dunlop's Dunure Footprint. The female Champion was J. E. Kerr's three-year-old Harviestoun Phyllis, by Royal Favourite.

Many of our subscribers have written to tell of the pleasure they get in wearing the Baldwin dress. See adv. on page No. 1344.

In the advertisement of the Massey Harris Corn Binder, which appears elsewhere in this issue, a typographical error occurs, the advertisement reading: "danger of overturning while working on side hills," whereas it should have read: "no danger of overturning while working on side hills." This is one of the strong points in favor of this machine, which is constructed on the inclined elevation plan, has no unnecessary parts, has an even draft, cuts clean and even by means of side knives and a regular sickle knife, and no packers are present to knock off the ears. See the advertisement and don't forget that the binder is especially well adapted to cut side hills.

## Markets.

## Toronto.

At West Toronto, on Monday, July 28th, receipts at the Union Stock-yards were 102 cars, comprising 1,978 cattle, 4,644 hogs, 79 sheep, 42 calves; no sales. At the city yards there were ten cars, comprising 179 cattle, 7 hogs, 119 sheep and lambs, 55 calves. Cattle trade was dull, very little demand, good butchers' sold at \$6.30; medium, \$5.20 to \$5.75; common, \$4.00 to \$5.00; cows, \$3.00 to \$5.25; calves, \$5.00 to \$9.00; sheep, \$3.50 to \$5.00; lambs, \$7.50 to \$8.00; hogs, no sale.

## REVIEW OF LAST WEEK'S MARKETS.

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

	City.	Union.	Total.
CARS .....	38	393	431
CATTLE .....	708	6,019	6,727
HOGS .....	263	5,944	6,207
SHEEP .....	1,054	4,381	5,434
CALVES .....	266	996	1,262
HORSES .....		2	2

The total receipts at the two yards for the corresponding week of 1912 were:

	City.	Union.	Total.
CARS .....	95	252	347
CATTLE .....	988	3,684	4,672
HOGS .....	2,370	3,622	5,992
SHEEP .....	1,608	2,848	4,456
CALVES .....	493	212	705
HORSES .....	20	180	150

The combined receipts of live stock at the two markets for the past week show an increase of 84 cars, 2,105 cattle, 215 hogs, 980 sheep and lambs, and 557 calves; but a decrease of 148 horses in comparison with the corresponding week of 1912.

Receipts of cattle for the past week were larger than for the previous week, as well as for the corresponding week of 1912. In fact, there were too many for the demand, especially the common and inferior classes. Early in the week there was a good active trade, but the prices were 10c. to 15c. lower, for the best grades of cattle, and 15c. to 30c. on common and inferior cattle, and as the week advanced, prices still kept declining, for the lower grades especially. The receipts of stockers and feeders, were greater than the demand, and prices for them declined accordingly. Milkers and springers, also were plentiful, and, at the beginning of the week, sold fairly well, but before the close of the week, values had declined so much that some drovers who have farms, shipped their cows back to the country. Sheep were scarce all the week, and sold at firm prices; but lambs came forward in large numbers, and prices declined from 50c. to \$1.00 per cwt. Good calves were firm, but common and inferior veals were from 50c. to \$1.00 per cwt. lower. Hogs were scarce, and prices advanced to \$10.25 per cwt.

Exporters.—Swift & Company, of Chicago, bought 440 export steers for the British markets as follows: For London, they bought 200 steers, 1,365 lbs. each, at \$6.80 to \$7.95; also for Liverpool, 240 steers, 1,800 lbs. each, at \$6.75 to \$6.90.

Butchers.—Choice butchers' steers sold from \$6.65 to \$6.90; good, \$6.35 to \$6.60; medium, \$6.10 to \$6.30; common, \$5.00 to \$6.00; inferior, \$4.00 to \$4.75; good to choice cows, \$5.00 to \$5.50; medium cows, \$4.25 to \$4.75; canners, and cutters, \$2.00 to \$3.50; bulls, \$5.00 to \$5.50, for good quality, and \$3.75 to \$4.75 for common and medium bulls.

Feeders and Stockers.—Steers, 800 to 1,000 lbs., of fair quality, sold at \$5.50 to \$6.00, but few brought the latter figure, \$5.50 to \$5.75 would be nearer the mark; steers, 700 to 800 lbs., \$5.00 to \$5.25; stockers, 600 to 700 lbs., \$4.75 to \$5.00; common, rough Eastern quality sold from \$3.50 to \$4.50.

Milkers and Springers.—The supply during the week was greater than the demand. Prices were on the average, about \$5.00 to \$8.00 per head lower. The bulk of the cows sold from \$40.00 to \$60.00 each, but there were a few lots sold at \$65.00, and \$70.00 to \$75.00 was obtained for about half a dozen good to choice cows of extra quality.

Veal Calves.—Choice veal calves sold at \$8.00 to \$9.00; good, at \$7.00 to \$8.00; medium, \$6.00 to \$7.00; com-

mon, \$5.00 to \$5.50; inferior, rough, Eastern calves, \$4.00 to \$4.50 per cwt. Sheep and Lambs.—Sheep, light ewes, weighing 100 to 160 lbs., sold at \$4.50 to \$5.00; heavy ewes and rams, at \$3.00 to \$3.75; lambs, choice quality, sold at \$8.00 to \$8.75; good lambs, \$7.00 to \$8.00; cull lambs sold at \$5.50 to \$6.50.

Hogs.—The demand for hogs was greater than the supply, and prices advanced to \$10.25 for selects fed and watered, and \$9.90 f. o. b. cars, \$10.50 weighed off cars.

Horses.—There was scarcely anything doing at the various sale stables in Toronto for the past week. All report business very dull. Last year there were 130 horses reported at the Union Yards, for the corresponding week, while there were only 2 horses reported this week. For some time past there was a fairly good local trade, but dealers report very little, even in that line. Prices were reported unchanged.

## BREADSTUFFS.

Wheat.—Ontario, No. 2 red, white or mixed, 99c. to \$1.00, outside; Manitoba, No. 1 northern, \$1.03; No. 2 northern, \$1.00; No. 3 northern, 96c., track, lake ports. Oats.—Ontario, No. 2, 34c. to 35c., outside; 36c. to 37c., track, Toronto; Manitoba oats, No. 2, 38c.; No. 3, 37c., lake ports. Rye.—No. 2, 61c. to 62c. outside. Peas.—No. 2, 90c. to 95c., outside. Buckwheat.—No. 2, 52c. to 58c., outside. Corn.—American No. 2 yellow, 66c., midland; 71c., track, Toronto. Flour.—Ontario, ninety-per-cent., winter-wheat flour, \$4.10 to \$4.15, sea-board, in bulk. Manitoba flour.—Prices at Toronto are: First patents, \$5.50; second patents, \$5.00, in cotton 10c. more; strong bakers, \$4.80, in jute.

## HAY AND MILKFEED.

Hay.—Baled, in car lots, track, Toronto, No. 1, \$14.00 to \$14.50; No. 2, \$12.00 to \$13.00.

Straw.—Baled, car lots, \$8 to \$9, track, Toronto.

## HIDES AND SKINS.

No. 1 inspected steers and cows, 13c.; No. 2 inspected steers and cows, 12c.; city hides, 13c. to 13½c.; country hides, cured, 13c. to 13½c.; calf skins, per lb., 16c.; lamb skins and pelts, 20c. to 45c.; sheep skins, \$1.50 to \$1.85; horse hair, 35c. to 37c.; horse hides, No. 1, \$3.50; tallow, No. 1, per lb., 5½c. to 7c.

## WOOL.

Coarse, unwashed, 15c.; coarse, washed, 24c.; fine, unwashed, 17c.; fine, washed, 26c. per lb.

## COUNTRY PRODUCE.

Butter.—Unchanged. Creamery pound rolls, 28c. to 30c.; creamery solids, 27c. to 28c.; separator dairy, 23c. to 24c.; store lots, 20c. to 21c.

Eggs.—Market firmer, at 23c. to 24c. for case lots.

Cheese.—Old, large, 15c.; twins, 15½c.; new, large, 14c.; twins, 14½c.

Honey.—Extracted, 13½c. Beans.—Hand-picked, \$2.00; primes, \$1.70 to \$1.90, running, down to \$1.65 for poor quality.

Potatoes.—Ontario, old potatoes, 65c. per car lot; New Brunswick, 80c. for car lots, track, Toronto, but it is doubtful if any car lots could be obtained. New Ontario potatoes, sell at 45c. per basket; American potatoes, \$3.50 per bbl.

Poultry.—Fresh killed, spring chickens, sell at 30c. per lb.; hens, 18c. to 20c. per lb.; ducks, dressed, 20c. per lb.

## FRUITS AND VEGETABLES.

Receipts of fruit, in nearly all lines have, as a rule, not been equal to the demand, consequently prices are and have been firm. Cherries, \$1.00 to \$1.10 per basket; black currants, \$1.50 to \$2.00 per basket; raspberries, 15c. to 18c. per quart by the case; black raspberries, 15c. per quart; red currants, \$1.00 per basket; huckleberries, \$1.85 to \$2.00 per basket; water melons, 40c. to 45c. each; wax beans, 60c. per basket; green beans, 50c. per basket; gooseberries, 85c. to \$1.00 per basket; tomatoes, Canadian, \$1.75 to \$2.00 per basket.

## British Cattle Market.

Devaney reports trade at Birkenhead is a shade weaker than last week, quotations now being 14½c. to 14½c. per pound.

## Montreal.

Live Stock.—There was an easier tone this week in the cattle market, owing, very largely, to the increased offerings of low grade stock. As a result, prices declined about 1c. Some of the best stock offered sold at 7c., while fine quality sold at 6½c., and medium at 6¼c., and common sold as low as 3¼c., and canners as low as 2¼c. Bulls brought 3c. to 4c. per lb. The demand for sheep was very good, and ranged from 3¼c. to 4¼c. per lb. Trade in lambs was active, and prices were \$3.50 to \$6.00 each, while calves sold at \$3.00 to \$7.00 each. There were no choice calves on the market. The supply of hogs was small, but the demand was not very active, with the result that the price held about steady at 10½c. to 10¼c. per lb. for choicest, and 9c. to 10c. for inferior, weighed off cars.

Horses.—Farmers are now too busy with their crops to pay much attention to the horse market, and, as a result, receipts are light. Prices are unchanged as follows: heavy-draft horses, weighing from 1,500 to 1,700 lbs. each, \$300 to \$350 each; light-draft, 1,400 to 1,500 lbs., \$225 to \$300; light horses, 1,000 to 1,100 lbs., \$125 to \$200 each; broken down old animals, \$75. to \$125, and choicest saddle and carriage animals, \$350 to \$500.

Dressed Hogs and Provisions.—The market for dressed hogs showed a slight advance during the week, and prices are now quoted at 14½c. per lb. for abattoir-dressed, fresh-killed hogs. There was an active demand for smoked hams, and prices showed an advance of about 1c. per lb., medium weight hams being now quoted at 20c. to 21c. Bacon also was firm and showed an advance of about 1c. per lb., the quotation for choice breakfast bacon being 22c. to 23c. per lb. Pure lard is sold at 14½c. to 14¼c., and compound at 9½c. to 10c.

Potatoes.—It is impossible to give any dependable quotation on potatoes this week, owing to the fact that the new stock is now entering the market and prices vary largely, according to supply from day to day. Old stock is not wanted, and dealers are trying to get rid of it.

Honey and Syrup. Tins of maple syrup sell at 9c. to 10c. per lb. and syrup in wood at 7c. to 8c., while maple sugar is 11c. to 12c. per lb. Honey, white clover comb, 16c. to 17c. per lb.; extracted, 11½c. to 12c.; dark comb, 14c. to 15½c., and strained, 8c. to 9c.

Eggs.—Owing to the fact that the quality of eggs is very poor and the waste is now large, strictly fresh eggs are bringing higher prices than before, being quoted at 29c. per dozen; select eggs are 27c., and No. 1 candled 23c., while No. 2 are 18c. to 19c.

Butter.—So far as the price of butter is concerned, the price of living is going down. Creamery has declined each week in the townships for several weeks, and the price is now lower than it was at this time a year ago. The demand from the West has fallen off, and stocks here are increasing. Choice creamery is quoted at 23½c. to 24c. per lb. in a wholesale way, while fine creamery is 22½c. to 23½c. at township points. Dairy butter is still selling at 21½c. to 23c. per lb.

Cheese.—The market for cheese is holding firm, but the quality is not quite so choice at this time of the year, and, as a consequence, dealers are quoting 13½c. here for Western colored, and 12½c. to 13½c. for Eastern colored, white cheese being about ½c. less.

Grain.—Prices continue on the easy side, No. 2, Canada Western Oats, being quoted at 40½c. to 40¼c. per lb., ex store; No. 1, extra feed, are 40c. to 40½c., and No. 1, feed, 39½c. in carlots.

Flour.—There is no change in the market, prices being \$5.60 per bbl. for Manitoba first patents, in bags; \$5.10 for seconds, and \$4.90 for strong bakers. Ontario winter wheat flour is \$5.50 for patents, and \$5.10 for straight rollers.

Millfeed.—Demand is good. Shorts are \$21.00 per ton in bags, while bran is \$19.00, and middlings \$24.00 per ton. Mouille is steady at \$30.00 to \$32.00 per ton for pure, and \$26.00 to \$28.00 for mixed.

Hay.—The market is firm. Prices are \$14.50 to \$15.00 a ton for No. 1 baled hay, carlots, track, extra good; No. 2,

being \$13.50 to \$14.00, and ordinary No. 2, \$12.50 to \$13.00.

Hides.—The situation is unchanged. Beef hides are 11½c. to 12½c., and 13½c. per lb. for Nos. 3, 2 and 1 respectively. Calfskins are 17c. to 19c. per lb. respectively for Nos. 2 and 1. Lambskins are 35c. each, and horse hides \$1.75 to \$2.50 each. Tallow sells at 1½c. to 3c. per lb. for rough, and 6c. to 6½c. for rendered.

## Buffalo.

Cattle.—Prime steers, \$8.90 to \$9.00; shipping, \$8.25 to \$8.75; butchers', \$7.00 to \$8.65; cows, \$3.75 to \$7.25; bulls, \$5.50 to \$7.50; heifers, \$6.50 to \$8.25; stock heifers, \$5.50 to \$6.25; stockers and feeders, \$6.00 to \$7.50; fresh cows and springers, \$35.00 to \$80.00.

Veals.—\$6.00 to \$11.50. Hogs.—Heavy, \$9.75 to \$9.80; mixed, \$9.80 to \$9.90; Yorkers and pigs \$9.90 to \$9.95; roughs, \$8.50 to \$8.55; stags, \$7.50 to \$8.25; dairies, \$9.50 to \$9.85.

Sheep and Lambs.—Lambs, \$5.50 to \$7.90; yearlings, \$4.00 to \$6.50; wethers, \$5.50 to \$5.75; ewes, \$2.50 to \$5.00; sheep, mixed, \$5.00 to \$5.40.

## Cheese Markets.

Lindsay, Ont., 12½c.; Brockville, Ont., 13c.; Kingston, Ont., 13 1-16c.; Alexandria, Ont., 13c.; Peterboro, Ont., 13 3-16c.; Madoc, 13c.; Cornwall, Ont., 13 1-16c.; Picton, Ont., 13 3-16c. to 13½c.; Napanee, Ont., 13½c.; Kemptville, Ont., bidding 12½c.; no sales; St. Hyacinthe, Que., 12 11-16c.; butter 22½c.; Cowansville, Que., butter 23c. to 23½c.; Belleville, Ont., 13 3-16c.; Watertown, N. Y., 13½c.; London, Ont., 12½c.

## Chicago.

Cattle.—Beeves, \$7.20 to \$9.20; Texas steers, \$6.90 to \$8.00; stockers and feeders, \$5.50 to \$7.75; cows and heifers, \$3.65 to \$8.25; calves, \$8.25 to \$11.00.

Hogs.—Light, \$9.05 to \$9.50; mixed, \$8.70 to \$9.45; heavy, \$8.50 to \$9.80; rough, \$8.50 to \$8.70; pigs, \$7.50 to \$9.20.

Sheep.—Native, \$4.35 to \$5.50; yearlings, \$5.75 to \$7.00. Lambs, native, \$5.85 to \$8.25.

## Gossip.

A Holstein bull fit for service, a brother to the sire of the Canadian-bred Champion cow, Queen Butter Baroness, 33.17 lbs. butter in seven days, is advertised for sale in this issue by Wm. A. Rife, Hesperia, Ont.

## THE RIBY SHORTHORNS.

At the dispersion sale of the Riby Shorthorn herd the highest price obtained for a female was \$800, for the six-year-old Duchess Broadhooks 6th. The stock bull, Statesman, went for \$1,050. The 59 cattle averaged \$220.

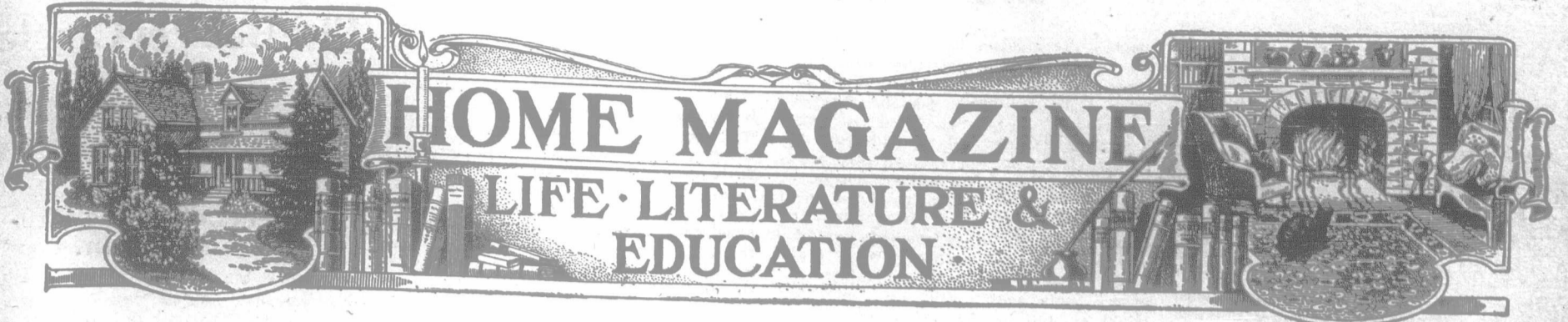
## Trade Topics.

Many of our subscribers have written to tell of the pleasure they get in wearing the Baldwin dress. See adv. on page No. 1344.

## A GROWING CONCERN.

When the Renfrew Machinery Company entered the Canadian Separator field with their new famous Standard Cream Separator, it was predicted that the company would prove a success, because they had designed a remarkably efficient separator, and the men connected with the business were able and experienced. Last year the company added the Renfrew Standard Gasoline Engine to its popular output, resulting in an immense increase in trade. They now announce another addition—the Renfrew Handy Two-Wheel Truck Scale, made and sold for several years by the Renfrew Scale Company. It has won a place for itself. In the hands of the Renfrew Machinery Company, with their hundreds of agents, there should be a great increase in the sales of this scale.





### A Certain Farmhouse Kitchen.

By J. A. T.

[All may not agree with the plan, in its entirety, of this kitchen, but there are few who cannot gain some valuable ideas from it.—Ed.]

One of the many phases of comfortable living on the farm is the convenience of the house itself, and not so much the parlor or living-room, not so much the bedroom, as the kitchen, where the time of the house-wife is necessarily for the most part spent. There are many types of attractive kitchens—among them the large, light kitchens of yore, with table set at the south windows, and rocking chairs temptingly displayed—perhaps a sofa in the corner and a paper-rack on the wall—a spacious pantry opening from this, with many shelves and cupboards stored with pies and cookies and other goodies. There is certainly a great charm about such a room; one feels it immediately upon entering; but—and is it not a great "but?"—think of the steps it means back and forth from the stove on one side to the sink on the other—back and forth from this to that so many times a day. No one denies that walking is beneficial to the majority of people but walking in the house is not like outdoor walking.

I should like those who read this article to step into a little kitchen that I know, for, like the spider, I can say it is "the prettiest kitchen that ever you did spy." But as this will be impossible, I am going to try to bring the kitchen to you. If I begin by saying that the dimensions of the kitchen proper are but eight by twenty-five feet, I fear the readers of this sketch will regard it as unorthodox, so I will further explain that the kitchen and dining-room together measure twenty-five by twenty-five feet, and that the kitchen is divided from the dining-room by a partition five and a half feet in height.

The construction of the room is craftsman-like—great hand-hewn posts in the corners and one in the center, and overhead beams, also hand-hewn. Some may think that the time devoted to hewing posts and beams might be spent more profitably in other ways, but in this case the lord of the manor takes great pride in the work of his own hands. The great stone fire place and chimney on the west side of the room are also of his making, he having drawn the stones from all over the farm and constructed the chimney from them. A noble fire-place it is, flanked on either side by built-in settles with deep box-cushions, and underneath cupboards for the children's toys. Along the south side of the room two book-shelves top the settle and the organ, which, denuded of its gaudy red plush and plate mirrors and other ornamentations (?), is enclosed in sober black and built into the wall. At the other side of the fireplace also the settle turns a right angle and forms the side of the lower stairs and landing of a stairway. A long window ninety by thirty-two inches—extends beside the upper stairway, and at the base of this runs a low settle with cupboards underneath for flat-irons, dish-towels, etc. This is at the west end of the kitchen.

