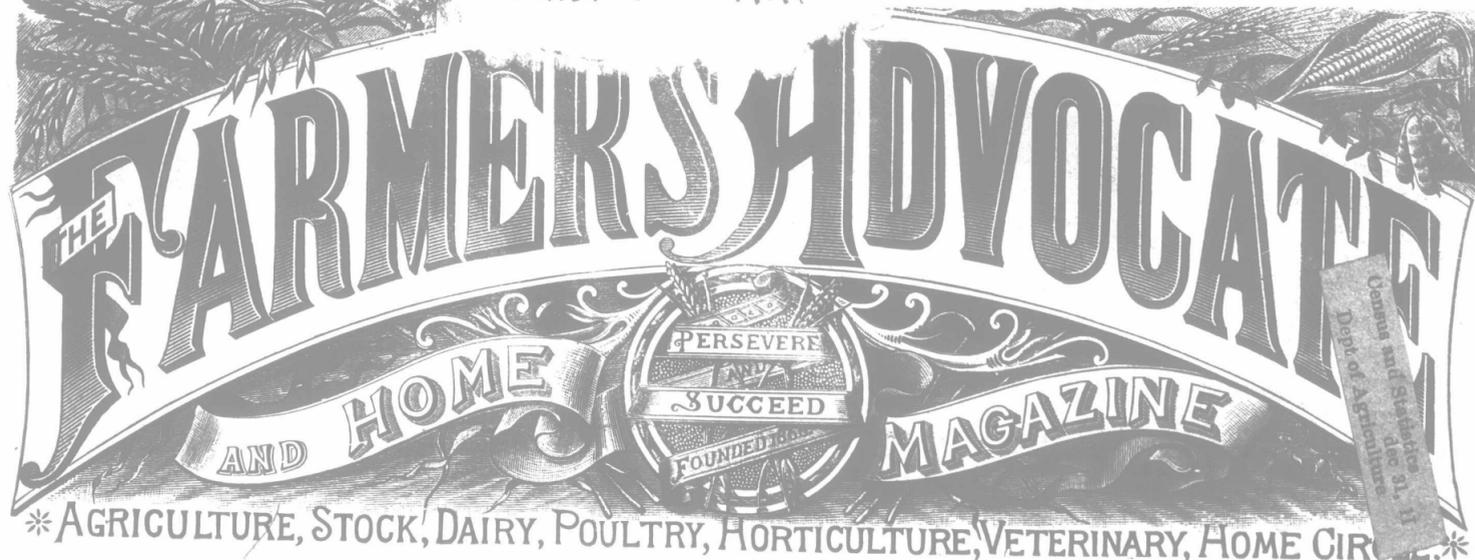


PUBLISHED *Farmer's* *Mag.* \$1.50 PER YEAR.



AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLES

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VOL. XLVI.

LONDON, ONTARIO, JULY 6, 1911.

No. 980

The Binder That Really Satisfies--Always

Every modern machine for binding grain is a labor-saver and a money-maker. You should not be without one if you raise grain at all. But you surely should choose that binder which is most certain to prove a really sound investment. And that choice is easily made.

Profit By Others' Experience

Make inquiry, investigate, and you will soon find out what Canadian farmers think of the Frost & Wood Number Three Binder. You will learn that it has proved its quality in every grain-growing section of the Dominion. You will see that the men who know most about binders from experience put the Number Three ahead of all other such machines.

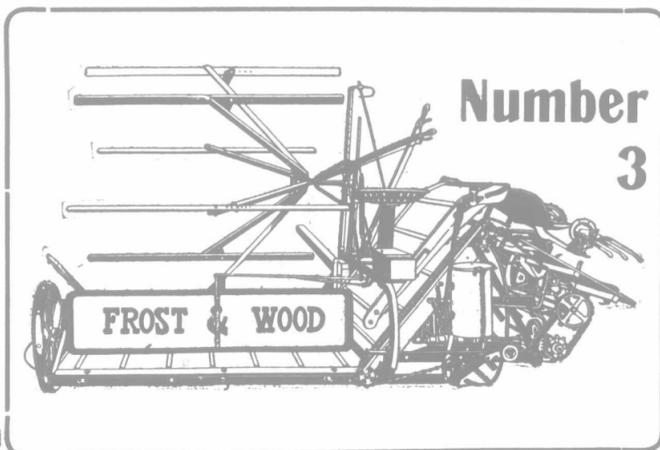
For this is the binder that is built to meet the most difficult conditions. This is the up-to-the-minute machine that makes compact, even-sized, tightly-tied bundles at highest speed—works perfectly even in fallen and lodged grain—works right even on sidehills.

Smooth-Running—No Friction

We build the Frost & Wood Number Three so staunch, so sturdy, that it will withstand usage that would wreck another machine. That point may not matter if you handle the binder yourself; but it does matter if you have to trust it to hired labor. Nor do we rest our claim to your preference solely upon the strength and fool-proofness of the Number Three.

That Sprocket Wheel

When you first examine a Frost & Wood Binder and compare it with any other make, you will be struck by the different kind of Binding Attachment Sprocket Wheel it has. The spokes vary in length. The longer spokes add fully one-sixth to the leverage power by which the grain is gathered into bundles. Thus the grain is packed tighter, and less twine is needed to make the tie. And the short spokes of this wheel speed up the discharge, because the chain travels quicker when it passes over the short-spoked part of the wheel. Therefore the bundles are discharged far, far quicker.



That Perfect Knotter

Another big satisfaction to the owner of a Frost & Wood Binder is the ingenious little knotter. It never misses. You can't work it too hard nor ask it to work too fast. You can be absolutely dead-sure it will tie every sheaf. It is so simple, too, for all its ingenuity, that you never need worry about its getting out of order. Then there are the Roller Bearings that we put on the Number Three at every place where friction may come. These add to our cost, but not to yours; and they save your horses amazingly, besides adding greatly to the life of the machine. These are practical betterments.

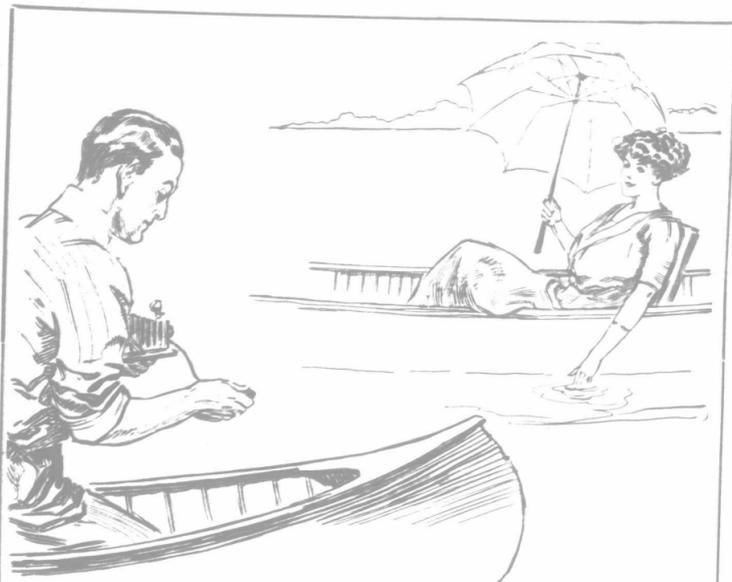
Does Its Work Well---Doesn't Break Down---and LASTS

When you examine the Main Power Frame of a Number Three you will wonder at the strength it shows. But this is where strength is necessary—extra strength—more strength than ordinary binders possess. So we make this frame—the veritable backbone of the machine—of heavy toughened steel, specially riveted, and we connect it to the platform by a heavy double steel brace. Thus it can never sag, nor has rough ground any terrors for the rugged frame of this anti-breakdown machine.

You certainly will do wisely to learn all about the Frost & Wood Number Three before you invest in any binder. For the money you will spend on such a machine is only one item of that investment. You want a binder that will do your work right under all conditions—and that won't stall or break down at that most critical time, harvesting. That binder you will find in the Frost & Wood Number Three, and you can prove it for yourself before you buy, if you will judge by the experience of others. Write us now for the facts.

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Frost & Wood Company Limited, Smith's Falls
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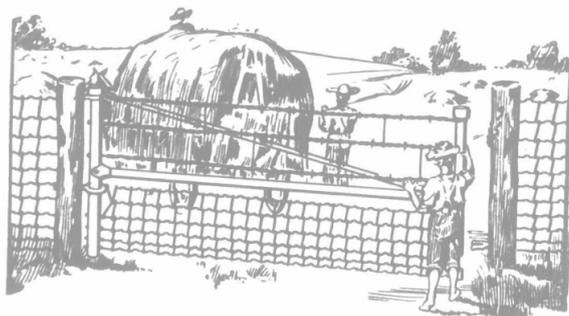
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WHY ?

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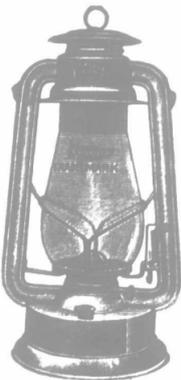
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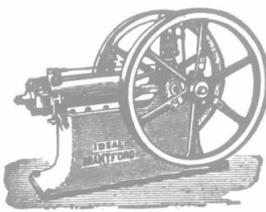
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The low rate of one cent per mile each way (for second-class tickets) will be in effect from all stations in Ontario, Kingston, Madawaska and West, to all stations on T. & N. O. Ry., Haileybury and North.

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Tickets and full particulars from any Grand Trunk Agent, or address A. E. DUFF, D. P. A., Union Station, Toronto, Ont.

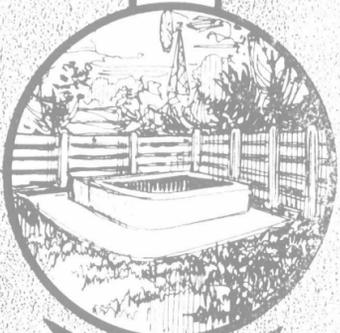
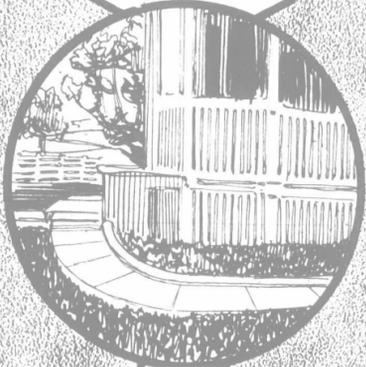
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PLEASE MENTION THE ADVOCATE.



\$3,600 in Cash Prizes for Farmers

ARE you one of the thousands of Canadian farmers who have used or intend using Canada Cement for the construction of some farm utility? If you contemplate building anything whatsoever of concrete, make up your mind right now to build it with a view to winning one of the prizes we are offering. Read the rest of this announcement and you will learn how you may try for a share in the \$3,600 we are giving away, to encourage the use of cement upon the farm. Throughout Canada the farmers have taken such a keen interest in our campaign that it has inspired us to go further along these educational lines. We have decided, therefore, to offer a series of four \$100.00 prizes to each of the nine Provinces, to be awarded as follows:

PRIZE "A"—\$100.00 to be given to the farmer in each Province who will use during 1911 the greatest number of bags of "CANADA" Cement for actual work done on his farm.

PRIZE "B"—\$100.00 to be given to the farmer in each Province who uses "CANADA" Cement on his farm in 1911 for the greatest number of purposes.

PRIZE "C"—\$100.00 to be given to the farmer in each Province who furnishes us with a photograph showing best of any particular kind of work done on his farm during 1911 with "CANADA" Cement.

PRIZE "D"—\$100.00 to be given to the farmer in each Province who furnishes the best and most complete description of how any particular piece of work shown by photograph sent in, was done.

In this contest no farmer should refrain from competing because of any

feeling that he may have little chance against his neighbor who he thinks might use more cement than he does.

For it will be noted that Prizes "C" and "D" have no bearing whatever on quantity of cement used. The man who sends us the best photograph of so small a thing as a watering trough or a hitching post, has as much chance for Prize "C" as a man who sends a photograph of a house built of cement—and the same with Prize "D" as to best description.

Canada Cement is handled by dealers in almost every town in Canada. Should there not happen to be a dealer in your locality, let us know and we will try to appoint one.

Contest will close on November 15th, 1911, and all photos and descriptions must be in our office by that date. Awards will be made as soon as possible thereafter. The jury of award will consist of: Prof. Peter Gillespie, Lecturer in Theory of Construction, University of Toronto; W. H. Day, Professor of Physics, Ontario Agricultural College, Guelph; and Ivan S. Macdonald, Editor of "Construction."

Now, you cannot hope to do concrete work to the best advantage unless you have a copy of our free book, entitled, "What the Farmer Can Do With Concrete." This book tells how to construct well-nigh anything on the farm, from hitching post to silo. Whether you enter the contest or not, you'll find this book most helpful. A post card asking for the book will bring it to you promptly. Send for your copy to-night. From your cement dealer or from us, you can obtain a folder containing full particulars of contest. If you send to us for it, use the coupon provided in this announcement.

The Canada Cement Co.,

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MONTREAL, QUE.

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Then be wise in time. Make the small investment now that insures safety. You can't doubt the evidence that the

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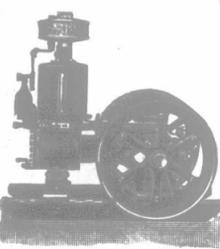
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A Popped Question

Will you Buy a DE LAVAL CREAM SEPARATOR

or do with a poor imitation?

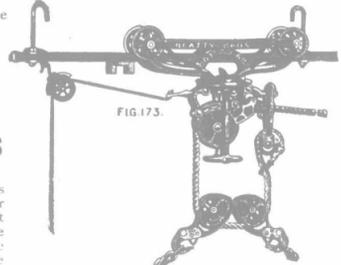
Why do practically all competing machines imitate, if not infringe, the De Laval patents?

Send for Catalog.

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- One that will not give trouble in the top of the barn, where it is hard to get at.
- One that will stand up when heavily loaded.
- One that will not destroy the draft rope.
- One that will work with a good sized rope.
- One that will lift easily.