In the southeast corner of the room stands the dining-table, made from an old black cherry tree that once stood

behind the barn. It is round, six feet in diameter, accomodating daily eight people, and frequently several visitors, with ease and comfort. The square pedestal is built into the floor, or, rather, the floor—of hard maple—was built around the pedestal. The table is well finished, so dollies are frequently used instead of a cloth. A large craftsman lamp of wrought-iron is suspended above by a chain. The sideboard is large and roomy—three cupboards above and five drawers and two cupboards below the table space. The settles, organ and sideboard are all ebony black, the rest of the woodwork being lemon yellow. It is simply pine, painted, but is very effective, and certainly much cleaner and more sanitary than plaster and wall-paper, and repays in the end the extra cost at the first. The people who own this kitchen are tearing out the plaster and paper from the rest of the house, one room at a time, and replacing it with sheathing, which can be made very pretty by tinting it in soft colors and stenciling a frieze, or running a three-foot dado of burlap about the room, with strips of molding at yard intervals to give the effect of panelling.

To return to the dining-room and kitchen: it was their original intention to

good resting-places for plants, as also the top of the aforementioned partition between the kitchen proper and the dining-room. At the end of this partition is a large china-closet, with doors opening on either side. Next to this in the kitchen is a long table with cupboards underneath for pots and kettles; next to this a sink—a slate one with shelf overhead; then another table, with a small door through which the soiled dishes are taken from the dining-room. Beneath this is another cupboard. The folk in this house do not share the universal horror of cupboards, which, when properly constructed, with no catch places for dirt, are easily kept clean. In summer they use a wood fire, and kettles will get black, and they see no beauty in having them hung about on the walls. At the end, by the window, is a low, hinged shelf, which is convenient to sit down to for some kinds of work.

Before describing the opposite side of the kitchen, I must explain that running parallel to it is a vestibule with cement floor and a series of bins connecting with those in the kitchen.

Opposite the china-closet is the ice-box and food closet, the ice being put in from the vestibule. Everything is "built-in." Next comes the wood-box, a

through the chimney at the back of the paring-table and fall into receivers in the bin outside. With the double bins a great deal of tracking into the kitchen is done-away with.

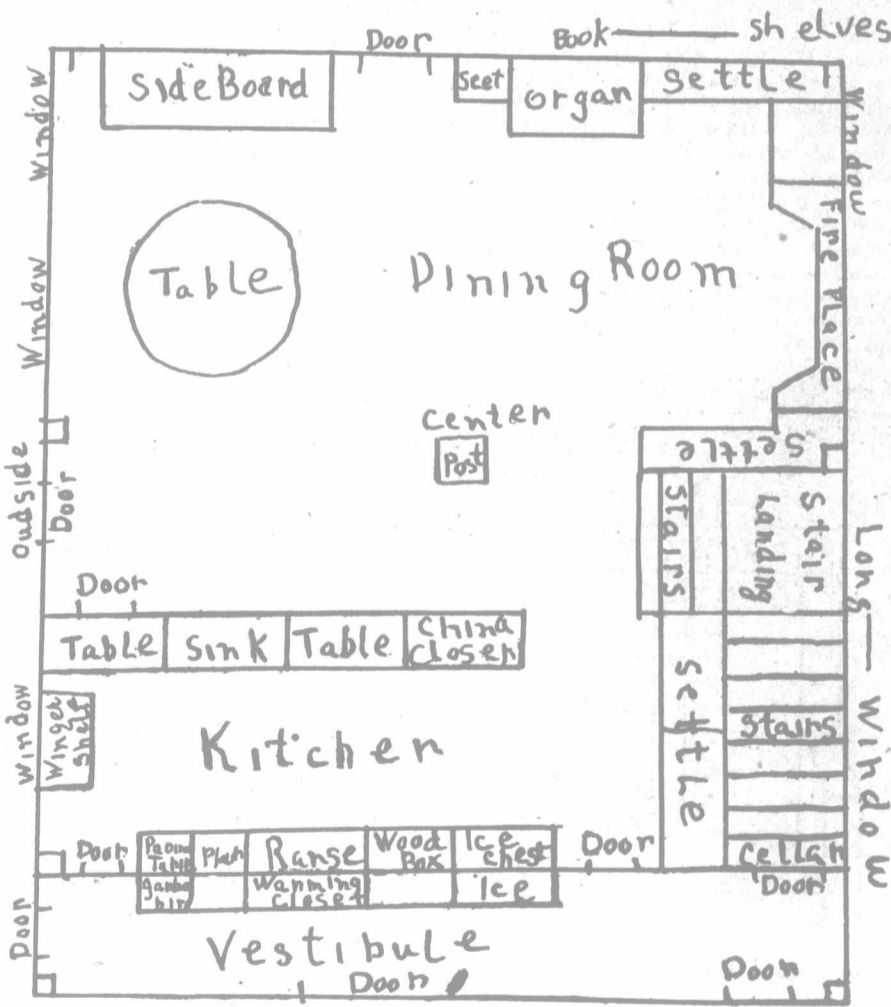
The dining-room they use a great deal as a living-room. With its open fireplace, settles and round-table, which between meals is devoid of cloth and is decorated only with a centerpiece or runner and a dish of ferns or flowers, and perhaps a few books and magazines—it is a most comfortable room. Some one has said that music should play a large part in life on a farm. How appropriate, therefore, to have a musical instrument in a room so much used! The piano in this house is reserved for the central hall, but the organ, which, in spite of its sweet tone and good condition, was an ugly affair in its original form, has been transformed into something artistic and attractive and a source of great joy and pleasure to all. Frequently, while the children are gathering for breakfast, someone plays a morning hymn, in which all present join, and so they feel the day is well begun; it is often ended in a similar way. Although they have their library in the front of the house, they keep on the shelves over the settles their favorite volumes of poetry, history and science, within reach of all.

The room is ideal for social affairs and gatherings of various kinds. The cottage prayer-meetings are enjoyed here, as there is plenty of room and good ventilation. The members of the Literary Club draw their chairs about the big round table with a feeling of good comradeship. In truth, the whole room seems so much more livable than many others that the owners are impatient to do over the rest of the house to harmonize with it.

Just a word to the farmers who read this article. If you wish to make house work easy for your wives, build in every thing possible. Build lockers in your halls—a separate one for each member of the family. A general closet for outdoor garments is an abomination. Children rushing home from school—eager to play or to help—restless, careless little things—God bless them!—knock down hats and coats and mittens. Let each have his or her own little closet, and order will prevail.

Another thing—build in the beds. I imagine that the built-in bed of the kind I mean was original with the people who owned the kitchen. It is not a bunk or a berth—it is a real bed, and it can be as plain or as ornamental as is desired. The built-in bed has three sides out into the room; the head-board is flat against the wall. The flat top, upon which rest the woven-wire springs, is made of hard maple, matched and brushed with several coats of varnish, that no particle of dust may in any way sift through to the floor. There are three posts to be made—any carpenter can turn them out. The two shorter ones are for the foot posts, the taller one is split in two and the two halves put flat against the wall, forming the head-posts. A good design for these posts is an acorn, or any good shape may be used. The bed can be enamelled white, or stained or painted to match the woodwork of the room. When made up, with springs and mattress, etc., it is hardly distinguishable from an ordinary bed, except that the sides and footboard are built to the floor.

Some day we are going to experiment in built-in bureaus and washstands. The possibilities of built-in furniture seem almost numberless. So many things can be built in—bookcases, writing-desks, couches, all sorts of cosy nooks and corners—making the home work infinitely easier and the home more attractive.



Plan of Kitchen and Diningroom.

have a stenciled frieze of rabbits and buttercups, but they have not as yet found the time to do it, other things being more pressing. The windows are casement windows, with small panes, and have simple white mull draperies, which hang straight. Eventually these will be replaced by stenciled scrim. The only movable things in the room are the chairs—strongly made of oak, with high backs and splint bottoms—put together without screws or glue (mortised and pegged), also a couple of rockers for the old folk, and the organ bench. A wrought-iron is screwed on to a black pedestal at the turn of the stairway. The window-sills are all wide, affording

generous one, opening from both vestibule and kitchen. The range, next—a cabinet Glenwood—is bricked in at either side, and behind it in the vestibule is a large warming cupboard for drying mittens, leggings, etc. All who have known the inconvenience and unsightliness of a line against the wall behind the stove will appreciate this warming cupboard. The cabinet comes next, consisting of cupboards, flour bins, paring-table, garbage-chute, etc. The four flour-bins each hold a barrel of flour—the white and the entire wheat they buy; the rye and Indian they raise. The flour barrels are emptied into the bins from the vestibule. Apple and potato parings, etc., are put

## Hope's Quiet Hour.

### With God—Enough!

For to me to live is Christ, and to die is gain.—Phil. i.: 21.

O Lord,  
To what pass are we come?  
See how we moan about a temporal loss,  
And for a trifling gain we run about and work;  
But the soul's loss passes by and is forgotten,  
And comes back to our thoughts well nigh too late.  
That which is of little use,  
Or of no use, we seek after,  
And that which over all is necessary  
We pass by without care:  
Because man's being flows away to the external,  
And if he do not quickly come unto himself,  
He is contented to lie there.

—The Imitation of Christ.

Have we come to ourselves? Or are we satisfied to spend the precious years of this earthly life in reaching out after riches and honour, which wither like flowers as we grasp them? Are we seeking earnestly after the visible rewards of earth, content to let the soul's loss pass unheeded? Do we complain about a temporal loss, and, "for a trifling gain," spend all the best powers of mind and body?

Our object in life is a matter of vital importance; for the things we most desire are those we try hardest to secure—and "where there's a will there's a way." It is perilous to our soul's progress to care over-much about the approval of men or worldly success.

"How safe it is, if we would keep God's favor.

To shun the world's 'appearances' And not to seek what seems to win approval from without.

But with all carefulness to follow after all that gives zeal to life and betters it. How many have been hurt when men have got to know their worth and praised them;

How many have been profited by grace in silence kept."

There is real glory in a life that is not swayed by fear of scorn or desire for praise. Strange to say, the people who care least about the approval of men receive in the end the praise and respect which they will not purchase by the smallest deviation from right.

When the enemies of Christ gathered round Him with the intention of entrapping Him, they began by a subtle word of praise, saying: "Master, we know that Thou art true, and teachest the way of God in truth, neither carest Thou for any man; for Thou regardest not the person of men." Then they asked their searching question about the lawfulness of paying tribute to their Roman conquerors, expecting that His very fearlessness would lead Him to rouse the anger of the Jewish people by saying that it was lawful, or else bring down on Him the vengeance of the authorities by saying that it was not lawful. The trap had been carefully laid, and yet our Lord walked quietly out of it, leaving the defected conspirators to go marvelling on their way. His great answer was a light for all perplexed people and could not be disputed.

Our Master is meek and gentle, but He is never weak. Some gentle people are easily cowed by more assertive natures, so that their opinions are of little or no value. On the "Day of Questions" our Lord foiled the ingenious malice of learned foes—Pharisees, Herodians, Sadducees and lawyers—simply by holding up before them the highest ideals of love and service. It is not surprising that "no man was able to answer Him a word, neither durst any man from that day forth ask Him any more questions." Read St. Matt. xxii., and see if it would be possible to doubt the high-mindedness of Him who spake as never man spake.

Now, look at a picture of one who had set his heart on pleasing everybody.

In a certain convent there was an old man who needed something to occupy him, so he was given the charge of the

clock. Very soon he complained that his business was troublesome and vexatious. "What! winding up the weights twice a day?" exclaimed the surprised Superior.

"Oh, no!" answered the old man, "it is that I am so worried on all sides. If the clock is a few minutes slow, the students from within come down upon me. If I put it on a few minutes to please them, the other students grumble and say our time is fast. When I put it back, to silence their complaints, the others begin again, till my poor head might as well be the clapper of the bell—I am so bothered with the whole thing."

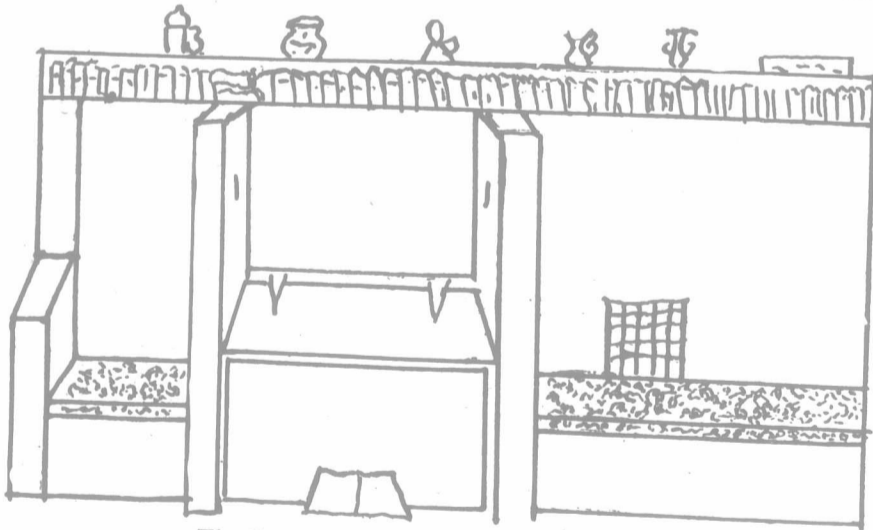
We can laugh at the old man's attempts to please everybody—but let us be careful that our own aim is not much the same, although we may veil it from sight more cleverly.



A Built-in Sideboard.

Real glory! What is it?

Many years ago there was a noble prince, the heir to the throne of Israel. He found out that God intended to place his dearest friend over the kingdom, in his place. It would have been easy to turn against the brave young shepherd who had won his heart. No one would have been surprised if Jonathan had tried to get rid of his rival. Then the world would have had one noble example less to admire and try to follow. The glory of Jonathan is seen by all generations of men, in that he stood aside with beautiful humility, submitting without complaint to the will of God, which was hard—terribly hard—for any man in his position to accept. He counted the glory of an earthly kingdom a small



The Settle, Organ, and Book Shelf Above.

thing as compared with the real glory of trust in his God and loyalty to his friend. That is a glory within the reach of every one of us every day. Yet we are often so disappointed and distrustful when our earthly plans are unsuccessful. Is not our disappointment a proof that, deep down in our secret hearts, we think we know better than God what is best for us? The real glory of Jonathan's soul would not have been revealed and developed if he had always been able to see the Divine meaning and purpose. We all need the practice in trusting God, which is given to us continually in large troubles or in small. When we pray earnestly for the fulfilment of some cherished desire and God seems to be taking no notice of our

prayers, let us thank Him for keeping the ordering of our lives in His wise and loving care. What a dangerous thing this life would be if we were allowed to choose our own work, go wherever we pleased, and only carry the cross we felt inclined to shoulder. There would be many spoiled children in the Father's family, and very few patient heroes. Only One Man was given absolutely free choice—only One could safely be trusted to choose wisely and rightly. What was His choice? It was to do the will of the Father: "Lo, I come (in the volume of the book it is written of Me) to do Thy will, O God." When His soul was troubled, He prayed until strength came to say: "Not My will, but Thine!" When He could not see the glory of the Father's face, the darkness and desolation which swept over His spirit could not loosen the clinging of His heart to the Divine Love, which meant everything to Him. Though He might feel forsaken, there was no other but the Father to whom He could appeal. That awful cry from the cross showed that the supreme desire in the soul of JESUS was to be in fellowship with the Father.

Prayer, it has been said, "is not a rope to pull God down to us, but to pull us up to God." What profit would it be to us if He allowed us to gain the whole world, if the awful price we had to pay were the degrading of our own souls and separation from Him. "Without God, without anything!"

On one occasion, when the Israelites murmured and complained about the plain but wholesome food provided for their daily needs, God showed them how disastrous it would be—even physically—to give what they foolishly demanded. They wanted meat, whether it was good for them or not, and "He gave them their own desire." The immediate result was a terrible plague, which "smote down the chosen men of Israel."—Ps. 78, 31. In the margin and in the R. V. it is translated "the young men of Israel." When people are young, they are more apt to fancy that they know what is best for them. As we get older, and often find ourselves thanking God with all our heart for the pleasant things which He did not give us in answer to our unwise prayers, we learn to distrust our own judgment, at least, even if we fail to learn the great lesson of trusting our Father.

Life for us will be terrible failure unless we set our hearts on the highest things and seek the approval of God rather than earthly success. There is a quaint Welsh proverb to this effect

"Without God, without anything! With God—Enough."

DORA FARNCOMB.

### Keeping It Quiet.

Small Caroline's home was unfortunately located in a very gossipy neighborhood, and, being an observant child, she had drawn her own conclusions. After an unusually naughty prank, her mother sent her upstairs to confess her sins in prayer.

"Did you tell God all about it?" she was asked on coming down again.

Caroline shook her head decidedly. "Deed I didn't!" she declared. "Why, it would have been all over Heaven in no time!"—Harper's.

## The Beaver Circle

### OUR SENIOR BEAVERS.

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

### The Legends of the Fire-flies in Japan.

In Japan the firefly is connected with many legends: and at certain times of the year they are seen in large droves on the banks of the rivers and in marshy places. So much of legend and romantic lore has been woven about the firefly that it has become part of the native cult of the country. Tradition tells how heroes have been led to deeds of bravery by the lantern of the firefly. Poets have sung about the light of the firefly in the bamboo wilderness, and how its light has guided fairies down the heavenly avenues to do good to suffering mortals.

There is an old tradition that tells how a great scholar, thousands of years ago, who was too poor to buy oil for his lamp that he might study the books of the sages, went out and caught these fireflies, and so by their light was able to read and to learn.

The prettiest and most pathetic of all the legends is the lone tale of Asagao and Asojiro. On the River Uji the fireflies are thickest, and their light the brightest in all Japan. It was here thousands of years ago at the season of the firefly that Asagao, the beauty of Kioto, was dreaming and drifting down the river one summer night, viewing the lanterns of the fairies.

A boat passed, and in this boat was Asojiro, the handsomest of the Samurais warriors. Somehow the boats drew together, and both fell in love at sight. They wrote love messages to one another on their fans. Then the current parted the boats. Asagao tried in vain to find the handsomest youth of the fairy night, but he had gone to fight for his lord. As time went on and he failed to come to her, she cried till she became blind. Years passed, and she was ever true to her love. She became a travelling koto player, always in search of him.

She grew old and ugly, wandering about. One night she was playing at an inn far from the Uji River, and here she sang of the fireflies, of youth and maidens, and of love. Strange as it might be, among the guests was her lover, who recognized in the old blind woman the maid he had wooed so long ago.

He called the minstrel to him and asked her to tell him how she became an outcast singer. Asagao sang the story of her life, her wanderings and her love, not knowing that after all those years she had found her lover.

Asojiro did not reveal himself, but hurried from the inn, leaving a bag of gold and a note. After the note was read to her Asagao at once started to follow her lover. That night she came to the river bank and learned that Asojiro was being ferried across. Despairing, Asagao waded into the river, calling on the fireflies to guide her sightless eyes. Asojiro, looking back, saw a pillar of light and ordered his boatmen to approach it. He found Asagao drowned with millions of fireflies playing over her withered upturned face.

Jane Dare, in "The Globe."

### Senior Beavers' Letter Box

Dear Puck and Beavers,—I have never written to "The Farmer's Advocate" before. I like your little corner fine. My grandfather has taken "The Farmer's Advocate" for about thirty years, and likes it fine. I am going to tell you about some of my favorite books and authors.

Some of my favorite authors are Jack London, J. Jackson Wray, and Annie Swan. Maggie Swan's books are also very good. I have read a great many books. Our house is packed full of books and papers, so I have lots of chance. I think the Girls' Own Annuals are just splendid. Well as my letter is

Circle  
BEAVERS.

getting long. I will close. Wishing every success to Puck and Beavers, I will say good-bye.

MARIA HOPKINS, (Age 13 years.)  
Box 281, Cummings Bridge.

You are very fortunate in having so many books, Maria.

Dear Puck and Beavers,—I have been a silent reader of your circle for a long time. At last I made up my mind to draw three flowers that bloom in July and August. The three plants I chose were the chicory, turkey grass, and St. John's wort.

The chicory is a plant that grows almost entirely on clay soil. It has a slender stock with only a few branches, there is but one long root with a few slender fibres that go straight down. The plant that I took to draw from was about four feet long, that is root and stock. The flower is blue; it opens out very much like an ox-eye daisy. The seed is white and about the size of a pin, only less than an eighth of an inch in length. This weed may only be got rid of by pulling it up by the roots.

The turkey grass is also a weed and grows all about, especially in hay fields that have not been plowed under for a couple of years. This weed grows on clay and sand, too, I think. The stalk is very small, and grows into the ground about half an inch, where there is a cluster of roots about a quarter of an inch in length. The flowers are in a bunch on the top, which makes it look like a Chinese umbrella. Each flower is cup shaped. The leaves are like a hen's feather when it has been pulled through the hand backwards. I suppose you are wondering why this weed is called turkey grass. It is because turkeys are very fond of it. The leaves are chopped up very fine, and mixed up with shorts and water.