The BT Sling Car Always Works

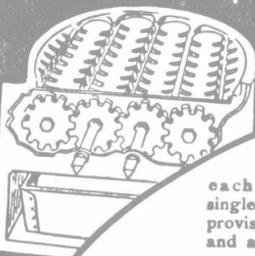
It is the simplest in construction—no springs or complications to get out of order. Every car is carefully tested before leaving the factory. It is the heaviest sling car, and all parts are made of malleable. It is guaranteed to take off the largest load in two lifts. It never injures the rope, and will work equally well with 3/4, 7/8 or 1 inch rope. It has the largest draft wheel, and puts the easiest bend in the rope of any sling car, and so lifts more easily.

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Sunshine Furnace has four triangular grate bars, each having three distinct sides. In the single-piece and two-piece grate no such-like provision is made for expansion or contraction, and a waste of coal always follows a shaking.

On the left- and right-hand sides are cotter pins, which when loosened permit the grates to slide out. These four grate bars are made of heavy cast iron, and are finished up with bulldog teeth. The teeth will grind up the toughest clinker; and

SUNSHINE furnace

because the grates are made in sections, not only can nothing but dust and ashes pass through, but after each shaking a different side can be presented to the fire. Also, with the Sunshine grate there is no back-breaking movements attached to the shaking. By gently rocking the lever, first on the left and then on the right, the ashes are released on both sides, and fall through into the pan.

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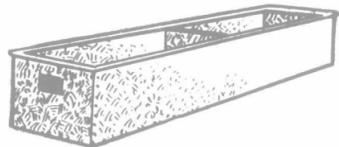
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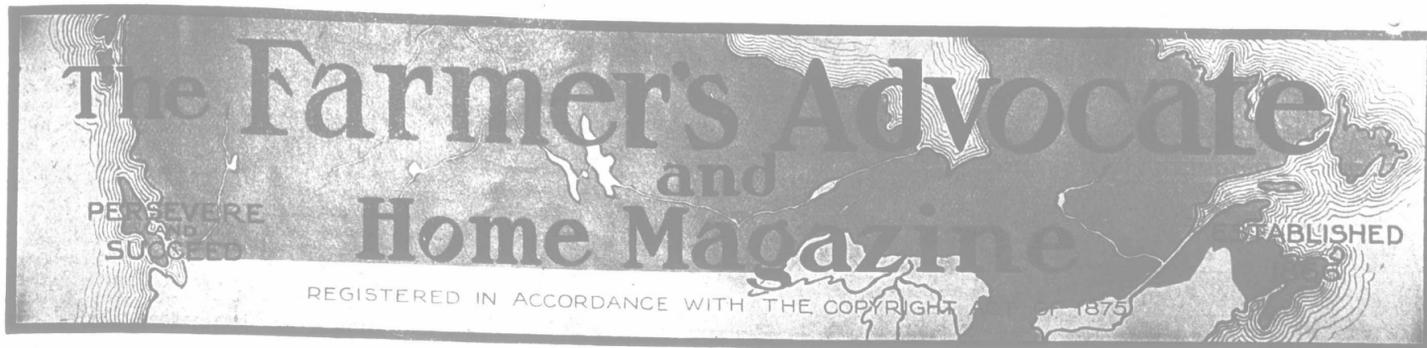
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"Ask the man who has one."
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PEASE FOUNDRY COMPANY LIMITED
TORONTO WINNIPEG
FURNACE



Vol. XLVI.

LONDON, ONTARIO, JULY 6, 1911

No. 980

EDITORIAL.

Preserve the index. It may be worth many dollars in an emergency, besides saving us the necessity of repeating many replies.

Amid all the exquisite perfumes distilled in Nature's laboratory, what is there purer and sweeter than the fragrance of new-mown hay?

We deem this sentence, from our last week's Toronto market report, worthy of special prominence: "Farmers are warned against making their hogs too heavy, as all hogs over 220 pounds are being culled out at a reduction in price of 50 cents per cwt. from the above prices."

If the energy expended grumbling because it does not rain every few days in July were devoted to improved cultivation to hold the moisture already sent by Providence, the barn mows and grain bins would be filled nearer the top, and everybody wear a more cheerful face.

Federal subsidies to approved Thoroughbred stallions. Is this the entering wedge of a national horse-breeding policy, as they have it in England? A good deal of discussion is heard about encouragement of horse-breeding over there, but still the cavalry-mount problem confronts them in menacing proportions.

Quite a visionary suggestion was offered by a recent correspondent, who proposed that a number of farmers should pool their interests, selecting one of their number as manager, the rest working under his direction on a profit-sharing basis. Roots of property interest and sinews of individuality are much too strong for that, but many might co-operate to their great advantage in purchasing machinery, exchanging work, and so on, without signing off the title to their land or giving up the right of each to rule in a kingdom of his own.

During the past three months, it is said, thousands of tons of hay have been shipped from Ontario and Quebec to the United States. There would in all probability have been a hay famine in the Eastern part of the United States had it not been that Canada had a surplus. Grass and clover seed prices in the United States have also been very high during the past six months, and Canadian exports of these have been large. How much greater would the farmer's returns have been had reciprocity been in force and the duty removed from these products?

Mr. Raynor, of the Dominion Seed Branch reports poor prospects for the 1911 crop of clover seed. Of course, you never can tell very closely what the yield of clover seed will be until it is threshed. If the aftermath is heavy, and the heads fill well, the crop may yet be surprisingly good. At the same time, we think well of his suggestion to press into service every field likely to yield reasonably well. Clover seed is rather a profitable crop. We often wonder why more farmers do not grow it. Also, we wonder why the demand is not much larger even than it is. It would be, if the soil-improving value of clover were more fully recognized.

The Action of Manure.

One of the most striking impressions of a recent drive was the pronounced contrast in a field of winter wheat, the greater part of which had been given a light dressing of barnyard manure at the time of preparing the soil for sowing the crop in the fall of 1910. A small strip was left without any manure, and the wheat on this portion was not nearly so vigorous and healthy, and was not headed out the second week in June, whereas, on the manured portion the wheat was well headed out, and had a rank, growthy appearance. This difference in growth and vigor was characteristic all through the season. The presence and absence of the manure would certainly seem to have caused this difference, and the question is in what ways did it bring about these conditions?

Many farmers and gardeners look upon manure as of value chiefly in so far as it adds plant food to the soil. True, the addition of plant food is one of the greatest values of manure, but there are several other conditions produced by the addition of manure which are of great importance to the growing plant. The extra plant food added when manure is applied is possibly the first consideration. Nourishment is required to produce the healthy, sappy, quick-growing plant, but the value of the manure does not end here.

Moisture is another great essential; water must be present, even for the germination of the seed. As the plant grows, more moisture is needed, and it is a recognized fact that an insufficient amount of it reaches the earth during the ordinary growing season; therefore, if any means of conserving moisture can be practiced, the chances of vigorous growth and heavy yield are much better. Plants get their mineral food only from the soluble salts of the soil, and water is required to bring these salts into solution. The addition of manure causes an increase in the amount of organic matter or humus in the soil; and humus, being so fine and porous, has the largest water-holding capacity of all the various constituents of soil. This being true, the addition of manure is of great value in increasing the amount of moisture held in the soil, and this moisture not only renders larger quantities of the soluble salts available, but also conveys the nutrients in solution to the plant leaves, whence the moisture is transpired.

Manure added to the soil also has a stimulating effect, the humus serving to render the mineral-food constituents of the soil more available.

In this age of scientific research it has been shown that the application of manure increases to a small extent the temperature of the soil. It is also known to increase largely the number of beneficial bacteria which help to render plant food available. An ounce of fertile soil contains many hundreds of thousands of these small forms of life which are of great importance in the soil laboratory. Manure increases the bacterial content of the soil, and these bacteria render plant food available. Manure also acts to some extent as a mulch, preventing evaporation of moisture, which is ordinarily very great. Other advantages to be gained by manuring might be mentioned, but enough has been stated to show that the addition of plant food in the manure, while a prominent consideration, is by no means the only benefit to be obtained.

The actions of manure are many and varied, and the good results obtained are due to a great variety of causes; it is important to remember

this when reckoning the value of farmyard manure. In fact, the actual value of this fertilizer can scarcely be reckoned, on account of the many actions which it has in the soil, but we are convinced that a careful record of ultimate experimental evidence would place a much higher value upon it than is commonly assigned. Do not waste a load of it.

Oranges and Lemons.

In this issue of "The Farmer's Advocate" begins an important series of articles by W. R. Dewar, B. S. A., of Wentworth Co., Ont., on the orange and lemon industry of California. After the Boer war, Mr. Dewar spent some time in South Africa assisting in the revival of agricultural industries there, and at various times he has contributed articles to "The Farmer's Advocate." A specialist in horticulture, with extended experience and opportunities for observation, Mr. Dewar had the exceptional advantage, in preparing these articles, of spending five months at work in a 4,000-acre orange plantation, one of the largest and best-conducted in the State. He utilized the opportunity not only to gain advanced cultural knowledge, but in relation to the commercial and economic aspects of the citrus fruit industry, probably the most highly specialized and perfectly organized rural industry on the continent, if not in the world. Though Canada's interest in oranges consists chiefly in buying and eating them, partly because she is not yet sufficiently served with her own superb native fruits, there are lessons to be learned and warnings to be heeded from Californian experience that make the subject valuable.

People read half-page advertisements in local newspapers of "Sunkist" and "Red Ball" oranges, or admire in the grocery windows of little Canadian towns, perfect pyramids of golden fruit, selling at the price of apples, or less than it is retailed for over California or Florida counties, and as they buy they may wonder why. The reason is organization in Los Angeles, and intelligence in the orange groves. The men behind that pyramid do not mind paying their manager \$8,000 a year, or spending in one season advertising oranges \$100,000. Grow something good, make its distribution a business, coax the people to eat it, is the plan of campaign.

Fruit-growing is being taken up more seriously in Canada, not with oranges and lemons, but with apples, peaches, pears, plums, grapes, and all the smaller fruits, so it is worth while to study a business that in three seasons realized some \$51,000,000 returns, with only \$391 in bad debts. This year's output is expected to aggregate 50,000 carloads, worth probably \$25,000,000.

A pioneer missionary, Father Junipero Serra, like many another, carried into Southern California with him the seed of fruits with the seed of the Gospel. The last fifty years of its development has not been all rosy romance, for Mr. Dewar will tell of boom, struggle and disaster, along with progress and achievement. Those who dream of the fortunes of the Golden West, do well to heed the sobering thought that perhaps only a third of the groves have shown a profit, a third have paid their way, while the other third have been run at a loss.

In their fight with railroads, and other corporations that threatened to swallow up all the profits of the industry, the growers have developed two of the most remarkable organizations in the world, in which the small men and the big

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL
IN THE DOMINION.

PUBLISHED WEEKLY BY
THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

Agents for "The Farmer's Advocate and Home Journal,"
Winnipeg, Man.

1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
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Address—THE FARMER'S ADVOCATE, or
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men fare alike, combining elasticity with faith, moral strength with legal rights, education and goodwill with a power sinister enough to throttle legislation and levy toll on the consumers of a nation. But read the story; it will speak for itself.

The Farmer's Individuality.

It is said that the farmer is the most individualistic of men, and that his conditions make him thus. Individuality is what is needed by many men of the present day, and if the farmer exhibits a strong individuality, what of it? If it is exerted in the right direction, he is so much the better man. Personal independence of action, purpose or interest, and the separation, distinction and individualism which these give, if directed in the right manner, are some of the strong points of character. Perhaps the farmer is slower than some other classes of people to take up with new ideas, preferring, rather, to retain the old and tried methods. He is criticised severely by some writers because of this tardiness to grasp what looks like great opportunities, but can you blame him for looking for proof of the soundness of any new project or undertaking? The twentieth-century farmer is not dogmatically clinging to the old conservative beliefs of his forefathers, but he is rather a man with thoroughly up-to-date business principles, and along with these he exhibits an individuality, as a class, not equalled by any other profession. The world admires a man of individuality and strength of purpose. The farmer believes and has faith in his business and his methods, and, as a rule, is willing to try new methods at any time, provided he sees in them a reasonable superiority over his former practice. New methods and new schemes arise daily, and it requires a man of brains and capacity for thinking and discriminating to select what is best for his own particular farm. In making these selections, he is creating a character which may make him a source of much good in his locality. People are great imitators, and

they like to do things as some great man does them. If a certain farmer in a district makes a success of some new venture, many others will eventually try it; some will succeed, others will not. Different persons are suited for different phases of life in farming, as in any other enterprise, and the man with strongest and best-directed individuality is the one who is making the greatest success of life. Get to work and do something to show your distinction in the world. No place offers greater opportunity than the farm.

Our Scottish Letter.

A WELL-WRITTEN ACCOUNT OF AN INTERESTING VISIT TO THRIFTY HOLLAND.

In closing our last letter, I mentioned that this would be devoted to some account of Holland and impressions of Dutch farming gleaned during a ten days' sojourn in the Netherlands in the beginning of May. The party of which I formed one numbered about one hundred. It was organized by the British Dairy Farmers' Association, of 12 Hanover Square, London, W., and was under the leadership of J. J. Van Rijn, the Commissioner for the Netherlands in Great Britain. The Government of the Netherlands own the railroads, highways and train roads in Holland, but the lines are operated by private companies, who own the rolling stock. The railways and tram lines are well developed, and one consequence, so far as our party was concerned, was that we had free transit over a great stretch of country, and therefore saw far more than we could possibly have seen in the same time had we been going on our own individual account. The Government were most anxious that we should see everything in the way of agriculture and stock-rearing for ourselves; that we should have the fullest opportunity of investigating the methods by which Holland has been able to compete so successfully in the British markets in the matter of dairy produce, and that nothing should be omitted which would enable us to understand the conditions under which agriculture is prosecuted in the Netherlands. The hospitality experienced was overwhelming in its liberality and variety, and the tour will linger in memory as one of the most delightful ever known by those engaged in it.

We entered Holland via Harwich and the Hook, and arrived at The Hague in the early morning. The first outstanding institution which made an impression upon our minds was the Control Station in The Hague. By a highly-organized system, the whole export trade of the district around The Hague is under Government control. The creameries, which manufacture the produce, are all registered, and each has its own trade-mark. That must be affixed to all produce. In like manner, the farms supplying each creamery are all registered, and subject to control, so that any defect in their products can at once be brought home to the individual culprit. By this system, the Government is able to guarantee the quality of the dairy produce sent out of Holland; and all this is done in such wise as leaves little ground for complaint.