St. John's wort is also a weed which grows in places not very often cultivated. It ruffles the ploughman's temper many a time during the day, for it has many roots that grow in a bunch just about the end of the coulter, and are always clogging the plough. It has a stalk without any branches, but the leaves grow right on the stalk. Little bunches of flowers are nearly all the way up the stalk. The leaves are very long and narrow.

I hope this will escape the alligator-pawed, double-breasted, riveted-on-both-sides, monster of a waste-paper basket. Wishing the Beaver Circle ever success, I remain, Yours Truly,

GORDON A. LAMB.

Jessop's Falls, Ont.

[This letter won a prize in July of last year, but had to be held over. How many of the Beavers know turkey grass, chicory and St. John's wort. I do not know the turkey grass at all, at least by that name, and I shall be glad if Gordon will send me a flower.—P.]

Dear Puck and Beavers,—I thought I would join your Circle. My father takes "The Farmer's Advocate", and I live about four and a half miles from the village of Lansdowne. My father has a hundred-acre farm, and he is milking seventeen cows this summer, summer, and I have to help him to milk. We have five little calves; their names are Johnny, Ann, Polly, Fanny, and Johannah. We keep three pigs and about forty-five hens. We raise corn on a seven-acre field every season.

We have two silos; the smaller one is 13 feet by 20 feet, and the bigger one is 13 feet by 26 feet. The only pets I have are a dog and two kittens. The dog's name is Collie, and the two kittens are Pinky and Judy. The dog is a very good hunter for woodchucks and coons. Last summer he and I killed about fourteen woodchucks and one coon. I am getting along fine at school. Now I guess I will have to close. Yours Truly,

EDDIE HEASLOP.  
(Age 11, Book IV.)

Dear Puck and Beavers,—I live on a farm of 250 acres. We have five horses and fifty-eight head of cattle. I have a dog whose name is Spot, and he is a good cow dog. I used to have some rabbits but they gnawed the trees, so I had to give them all away.

Last summer my father bought an

automobile, and I think it is great fun to ride in it. I have a pair of banties, and one guinea-hen which is very noisy. We have about fifty hens, and we are going to build a hen-house next summer. I sent for "The Farmer's Advocate" about a month ago, and like it very much. As this is my first letter to the Circle, I guess I will close, wishing the Beavers every success.

Dunboro, Que. CARL INGALLS.  
(Age 13.)

Dear Puck and Beavers.—This is my first letter to the Beaver Circle. I like to read the letters in "The Farmer's Advocate." I live on a two-hundred-acre farm. I like to live on the farm. We have been taking "The Farmer's Advocate" for a long time, and we like

There was an elderly lady there named Mother Perkins, who would get headaches at intervals, so Little Lou would heal her headaches. She had a peculiar healing in her hands.

After camp meeting closed Mother Perkins sent Lou to her brother, Captain Hunter, who would have headaches also.

He would take her out for a sea voyage. She enjoyed this very much. Captain Hunter had taken her to India, and on their way back they met a ship. This ship needed repairs and had to return to India, so three passengers were put on Captain Hunter's ship.

One of the passengers had taken sick with a headache, so Lou was called in. When she entered in, behold, she saw her mother. This was the greatest joy for Lou, as she had been homesick for her

dog, his name is Collie, and a pet horse, her name is Jip. I go to school. I have half a mile to go. My teacher's name is Miss Munroe. I like her. In summer time my dog and I go for the cows. I am going to write a story, so here it is:

THE GROUND-HOG.

One night I and my dog went after the cows back to the field, but they were not there, so I had to go to the bush after them. My mother was waiting for me when I went back to the field. I saw a ground-hog and I tried to scare it, but it would not go into the hole, so I went up to the hole and it went down the hole.

MARGARET McDONALD.  
(Class Jr. II., Age 9.)

Tiverton, Ont.

Dear Puck and Beavers,—My father takes "The Farmer's Advocate", and I enjoy reading the letters of the Beaver Circle.

We have one hundred acres; the name of our farm is Spruce Crest. We live in a very central place, between two railroads, the Canadian Pacific one mile East, and the Grand Trunk one half a mile West. We have the rural mail delivery, and the telephone.

I have a little colt, I call her Chess. We have a silo twelve by thirty, and a gasoline engine for pumping water, separates the milk and washes. I have five pet rabbits. We live two miles from school. The name of my teacher is Mr. Hutchinson.

ALEXANDER JACK. (Age 11.)  
Newton, Ont.

Dear Puck and Beavers,—As this is my first letter to the Circle, I will not write a very long one. Papa has taken "The Farmer's Advocate" for about two months. Whenever we get the paper I turn to the Beaver Circle and read the letters from the Beavers.

My little sister and I go to school pretty nearly every day. We have about a mile to go, and our teacher's name is Mr. McNaughton. I am quite fond of reading, have read Tom the Bootblack, Uncle Tom's Cabin, and other books. I will close in adding a few riddles.

What turns without moving? Ans.—Milk.

As big as a barn, as light as a feather, though all the men in the world can't lift it. Ans.—The shadow of a barn.

What looks most like a cat looking in a window? Ans.—A cat looking out.

Why does a hen walk across the road? Ans.—To get to the other side.

BRUCE FRALEIGH.  
Masonville, Ont.

Dear Puck and Beavers,—This is my first letter to the Circle. I go to school every day that is fit, and carry my dinner. While I went to school last spring I had a very narrow escape. I had to walk about half a mile on the wire fence over a creek. My brother who is two years older than I am, had to come and help my sister and me over or we would have got drowned. I have three brothers and one sister. My letter is getting long, I will close with a riddle.

Little Nancy Etticoat,  
In her white petticoat,  
With a red nose,  
The longer she stands  
The shorter she grows.  
Ans.—A wax candle.  
Chesterville, Ont. MAY MERKLEY.  
(Age 10.)

Dear Puck and Beavers,—My father has taken "The Farmer's Advocate" for a number of years, and I like the Beaver Circle very well. I have one sister. We have a pony and a kitten. The pony's name is Teddy, and the kitten's name is Toot. I am sending a story. As this is in the holiday and I have nothing to do, I thought I would write a letter, and this is the story:

There were once three children who lived in the woods, and their names were Madeline, and Mary, and Eva. One day their mother sent them to pick berries, but told them not to go far away or they might get lost because they were only young, Madeline's age



In Far Japan.

it fine. I go to Belfountain school, about a mile and a half away. My teacher's name is Mr. Drury; I like him fine. I have two brothers who go to school with me. We have a school-garden at our school. The boys have a potato club. Each boy grows two kinds of potatoes, the early kind and the late kind, and the girls have a flower garden. We send to Guelph for the seed. In the autumn we are going to have a school fair to show our vegetables, and we can bring my little pet animal. We are going to have judges and a secretary. Well, I think my letter is getting long. I have to see it in print.

ROY LAURELIN.  
(Age 13, Book IV.)

Belfountain, Ont.

Dear Puck and Beavers,—As I am through with my homework and am not sleepy yet, I thought I would write to

mother at intervals. Captain Hunter was troubled after this because he loved her very much, and did not like giving her up. When they landed Lou's mother and Captain Hunter were married. Lou was a very lucky girl. Do you not think so, Puck?

Your Beaver,  
VERA SCHWEITZER.  
Heidelberg, Ont. (Sr. IV., 13 yrs.)

Honor Roll:—Muriel Luce, Oscar Gibson, Georgiana Hutchinson, Clara Clark, Ida Scott, Doris Moreland.

Junior Beavers' Letter Box

Dear Puck and Beavers,—I go to school every day. It is just across the road. I am in the first book. There are seven in my class. When I get home from school in the spring I go back to the



"August Days."

the Beaver Circle. I want to tell you about a book entitled "Lou."

Lou was a girl of about eight years. She had dark hair, and healing hands. One evening when her mother and herself went to a party, her mother got sick and had to be taken to a hospital and Lou to a home. She never liked this home, so one day she ran away.

After that she lived in a forest in which camp meetings were held. Camp meetings had started, and she became a helpful girl.

bush where they are boiling sap, and have a good time hiding behind trees and emptying sap pails. I have two white cats and a little colt called Bessie for pets. This is the first time I have written to the Circle, so I will close. Wishing the Junior Beaver Circle much success.

CLARENCE BALL.  
Clinton, Ont. (Age 7, 1st. Book.)

Dear Puck and Beavers,—Papa has taken "The Farmer's Advocate" for about twenty years. I have no brothers and no sisters. I have a pet

was seven, and Mary's six, and Eva's four. So they said good-bye to their mother and started down the forest path, but they strayed off the path away into the middle of the forest. When night drew near they called for their mother, but she did not hear. They heard the sound of an axe. They ran in the direction the sound came from, they saw their father who had been cutting wood in the forest. When they went home their mother was overjoyed to see her little strays home once more after the day in the woods, but they didn't pick berries any more alone.

I made this all up myself.

HELEN FERGUSON.  
(Age 8, Book II.)

Port Stanley, Ont.

Dear Puck and Beavers,—My father has not taken "The Farmer's Advocate" very long, I like reading the letters very much. We have no school here, so our father teaches us in the winter time. We have five head of cattle, and one horse, twenty-one hens, and one pig. I was glad when it was spring. We had to haul water half a mile every day in winter. We are thirty-six miles from Port Arthur, and four miles from a store or post office. Bye-bye, wishing all success to the Beaver Circle.

Nolalu, Ont. JAMES SPENCE.  
(Age 11.)

Dear Puck and Beavers,—This is my first letter to the Beaver Circle. My two elder sisters have written several times; the eldest received one prize. We have a sugar bush, and papa makes maple syrup. Our teacher's name is Miss Schlieuhaus. We like her fine. We live about a mile and a quarter from the school. I have seen many birds that have come back for the summer. My grandpa McCallum has taken "The Farmer's Advocate" since 1866. I will close now hoping the Circle has every success, your little Beaver,

VERNA MAE McCALLUM.  
(Jr. III. Class Age 11.)

Iona Station, Ont., R. R. No. 2.

### Junior Beavers' Honor Roll

Holbert Empey, Sadie Odium, Gertrude Woolman, Elsie Sayers, Graham Wray, Lillian McComb, Isabel Ferguson, Mary Wood, Georgie McInnis, Harry Harmer, Alvera Haid, Margaret Haid, Lillie McEwen, Ermina Arsenault, Madeline Charlton, Caroline Taylor, Carrie Martin, Alex Scarrow.

### Junior Beaver Circle Notes

Frances Taylor (age 10), Sauterville, Ont., would like some of the Junior Beavers to write to her.

Will the Junior Beavers, when writing to the Circle, please address their letters, "Junior Beaver Circle," "The Farmer's Advocate," London, Ont.

We have still letters held over, for want of space, since April.—Patience, little Beavers.

### RIDDLES.

As round as an apple,  
As sharp as a glance,  
Get on its back  
And it will carry you to France.

Ans.—The moon.—Sent by Nellie Stewart.

A wee, wee man  
With a red, red coat,  
A staff in his hand,  
A stone in his throat.

Ans.—A cherry.

Londonderry, Cork and Kerry,  
Spell all without a K.

Ans.—A-I-I.—Sent by James Richardson.

While riding in an auto with Mr. Rockefeller recently," said Rev. Dr. Bustard, Mr. Rockefeller's pastor, "we were about to pass a little barefoot girl, when Mr. Rockefeller invited her to step on the running board. The little girl wanted to get off at the second crossroads, and asked, "How far are you going?" "Oh, we're going to heaven," Mr. Rockefeller answered. The little girl was surprised, as many people are when he says that. Then he asked, "Don't you think we'll get there?" "No," said the little girl. "Why not?" persisted Mr. Rockefeller. "I don't think you've got enough gasoline," she said.

## The Children of the Forest

A TRUE STORY OF A TEACHER'S EXPERIENCE.

By M. Blanche Boyd.

Chapter 11.

WINTER EVENINGS.

The winter evenings with us were not long because we had most of our darkness in the morning, as we got up at 4 o'clock and went to bed from seven to half past eight.—seldom later, except on Saturday when the mail came in. After Christmas the master of the house and the boys would play draughts and "Old Maid." This they thought such a grand game, they wanted to play it seven days of the week. Sometimes a young man would spend the evening to have a game too. They soon became experts at draughts.

The mistress of the house, Annie and myself would generally be knitting stockings. The stockings we wear in Southern Ontario are useless there, and the men wear three and sometimes even four pairs of heavy woolen socks under

more often happened that Mr. McDonald would tell us shanty yarns, and the more disgusted and shocked he could make me, the better he enjoyed it.

He said it was impossible to lead a good life in the shanties or at the mines. The first night there the newcomer was seized and made to tell a yarn or sing a song, and it was almost death to refuse. The bashful young men found it the hardest, for they received very rough treatment from the hands of their comrades should they dare to refuse. They would do anything rather than receive this treatment.

One morning Mr. McDonald shot a deer about three miles away from home, so next morning about seven he and the two boys took the old horse to bring home the deer. They could not leave before the streak of day for fear of wolves, he said, and, in fact, they were afraid the wolves might have devoured their prey or the new-fallen snow so covered up the animal that it would be impossible to find it, but none of their fears were realized, and they

water and left for about a week. Next it was wrung as dry as possible, then the door in the front of the stove was opened, and we all began the work of tanning. Standing in a semi-circle in front of the hot fire, we take an edge of the skin and pull towards us with all our might, keeping it going around all the time so that every part is stretched. This continues until the skin is perfectly dry, when it becomes soft and white, if done properly. The slippery, soapy skin is difficult to grasp, but we managed it. When the tanning process was over Mrs. McDonald used to cut it up to make mittens, moccasins or boot laces, as it was so strong, soft and warm.

Knowing that I should be there only one school year I was very anxious to see as much and learn as much as possible, and realizing that these people knew so much, it was a great pleasure and novelty to learn how to do all the things they did, so friends, do not let these tales of adventure shock you. Mrs. McDonald even wanted to teach me how to make men's clothing as she said I never knew when I might need to use my knowledge, which may prove true, but, under some circumstances, I hope not.

About eleven o'clock one night I was startled to hear a weird howl in the distance, gradually coming nearer and then die away in the distance. I sat up in bed to listen, expecting to hear an answering bark of a dog, but upon my relating the fact next morning Mr. McDonald informed me it was a wolf, and a dog would never answer the cry of a wolf. Most likely it was chasing a moose or deer. Recklessly I longed to see one, and Mr. McDonald told me a stranger never realized the danger up there, but only those who had had sad experience. Then he began one of his stories of his former life.

He was just a young fellow of about twenty-four, and his wife a young girl of twenty when they went to live in this place. He built a tiny log shanty (it stood just near the house and was used for a "calf" house while I was there, and for fear that I should get a photo of it Mr. McDonald burned it down) and tried to take his father's advice to cut down ten trees every day. Should he stay at home to do that, all the time he could earn no money, so he used to walk thirty miles to the lumber camp, and come home every Saturday night to see his wife and two baby boys.

It was Saturday night just at dusk, and the mother was singing her baby softly to sleep while the other little one was playing on the floor at her feet, when suddenly there was borne on the still evening air, a low distant noise of which they knew too well the meaning, as nearer, ever nearer, came the mournful howl. The wolves were on the track and were following the husband, for it was just about the time he would be coming home. Fortunately her husband's brother was staying with them at the time, and, seizing a rifle from the ceiling, he quickly loaded it and started to his brother's aid, just as Mr. McDonald burst open the door and rushed in.

He had been coming along quite happily, whistling to himself, when all at once he heard the sound which he knew all too well. Quickening his steps to a run he followed the creek in hopes of finding a means of escape, knowing that wolves will not cross a stream. None too soon, he saw a log lying across the creek which the kindly moon, flickering through the branches, had shown him. Being a river-driver he was very nimble on logs and reached the other side, when, with a mighty effort, he flung the log into the water and it slowly floated down with the tide. Although safe for the present he knew the baffled wolves would find some means of crossing, as he could see their long bodies leaping on, and could hear their howls of rage as their victim escaped.

He and his brother got their rifles ready for an attack, blockaded the door and placed a broom against it, for they say that a wolf will run if the broom falls, and they always put one there before retiring at night.

It was not long before their fears were realized, and the wolves were soon howling around the little cabin. There were two windows in the house, one at either end, and it was here that the



"A perfect day,  
Whereon it is enough for me  
Not to be doing, but to be."

their oil-tanned moccasins, and the women at least two. In a box upstairs I counted no less than forty-five pairs of socks. You see each week they would take off the underneath pair and put a clean pair on outside, so in this way each pair was worn four weeks. Some of the people could not afford to buy the wool with which to knit, and the result was that the poor children were frequently crying at school with frozen toes.

If there was any wool to be wound, the boys were ever ready to do it for us. They would put the spin over the backs of two chairs, and by running around them they would soon wind the ball. Occasionally they had a race, but this made us so dizzy to watch that we tried to avoid them. We wore oil-tanned moccasins, so made little or no noise, although they marked the floor where we stepped.

Sometimes I would read a story aloud, especially on Sunday, but as we were so busy with needle-work and, as I had a good deal of studying to do, it

came home about one o'clock. The little creature, though dead, had its beautiful, large, innocent-looking eyes open, and it cut me to the heart to see the poor thing. As fond as he was of hunting Mr. McDonald says he hates killing a deer, especially if its fawn is near, for it gives such a piteous entreating look before it dies that it makes him feel cruel.

After skinning it they, of course, cut it up, salted it down, and packed it for winter use. The hide was put in a tub of water containing salt and lime, where it was left for about a week to loosen the hair, then it was hung on a "horse" which was home-made and used as a vice, and on one end there is a place to sit down upon. The skin was hung over this, and Mr. McDonald scraped the hair as well as the first skin off. Few people take more than the hair off, but the Indians had taught Mr. McDonald their method of tanning hides, which he found much better, as the hide was softer. The first process over, it was put into a tub of soapy

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their rifles the door, for they e broom there be- ears were on howl- b. There e, one at that the

men took up their position and shot the wolves as they came on. True to their nature the brutes devoured their fallen comrades, until, with howls of rage at such destruction, they scampered off to hold a council-meeting, as it were, to arrange the next plan of attack. This gave the men a rest, for a time at least. The babies were screaming, wolves howling and rifles going off, all making a deafening noise.

At last the cunning brutes returned and began to scratch and dig to undermine the house, and this they could do in a comparatively short time, as the foundation was naturally not very strong, and the brutes were cunning enough to dig at the back and front and not where they were in danger of being under fire. Can you imagine the inmates' feelings? It was an awful time! Their fate was in God's hands, and they could do naught but sit and wait for the almost inevitable death that awaited them. But it was not to be. At last a faint glow in the east began to break, and the wolves, with a departing yelp, fled away through the forest.

Behind the house was a clearance, hundreds of trees cut down, where cultivation was impossible, but Mr. McDonald said he had cut those down because that spot was infested by wolves. The swamp behind the school was dangerous, too, for that reason, so do not blame me, readers, for being rather timid about going to school next morning, especially as I was the first to arrive there.

Mr. McDonald had met a wolf in the field next the house the winter before I went there and returned for his rifle, but the wolf had gone by the time he got back. The winter I was there one of my trustees was working in the shanty when one of his comrades was torn to pieces by these brutes, and two other cases occurred at that time, too.



May be the dough had forgotten to rise.  
Or had risen quickly overnight and fallen again--  
To rise nevermore.  
'Twas weak flour, of course.  
Meaning weak in gluten.  
But FIVE ROSES is strong, unusually strong.  
With that glutinous strength which compels it to rise to your surprised delight.  
Stays risen too.  
Being coherent, elastic.  
And the dough feels springy under your hand  
Squeaks and cracks as you work it.  
Feel the feel of a FIVE ROSES dough.  
Note the wonderful smooth texture—soft—velvety.  
Great is the bread born of such dough.—  
Your dough!  
Try this good flour.

# Five Roses Flour

Not Bleached



Not Blended

LAKE OF THE WOODS MILLING COMPANY, LIMITED, MONTREAL

## MAKE "A MAN" OF YOUR BOY

Give him a college education, but—remember, it will be to his advantage if you exercise great care and good judgment in your choice of his college. Thousands of parents, who have reflected on this point, have sent their sons to

### Woodstock College

and our records show that they have wisely chosen this Christian home as a residence for their boys during the formative period of character and life.

**Intellectual**—Four Courses.—Arts Matriculation, Science Matriculation, Teachers, Commercial. A university-trained staff of teachers, and large, well-ventilated classrooms afford excellent facilities for teaching the boy "to do" by "knowing."

**Manual Training**.—The first established and the most fully equipped in the Dominion.  
**Physical Culture**.—Large grounds and campus and fine gymnasium under the direction of a competent director.

Write Principal for Calendar and particulars. College re-opens Sept. 2nd.

A. T. MacNeill, B.A.

Woodstock College

Woodstock, Ontario

## "Educationalists are giving more and more attention to the conditions under which the young are trained."

This is especially true regarding the education of young ladies. For very many a residential school is best. Such schools are growing in popularity. Many of the best homes patronize them.

## Alma (Ladies) College

is a Christian Home School that affords practical and artistic education under wholesome and attractive conditions. Collegiate buildings. Large campus. Strong staff. Physical culture excels. Health lectures. Send for prospectus and full particulars.

R. I. WARNER, M.A., D.D.

ST. THOMAS, ONTARIO

### Chapter 12. THE CAMP.

About three-quarters of a mile through the woods to the north of our place was the camp from which two of my

little pupils came, so I received a kind invitation to visit them. Usually there is a man cook at the shanties, but in this case it was a woman, as her husband was "boss" of the shanty.

The stove-pipes at the school came down one day so we had a holiday, and, as two of my girls were most anxious to go to the camp, we first started for the mountain, as I had often wished to climb to the summit and view the surrounding country. Although we took the flattest side it was a most difficult feat to perform; the snow being very deep it hid all the footing from sight, and, like the frog climbing the wall, we went up one foot only to slide back three or four. At last our perseverance was rewarded by success, and we viewed the snow-capped forests and hills and saw tiny lakes, but it was too cold for even an artist's enthusiasm to keep one there long, so we began our descent, walking down was an impossibility, running was worse as the hill was so steep, so we at length resorted to the method of sliding down otter-fashion.

Upon reaching the foot of the hill we followed the winding trail to the camp, and after ploughing through about half a mile of deep snow we finally reached our destination.

The men were "akidding" logs, so, of course were not to be seen, and the housekeeper gave us our tea early in order that we might get home before dusk. Such a tea as was set before us! There were scones, tea biscuits, soda biscuits, currant cookies, ginger snaps, small cakes, jelly cake, pie, cheese, pears and syrup, to say nothing of the delicious tea and fresh baked bread. I never saw a woman cook so quickly or better in my life. All the time she was talking to us she was making the cakes, and as soon as one "batch" was ready to be taken out of the oven another was ready to be put in. The men were certainly not starved, or compelled to live on pork and beans as is the case in some shanties.

Another time the two little boys and a little cousin, who was staying with them, came to call one morning to ask

## Moulton College



A High-grade Residential School for  
Girls and Young Women

COURSES:

MATRICULATION,  
ENGLISH, MUSIC, ART

Careful training under qualified teachers.  
Fall term opens September 11th. Write  
for prospectus. Address:

MOULTON COLLEGE  
34 Bloor St. E. TORONTO

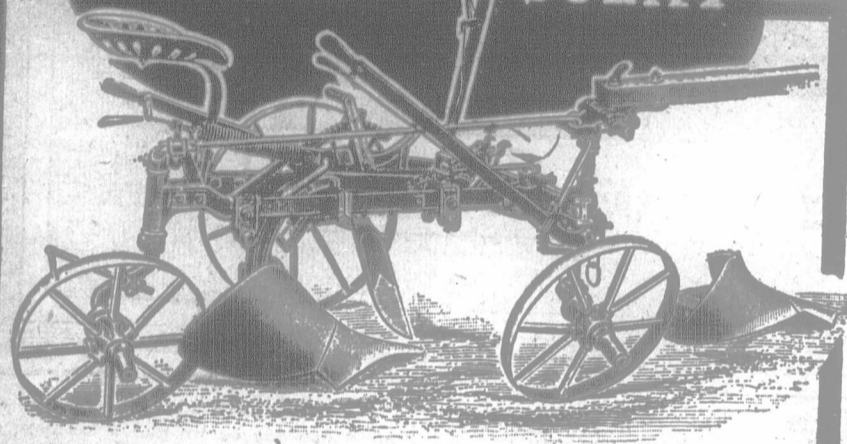
## ONTARIO LADIES' COLLEGE

And Ontario Conservatory of Music and  
Art, Whitby, Canada, Stands For Effi-  
cient and Cultured Young Womanhood

The new \$25,000 Gymnasium, with swimming pool,  
etc., together with a large and attractive campus,  
affords facilities for Scientific Physical Education  
unequaled in any Ladies' School in this country. The  
strength of the staff may be judged from the fact that  
seven University Graduates, all Specialists in their  
subjects, give instruction in the Literary Department.  
All the other Departments are equally well provided  
for. Send for new illustrated Calendar to

REV. J. J. HARE, PH.D., Principal.

## ONTARIO FOOTLIFT SULKY

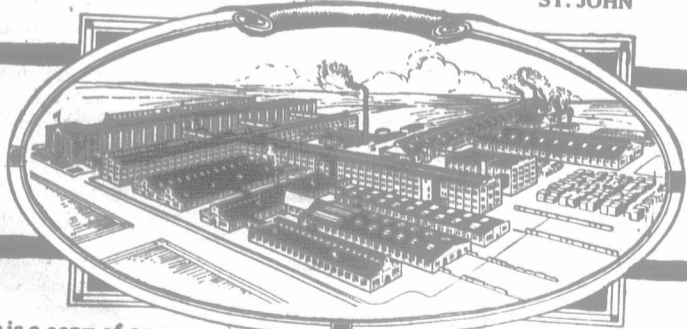


**H**ERE is a plow that is just about able to run itself. Once  
you adjust it for width and depth of furrow, a boy can  
run it all day long. If the Ontario Footlift Sulky strikes  
a stone, the Plow rises and resets itself, thereby preventing  
breakages. When the end of a furrow is reached, a touch of  
the Footlift attachment raises the bottom for the turn. Furn-  
ished with either Judy Bottoms (cutting 7 inches to 10 inches)  
for clay, or No. 21 Bottoms (cutting 10 inches to 12 inches)  
for loam. Equipped with Rolling or Straight Colters.

You should have this plow—one of the newest and best of our extensive line.  
It goes to the very limit in convenient adjustments, dust-proof bearings,  
proper design and the best grade of material we can buy for the purpose.  
Mould boards are soft centre steel—the hardest, best scouring and longest-  
wearing material procurable—no brittleness—no breakdowns.

The Ontario Footlift will plow your land right. It is worthy of close in-  
spection and investigation. We're always glad to give you information.

**COCKSHUTT PLOW COMPANY LIMITED BRANTFORD**  
Sold in Eastern Ontario, Quebec and the Maritime Provinces by  
**THE FROST & WOOD COMPANY, Limited - - SMITH'S FALLS**  
MONTREAL ST. JOHN



There is a copy of our  
Send us your address on a post card. You are sure to be interested.  
new Catalogue for you.

**When Writing Mention "The Advocate"**

me to go home with them to stay all  
night, as the men always went home for  
Sundays, so I consented.

In the woods we met some cows, when,  
to my horror, these two little imps of  
mischief rushed up to a cow, snatched  
her horns, hung on tight, and away  
they went through the woods. They  
laughed merrily as they rejoined me and  
saw my look of relief after such a  
fright. Had the cows belonged to them  
and been used to such treatment it  
would not have appeared so startling,  
but as these daring young children hard-  
ly knew who owned the cows it was  
more to be wondered at. Reckless, dar-  
ing children of the forest, daring every-  
thing and caring for nothing! As you  
may imagine it was an immense relief  
to see them safe at home.

In the heart of the forest nestled this  
funny, long, low, structure built of  
huge logs as also was the stable which  
stood near by. There were two win-  
dows facing the south, one on either  
side of the rough board door. Inside  
were rough boards for a floor, which  
looked as if it had small-pox, it was so  
marked up with cork-heeled boots. Part  
of the floor was of rough beams. All  
the walls were made of immense, rough  
logs, which they sometimes used as  
shelves upon which to place small  
articles. Some poles were fastened in  
the floor from which sheets hung around  
the three beds to form rooms. The  
men's bunks were at the west end of  
the shanty. These were made like  
litters covered with balsam brush which  
served as a mattress and pillow, and  
they hung one above another. In the  
centre of the shanty was the cooking-  
stove,—a splendid one which threw out  
a great deal of heat; then there was  
a stove near the men's bunks to keep  
them warm.

A young lady with her little brother  
from Gravenhurst was staying there with  
her aunt, so we had a very nice time.  
They were such nice people and quite re-  
fined, and I thoroughly enjoyed my  
visit.

After tea two young men visited the  
camp, so we spent the evening playing  
crocinole until about midnight, when  
they took their departure.

When we retired for the night it was  
some time before sleep came to my re-  
lief, as the wind was sighing through  
the trees outside in a very weird manner  
and the thought came to me, there we  
were shut in from all neighbors, and  
nothing but forest around us. My fears  
were groundless for nothing happened.  
Thoughts of this kind never enter their  
heads at the camp, for the parents  
would sometimes leave their little eight-  
year-old boy sleeping peacefully in the  
bed beside the window with a lantern  
burning brightly, and, with the younger  
boy, walk to the clearance with any  
visitors, carrying a lantern for them,  
as they did one night with me when I  
had been staying there one afternoon  
and evening.

As our hostess was not feeling well  
the next morning we did not get up un-  
till late, and had breakfast at eleven  
o'clock—the time I was used to having  
dinner on Sundays. After breakfast the  
three children, the young lady and my-  
self, went for a walk, as the sun was  
shining brightly, the snow sparkling,  
and the squirrels frisking gaily about  
just tempted one to go for a stroll.  
In the afternoon, just as we were get-  
ting ready to go to service at the  
school-house, a sleigh-load of visitors  
drove up, so we could not leave. In  
the evening the men began to return to  
be ready for work next day. The first  
to arrive was a German,—such a rough,  
uncouth-looking fellow—short and very  
dark with black hair, black eyes, and, in  
fact, he looked altogether black. He  
slunk into a corner and hardly spoke a  
word unless spoken to, but it was nice  
to note how kind my hostess was to  
the men, enquiring all about the fami-  
lies and interesting herself in them in  
every way imaginable, and although she  
received, in many cases, only short  
grunts, yet, on the other hand, were  
many smiles. No matter how rough  
they were or appeared to be, she al-  
ways had something good to say of each  
one, and, as I learned, one can seldom  
judge by appearances, as everybody has  
some good in him if we were only more  
anxious to hunt for it.

Unlike in the stories of shanty-life by  
Ralph Connor, there was no Mrs. Movar  
to draw out their feelings by the sound

of a beautiful voice, not a minister's  
wife to interest herself in them, so it  
was hard to judge how true and tender  
were the hearts that beat beneath the  
rough breasts of these men.

Shanty life is the ruination of many  
a youth. It is here that he begins his  
downward course and is forced to drink,  
swear and learn coarse jokes. Should  
he resist he is thrown on the floor, the  
"fire-water" poured down his throat,  
and then, when drink has choked all  
reasoning powers, his passions get the  
mastery over him and he fights to the  
death.

When Mr. McDonald used to come  
home from the village intoxicated, and  
his wife was compelled to hang on to  
him with one hand and drive with the  
other, I used to talk earnestly to him  
about his weakness. He said, "Do you  
despise me for giving way to the crav-  
ing for liquor or passion?" "No," I  
replied, "I do not despise anybody for  
such conduct, but have learned to feel  
very very sorry for them. We are too  
ready to judge our neighbors and cast  
stones at them when they are down,  
but we know not how great their tem-  
ptation is. To despise them used to be  
my first thought and the stories I read  
I thought were over-drawn, but since  
coming here it has shown me plainly  
that drink is the curse, and no stories  
of its results can be over-drawn. You  
ought to be man enough, for your  
young children's sake, to fight against  
your temper, and passion for strong  
drink."

He told me he never spent a cent up-  
on liquor, but as soon as he went to  
put up his horses at the hotel the men  
seized him and made him drink a  
"friendly glass," and his wife used to  
come home and tell us that although  
she saw a great many men in the vil-  
lage she only met two sober ones, and  
had to be constantly dodging on the  
street or in the stores lest they tumble  
against her. The two magistrates were  
powerless, as they no sooner laid hold  
upon a man than the mob rushed at and  
over-powered them. The ministers must  
just look quietly on and watch the  
desperate fights. The worst time was  
in the spring when the men were return-  
ing from the shanties or mines with  
their pockets filled with money.

One neighbor came home from the  
mines and bought his wife a nice horse  
and vehicle, but before he had been back  
very long he smashed the buggy to  
atoms and killed the horse by driving  
the poor thing furiously when he was  
drunk.

A woman who had sent her husband  
to jail more than once, and was tired  
of having him come home and breaking  
the chairs over her head and smashing  
things in general, one day bound him to  
the bed-posts with ropes, and, with a  
strong horse-whip, thrashed him so  
soundly that he was obliged from its  
effects to stay in bed for three months  
afterwards and she had to do all the  
work, but did not mind that.

Not satisfied with drinking themselves  
they used to give it to their children.  
One bright little lad in the school used  
to sing songs at the hotel for these  
rough drunken men, and for every song  
they used to give him a glass of  
whiskey or a plug of tobacco. Mothers,  
fancy your fair-haired, blue-eyed, rosy-  
cheeked boy of ten summers in such a  
place! His brother before him had  
done the same, and was with difficulty  
kept in the sleigh or wagon, to be  
brought home unconscious. Their par-  
ents did the same.

You say you despise them for such  
weakness, but just pause and think a  
minute. Would we not likely have done  
the same had we been brought up from  
our infancy to do that, and had lived  
all our lives among people who did it,  
had little or no education, and no one  
to interest himself in us to teach us our  
duty to God! Rather let us pray for  
them that they may give up such soul-  
destroying habits. If you despise such  
things, what have you done to prevent  
it? This is a solemn question, but one  
which we should earnestly endeavor to  
answer.

It was the British who brought the  
curse to the Indians by the "fire-water,"  
it was they who brought the curse to  
China by the opium trade, and to the  
Africans by the slave trade—is it not  
then our plain duty to try our best to  
destroy the evil done by our forefathers

# LISTER ENGINES Have No Equal

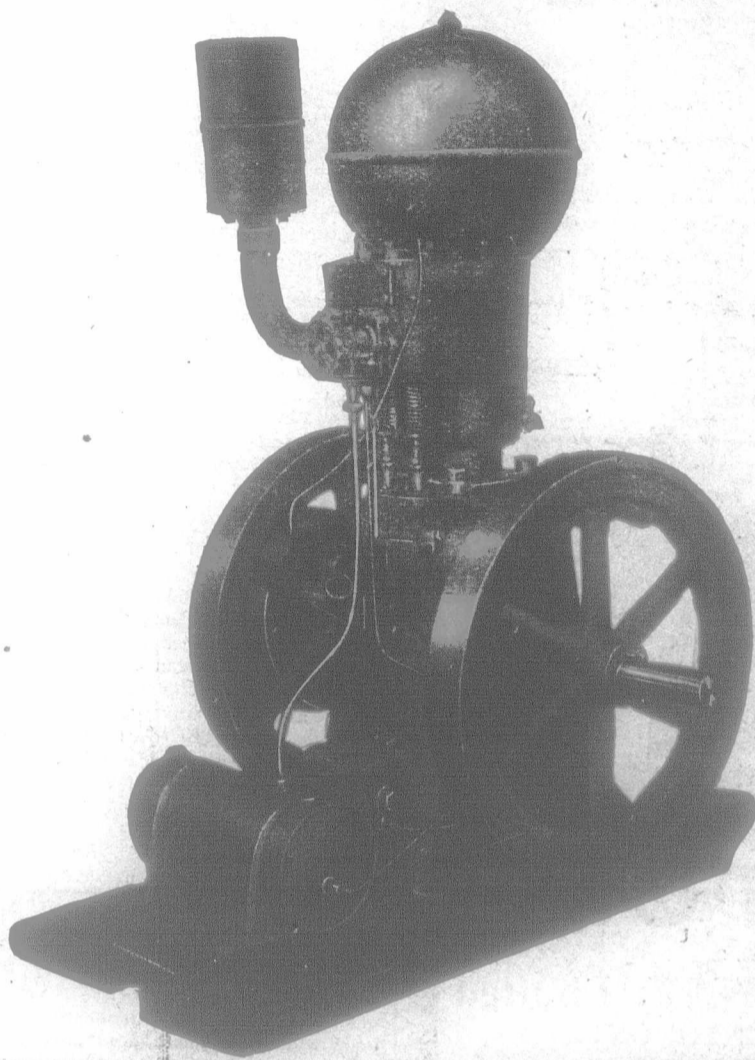
## SIMPLICITY

In Lister Engines, the design is such that the number of parts has been reduced to a minimum. Its operation is so easy to understand, anyone can run them.

The Lister Engine gives exceedingly low consumption of fuel. Easily operated. Easily sold.

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Send for catalogue and prices.

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LIMITED  
190 King St., West,  
Toronto, Ont

by doing all in our power to uplift them to lead purer and nobler lives?

The village doctor was a kind, clever man, but he drank to excess—it seemed to be his one failing, poor man. He had taken the "Gold Cure" three times, and said he would commit suicide rather than take it again. He had abstained for over two years, when one day he was called to doctor Mrs. Cameron. After this Mr. Cameron begged him to have a glass of whiskey and he refused many times, but, after being laughed at and urged to take a "social" glass, he yielded. After that he became worse than ever, and it was almost impossible to get him, as he would be found in a drunken stupor and his wife would not allow him to go. When visiting the homes of his patients he would carry a bottle of whiskey with him, and some settlers used to slip it out of his pocket and hide it from him. This course troubled the doctor so much that he at last did commit suicide, just before my return to the South, as he was so afraid of poisoning his patients when under the influence of liquor. He left a wife and eight little children. Here, then, is shown the terrible result of the "social glass" practice, for it ruined utterly a clever, kind and sympathetic doctor and left a stain upon the name, lives and character of his dear children.

## 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.]

### A CHEERING NOTE FROM HOPE.

Dear Junia,—You ask for opinions on the subject of Home-making—your paper in July 17th "Advocate." I have read it with delight (the paper has just come in and I had just laid down my pen after writing a "Quiet Hour.") So many women seem to lay themselves down to

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More When the Barn is Filled Than at ANY OTHER Time.

You know more barns are struck after harvest and your risk is greatest then.

You cannot afford to go without Lightning Rods this year. Some day you will Rod your buildings—why not NOW? You are satisfied that Rods are a protection. We are satisfied that

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Let us send you Samples to examine. The only SHEATH ROD with the LOCK JOINT is "THE UNIVERSAL." The Lock Joint prolongs the life of a rod. It is practically indestructible. "THE UNIVERSAL" is made of the best material we can buy, by the best men we can hire.

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HESPELER (Mention "The Advocate.") ONTARIO



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

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FOR SALE—Three quarter sections, 3 miles from Melita, Man; good buildings, beautiful location on Souris River; ideal mixed farm, the farm of the future. Owner is 62 years of age, has lost his wife and only daughter; got to sell cheap and on good terms. For particulars, apply I. T. Lennox, Melita, Manitoba.

FOR SALE on easy terms, fine section of land in Saskatchewan, in well-known Goose Lake district; four miles from town and elevators; all choice land and all broken, except 35 acres fenced pasture. Good buildings and improvements. Two hundred acres in crop this year, and 400 acres being summer fallowed. Parties going west seeking a fine ready-made Saskatchewan farm should see this land. Possession given this fall or next spring. For price and particulars, apply to owner, N. S. Robertson, Arnprior, Ont.

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

RANCH Manager Wanted.—Wanted an experienced dairyman as manager for large ranch in British Columbia. State age, qualifications, experience and references. B. C. Anti-Tuberculosis Society, Room 103, Empire Bldg., Vancouver, B.C.

WANTED—Thoroughly capable working farm foreman. Must understand feeding and caring for dairy stock and mixed farming in general and be a good milker; also be of good moral habits. Apply to Edwin A. Wells, Edenbank Farm, Sardis, B. C.

WANTED—Working foreman, married, for Pure Bred Holstein dairy farm. Good milker, feeder, and general farmer. Free house, state wages, when disengaged Jno. B. Wylie, Almonte.

## FOR SALE THREE YOUNG Yorkshire Boars

READY FOR SERVICE  
William Weld Co., Ltd., London, Ont.

be crushed flat by their idol—a house. The family and the woman herself are worth infinitely more than the house, and your description shows the possibility of a housekeeper getting the chance to really LIVE. Thank you!  
HOPE.

### CHAUTAQUA SCHOOL OF NURSING.

Dear Junia,—In reply to "Subscriber's Sister," Muskoka, she could not do better, if she wishes to become a nurse, than to take a course in the Chautauqua School of Nursing (Jamestown, N.Y.)

I have had experience in hospital training, and later studied with the Chautauqua School, and found the course thorough and complete. One could not help but be successful, if the instructions in each lecture are faithfully followed. They are explicit and very definite, and also teach the student how to gain practical experience.

The Faculty are very kind, and take as much interest in the student as though she were under their personal supervision. Graduates of this school command good salaries and situations—superintendents of hospitals, etc.  
Perth Co., Ont. "A NURSE."

### CHOCOLATE CANDY, CLEANING KNIFE HANDLES.

Dear Junia,—Could you kindly tell me how to make chocolates through your valuable paper, and also how to clean the white celluloid handles of knives? Wishing you every success.  
E. R.  
York Co., Ont.