FARMING BELOW THE SEA.

The salvation of the Dutch farmer, who is generally a small holder—that is, his land does not extend to more than 50 or 60 acres, as a rule—is the co-operative creamery system. His cowsheds and general building arrangements would come in for very severe criticism at the hands of our British Sanitary authorities, but, as his cows are milked in the fields, the milk is never near to the steading. It is collected direct from the milking stances and conveyed to the creameries. Then it is manipulated into all the various dairy products for which Holland is famed. The water supply of the country is a standing mystery to the visitor. The canals seem to be the reservoirs for ordinary culinary and cleansing purposes, and yet the movement in the canals is not rapid; in fact, one has difficulty in seeing movement at times; at other times, when the wind is high, there is a considerable current. Artesian wells are sunk for the uses of the creameries, but, with so flat a country, and much of it not only flat, but under sea-level, the wonder is how cleanliness and sanitation are conserved. Yet they are conserved and brought to a high degree of efficiency. It is said that cleanliness with the Dutch woman is almost a vice. She is always cleaning, and her ideal is very high. The low country—that is, the western part of the country—would seem to be almost afloat. In the district around Boskoop, a center of the dairy industry, the soil seems to rest on water which is only very far down. The domestic water supply of the city is obtained in an ingenious fashion, by sewage wells far down, and pumping into tanks raised far above the level of the houses. But, in so-called the Dutchman and his country are in one thing a paradox. He has no stones worth speaking about, yet he has the best roads in Europe. He has miles of canals and bridges, and has built a commercial capital,

Amsterdam, on piles. It is called the Venice of the North, and when a native gives you directions in the city, he indicates your movements by the canals you cross, not by the blocks you pass. He grows the loveliest bulbs and flowers to be seen in Europe, yet you may see the most magnificent blaze of color well beneath the level of the North Sea. He is rich in capital, but richer in his contentment and his indomitable courage and tenacity. His staying-power is enormous, and he makes the best of everything. He wrested his country, to begin with, from the sea, and, having obtained it and banked out the sea for eighty long years, he defied the Spaniard, and in the end drove him beaten and vanquished from the field. A Dutchman is the incarnation of perseverance and indomitable courage. He has never been conquered, and even when beaten or overpowered by numbers, he dictates terms to his conqueror. He is thorough in all he does, and his agriculture is simple, but it is perfect for the purpose he has in view.

DUTCH FARMING SIMPLE.

Dutch farming, as distinguished from horticulture, is, in the main, simplicity itself. In Friesland the natives have three possessions which constitute their wealth. Their first is their own thrift and keen desire to "get there." They are clean, honorable in their dealings, and neighborly to a degree. Their second possession is their cattle. Friesland cattle are the Holstein-Friesian cattle of Canada and the United States. In their native province they attain an eminence in health and milk yield which even America cannot surpass. It is currently held, and the statistics seem to bear out the claim, that Friesland cattle give a much better average in butter-fat on their own pastures than they do abroad. The cows are great, handsome animals, with capacious udders and ideal, velvety skins. They are in high favor in South Africa, where their black teats are said to be much less susceptible to "crack" and develop sores than the white teats of other breeds. The Milk Record system of Friesland is reduced to a fine art. The whole province and its cattle are under official control, and the records alike of milk production and quality are kept under Government control. The Town of Leeuwarden is the capital of Friesland. In it will be found all the pedigree and milk-record registers, and it is the center from which radiates the gigantic system of co-operative creameries which has brought wealth to the Province. Another notable center of the same form of enterprise in the Town of Sneek, some distance inland, on the shores of a lovely lake, and commanding an endless labyrinth of canals by which the produce of the creameries is conveyed to the ends of the earth, if need be. The Town of Leeuwarden is the second largest market in Holland. Rotterdam is the largest. Friday is the market day in Leeuwarden, and every corner in the town is occupied on the Thursday evening. Cattle are penned in the market, and all the selling is by private treaty. Auction sales we heard not of. A staff of veterinary surgeons employed by the province examine every animal that enters the market, for contagious disease, and the precautions taken to prevent its spread are worthy of all praise. Sneek is more of a commercial center. Both towns are marvelously well equipped with cold-storage accommodation, and the Dutch are so proud of what they make that they label it all "Duten Produce." This is as it ought to be. The Cheshire cheese men found fault with the Dutchmen manufacturing Cheshire cheese for sale in England. This is the response of the Dutchman. He is proud of what he makes, and is prepared to stand on the head of it.

GLORIOUS GRASS AND HAY.

His third great asset is his pasture. In Friesland and the Province of North Holland, of which Amsterdam is the capital, the pasture, as seen in the beginning of May, could not be excelled. There is no green-cropping as we understand the term. The only crop is hay, and the three things which mean wealth to the Hollander are his cattle, his pasture and his hay. With these, he is proof against disaster both summer and winter. His cows go out to pasture in the beginning of May, and are never again inside until the end of October. They are put inside at that date, and are not again out until the beginning of May. They begin to calve in February, and the calving season ends in May. The part of the farm building which accommodates the cows in winter, in some houses visited, becomes a drawing-room or parlor, and if the goodwives had not told the ladies of our company this, they never would have suspected it from anything seen or odour smelt in the room in which they were being entertained. The cows are wintered on the hay, which is stored under the one roof with the dwelling-house, the byre, and the barn. The whole is designed to insure economic and efficient working during the long winter. The theories upon which sanitary regulations are built in Great Britain are set absolutely at defiance, and the health of both cattle and human beings seems to be excellent. The cattle are sheeted when they are put out to grass in May. This sheeting of the cows was an ob-

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ject of great curiosity to members of our party. It was something entirely new, and it was, accordingly, a subject of constant inquiry. On the whole, we were not convinced that it was a necessity. It seemed to be rather a custom than a practice dictated by any known reason to be found in the nature of the case.

TECHNICAL COLLEGES CROWDED.

Technical education in agriculture is brought to a high state of perfection in Holland. The colleges are crowded with students, and the instruction conveyed seems to be on the German model, and to be thorough and exhaustive. Several such schools or colleges were visited by us, and in each case the dominant note was suggested by the requirements of each locality. To one of the colleges a tropical department was attached. In it, students were specially trained to work in the Dutch possessions in the East Indies. In another, close to a great distributing center, prominence was given to geography, and in particular the local geography, and the character of the inhabitants of industrial centers in Great Britain and Germany, the great customers for Dutch produce. Visitors to Holland, desirous of becoming acquainted with its agriculture and horticulture, could not do better than radiate from the centers at which our party resided. These were, The Hague, for the Gouda and Boskoop districts; Arnhem, for the eastern part of the country, where there are no dykes or canals, and the agriculture is more like that seen in the orchard parts of the west of England; Leeuwarden, for Friesland, the great home of dairy cattle and co-operative creameries; and Amsterdam, for Alkmaar and the Edam cheese country, also the great horticultural area, and the finest pasture land in Holland. The Dutch are a people worth knowing, and much can be learned from them.

"SCOTLAND YET."