Chocolate Caramels.—Stir in a saucepan 4 cups granulated sugar, 3 tablespoons glucose and 1 cup boiling water, and boil the mixture until it will snap in cold water when tested. Next add 1 cup cream, piece of butter, size of an egg and 1/2 cake Baker's chocolate, grated. Boil, not too rapidly, until it will snap in cold water; then remove, flavor with vanilla and pour out. When cool, cut up and wrap in paraffin paper.

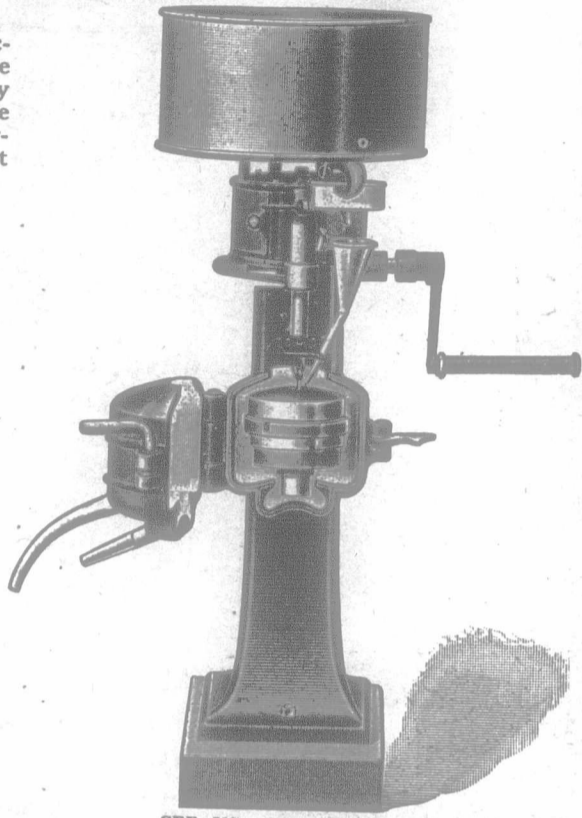
Chocolate Cream Drops.—Take French cream and mould into small cones with

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The superior construction and finish, the simplicity efficiency and durability of the "MELOTTE" Separator have secured for it

The Largest Sale in the British Empire

The majority of separator buyers will have a "MELOTTE" and no other. The leading Agents throughout the Dominion stock the "MELOTTE."



SEE US AT ALL FAIRS

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58-60 Stewart Street, TORONTO, ONT.  
Also at WINNIPEG and ST. JOHN, N. B.



HARVESTING PEAS

## Solving the Labor Problem

The TOLTON PEA HARVESTER saves the work of four or five helpers. It can be attached to your mower in a few moments with a wrench, and it does your pea-harvesting in a clean, rapid and satisfactory manner. The peas are bunched automatically as they are cut, enabling you to do ten or twelve acres a day with ease. You should investigate.

We have a number of agents all over the Dominion. If there's none handy to you, write us for catalogue, which explains details of this profitable machine. WRITE TO-DAY

TOLTON BROS., Limited Address Guelph, Ont.  
Dept. A

NEW AND SECOND HAND  
**STEEL RAILS** Cut to specification for any purpose  
JOHN J. GARTSHORE,  
58 West Front St. Toronto, Ont.

**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  
Windsor - Ont.

**FOR SALE**  
A 10-H.P. Fairbanks-Morse  
**Stationary Engine**  
Gas or Gasoline—Cheap.

R. DILLON & SON - South Oshawa, Ont.

the fingers. Leave on waxed paper until the next day to harden. Melt some chocolate in a dish over hot water, then dip into it the creams, one at a time, on a fork. As each is covered, slip it on waxed paper.

To make French Cream.—Take 1 table-spoon glucose and pour over it one-third cup boiling water. Add confectioners' sugar to make it stiff. Let stand half hour, then knead thoroughly. Flavor to taste. Another way is to take the white of an egg, add to it an equal quantity of cold water, then stir in powdered or confectioners' sugar to stiffen. Flavor to taste, form into balls and leave on wax paper to dry.

Delicious chocolates are made by dipping dates, bits of figs, preserved ginger, nuts, etc., in melted chocolate.

Even Scientific American refuses to divulge the secret as to how celluloid knife handles may be cleaned. It says, however, that celluloid-covered mountings—whatever they are—may be cleaned by applying a little tripoli with a woollen rag. But what on earth is tripoli? Perhaps some reader who has had experience will enlighten us in regard to the process or some other equally good.

FROM "LANKSHIRE LASS."

Dear Junia and All,—How cool and pleasant it is now, so I'll try and write again, and good day, how are you all getting along this long time? Just had to come for another chat. Was rather feeling the lass was forgotten in the Nook. Had little to write about. There are so many good writers and what a help the chats are, and how much I wish to help Poor Pansy. Were I near you, dearie, I'm sure I could in many ways. I wish you lived near me and you could bring the little tots and sit and chat a while. And the other troubled one, I feel so much for her, too. ("One who sympathises.") Don't go and give up, dearie. There are others in the same boat. Yes, many, and why one cannot tell; only can say its the nature. Hard to bear it? Yes, it is, indeed, but down in his heart he values your worth, I'm sure, and some time he will perhaps forget himself and actually praise you, and you will get such a surprise that the tears will come, and tears of gladness, too. That was the experience of one just troubled like you, and she says she can never forget how that helped her, those words that slipped out. So I hope your cloud will show its silver lining brightly after a while. How glad I felt that you, too, know what joy there is in Jesus all the way. He will help if we trust Him.

We can go and tell Him our greatest grief

And whisper our hidden care;  
Even to tell Him does bring relief.  
When the load is so hard to bear.

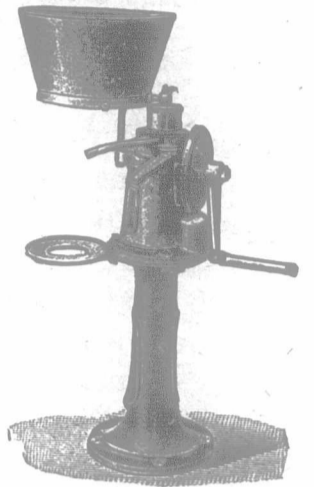
And these trials here are helpful to draw us nearer Jesus. When earthly friends fail, we can have comfort by trusting more in Jesus, and when all go and leave us to stay home alone, we can have Jesus right with us to cheer us at home.

How sweet is His presence by night and by day,  
For His promise is good, "I'll be with you alway."

Well, dear Junia, we hope you have had a pleasant summer, and Hope, too. What good your writings do and the help each of you gives. How kind of you to speak of me in a recent Quiet Hour. It is sweet to be remembered. It cheered me so much; also the nice visit I'll have to tell you about of "Anna" and her husband and little girl. They surprised us by coming to see us in their fine new auto, and how I enjoyed the visit and was so glad to be able to be up that afternoon, as not always I can be up. Her visit cheered me so. She is just the same kind friend and so jolly. You will remember her, but it is a long time since she has written to the Nook now. I have so much cheer by kindness and thank everyone for writing me or remembering me in any way. So many blessings come my way and nice reading sent, too. I would be pleased to know where one could get a book or papers with stories of London life, where waifs are helped. I like that kind of reading, and it generally has large print. Thanking anyone who can tell me where they can be obtained, I'll have to close. I have been so long at this I am wearied out. Glad to tell you flowers are still

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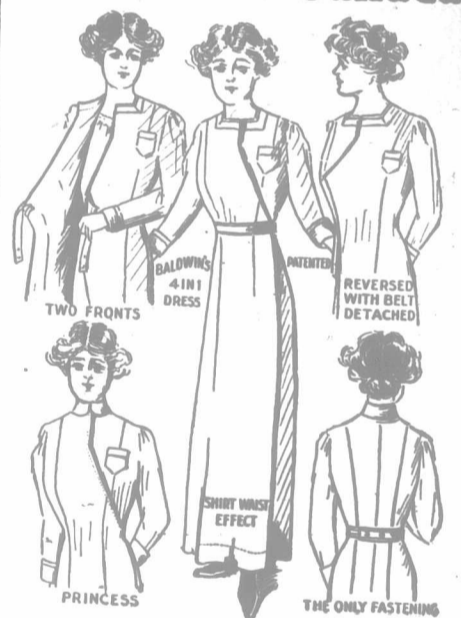
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doing well, and wish I could have a yard full, like long ago. I had such a nice front yard, a perfect show of bloom. Can't have it now. Hoping all the Nookers have a happy summer, for it is passing so quickly, fall will soon be with us now. How pleasant this cooler weather is after the heat. Keep smiling away all who can—it helps so much. So bye-bye again to all

**YOUR SHUT-IN LANKSHIRE LASS.**  
Wellington Co., Ont.

Can any of our readers supply the reading matter asked for by our shut-in friend? If those who have it will apply to me, I will send them her address. Or if they will send it in care of me, I will forward it without opening parcel.

**Easy Jelly Making.**

Girls, have you had trouble in making jelly? asks Mrs. Rose Seelye Miller, in "Ohio Farmer." Many new housewives do. I did, but I have learned how to make it with very little trouble or bother. It is as easy to make good jelly as to cook a good dish of apple sauce, only it takes a few minutes longer, but not much. If you will follow exactly the following rule, you can make jelly of a delicious fineness and color and taste. When you cook the fruit, use just a little water, because the water has to be cooked out; the more you put in the more you will have to get out. Use your over-ripe, mussy fruit for jam, but take the best there is for jelly.

**THIRTY-MINUTE JELLY.**

With many fruits you can make jelly in thirty minutes from the time you put the fruit on the fire until you have the liquid in the glasses. It is easier to do it slower; let the fruit heat slowly, then boil briskly until very soft. But you can put the fruit on over the fire with just enough water to keep it from burning, bring to a boil quickly, and boil hard until very soft. Hard boiling makes fruit go to pieces, and that is what you want. The less time spent in cooking fruit, the better the flavor of the jelly. Now for the rule.

Grapes, Apples, Currants, Quinces, Green Grapes, Greenish Plums, etc.—Fix for the jelly by having them clean. You need never peel anything for jelly, for the peeling gives it color and flavor. Stem grapes and currants. Bring to a boil, and boil rapidly until very soft; mash them up if need be to extract the juice. Put the cooked fruit in a bag made from a piece of cheese cloth cut square, and sewed up diagonally, so that it is something like a cornucopia. Fasten the bag to some convenient place to drain, or if you are in a hurry, squeeze the juice out. This gives you a good deal more liquid if jelly is what you are after, and it jellies quicker if it is pressed some, but the jelly is not considered quite so nice, but it is extremely good. When the juice has dripped out or been pressed out, measure it, and put over fire. Measure as much sugar as you have juice, and put this in the oven to heat. Let the juice come to a quick boil uncovered, and boil 20 minutes, no more, no less, then add the hot sugar, and let boil up. Do not cook it two minutes after it fairly boils, if the sugar is melted. Skim off any scum and strain into glasses, and you are done. Many times the liquid will drip like jelly at once, but many times it does not get real hard for a few days, and it is better so, for if it hardens at once, it is apt to get very hard if put away. Do not cover soft jelly with paraffin until it hardens; when it does pour melted paraffin over the top to keep it from getting any harder. It can be lifted off when the jelly is wanted for use.

Many fruits will not jelly alone; with these a sour, mild-flavored apple juice should be used, half and half, as apples have as much jellifying property as any known fruit.

You can use apples whole for jelly, simply washing them clean, but quinces must never be used with the seeds in, for these have a peculiarly viscid quality that prevents anything from jellifying. Otherwise this fruit jellies easily, and makes the most delectable jelly known. The juice from cooked, parings of quinces when added to apple juice will flavor the jelly richly. Peach juice and apple juice make a delicious jelly, pineapple and apple, raspberry and currant, and so on.

**News of the Week.**

**CANADIAN.**

Sixty of the visiting geologists from all parts of the world visited Sudbury, Cobalt, and Porcupine last week.

The Doukhobors, who some time ago abandoned their homesteads in Saskatchewan because they were required to become Canadian citizens, eventually settling in British Columbia, are asking \$450,000 in compensation for their fifteen years' work on the land. Their religion forbids them to swear allegiance to any land.

The King's Prize for shooting at Bisle has been won, for the fourth time, by a Canadian. William Hawkins, of Toronto, is the winner this year.

**BRITISH AND FOREIGN.**

The Culebra Cut of the Panama Canal will be flooded on October 10th.

The discovery of a microbe, said to be the cause of rheumatism, is reported from Paris.

It is probable that the United States will intervene to bring about peace in Mexico. The shooting of a United States immigration inspector has brought about a crisis, and the Huerta regime is believed to be on the verge of a fall.

The British House of Lords, on July 24th, rejected the bill to abolish plural voting.

Mrs. Pankhurst was released from Holloway jail on July 24th, after a few days imprisonment, and underwent an operation on July 25th.

The city of Nanking is reported to be in the hands of the Northern faction in China. In September, 1912, a charter was granted to Dr. Sun Yat Sen, authorizing him to carry out the construction of a railway system, covering 70,000 miles of territory in China. Last week this charter was cancelled by order of Yuan Shi Kai.

A sack of earth from Portugal has been sent to London in order that ex-King Manuel may stand on "Lisbon ground" while he is being married, on September 4th, to Princess Augusta Victoria of Hohenzollern.

The Senate of Wisconsin has passed the Eugenics Marriage Bill, which provides that a health certificate from a licensed physician must be presented to the clergyman by all couples who come to be married by him. A somewhat similar bill has been passed in Pennsylvania.

Last week Turkey officially declared war against Bulgaria. The victory of the Turks in reoccupying Adrianople, has, however, hastened a crisis, as it has been looked upon as a defiance of all Europe. On July 25th Austria-Hungary notified Greece and Serbia that further weakening of Bulgaria will not be permitted, and steps will probably be taken to arrest the advance of the Turks. In the meantime Greeks and Servians continue to report atrocities committed by the Bulgarians. Hundreds of men, women and children, they say, were massacred by them at Doxatos on July 20th.

**The Windrow.**

In India, butter is now being put up in collapsible tin tubes, the best method so far discovered to prevent its deterioration because of the intense heat.

Aviator Claude Graham-White predicts that ten years hence there will be heavier-than-air flying machines capable of carrying as many passengers as an average ocean steamship.

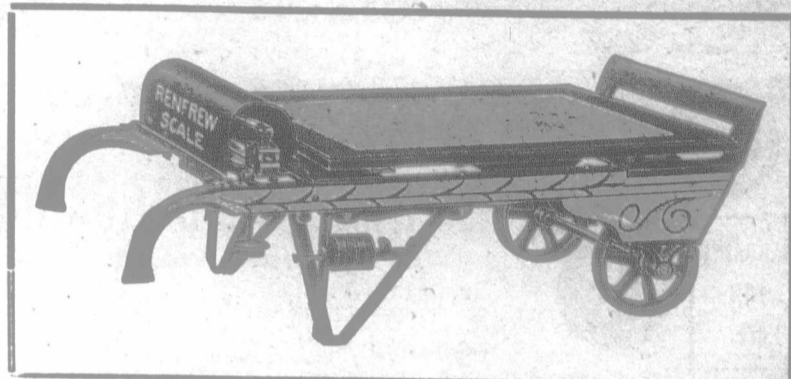
9,000 date palms from Arabia have been planted in the Coachella Valley, California.

**COMFORT SOAP**

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**An Important Announcement**

SUBSCRIBERS of this paper will be glad to learn that they can now procure the Renfrew Handy Two-Wheel Truck Scale without difficulty. It can now be obtained from any agent of the Renfrew Machinery Company, Limited, as this Company has lately taken over the products manufactured by the Renfrew Scale Company.

**The Renfrew Handy Two-Wheel Truck Scale**

is a worthy companion for the Standard Cream Separator and the Renfrew Standard Gasoline Engine—the two famous products of the Renfrew Machinery Company.

If you have experienced difficulty in procuring or in seeing one of these scales because of the lack of representation in your locality, drop us a line, and we will tell you the name of the nearest agent of the Renfrew Machinery Company. We have fifteen hundred agents in Canada, one of whom must be quite handy to you.

The Renfrew Handy Two-Wheel Truck Scale is a scale and truck combined. It will pay for itself twice over in a very short time. No farmer can afford to be without one any more than he can afford to do without a close-skimming cream separator, like the Standard, or a labor-saving engine, like the Renfrew Standard.


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**Penny-wise and Pound-foolish.**

(A paper given by Miss M. Cullis at a meeting of the Pleasant Valley branch of the Women's Institute.)

As to who first coined the phrase, I am not prepared to say, but as to its truth, as exemplified in our own and our neighbors' lives, I believe there can be no question.

At first sight it impresses one as a financial axiom, but a little consideration shows that the pecuniary is only one of its many sides, and perhaps not the most important.

I wonder is there one of us who has not had cause to remind herself that the cheapest article of its kind is not always the one for which we pay the least money. When the gown, the glove, or the shoe, that was such a bargain, has gone the way of most bargains, we sorrowfully quote our title of to-day, or perhaps that other common one—"A fool and his money are soon parted."

Not only in our purchasing, but in our work of every day, we see it. In these days of more or less intensive farming, we are all concerned about the products of our farms. The corn and root crops are matters of lively interest to us, as well as to the farmers proper. Now, if the farmer should say, when preparing his land in spring, "I have very little fertilizer—the soil will have to do its best without any more; I cannot afford to buy." We should surely say, "You cannot afford not to buy." A friend, who had recently spent some time in California, spoke of seeing orange groves that were pictures of beauty, full of foliage, bloom and fruit. Then perhaps the next place would have a grove of stunted, dried-up trees with neither flowers nor fruit. When she asked the reason for the difference, the answer was "Water." In the latter case they had economized by saving the cost of irrigation and, in consequence, had no returns to pay for anything.

Haven't you known people who thought it rank extravagance to buy fruit for the table? Their hands would go up in horror when they heard of a neighbor buying a dozen oranges or bananas. But those same people would settle, without a murmur, a doctor's bill that would pay for a bunch of bananas or a crate of oranges after a steady diet of potatoes and pork had had its frequent effect.

While it is quite possible to spoil materials by mixing food stuffs with too liberal a hand, it occasionally happens that the miserly hand wastes materials, too. In order that our food shall best serve its purpose, it must please the eye and the palate, as well as contain the elements to build up blood, bone and tissue. Now, if we say, "This recipe calls for milk, but I'll save a little by using water," or "I'll cut down half cup of shortening to a quarter," or "an egg or so less will not count in the cake but will in the egg-basket," our finished product will neither look as well nor taste as good as it should. (Nor possess so much nutriment.—Ed.)

Sometimes we make the same mistake in furnishing our homes. We think we can save the cost of this or that utensil which would lighten our labor. Nothing is an extravagance that helps to lift the burdens of the home-maker. The cistern and sink, the lift from the cellar, the doorway which saves a dozen steps between stove and pantry, the washer and wringer, are only a few of the many ways of spending the pennies and saving the pounds.

It may be that our false economy takes the shape of doing without necessary help. In these days of scarce and incompetent domestic workers the home-maker thinks that she cannot pay the price for such help as she can get, and worries along alone, till some day she drops out and the family is left to the tender mercies of the aforesaid help, either altogether or for the weary months that it takes the mother to struggle back to her feet again. That is penny-wise and pound-foolish with a vengeance.

Not only in our work, but in our play, do we display the same foolish policy. Perhaps some of you read in a recent Sunday School weekly of the girl who wore and did her second best because she was always waiting for her first-best opportunity to come along. We rather despise the small pleasures life offers because we are looking ahead for the greater ones. The old Yorkshire man's rule for eating his apples held a good deal of philosophy, "Best first—best always." In our relations with others this unwise policy also creeps in. Our chances to do small favors are disregarded because they are small. Do we ever realize how helpful an appreciative word, an expression of sympathy, or even a smile may be?

I have known of instances where there was more spent to bury the dead than there had been in years to clothe or cheer the living. Don't let our expression of appreciation be withheld until our friends have gone beyond hearing. Give me your handful of roses now, while I love them; don't hoard them up to bury me under. The first yellow dandelions of spring mean a thousand times as much to me now as all the flowers of earth will do when I have closed my eyes to all things earthly.

Let me conclude with Solomon's version of our text: "There is that scattereth and yet increaseth; and there is that withholdeth more than is meet, but it tendeth to poverty."

M. M. C.

**Household Efficiency.**

(A paper given at the St. Mary's branch of the Women's Institute by Miss Sarah Gilpin.)

These are the days of efficiency—at least, there is a great deal of talk about efficiency in the management of business, in the handling of men and in the performing of tasks. The latest question being asked is, "Is the home efficient for the money put into the making of it—not merely value in housing and furniture, in food or clothing, but efficiency in the output, the real living of ourselves and our children?"

The New Domestic Science is systemizing the work of housekeeping and demonstrating the saving power of routine, where routine can be successfully employed, and the step is a natural and inevitable one in the kind of progress the world is making. Haphazard practices are being done away with in business and there is no reason why they should continue in the home. Housekeeping is a big business, for no one will contend that there are no great difficulties to surmount in an occupation which includes not only the financial future of a family, but its physical, mental and spiritual as well.