HORSES.

Fly time is close at hand, and the horses will soon be tormented by these pests. Light nets save the animals a deal of worry and discomfort, and are a profitable investment.

When mares foal late in the season, while the sun is extremely hot, the young foal should not be exposed to its intense heat during the middle of the day. Young foals often succumb to the effects of the heat.

Even the driving horse should have grass at this season. He will not stand as hard drives on this as on dry feed, but this system will be toned up, and the run on the ground is a benefit to his feet.

With regard to subsidizing the Thoroughbred, as a factor in the breeding of army horses, should he not be able to make his way upon his own legs? And, anyhow, why add another to the burdens of the military propaganda?

Stables are always very hot and close at this time. Give as good ventilation as possible, and allow as much movement of air through the stable as you can obtain during the noon hour and evening feeding hours, as the horses often suffer much from the heat during the time they are feeding in the stalls.

Keep salt in the pasture at all times; the horses will appreciate it and do better because of its presence. When salted at intervals, there is danger of the horses eating very freely of it and acquiring a great thirst, which may cause them to drink excessive quantities of water at one time. A lump of rock salt is excellent.

Dirty stables are a breeding-ground for the flies. Keep the stable scrupulously clean during the hot weather. There is often a tendency to leave the cleaning of stables for longer periods during this season, owing to rush of work, but this should not be, as swarms of flies will gather around the droppings, and use these for propagating their species.

Many people will not give a horse any water when he is warm. Large quantities of very cold water may be injurious, but the tired and warm horse relishes a small quantity of water, and this chance of cooling and refreshing himself should not be deprived him. Unless excessively hot, a reasonable quantity will do no harm, and will be a source of comfort. Imagine yourself, hot, thirsty and dusty, and your throat dry and parched, with water near at hand, but with which you were not permitted to even wet your mouth.

J. G. Truman, who was one of the judges at the recent Chicago Work Horse parade, paid a compliment to the Clydesdale and Shire horse when he said that there was no disputing the fact that by far the best draft geldings in the parade were either Shire or Clydesdale grades, and that the many farmers who saw the parade could not fail to be impressed with the Shire and Clydesdale cross on the light-boned American mares. It looks as though the Clyde and Shire were able to hold their own in competition with any of the draft breeds, either for crossing purposes or for the breeding of pure-bred stock.

Olympia Horse Show.

The International Horse Show, held at Olympia, London (Eng.), closed last week. The directors, in view of the coronation taking place while the show was in progress, put forth extra effort to make the show attractive to the distinguished personages present in the old land for this event. The prize-money was increased to over £13,000, which brought out some 5,500 entries, representing upwards of 1,500 of the finest horses of the world. Great interest was shown by the spectators throughout the show, especially in the coaching competitions, the four-in-hand coaching Marathon race being won by Judge

Moore, of the United States, while W. Winans, also an American, though resident in England, won several prizes.

The German officers won a large share of the money in the jumping competitions. The harness horses, including ponies, furnished many exciting competitions, the novice harness pairs making a very close contest between horses from Scotland and from the United States; the latter pair, owned by J. M. Smith, of Boston, finally gained the coveted honor. Hon. Adam Beck, of London, Ont., and C. C. Galbraith, Terreglestown, were the judges of the harness classes, and had many close decisions to make.

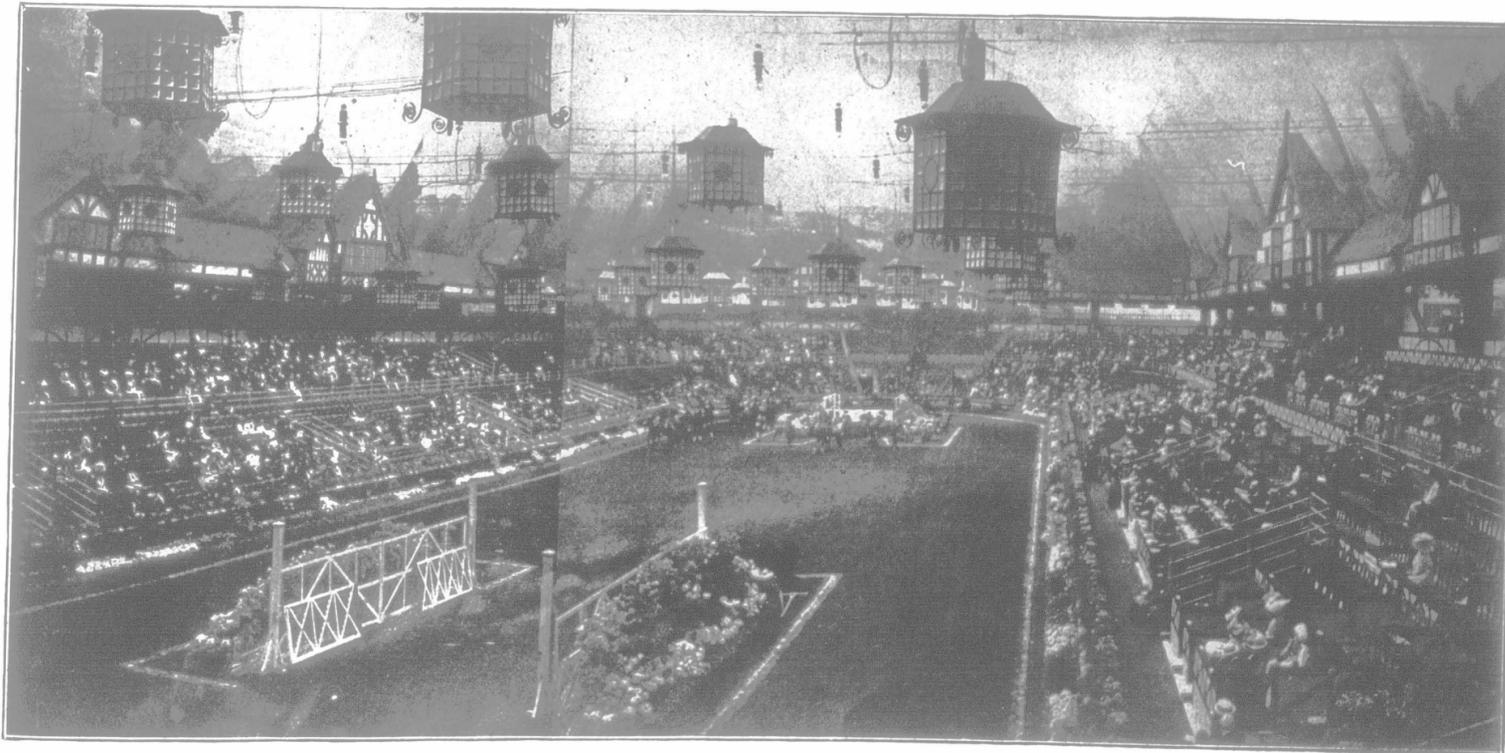
The classes for jumpers and ponies were also well filled, and much interest was shown in them. Altogether, with the cream of the horses of many countries and of several continents, and representing all classes, from the compactly-built, heavy-harness horse to the rangy jumper, and down to the smallest pet pony, the show was a great success, and quite worthy of the eventful occasion on which it was held.

Fitting the Colt for Show.

The time for the fall shows is fast approaching, and many farmers or their sons will, no doubt, have colts which they would like to see in the show-ring. Many, doubtless, have commenced to prepare their entries already, and some keep them almost in show condition continuously. The beginner in the show business does not usually jump into the hot company that is found in the larger shows, but is content to carry off the honors from his county or township show, as the case may be. Some of the men, or, better still, the boys who take their colts to these contests receive an incentive to go ahead, and in time send their stock to the large exhibitions. Thus, the small show is working for the betterment and improvement of our live stock.

To the boy or man who wishes to enter a colt or two at his county fair, a few hints might be of value. It is always well to begin the preparation of the exhibition stock early. Pasture is usually good during the early part of the season, and very little extra feed is necessary, but as soon as the grass begins to get dry and parched, plenty of green food should be supplied. It is imperative that the colt be in good condition, because thin colts seldom win. There seems to be no better concentrate for the horse than oats, and these, with a little bran, make a very good ration. Corn is very fattening, and is used extensively in the United States for feeding horses, as well as for fitting them for show. Where rapid fattening is desired, a little of this could be used with the oats and bran. Clover or alfalfa fed green would make good feed, as also first-class hay made from these crops. If the colt is healthy and doing well, no patent tonic is required.

The feeding is only a small part of the precaution necessary, and much depends on the care and attention given the colt. The colt's coat must be kept in good condition, and, to do this, regular, daily grooming is essential. Curry and brush the animal well, and rub with a dry cloth to remove loose dust and give a glossy appear-



International Horse Show, Olympia, England. General view of the arena.

ance to the coat. This done regularly for a short time before the show, will get the hair in good condition, provided the colt is thriving and in a good state of health. Feet and legs should receive some attention. If the animal is too young to be shod, his feet should be kept trimmed to proper shape, and, if shod, care should be taken to have this done by a competent blacksmith, because the action depends largely on the kind of shoes used, and whether or not they are properly placed. The legs should be thoroughly washed and cleaned just before the show, and the animal made as attractive as possible without the use of too much artificial adornment. A few ribbons in the mane and tail are all right, but too many do not add to the chances of success. Given the size, quality, conformation and action desired, you need not worry about decorating with fancy colors.

An important consideration in the fitting is the training of the animal to understand what is desired of him. Much depends upon action, and, to get the best the beast is capable of, requires that much time be spent in teaching him to lead well at both the walk and trot. It requires patience, but a short time spent in handling the colt each evening will cause him to become very handy, and will educate him so that he will acquit himself creditably on show day. An animal that walks right up on the shank and trots freely and well is sure to get the preference in action over one that has to be pulled along by his attendant. Many good colts fail to land the premier honors because they have not been taught to display their action. This is more important in the light breeds than in the heavy-drafters, but it is an important factor in any case.

Flies are a source of annoyance to colts, and cause a roughening of their coats. To prevent this to some extent, the colt should be stabled during the day and pastured during the night. The nights are cooler, and the colt would feed better then, and when brought in during the day the extra feed required could be given him. A little extra care and attention will work wonders in his condition, and go a long way toward placing the coveted rosette on the bridle of the careful horseman's colt.

The Sire Required to Produce Draft Horses.

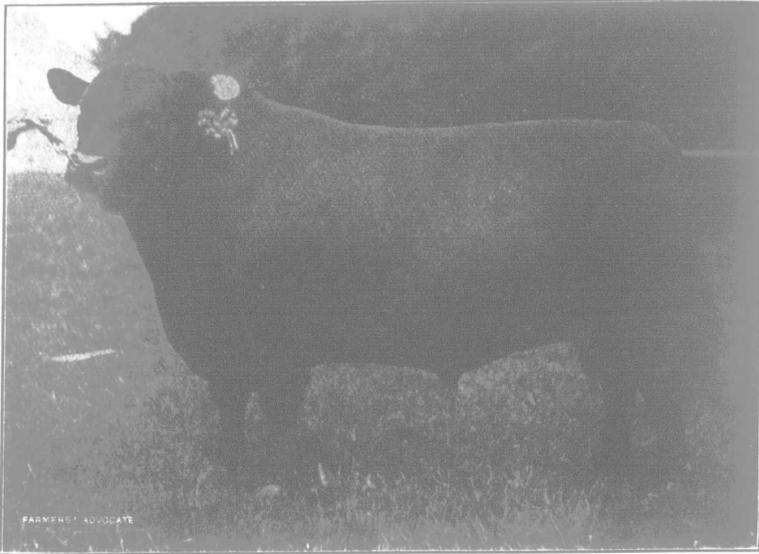
Horse-breeders have been coming in for criticism these last few years, because it is contended that the size of the draft horse has been diminishing generation after generation, though an improvement in quality is pretty generally conceded. The supply of large draft geldings of the right kind is not sufficient to meet the increasing demand, and often the dealer is compelled to buy small horses in order to get any at all.

The prevalence of undersized geldings is, no doubt, largely due to the use of stallions which, while compact and smooth, are more of a type to sire agricultural or general-purpose geldings than the heavier weight of drafter. While not disparaging quality in the least, those breeding geldings for the draft-horse market, such geldings as are desired for use on the heavy drays in large cities, would do well, in selecting the stallion they use, to see to it that he had sufficient size, as well as quality, and at the same time that he showed indications of being able to transmit his massiveness to his offspring. Many horses which have sufficient size themselves do not pass their proportions on to succeeding generations to such an extent as they should, hence some attention should be paid to the horse's pedigree, to ascertain whether or not his size was characteristic of his strain or family, or whether he had developed unusual scale because of some extraordinary condition. A freak of this kind cannot be depended upon to be of much service in producing the desired avoirdupois, because almost invariably his progeny will be much smaller than himself, reverting to former generations of small animals. The horse with plenty of size and suitable conformation, as stated before, should show indications of being able to reproduce this weight in his foals. A masculine appearance is an indication of ability to do this, and no horse which does not show sufficient masculinity should ever be used, unless a small, nondescript farm chunk is expected.

The head of the horse is perhaps the best indication of his ability to get drafters, assuming that he is up to desired weight himself. No stallion with a small, effeminate head can be expected to sire colts which will make the heaviest of drafters. The horse should have a large head, not so large, of course, as to be ugly in appearance, but sufficiently large to be proportionate with the massive appearance of the rest of his body. Width and fullness between the eyes, and a large, bright eye, are also very good indications of the prepotency of the sire. A strong head is an indication of strong character, and strong

character indicates power to pass on to the offspring the good points, among which a very important one is size. More size is desirable, and the only way to get it is to breed with that end in view. The size of the existing brood mares cannot be increased, but the weight of the next generation can be greatly increased by the judicious selection of the sires mated with these mares, and if this selection is practiced for a few years, reckless of service fees, the size of the brood mares will have increased, until less trouble should be experienced in getting geldings of sufficient weight to satisfy the draft-horse dealers.