Many women have yet to learn that housekeeping is a business in which they can earn money by saving it. Contrary to the general opinion, the securing of money is not a very difficult task. If one is willing to work, the real importance of finances to the man or woman is what is done with the money after it is earned—how far can you make it go, not merely in paying household expenses, but in placing part of it so that it will begin to earn interest and duplicate itself. In the effort to make a business out of housekeeping, an effort fast becoming a part of the creed of every enlightened housekeeper of to-day, women are continually defeated by the general sentiment that there really needn't be any rules to govern the home; that half the satisfaction of the home is in its being an easy-going place, the men of the house having a very definite idea that all the business is down town. "I am sorry to have kept you waiting," they say, and expect that to close the incident pleasantly.

The women who holds completely her place as manager of her household ranks high above women in other professions, for she has learned to do not one thing, but many, and her executive ability must be of the most perfect order if she is to realize the ideal in the working out of her domestic big business. In housekeeping woman has five or six professions. She must know something of finance, of household hygiene, of cooking, of serving and of sewing, and these things are interesting only when they are given their true value in the world of endeavor. When the business of the household is as efficiently managed as, say, that of the Departmental stores, women employers and domestic workers will find house-work as interesting as paintings are to the artist and experiments to the scientific investigator.

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**\$5.75** Lady's 30 Solid Gold English, hall-marked, Keyless Watch, highly finished jewelled movement, exact timekeeper, richly engraved; 12 years' warranty; \$5.75.

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**\$15** Lady's magnificent 50 Diamond and hall-marked; there are ten white and faultless diamonds surrounding a superb sapphire of richest quality; to appreciate the full beauty of this Ring it must be seen; sacrifice, \$15.

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**\$24.50** Finest quality 30 Hammerless Breechloader Gun, by Anson & Deeley pattern; double barreled, interchangeable 12-bore quadruple cross bolt action; automatic safety bolt; steel barrels; left choke. This Gun is a really first-class weapon. Sacrifice, \$24.50.

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**\$6.50** Gent's 320 fashionable Dark Grey Tweed Jacket Suit (by Siroud, High-class Tailor); splendid quality, latest West End cut and finish, never worn; breast 39-in., waist 36-in., length 32½-in.; \$6.50.

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MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 22nd 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 "B" from Ettrick, via Arva and Ballymote, Middlesex E. 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 Arva, Ettrick, Ballymote, and at the office of the Post-office Inspector at London.

G. C. ANDERSON,  
Superintendent.

Post Office Department,  
Mail Service Branch,  
Ottawa, 8th July, 1913.



MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 22nd 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 Ilderton (Bryanston), Middlesex E. R. (No. E), 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 Ilderton, Bryanston, and at the office of the Post Office Inspector at London.

G. C. ANDERSON,  
Superintendent.

Post Office Department,  
Mail Service Branch,  
Ottawa, 8th July, 1913.



MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 22nd August, 1913, for the conveyance of His Majesty's Mails on a proposed contract for four years, six times per week over rural route "A" from London (Masonville), Middlesex East Riding and London City, 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 London, Broughdale, Masonville, Fanshawe, London West, and at the office of the Post-Office Inspector at London.

G. C. ANDERSON,  
Superintendent.

Post Office Department,  
Mail Service Branch,  
Ottawa, July 8th, 1913.

FALL AND WINTER  
Milk or Cream  
WANTED

You have got to feed your cows in the winter time whether they are milking or not, so why not arrange to have most of them earning the high price we pay for winter milk and cream.

We take all that you produce.  
Furnish cans for milk.  
Pay on the 10th of each month.

Winter contracts start November 1st. Make up your mind at once. We are receiving applications now. Write:

Mark the envelope  
Dept. C. CITY DAIRY CO.,  
Toronto, Ontario



How many women have ever attended a conference of the management of house-work and household workers? Why should there be no such conferences? Do women housekeepers belong to the only Guild the members of which can teach each other nothing? The trouble is there is no such Guild. Artists never leave off studying; the doctor who learns nothing forgets what he used to know; both artists and doctors study the work of their fellows. Women will have to study house-work and household workers in the same way.

Ten minutes' rest in the midst of a hard morning's work is good sense. Rest must be taken where the air is pure and plentiful; rest must be mental as well as physical. There is little benefit in resting the muscles and worrying the brain, and there is small wisdom in relaxing the mind and muscles and overtaxing the stomach. The stomach is the firebox of the soul; its simple construction patterned by a Supreme Master. Your stomach is your success. Nothing can replace a ruined stomach. Think of this when you hurriedly throw into its marvelous pocket ill-selected and quickly-masticated food. Think of this when you neglect its call for regular fuel and regular care. Think of this when it begs for rest. Respect your stomach, morning, noon and night, and between times.

Do you know how to throw things away? How many of us have closets and bureau drawers and chests and garrets filled with truck, whose only value is the time it has eaten up and the valuable house room it has filled? An important duty of the housekeeper in the cold weather is to see that the house is properly aired and ventilated. Every room that is occupied should be thoroughly aired each day. One can keep warmer in a room filled with pure air that has a temperature of sixty-five than in a room where the temperature is much higher and the air impure. If there is a window in the upper hall, or in a room opening off the hall, which can be kept slightly open, it will help keep the air of the house pure.

In no part of the house is there greater necessity for constant watchfulness than in the cellar. It should be thoroughly cleaned twice a year. In summer the windows should be opened every night and kept closed during the day time. By opening the windows at night and closing them in the daytime, the cellar is kept dry, cool and pure. In winter mild days should be selected for airing this part of the house. Have screens in the cellar windows. Cleanliness is now regarded as a necessity to sanitary living—not a fastidious notion of the over-fussy.

The sink should be absolutely sweet at all times. To keep it in this condition requires systematic watchfulness. Liquid grease will cause serious trouble if it is allowed to remain and cling to sides of pipe. It is beyond the plumber's art to prevent this, but it is within the power of every housekeeper to avoid it. The sink should be treated with a hot solution of washing soda at least once a week. All the plumbing is better for being rinsed with a hot solution of soda, but once a month answers for all parts of the house except the sink.

To prepare the washing soda for pipes, cover one pint of soda with three gallons of boiling water and let remain on the fire until all the soda is dissolved. Pour this boiling hot into the pipes. The sink pipes should be made warm by pouring boiling water into them before pouring in the hot solution.

Everything should be done to dispose of the household refuse in the shortest period possible. If it must be kept on the grounds, sprinkle it generously each day with lime.

The purifying effects of the sunshine should not be forgotten. Let it pour into every nook and corner with its disinfecting powers, that it may overcome and banish three arch-enemies—darkness, dampness and dirt.

The untidy domestic fly is a problem that the housekeeper has to deal with, because it has been discovered that the fly is one of the worst enemies of mankind, carrying disease germs and depositing them wherever it alights. Keep the fly out of the home.

Do not forget the cleansing and airing of the dish-cloth daily. Have your ever considered how much time you spend in



A Million  
People

Give these stockings and socks the hardest wear hose know. They

Buy Them for Style and consider the 6 months' wear merely an extra advantage. Could any but the best in a product gain such an overwhelming preference?

We are making a wonderful hose in Holeproof. Walk in them, dance in them, play tennis or golf in them.

Holeproof Hosiery  
FOR MEN, WOMEN AND CHILDREN

Every stitch is guaranteed for six months; not just heels and toes. Here are hose that will stand the most strenuous sports. We even guarantee, for men and women, three pairs of silk Holeproof Hose for three months.

Silk From Japan

We could buy common silk for Holeproof. But we send to the North of Japan for ours, for there it is grown as it is nowhere else.

74c Cotton Yarn

We could buy ordinary cotton yarn for as low as thirty-two cents per pound. Yet we pay an average of seventy-four cents. Our inspection department alone costs us \$60,000 a year.

For the past thirteen years, since Holeproof were first made, 95 per cent have outlasted the guarantee. The above figures refer to Holeproof as made in the States and Canada. Try it—buy six pairs of Holeproof today. See how they are wearing six months from today.

Sold in Your Town

The genuine Holeproof are sold in your town. We'll tell you the dealers' names on request, or ship direct where there's no dealer near, charges prepaid, on receipt of remittance. Six pairs of cotton hose guaranteed six months, for men, cost \$1.50 to \$3 per box; for women and children \$2 to \$3 per box; 3 pairs for children, \$1 per box, three pairs guaranteed three months. Several weights; all sizes and colors. Three pairs of silk Holeproof guaranteed three months, for men and women, cost \$2 a box for men, and \$3 a box for women. All colors. Medium Cashmere Socks for Men, 6 pairs \$2—fine Cashmere 6 pairs \$3. Women's fine Cashmere Stockings, 6 pairs \$3. 6 pairs of Cashmere are guaranteed six months. Write for free book, telling all about Holeproof.

HOLEPROOF HOSIERY CO. OF CANADA, Ltd.  
313 Bond Street, LONDON, CANADA (485)

GUNNS



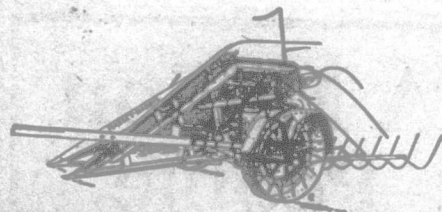
FERTILIZER

FOR FALL WHEAT

Is not an expense but an investment which will yield anywhere from 20 to 200% interest.

Write for Price List and Booklet. 40 Years' Reputation behind them.

GUNNS LIMITED,  
West Toronto



### The Massey-Harris Corn Binder

Is the most up-to-date corn-harvesting machine on the market to-day.

It is constructed on the inclined elevation plan. This does away with unnecessary parts and makes it easier for the machine to cut and bind the corn.

The MASSEY-HARRIS CORN BINDER is the only one of its type that has the pole inside the main wheel. This distributes the draft more evenly.

Wheels are well apart, and all working parts are very carefully balanced in regard to their relative positions—danger of overturning while working on side hills.

Cutting apparatus cuts, and does not tear up the stalks. Side knives give a shear-cut, and the regular sick or smooth knife finishes the cutting.

Conveyor fingers carry bundle to knoter, and automatic gates (found only on the Massey-Harris) release the fingers before the needle passes around the bundle. There are no packers to knock off ears and waste the corn.

Machine is 5 feet 11 inches wide, and will easily pass through ordinary farm gateway.

**Massey-Harris Co., Limited**  
Head Offices: TORONTO, CAN.

BRANCHES AT  
Montreal, Moncton, Winnipeg,  
Regina, Saskatoon, Yorkton,  
Calgary, Edmonton.  
AGENCIES EVERYWHERE



### MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 22nd 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 "D" from Ilderton (Salmonville), Middlesex E. R., Ontario, from the Postmaster-General's pleasure.

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G. C. ANDERSON,  
Superintendent.

Post Office Department,  
Mail Service Branch,  
Ottawa, July 8th, 1913.

### 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, College Street, Toronto. Established 21 years.

### Milk Wanted

For milk route in Windsor.  
WALTER N. KNIGHT  
20 Aymer Ave. Windsor, Ont.

looking for things? Few of us have a model kitchen, but we can have a shelf near the range, hooks inserted in the wall, and the cupboard or kitchen cabinet convenient to the range, which will save us many steps. A box with tissue paper in the kitchen is a convenience. Catch up a bit to wipe a greasy knife or spoon, dropping the paper into the fire afterwards; it saves washing a cloth, and even this slight effort is worth the saving.

#### Don'ts for the Kitchen—

Don't throw away the paraffine from jelly and marmalades. Wash each piece and save it.

Don't throw away celery leaves. Dry them in the oven for flavoring soups and sauces.

Don't throw away the water that vegetables have been boiled in. When added to the soup kettle, it is a healthful economy.

Don't throw away pieces of dry bread. Grind them in the food chopper. A jar of these kept on hand is a convenience.

Don't throw away bits of left-over meat and fish. When combined with small pieces of potatoes and cream sauce, covered with bread crumbs, dotted with butter and baked till a delicate brown on top, they develop into a most appetizing dish.

Don't boil eggs on the range. Have a saucepan, in which boil half a pint of water for each egg. Put eggs into this boiling water, cover and place on a board or paper away from the fire for ten minutes. This is an ideally soft-cooked egg.

Don't neglect your refrigerator. Clean it daily, and twice a week place in it a saucer containing charcoal. This is a great aid in keeping it sweet.

Don't let the inside of your tea-kettle become incrustated with lime. A clean oyster-shell kept in it attracts this lime and may be thrown away. Don't fail to rinse the tea-kettle three times a day and fill with fresh water.

Don't use water that has been boiled twice for making tea. For good tea, bring the water to a quick boil. Any kind of food or drink made with boiling water should be made with water that has been freshly boiled. Every woman should know that after water bubbles, it cannot get any hotter.

Don't fail to wrap cheese in a cloth wrung out of vinegar. This keeps it fresh for a long time.

Don't have a toe on your broom. Keep turning it when you are sweeping. Soak a new broom in a pail of boiling water for a few minutes. Shake well and hang up to dry. By treating your broom in this way, it will sweep cleaner and wear longer. Make bags for the broom. Put a few drops of coal-oil on bags and dusters. Roll tight; keep in a drawer. Then they are always ready for use. The dust clings to the cloth when treated in this way. Have a long-handled broom, put a bag on it for wiping the ceiling.

Waste is a sin against ourselves. There would be a vast saving in expenses if each housekeeper thoroughly understood the proper manipulation of her kitchen range. A thorough acquaintance with the drafts and checks is imperative. When the range is free from fire, examine every part of it, open and close the drafts and checks until you become familiar with their workings. Examine the grate to see how the contents are dumped and the ashes removed without disturbing the fire.

There is no greater aid to economy than a regular system of keeping accounts. Cash accounts are the best, no matter how simple or elaborate the style of living, each housekeeper should make up her mind that the expenses should not exceed the income. The household dependent on bakery products is not on the road to thrift. Neither are they who buy in small quantities. In June have your butter packed in small crocks. It keeps perfectly, and is June butter to the last if the crocks are inverted in a larger one filled with brine. To every gallon of boiling water allow three cups of salt, one cup of white sugar. Stir until all the salt and sugar are dissolved. When cold, strain and pour over the butter. Last June we paid 20c. and 21c. per pound for butter. Buy eggs in September. They keep perfectly for six or seven months in a pickle. To every three gallons of water allow one pint of fresh unslacked lime.

# WINCHESTER

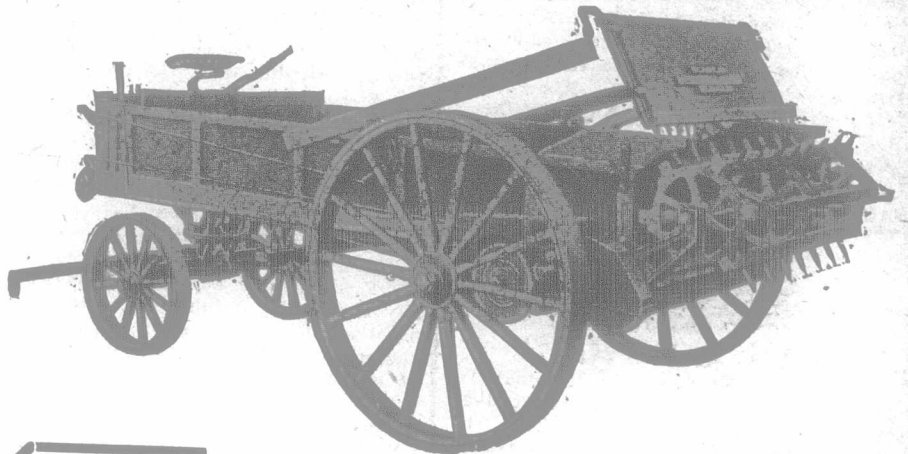


## "LEADER" AND "REPEATER"

**SMOKELESS POWDER SHELLS**  
No matter whether your favorite sport is field, wild fowl or trap shooting, Winchester loaded shells will give you the fullest measure of shooting satisfaction. No shells will make a good shot out of a poor one, but shells that are loaded so that they are uniform in velocity, spread the shot evenly, and give good penetration help wonderfully to make good bags in field or marsh and high scores at the traps. Winchester shells embody all these important elements.

BE SURE AND GET THE W BRAND

## Saving and Application of Manure



### The New Kemp Manure Spreader

Made by oldest manufacturers of Manure Spreaders in the world. Draft one horse lighter than any other Spreader built. Strongest Spreader built. Only Spreader equipped with J. S. Kemp's Patented Reversible, Self-Sharpening, Graded, Flat Tooth. Handles all kinds of material found on the farm, even clear gum or rotted material.

This is the only Spreader that will do it satisfactorily. Write to-day for catalogue and J. S. Kemp's article on Saving and Application of Manure.

**The W. I. KEMP COMPANY, Ltd.,** 552 Ontario St., Stratford, Ont.

Cockshutt Plow Co., Ltd., Selling Agents for Western Ontario.  
Frost & Wood Co., Ltd., Selling Agents for Eastern Ontario and Maritime Provinces.

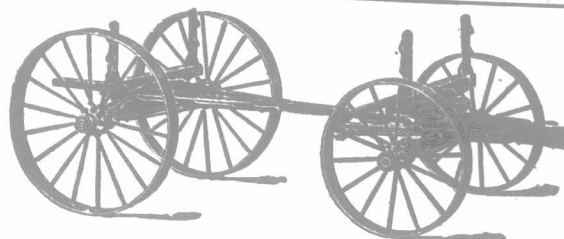
### They Cost Less



### "Clay" Gates

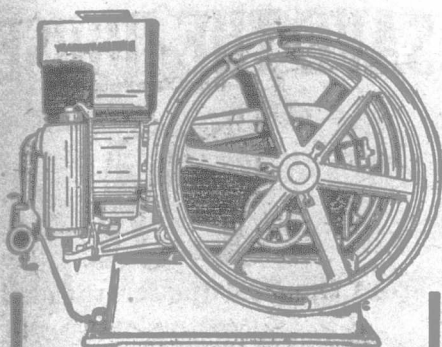
STRONGEST and best farm gate made. 30,000 sold in 1912. Can't sag, bend or break. Can be raised as shown. Good for Winter and Summer. Send for illustrated price list.

**The CANADIAN GATE CO. Ltd.**  
34 Morris St., GUELPH, Ont.



### Farmers' Handy Wagon, with Electric Forged Steel Wheels

28-inch and 34-inch diameter, 4x3/4-inch grooved tire. Capacity 4,000 lbs. Shipped from Toronto, \$38.50, freight paid. Terms, cash with order. **ELECTRIC WHEEL COMPANY** 8 Elm St., Quincy, Ill. Or Norman S. Knox, 47 Wellington St. East, Toronto, Ont. Eastern Canadian Sales Agent.



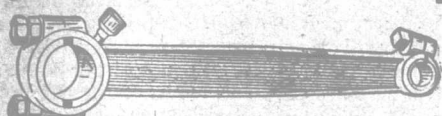
**YOU GET FULL VALUE FOR EVERY DOLLAR YOU INVEST IN A MASSEY-HARRIS ENGINE**

They are not cheap in the matter of first cost, but the years of satisfactory service outweighs, many times over, the difference in the purchase price.

Then when you consider the saving in gasoline and the small cost of upkeep, you will be more than satisfied.



Crank Shaft is of large proportions, drop forged from a solid billet of open hearth steel.



Connecting Rod is of good size and I-Beam Section. Both Bearings have suitable means of taking up wear.

Illustrated Circular for the asking.

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

—Branches at—  
Montreal, Moncton, Winnipeg, Regina, Saskatoon, Calgary, Yorkton, Edmonton.  
—Agencies Everywhere—



WE carry a large stock of canvas covers. Write for catalog giving low prices for all kinds of Thresher's supplies. WINDSOR SUPPLY CO., Windsor, Ont.

**STAMMERERS**

can be cured, not merely of the habit, but of its cause. The Arnott Institute has permanently restored natural speech to thousands—is doing it to-day. Write for full information and references to:

The Arnott Institute, Berlin, Ontario.

**Columbia Double Disc Records**

DOUBLE VALUE FOR YOUR MONEY

Would you Save \$100.00

on the purchase of a piano— if we show you how?

THE SHERLOCK - MANNING PIANO CO., London, (No Street Address Necessary) Ont

Registered Seed Wheat for sale, Dawson Golden Chaff, grown under the rules of Canadian Seed Growers' Association. Apply to: A. W. Scheifele, Heidelberg, Ont.

half a pint of salt. Mix all in a crock; stir well next day and add two ounces of cream of tartar. Drop eggs in gently any time you get them. Do not more than half fill the crock to leave room for eggs. (We should be pleased to hear from readers who have used the water-glass method.—Ed.)

The canned vegetables on the market to-day are costly when compared with home products. Tomatoes, string beans and corn are all very easy to can. Eight pints of corn, one cup of salt, one cup of white sugar; cover with water and let boil one hour. Put in glass jars and seal.

Flour, sugar and soap should be bought by the hundred. It is also cheaper to buy apples and potatoes by the barrel.

The progressive housekeeper must be up-to-date. She must have modern appliances that make for true saving. A washing machine, a wringer, the electric iron, a meat chopper, a potato ricer, a compressed egg beater. The latter beats eggs in fifteen seconds and whips cream in one minute.

There is no end to the vacuum cleaners on the market. One is small and light in weight and works like a carpet sweeper. It removes the dirt in a satisfactory and sanitary manner.

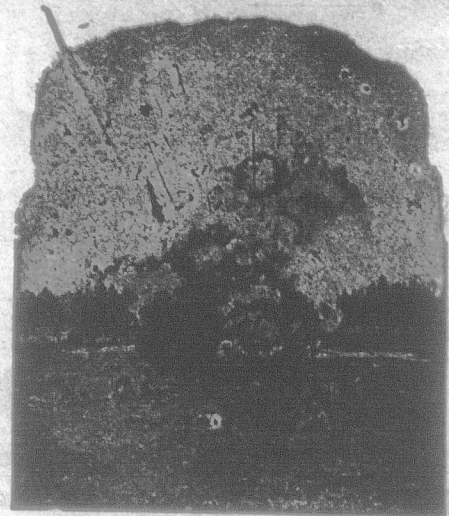
The Fireless Cooker really proves worth while, and its value is recognized by every user of one. Its experimental stage is past. It is now a permanent and well-established utility, the general use of which will doubtless be widespread in far less time than was the case with gas and electricity for cooking. Even those who use the imperfect hay-box fireless cookers concede to all its economics and advantageous features, and the few complaints to be heard in any direction arise from a lack of knowledge as to the proper length of time required for the various foods. This, of course, should be considered and some information on the subject obtained before undertaking an experiment. Put concisely, these are the principles and results in fireless cookery; radiation and conduction are overcome, a steady application of heat is obtained, foods retain all their juices, moist and dry heat are both available. The economies effected are at least five—fuel, food, time, labor and health. Where is the woman who does not consider these savings worth her study.

The Bread Mixer insures good home-made bread. The bread is not touched by the hands, except to mold it into pans. Have a box that the mixer will fit into and a dairy thermometer. Put glass jars filled with hot water into the box. Keep the yeast, flour dough and box at cheese heat until the bread is ready for the oven. Warm the bake-board and bread-pans. Before taking bread-mixer out of box to mold dough into pans, have the oven hot, so the bread will brown in ten minutes after it is put into oven. Then cool the oven a little and bake twenty or twenty-five minutes after cooling oven. I use the water that four or five potatoes have been boiled in. One quart of liquid, two tablespoons of mashed potatoes, two tablespoons of melted lard, one tablespoon of salt, four tablespoons of white sugar, three quarts of "Five Roses" flour, or two sifters full (sift twice), half cake of Royal Yeast. Put the yeast into half a cup of the warm liquid. When dissolved, add it to the remaining liquid with salt, sugar and one tablespoonful of flour. Set the yeast at night. In the morning put the lard in mixer, then the yeast, flour last. Turn the crank about five minutes or till the dough is a compact ball. Put on the cover and set complete machine into the box. When the bread has risen to twice its bulk, it is ready for the pans. It takes about three hours. Cut the batch into five. Mold; do not knead; put into pans, allowing it to again rise to twice its bulk; then it is ready for the oven. When you take bread out of the oven, rub the top of the loaf with melted butter. Set on a cooler out of drafts. Do not put bread in a box until it is cold. Bread will keep better in wood than in a tin box.

If housekeepers would only realize the great wrong they do themselves by being without them, they would certainly make a study of household devices.

**TURN WASTE LAND INTO PROFIT**

C  
X  
L



STUMPING POWDER

You are losing money every day by allowing stumps and boulders to occupy the richest and most productive parts of your farm. Why not remove them with C. X. L. STUMPING POWDER? The cheapest and quickest method known for clearing land. Write to-day for our Free Booklet.

**Canadian Explosives, Limited**

Montreal, Que.



Victoria, B. C.



It's not best because it's largest in sales—but largest in sales because it's best. There are six Fords sold to one of any other car. 'Twould be hard to find a more convincing reason why you should own one.

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.



**Pratts**

"Fly Chaser"

is a thoroughly tried and tested fly repellent for use on cows, horses, dogs and cats, and ridges barns, stables and poultry houses of flies. PRATT'S "Fly Chaser" will keep the flies off your cattle. If it doesn't, it won't cost you a cent. It will relieve your tortured work-horse or your nervous, high-strung driving horse.



Spray your stables and chicken roosts frequently. Its disinfecting properties will insure pure, sanitary quarters for your live stock and poultry.

"Your Money Back If It Fails."

Try "Fly Chaser" to kill caterpillars on your trees. At your dealer's, \$1.00, 60c and 35c.

**PRATT FOOD CO.**

of Canada, Limited, TORONTO 8-4

## Better Than Ever for 1913

**"OHIO"**  
New 1913 Model  
Just Tops All Previous Records

**THERE'S** a great surprise for you in the new 1913 Model "OHIO" Silo Filler. The famous leader—backed by 59 years of progress—the prize winner at Expositions and Experiment Stations—can now show you *better work—more of it—quicker and cheaper* than you ever thought possible.

The only machine that is driven, cuts and elevates direct from the main shaft. Makes bigger capacity on low speed and low power—eliminates blow-ups and explosions, yet it can reach the top of the highest silos with enormous capacity without clogging.

**Almost Every Time and Labor Saving Feature Has Been Improved**

One lever instantly starts, stops or reverses the feed rollers. Operates smoothly by wood friction under finger pressure—the lever is easily within reach from almost any side of the machine.


You should see the feed rollers with their famous "Bull-Dog Grip"—the extra wide, ring-oiling bearings at each end of the knife cylinder, that prevent the knives from springing away from the cutter bar and which insure fine  $\frac{1}{4}$  or  $\frac{1}{2}$ -inch silage—the large throat opening—and the 18-inch pipe and huge blower fan case. If you could only see them you'd realize why the "OHIO" has made the top records for *quality and quantity* of work—50 to 250 tons per day on 6 to 15 horse-power.

The "OHIO" cuts all crops. Can be converted into a shredder by substituting shredder blades for knives. Five popular sizes.

**Get the Real Facts First**

Don't take chances with unknown makes when you can get the "OHIO"—the old reliable, with better improvements than ever. It's the most economical—many men have discarded other makes and bought the "OHIO" when they saw its work. Avoid costly mistakes by writing today for the big money-saving facts on the new 1913 "OHIO." Ask for catalog and "Silo Filler Logic"—mailed free. "Modern Silage Methods"—284 pages—mailed for 10c coin or stamps.

MADE BY  
**The Silver Mfg. Co., Salem, O.**  
SOLD BY  
**John Deere Plow Co., TORONTO**



## No Other Spreader Has Two Cylinders and a Distributor

**THE New Idea Ma-  
nure Spreader has  
three times as good a  
pulverizing system as  
ordinary single-cylin-  
der manure spreaders. The up-  
per cylinder of the New Idea pul-  
verizes the top of the load and the  
lower cylinder the bottom—doubly as sure as the single-cylinder  
method. But if a chunk of manure should happen to squeeze  
through the sharp-pointed cylinder teeth, the knife-edged distri-  
butor paddles complete the pulverizing—three times as certain  
as the single-cylinder method. These distributor paddles of the**



# New Idea Manure Spreader

are set at an angle and spread the manure like a shower, and spread it wider—guaranteed to cover the wheel tracks. The New Idea is the only spreader with any radical improvements. Others have been little changed in thirty years. Write for booklet, explaining complete construction of this light-draft, gearless, powerful, steel-wheel, low-down machine.

**Tudhope, Anderson Co., Limited**  
ORILLIA, ONT.  
**M. MOODY & SONS CO., TERREBONNE, QUE.**  
Selling Agents for Province of Quebec.

### Questions and Answers.

1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.

2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.

3rd.—In Veterinary questions; the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

### Miscellaneous.

#### Fertilizer for Fall Wheat.

What fertilizer is best for fall wheat? I intend ploughing down some sod. The land is clay and rolling.

Ans.—A complete fertilizer. You can buy any one of several good brands on the market, or you can buy the ingredients and mix one yourself containing: 75 to 120 pounds nitrate of soda or 50 to 100 pounds sulphate of ammonia; 200 to 300 pounds acid phosphate or 250 to 400 pounds basic slag, and 75 to 120 pounds muriate or sulphate of potash. If nitrate of soda is used, you had better mix only half of it with the other elements, and apply the balance of the nitrate as soon as growth commences next spring. Nitrate of soda is very soluble and subject to waste.

#### Fall Planting—Wheat after Millet—Drilling Fertilizer.

1. Can young maple trees be planted out in the fall, and, if so, what month is best?

2. Have a field which has been in oats for the past two years. This summer I manured at rate of 10 tons per acre and sowed Hungarian. Would this ground be suitable for wheat after the hay was taken off it? If not, what crop should be sown on such land? What depth should ground be ploughed for wheat?

3. If fertilizer is sown separately from grain with an ordinary drill, which way should the grain be sown—crosswise or the same way?

Ans.—1. Maples may be transplanted in the early fall, but as a rule early spring planting is best.

2. It would be too late to prepare this field satisfactorily for fall wheat and sow it with assurance of success. Rye would have a better chance, but perhaps you do not care to grow this crop. Failing this, try spring grain. As a rule, we favor fairly deep plowing for wheat, providing it is done early and the land well worked up afterwards to avoid leaving open spaces beneath the furrow slice.

3. Broadcast the fertilizer if possible. If not practicable to do so with your drill, we think we should prefer drilling the fertilizer crosswise of the direction in which the grain is to be drilled. We have never had experience on this point, however.

#### Dysentery in Calf—Pin-worms.

1. Prescribe a remedy for a calf in case of dysentery. The one referred to is between six and seven weeks old.

2. Give a remedy for small white worms in a horse, without injury to the animal.

Ans.—1. The remedy depends upon the cause, which you omit to indicate. We presume you are feeding separator milk and possibly giving too much at a time, feeding at irregular intervals or at varying temperature, or perhaps from unclean pails. Remove the cause, if possible, and reduce the quantity of milk fed for a time, whether the quantity seemed excessive or not. It is often good practice to clean out the bowels with a laxative of one to two ounces of castor oil shaken up in milk, to remove the offending cause from the intestines. Various remedies to follow the laxative are advocated. One of the simplest was recommended by an Alberta doctor for scours in all kinds of young stock. It consists of a cupful of black tea given nearly cold. We do not know whether it is any good or not. The following prescription has been strongly recommended by an experienced English breeder: Powdered chalk, 2 ounces; powdered catechu, 1 ounce; ginger,  $\frac{1}{2}$  ounce; opium, 2 drams; peppermint water, 1 pint.—Give a tablespoonful night and morning, following the effect of the castor oil purgative.

2. Inject into the rectum two ounces oil of turpentine, well shaken, with a pint of raw linseed oil. This is for pin worms.

## SAVE-THE-HORSE



From the Postmaster at Cobalt

Cobalt, Ont., May 9th, 1913.  
Troy Chemical Co., Toronto, Ont.  
Dear Sirs—Enclosed two dollars—send to me at once one bottle, with directions, for... etc., etc.  
I have just used your Spavin Remedy on a bone spavin, and received good results.  
Yours truly, J. F. PRESLEY.

Never mind past failures. Don't rest satisfied until you learn about Save-the-Horse.  
Write, and we will send—BOOK—Sample Contract and Advice—ALL FREE to (Horse Owners and Managers—Only).

**TROY CHEMICAL COMPANY**  
148 Van Horn St. Toronto, Ont.  
(Also Binghamton, N. Y.)  
Druggists Sell Save-the-Horse With Contract or we send it by Parcel Post or Express Prepaid.

## ABSORBINE

Removes Bursal Enlargements, Thickened, Swollen Tissues, Curbs, Filled Tendons, Soreness from any Bruise or Strain; Stops Spavin Lameness. Always pain. Does not blister, remove the hair or lay up the horse. \$2.00 a bottle, delivered. Book 1 K free.  
**ABSORBINE, JR.**, the antiseptic liniment for mankind. For Synovitis, Strains, Gouty or Rheumatic deposits, Swollen, Painful Varicose Veins. Will tell you more if you write. \$1 and \$2 per bottle at dealers or delivered. Manufactured only by **W. F. YOUNG, P. O. Box 258, Lyman's Bldg., Montreal, Can.**

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

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Limited. TORONTO, ONT.**

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For the season of 1913 we are offering one-year-old roots, two-year-old roots, stratified seeds and new seeds at greatly reduced prices. Write for Price List.

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**DR. BELL'S** 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.**

**When writing mention Advocate**


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For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Distemper, Ringworm on cattle, and to remove all unnatural enlargements. This preparation, unlike others, acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price \$1.00. Canadian agents:

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 Commission Agent and Interpreter,  
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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.

**Shires and Shorthorns**

In Shire stallions and fillies, from the best studs in England, we are offering some rare animals at rare prices. Scotch Shorthorns of either sex or age, of highest breeding and quality. **John Gardhouse & Son, Highfield, Ont.** L.-D. Phone

**Aberdeen-Angus** of Show Form and Quality. For this season my offering in young bulls and heifers are toppers, every one. Show-ring form and quality and bred from show-winners. **T. B. BROADFOOT, Fergus, Ont., G.T.R. and C.P.R.**

Please mention "The Farmer's Advocate."

**Questions and Answers.**  
 Veterinary.

**Skin Disease.**

Pig two months old has some skin trouble. I first noticed a sore spot about the size of a dollar, pinkish in color. Since then it has broken out on sides and abdomen. Is it contagious?

G. W. B.

Ans.—This is eczema, and it will be wise to keep the pig isolated. Purge it with 1 oz. Epsom salts and feed lightly. Dress the parts three times daily with carbolic acid, 1 part; sweet oil, 35 parts.

V.

**Paralysis in Lamb.**

Lamb two months old on highland pasture has lost the use of its fore legs. It can walk all right with hind legs, but can only slide along on its knees. Some days it seems better than others.

W. L. B.

Ans.—This is paralysis caused either by an injury or disease of the spine. A recovery is doubtful. Keep it quiet in a comfortable place. Hold it up to nurse frequently and feed it what grass it will eat. Give it 5 grains nux vomica three times daily, and if it shows symptoms of constipation, give it two tablespoonfuls of castor oil, as needed.

V.

**Result of Wound.**

Mare calked herself below fetlock joint last winter. The wound healed, but there is a hard lump without hair on it.

W. W.

Ans.—This is a fibrous growth and almost impossible to reduce. It could be removed by an operation; but, whether or not it would be wise to operate, will depend largely upon its exact location. The hair roots are destroyed and cannot be reproduced. You may be able to reduce the enlargement to some extent by the use of absorbents. Get a liniment made of 4 drams each of iodine and iodide of potassium and 4 ozs. each of glycerine and alcohol, and rub a little well in once daily.

V.

**Eczema.**

My chow dog has either mange or eczema. The hair falls off, the skin becomes dark and thick and then becomes greasy, but does not break or discharge pus. The neck and shoulders are chiefly affected, but occasionally other parts. I have tried many remedies without results.

C. S. M.

Ans.—This is chronic eczema, which is very hard to treat successfully. Dissolve 1 tin of Gillett's lye in warm water, add 2 lbs. sulphur in water to make about 20 gallons. Heat this to about 100 degrees Fahr. and give him a bath. Repeat the bath in about 10 days, as often as necessary. Get an ointment made of 4 drams subnitrate of bismuth mixed with 2 ozs. vaseline. Also, get a lotion made of oxide of zinc, 4 drams; glycerine, 2 drams; lime water, 4 ozs., and water to make a pint. If the skin becomes greasy, apply the lotion three times daily; but if it appears to be getting too hard and dry, use the ointment instead. Give him five drops of Fowler's solution of arsenic three times daily and feed little meat.

V.

**Miscellaneous.**

**Leaf-Miner.**

I enclose a leaf from a porch vine showing a trouble that has affected it for two summers. Please tell me what it is and how to spray it?

G. R.

Ans.—The leaf seems to be a species of Clematis. The markings on it are due to the tunneling of an insect larva. If you hold the leaf up to the light and look through the clear spaces, you may find the minute worm. The numerous black specks are its castings. You really need a lens to make these visible in the clematis leaf. Spraying is useless, because the cuticle of the leaf protects the mining insect perfectly. Hand-picking and burning the affected leaves is practicable on small plants. Picking and destroying all the fallen leaves is recommended as the best treatment for leaf-mining insects.

J. D.

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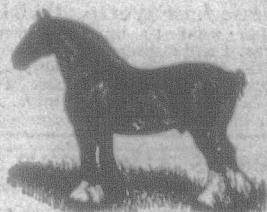
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 and one or two **STALLIONS**



These will either be sold privately or by auction as arranged and advertised later. This shipment will rank among the best to Canada this year and has been picked up throughout Scotland by myself, and I have paid great attention to the wants of Ontario farmers namely; size combined with quality and good blood. Anyone wishing any particular kind of animal would do me a favour to drop me a line on the appearance of this ad; and I will attend to their wants on a small commission.

**Ben. Finlayson**

Throck, Stirling

Scot. an.

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**Mount Victoria Clydes & Hackneys** 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. T. B. MACAULAY, Proprietor. E. WATSON, Manager, Hudson Heights, Que.

**CLYDESDALES, PONIES, BULLS** Imported 3 year old Clydes fillies 3 mares 4 years old, in foal, 3 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. **JOHN MILLER, Jr. Ashburn.**

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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.

**Shorthorns, Cotswolds, Berkshires**  
In Shorthorns, am offering a number of cows and young calves. In Cotswolds, have a lot of extra good lambs coming on for fall trade. Nothing to offer at present in Berkshires.  
**CHAS. E. BONNYCASTLE,**  
P.O. and Station, CAMPBELLFORD, ONT.

**SHORTHORNS!**  
Bulls of useful age all sold. Would appreciate your enquiry for females. Catalogue and list of young animals.

**H. Cargill & Son, Cargill, Ont.**

**Oakland**—50 Shorthorns—Dual Purpose. Red Baron—81845— is for sale. He is one of our stock bulls, three-year-old and of an excellent milking family; also a good one 20 months; both red in color; good cattle and no big prices.

**JNO. ELDER & SON,** Hensall, Ont.  
P.S.—Scotch Grey—72692— still heads the herd.

**Spring Valley Shorthorns**

A few of the best young bull prospects we ever had. They will please you. Will sell females too. Visit the herd; we think we can suit you. Particulars on application.

**KYLE BROS.** R. R. No. 1, Drumbo, Ont.

**The Manor Shorthorns**

No bulls, except calves, for sale. Have ten of those, from 7 months to a few days. Also heifers got by, and cows in calf to, one of the good bulls of the breed. Inspection solicited.

**J. T. GIBSON,** Denfield, Ont.

**CEDARDALE SHORTHORNS**

All bulls sold out some time ago, but have still several fine heifers and good cows for sale of rare value, Scotch-bred and of good individual type. Heifers in calf and being bred to our superior stock bull. **DR. T. S. SPROULE,** Markdale, Ont.

**Clover Dell Shorthorns**—Bargains in both sexes, especially the yearling head of herd.

**L. A. WAKELY,** Bolton, Ont.

**Spruce Lodge Shorthorns & Leicesters**  
Present offering: Young bulls and heifers from grand milking dams. Also a choice lot of Leicester rams and ewe lambs, and ewes of all ages bred to imp. rams. **W. A. Douglas,** Tuscarora, Ont.

**DON JERSEY HERD** Offers young bulls and heifers for sale; heifers bred to Eminent Royal Fern. **D. BUNCAN,** DON, ONTARIO.  
Phone L.-D. Agincourt, Duncan Sta., C. N. R.

Please mention "The Farmer's Advocate."

**Questions and Answers.**  
Miscellaneous.

**Lotion for Sore Shoulders.**

Some time last year "Whip" gave a recipe for sore shoulders, also a preventive. I have hunted for the same, but can't find it. I would very much like to get it again through the papers. I know there was sugar of lead in it. Could you publish it again, for it was a grand thing.

R. R. No. 4.

**Ans.**—The lotion to which you refer is one ounce each of sulphate of zinc and acetate of lead in a pint of water. Apply four or five times daily. It is, as you say, a first-class thing.

**Tufted Vetch.**

I am sending a weed that is getting a foothold in this locality. It resembles the wild pea and flourishes equally well in grain or meadow. Will you please identify it, with a short description of its characteristics; also the best method of eradicating it.

**Ans.**—This is a plant of the tufted vetch (*Vicia cecca*). Although not the weediest of the vetches, it should be kept off the farm, for by its perennial roots and numerous seeds it soon makes dense patches. A well-cultivated hoe crop should go far to clean it up. Prevent seeding in the meantime.

**Chickens Dying.**

1. I have chickens dying after about a day's sickness; get sleepy-looking and die. Feed chick food and sour milk.

T. J. O'N.

**Ans.**—1. First of all, examine them for lice. As you say nothing about other symptoms, this may easily be the cause of death. If so, grease the heads of young chicks with lard, and repeat in a few days. Hens may be dusted well with insect powder at intervals of a week.

**Veterinary.**

**Distemper.**

Sucking colt has distemper. His throat is swollen and he has difficulty in breathing and sucking.

G. M.

Apply hot poultices to the throat. Change the poultice as soon as it begins to become cool. As soon as an abscess forms, have it lanced and flush out the cavity with a 4 per cent. solution of carbolic acid three times daily. Give it 3 grains of quinine and 8 grains chlorate of potassium four times daily by placing well back on the tongue with a spoon. Do not try to give anything as a drench.

**Skin Trouble.**

Red and white heifer was sick two weeks ago and it required large doses of purgative medicines to cause a free movement in her bowels. Since then the skin of the white spots has become hardened and peels off. The red places are all right.

R. G.

In some spotted animals the white spots are more liable to skin trouble than the dark ones. This is more common in swine than in cattle, but is occasionally noticed in the latter. Keep her in the stable out of the sun during the day and let her out at nights. Dress the diseased parts three times daily with carbolic acid, 1 part; sweet oil, 30 parts.

V.

A boy sat on a rail fence enclosing a corn field. A city chap, passing by, said:

"Your corn looks kind of yellow, bub."

"Yep; that's the kind we planted," replied the boy.

"It don't look like you will get more than a half crop," said the city chap.

"Nope; we don't expect to; the landlord gets the other half," retorted the youngster.

The stranger hesitated a moment, and then ventured:

"You are not very far from a fool, are you, my boy?"

"Nope; not more'n ten feet," said the boy, and the city chap moved on.

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USE Harab Fertilizers for your fall wheat. They are so dry and finely ground that they can be sown with an ordinary seed drill.

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are natural fertilizers, and nourish the soil besides stimulating the crops. Write for full particulars about our fall wheat fertilizer.

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**The Auld Herd** We have females of all ages and of the best Scotch families for sale. Those interested should come and see us. Correspondence invited.

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5 bulls from 8 to 15 months—3 roans and 2 reds. Females of all ages. 11 imported mares—4 with foals by their side, 5 three-year-olds, and 2 two-year-olds; all of the choicest breeding. Catalogue of Clydesdales mailed on application.

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**I STILL HAVE FOUR YOUNG BULLS FOR SALE AND MORE COMING ON**

Several heifers that are bred right and that will make great cows; some of them in calf now to my great breeding sire, Superb Sultana—75413—perhaps the greatest son of the great Whitehall Sultan—55049—that was imported by me and used so long in Mr. Harding's herd. I sell nothing but high-class cattle, but the price is within the reach of all. A few Clydesdales, Shorthorns and Cotswolds always on offer. Local and Long Distance Telephone.

**ROBERT MILLER,** STOUFFVILLE, ONT.

**5 Shorthorn Bulls 5**—We have for sale at moderate prices 5 Scotch Shorthorn bulls, including one of our herd bulls Also a number of high-class heifers and heifer calves.  
**A. J. HOWDEN & CO., COLUMBUS, ONT.**  
Myrtle G. T. R. & C. P. R. Long-distance phone

**SHORTHORNS**—Records show that cattle bought from the Salem herd won numerous ribbons the past season; we have others. Several young bulls are priced reasonably.  
**J. A. WATT, SALEM, ONT.**

**Springhurst Shorthorns** Four of the first-prize Shorthorns at the late Guelph Show, including the champion and grand champion fat heifer, were all sired by bulls of my breeding. I have now for sale ten young herd heads of this champion-producing breeding. **HARRY SMITH, HAY P. O., ONT.** Exeter Station. Long-distance Telephone.

**MEADOW LAWN SHORTHORNS OF RICHEST AND MOST FASHION-** young bulls and heifers—Clarets, Roan Ladys, Mildreds, Stamfords, etc. I can supply  
**F. W. EWING, R. R. No. 1, ELORA, ONTARIO.** L.-D.-Phone

**DAIRY-BRED SHORTHORNS**  
We have for sale, Scotch- and English-bred Shorthorns. A few bulls of improved breeding on big milking lines; also other pure Scotch and heifers of both breed lines.  
**G. E. MORDEN & SON, OAKVILLE, ONTARIO.**

**BRAMPTON JERSEYS** The spring trade is on; we are doing the largest business we ever did, chiefly with our old customers; young bulls and heifers from sires with tested daughters.  
Several imported cows and bulls for sale. Canada's Greatest Jersey Herd.  
**B. H. Bull & Son, Brampton, Ont.**



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## PURE-BRED REGISTERED Holstein Cattle

The most profitable dairy breed, greatest in size, milk, butter-fat and in vitality. Send for

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## LINFIELD HOLSTEINS

A well-bred bull of serviceable age for sale. Sired by Buffalo Houwtje Vale De Kol, dam Lady Elgin De Kol, that gave 12,400 lbs. milk as a three-year-old. Correspondence a pleasure.

P. S. RIDDELL, Prospect Hill P. O.

## The Maples HOLSTEIN Herd

Headed by Prince Aaggie Mechthilde. For sale at present: Choice bull calves, from Record of Merit dams with records up to 20-lbs. butter in 7 days. All sired by our own herd bull. Prices reasonable.

WALBURN RIVERS, FOLDENS, ONT.

Glenwood Stock Farm 2 YEARLING BULLS FOR SALE, out of big milking strains; at low figure for quick sale. THOS. B. CARLAW & SON, WARKWORTH, ONT. Campbellford Station.

Holstein—Fit for service, a brother to sire Canadian-bred Champion Queen Butter Baroness, 33.17 lbs. butter in seven days. His dam the only cow in Canada with two grand-daughters averaging 31.71 lbs., and six averaging 27.56 lbs. in seven days. Wm. A. Rife, Hespeler.

High-class Ayrshires—If you are wanting a richly-bred young bull out of a 50-lb.-a-day and ever cow, imported or Canadian-bred dam or sire, write me. Females all ages. Prices are easy. D. A. MACFARLANE, Kelso, Que.

Dungannon Ayrshires—For high-class sell mature cows, heifers, heifer calves, and one 4 mos. old bull calf; also the unbeaten stock bull, Chief of Dungannon 27159, and Yorkshires. W. H. FURBER, Cobourg, Ont. L.-D. 'Phone.

IF YOU WANT BEST RESULTS Advertise in the Advocate

## Questions and Answers.

### Miscellaneous.

#### A European Lotus.

Please identify the accompanying plant. Ans.—This tall plant, with pinnate leaves and flowers like a large loose clover, is one of the European lotuses. Some species of this genus of plant have been used for forage, but never became popular.

#### Yellow Clover.

Is the enclosed plant a variety of alfalfa? If so, what is its name? There are several patches of it on the edge of a field sown with oats and seeded down to clover, alsike and timothy.

Quebec.

J. H.

Ans.—The specimens received are Trifolium agrarium, in some books called Trifolium aureum. Farmers, where it is common, know it either by the name of the large hop clover or yellow clover. It is characterized by its yellow hop-like flower-heads and its three leaflets sessile on the end of the petiole. It is regarded as a rather innocent weed. Being an annual plant, it will disappear if cut before the seed ripens.

#### Mold in Bee Hives.

Almost all of my bees are troubled with mold, some so bad that bee-comb and the whole inside of hives was one solid mass of it; other swarms only slightly, with the bees still living. What can I do to prevent and cure this condition. Can anything be done to kill the germ of the mold without wasting the combs?

J. S.

Ans.—This mold only occurs in hives where bees have been placed away for winter in a very damp cellar. The moldy condition can be prevented by seeing that the bees are placed in a proper wintering place, that is cool, not warmer than 45 degrees F. and dry. If the combs are very badly molded, they are practically worthless, but if the mold is not very deep, they can be dried and the bees will clean them up, if they are placed in the hives of strong colonies.

MORLEY PETIT.

#### Millet -- Alfalfa.

1. When do you cut millet for hay?
2. How do you feed it, and could a balanced ration be made out of millet, hay, straw and oats?
3. If not, kindly make one up. I have nothing in the line of corn or roots this year.
4. There is a nice rolling piece of sod which I intend drilling to wheat this fall. If I seeded down with about 20 lbs. alfalfa per acre on this wheat in the spring, would I likely get a catch if I harrowed it after seeding and then rolled it.

Ans.—1. Varieties differ in this respect. Voorhees recommends cutting the farmyard millet just as it is heading out, and quotes an authority who advises cutting the Hungarian and some other kinds soon after heading out.

2 and 3. Millet may be used in the same way as ordinary hay, and may be combined with other feeds without special regard to its own composition. A ration of straw and oats would not be perfectly balanced and neither would a ration of straw, oats and millet. Add a few pounds of bran or one and a half to two pounds of oil cake, and either ration would approximate a correct ratio. Of course, the ration including the millet will be decidedly richer in both protein and carbohydrates, and should give correspondingly better results than a ration composed largely of straw. Henry, by the way, ascribes to the Hungarian millet a lower percentage of protein than to the barnyard or cat-tail millets.

4. You might get a fair catch in this way or by sowing on the ground when honey-combed with frost without harrowing afterward. But if your field is now in sod, you will likely find the grass soon running out the alfalfa—perhaps even next year. Get land clean for alfalfa, and especially get it free of grass. That is a larger order than many people suppose.

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A Keen Thrust.—"Edward Everett Hale," said a lawyer, "was one of the guests at a millionaire's dinner.

"The millionaire was a free spender, but he wanted full credit for every dollar he put out. And, as the dinner progressed, he told his guests what the more expensive dishes had cost. He dwelt especially on the expense of the large and beautiful grapes, each bunch a foot long, each grape bigger than a plum. He told, down to a penny, what he had figured it out that the grapes had cost apiece. The guests looked annoyed. They ate the expensive grapes charily. But Dr. Hale, smiling, extended his plate and said:

"Would you mind cutting me off about \$1.87 worth more, please." Chicago Record-Herald.

Hub (with newspaper)—Listen to this, wifey: "For every missionary sent abroad last year, Christian America sent 1,495 gallons of liquor."

Wifey—Merciful goodness! Who'd ever think missionaries were such drinkers?

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### Questions and Answers. Miscellaneous.

#### Cow Leaks Milk.

I have a cow which leaks her milk unless milked at certain hours, and some times in about a half-hour, if she starts to run, you can see the milk dropping out of her teats. Is there any way in which this could be stopped? R. A.

Ans.—There is no satisfactory way that we know of to overcome this trouble. Some have reported success from the use of collodion, putting a little on the end of the teat just after milking. It is supposed to form a scale which may be picked off each time just before commencing to milk. It is cheap, but we have tried it without any very encouraging result. Milk your cow at regular intervals and do not dog her or force her to run.

#### Corn on Ear for Pigs—Sweet Clover.

1. What is the youngest age at which it is advisable to feed corn in cob to young pigs? 2. What is the value of sweet clover as a feed for stock, and is it suitable for the silo mixed with corn? I mean the kind of sweet clover which grows so extensively along the roadsides. B.

Ans.—1. As soon as they will eat it. 2. Its value for stock feeding is debatable. Chemically, it compares well enough with alfalfa, but it is coarse and bitter, and stock have to acquire a taste for it before they will eat it. We do not recommend it as a forage crop. Have never heard of it being ensiled with corn or any other way.

#### Squirrel-tail Barley.

Is the specimen sent herewith a seed or a grass? I pulled it from a last year's seeding of alfalfa. Never saw anything like it before. S. L. P.

Ans.—This is a worthless grass and should be treated as a weed. It is a biennial, and, hence, may be killed by cutting before the seed ripens. If allowed to remain until nearly or quite ripe, the joints of the head separate at a touch, and hence easily scatter the seed. If you compare it closely with barley, you will find that its head is much smaller but otherwise similar seeds and much longer awns; hence the name "squirrel-tail barley," or, in botany, Hordeum jubatum. J. D.

#### Sudden Change of Feed.

Three-month-old pigs when turned out on grass were all right. They were out for about two weeks; had nothing to eat except clover and grass while out, so I thought I would shut them up and start to feed them. I gave them two eight-quart pails night and morning of low-grade flour and bran. After I had been feeding a couple of days, I noticed they were off their appetite, didn't seem hungry. That was on Tuesday. Monday, the day before, I fed them morning and noon. They seemed hungry and all came to their feed. When I went to feed them at night, I found two lying dead, three more were sick. They seemed weak in the back and hind legs; they couldn't stand up on their hind legs, so I turned them out again for a few days, and they are getting better. I opened two that died and found I could see nothing wrong except that their feed seemed to all be in the stomach, with nothing in their intestines. What was the trouble—had they indigestion or were they poisoned? AN ONTARIO READER.

Ans.—Your pigs undoubtedly suffered from indigestion. You did a very unwise thing in taking pigs abruptly off the grass, where they had been getting no grain food, and shutting them up without any grass or exercise and feeding them on meal alone. In the first place, your pigs should have had some meal while on grass. In the second place, the change to heavier feed should have been made gradually. In the third place, you should not feed young pigs on bran. In the fourth place, you would have done better to include a proportion of some other grain, such as ground barley, corn or finely-crushed oats. When you put them up again, make the change gradually and throw some earth and green feed into the pen, at least for a while on the start.

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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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### Maple Villa Oxford Downs and Yorkshires

This fall I have the best lot of lambs I ever bred. I have plenty of show material, bred from the best stock procurable in England. Order early if you want the best. Ram lambs, shearlings and ewe lambs. Yorkshires of all ages.

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Shropshires and Cotswolds My importation of 60 head will be home August 1st. In both breeds. I also have 50 home bred yearling rams and ewes, field rams and ewes of the lot are show rams and ewes, and a fine lot of ram and ewe lambs. Will be pleased to hear from you if interested in sheep as "No business no harm" is my motto. JOHN MILLER, Brougham, Ont. Pickering Stn. G.T.R. 7 miles. Claremont Stn., C.P.P. 3 miles.

Tower Farm Oxford Downs—16 shearing rams, (1 imported) 3-year-old ram, ewes, rams and ewe lambs; all from imported and prizewinning stock. A quantity fitted for show. E. Barbour, Erin P. O. and Stn. L.-D 'phone

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Woodburn Berkshires are founded on the famous old Sally tribe, noted for big size, length of body and strength of bone. We can supply pairs and trios not akin. Show stock a specialty. Also high-class Cotswolds, ram and ewe lambs, shearlings. RIDGETOWN, ONT.

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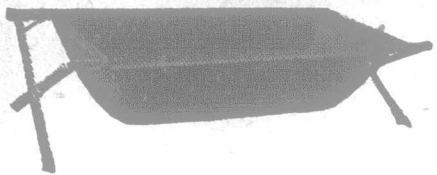
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### Muskrat Farming in Maryland.

The enterprise of fox ranchers in Prince Edward Island and other provinces of Canada has aroused widespread interest in the general subject of fur farming. From the United States Year Book of Agriculture it appears that the rearing of fur-bearing animals for their pelts is a subject of much interest in that country also, judging by many inquiries asking for information on the subject.

Skunks, muskrats, mink, and foxes are reared in captivity or on preserves under control of breeders. The great demand for breeding animals and the reluctance with which successful breeders part with their stock of black foxes have caused large prices to be asked for mature animals, preventing the business from becoming general, and confining the industry in the hands of a very few.

Muskrat farming is already a prosperous business, and has probably reached its highest point of development on the Eastern Shore of Maryland, although followed in other sections of the country. Muskrat marshes are worth more, measured by the actual income from them, than cultivated farms of like acreage in the same vicinity. The marshes need only to be protected from poaching, as the muskrats feed on the roots of the reeds and marsh grass, and the rental to the trappers is usually for half the fur, leaving the meat as an additional source of gain to them. Only one other animal in the world, the European rabbit, exceeds the muskrat in the number of skins marketed.

### Kind of Holsteins Wanted in Japan.

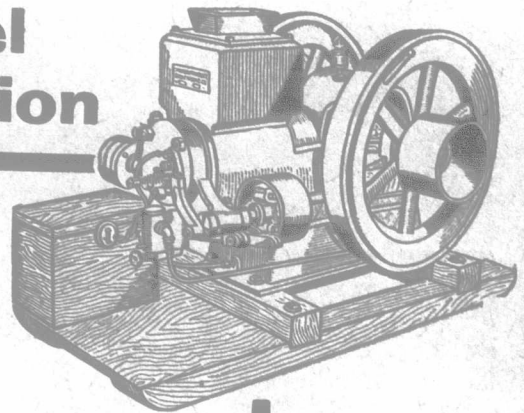
An order was recently received for a Holstein bull from a breeder in Japan. In giving his order he very carefully specified under what conditions he would buy the bull.

These conditions are significant, and may well be considered by all breeders of dairy cattle who aim to make improvements or maintain a high standard of excellence in their herds. They were specified as follows:

1. Tuberculin-tested by reliable veterinarian under strictly normal conditions of the animal.
  2. The age of the animal to be a yearling if possible. When such is not available a younger one will do.
  3. The animal to have good backing. (Ancestry of good breeding and records of performance.)
  4. The dam to have been tested for yearly record at least once, if possible more, with creditable records at each lactation; one of the records to be 800 pounds of butterfat, if possible, with credit if the cow is young. The record to have been made with the average test not over 35 per cent. if possible.
  5. The bull to be from the third or later calving when possible.
  6. The color to be more white than black. Nearly all white will do no harm, but the marking is of small matter compared with other conditions.
  7. The constitution and quality of the animal to conform to the best judgment of those capable of making the selection.
- W. A. CLEMONS.

"An egg," explains a Kansas youth, "is composed of four parts—the shell, the yolk, the white, and the price. The shell is very fragile, like one of the Ten Commandments, and can be broken without an effort. The price is the biggest part of the egg, and its greatest protection. The price alone has saved millions of innocent young eggs from being boiled and eaten. Eggs are very delicate, and spoil very quickly. When an egg spoils it puts its whole heart into the performance. One can tell a spoiled egg as far as it can be seen, and with one's eyes shut at that, if the wind is in the right direction. There was a time when everyone ate fresh eggs in summer, and went without in winter. Nowadays, however, business methods have led men to buy all the fresh eggs in summer and store them until winter, when they have acquired a rich russet flavor."

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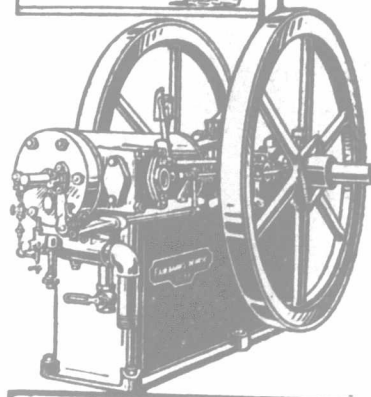
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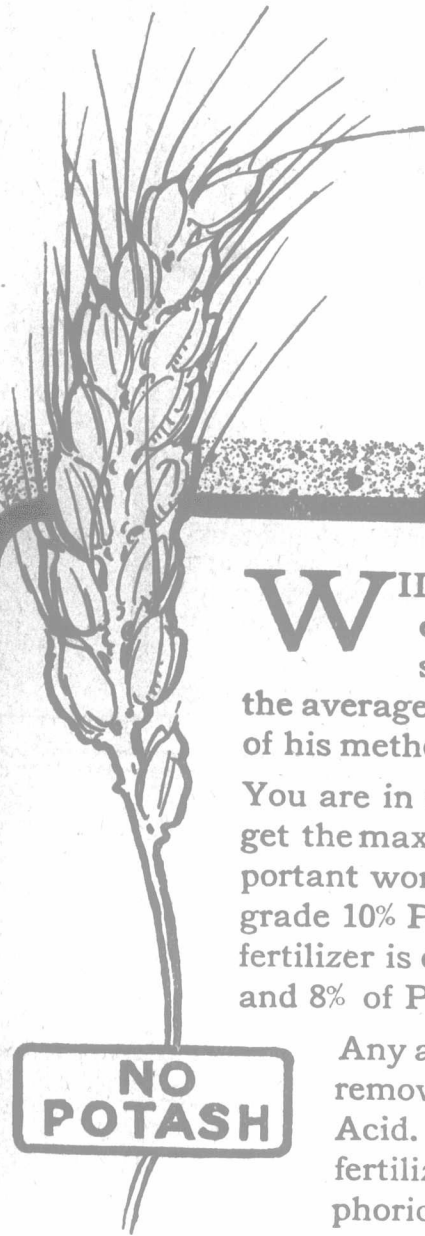
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You are in the farming business to make money! You want to get the maximum yields from your land. To do this, the most important work comes at the start and consists in the use of a high grade 10% POTASH fertilizer at seeding time. The proper wheat fertilizer is one analyzing 2% of Nitrogen, 8% of Phosphoric Acid and 8% of POTASH—better still a 2-8-10.

Any agricultural authority will tell you that Winter Wheat removes from the soil more POTASH than Phosphoric Acid. Notwithstanding this fact, the average wheat fertilizer contains actually less POTASH than Phosphoric Acid.



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POTASH**

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Insist that your dealer gives you a fertilizer containing 10% POTASH. If he cannot, you should add enough POTASH to the fertilizer he can give you to increase its POTASH content to 10%.

We will tell you, free, just how to do this. We recommend, based upon actual field tests made by experts throughout Canada, a fertilizer for winter wheat that contains 2% Nitrogen, 8% Phosphoric Acid and 10% of POTASH. By applying at the rate of 500 pounds to the acre at seeding time, you will secure a good stand before the commencement of winter and thus afford your crop a greater degree of protection from frost, and insure a rapid and early growth in the spring.

Write us about your particular farming problems. Our Scientific Bureau will be glad to tell you how to grow a maximum crop of winter wheat. This information is free and it is good. Write for it today!

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