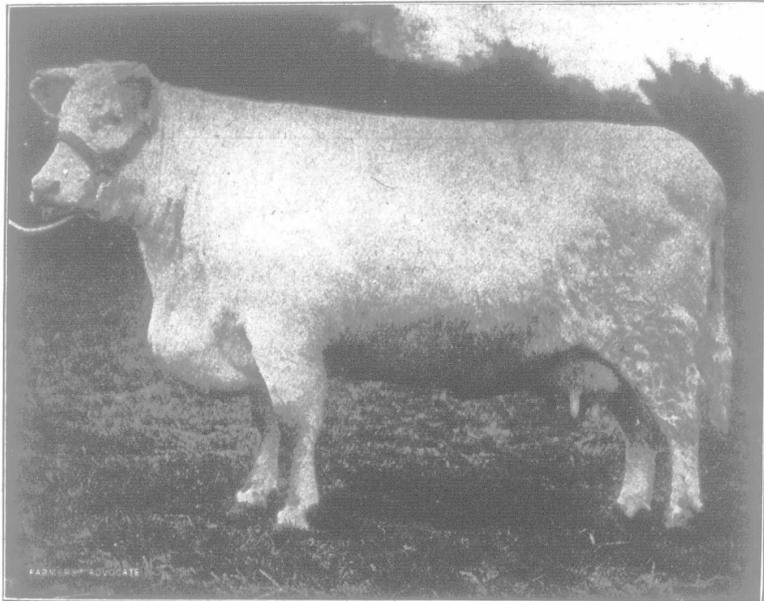
Strength of bone and heaviness of muscling must not be forgotten in the selection, as these



Rubelate of Maisemore.

Aberdeen-Angus bull, male champion of breed, Bath and West Show, 1911. Exhibited by J. J. Cridlan.

are two very important factors of the horse from which heavy work is required. Given the quality, too much bone and too heavy muscling can scarcely be had. The feet must be large to compare with the rest of the horse's great size, and they must be of good quality, because, after all, it is the feet and legs that usually give most trouble with horses of all types, the drafter included. Quality counts, but the buyers are looking for size, and the market demands larger horses, therefore, it behooves the breeders to make an effort, at least, to satisfy the demand; and to do this



Daisy's Queen.

Short-horn cow. First at Bath and West of England Show, June, 1911.

they must use sires which will give the offspring of ordinary brood mares sufficient weight for heavy dray work. No chunky little agricultural horse can do this, and the breeder must resort to the full-sized, perhaps somewhat coarser, heavy-boned, heavy-muscled, massive, though not overgrown horse with a strong masculine head. The agricultural horse has his place, but it is not in the production of the heavy type of drafter, and this should be borne in mind by those who are endeavoring to produce geldings for the heavy-draft horse trade of the large cities.

stock, is its utility. It seems that at present the business is in rather a transitional stage, and many breeders are at a loss to know just what is to be the best hog for the market.

Present indications are that our market is going to demand a hog of about the same weight as that of the best bacon hog, namely, from 160 to 200 pounds. Hogs make more rapid gains up to this weight, and it looks as though the bacon hog, or a modified type of it, is the type best suited for our market, and the type which will yield most profitable returns to the farmer. It

LIVE STOCK.

A Home Market for Our Hogs.

With many breeders who are endeavoring to produce the most profitable class of hogs, it is a question whether we in Canada should stick to the pronounced bacon type, or whether our own fast-growing home market warrants the production of a class of hogs more like the American type, but not to such an extreme fat type. It is true that we do not wish to give up our bacon hog, but, in producing Wiltshire sides for the Old Country market, we must of necessity come into competition with the Danes, who, because of the breeding of practically only one breed of pigs throughout their country, are able to place a much more uniform product on the market. The Danes also have the advantage of being a co-operative country, and their hogs are thus handled at a greater profit to the producer.

Buyers of hogs in Ontario, while not caring for the heavy hog or the thick, fat hog, have not discriminated very closely against them. Consequently, because of this, and because of the fact that many different breeds, grades and crosses are bred in Ontario, a carload of hogs going to market in this Province contains hogs, which, while of

quite uniform weight, are very much different in type. In fact, many times, almost all types, from the thick, fat hog to the most extreme type of bacon hog, are to be seen in one shipment. This lack of uniformity counts against our hogs in the British market, and is one of the discouraging features of breeding the bacon hog for that market.

It is well understood that we cannot so well compete with our neighbors to the south of us in producing the fat hog, because he has the advantage of having at his disposal an abundance of that great and cheap fat-producing food, corn. At the present time, the greater part of Ontario's pork production is utilized in our own towns and cities. The rapid growth of these industrial centers during the past few years has made this possible. The cities are now growing rapidly, and are likely to continue advancing, even at a more rapid rate than at present. This being the case, it looks as though our home market was to be our best market for hogs, and it is a matter of some speculation as to just what type of hog can be most profitably produced, and at the same time fill the requirements of this new home market. The value of the hog, like every other class of

is hard to state just what will be the outcome of the business, but our farmers have been making satisfactory returns from the production of the bacon hog, and it looks as though they will do well to stick to this type for a time, at least. The main thing is to get a pig of reasonably good type that will be of the required market size at as early an age as possible, and with the consumption of as small amount of feed as possible.

Pasturing Stock.

Many farmers are grazing all their stock in the same pasture fields. Where sheep are kept in conjunction with other stock, they pasture the grass so closely that the cattle may have trouble in obtaining enough to satisfy their appetites and their needs. Where grass is abundant, no bad effects may follow the practice of pasturing all in the same field, but as the season advances the amount of herbage will become less and less, and the close-feeding sheep if kept in large numbers, will crop it so closely that the cattle will be unable to obtain sufficient feed. As fields are cleared of hay or grain, they can profitably be used as sheep pasture, save where there is clover to preserve against their destroying nippers. Sheep feed so closely and eat so many of the different kinds of weeds that they are very profitable to use as scavengers in fields from which the crops have been removed. They not only destroy the weeds in the cropped part of the fields, but they destroy, also, the fence-corner weeds which are increasing so fast since the labor problem has necessitated leaving the grass and weeds along the fences uncut. In fact, it is one of the strong features of sheep-breeding that they destroy so many noxious weeds. In view of this fact, and for the best interests of the cattle and other farm stock, the sheep should be placed on newly-cleared fields from time to time, and thus save the regular pasture for the other stock, and at the same time destroy the weeds in the cultivated fields. The sheep like a change of pasture, and do better when given new grazing grounds frequently. Much is thus gained by pasturing the various classes of stock, especially sheep, in separate fields.

Greystone Turnips for Fall Feed.

Pasture appears not unlikely to be short and scarce this fall; the hay crop is only fair, and in some districts very light, consequently some kind of feed will be necessary on many farms to keep the cattle in good condition during the fall and early winter. On farms where corn has not been planted in sufficient acreage to permit of any being fed in the fall, because of depleting the amount necessary for winter feeding, and even on some farms where corn is plentiful, it might be advisable to sow a small quantity of Greystone or white turnips.

These turnips can be sown as late as the tenth to the middle of July, and can be expected to give a heavy yield of very suitable fall feed for the stock. It is always better, however, to make it a point to sow the turnips immediately preceding a shower of rain, because, during the dry, hot, July weather, difficulty is sometimes experienced in getting the seed to germinate. If sown as indicated, they will usually be up in about four or five days. The growth of the young plants is very rapid, and they are ready for thinning in a remarkably short time. If the cultivation has been thorough and frequent before sowing, one hoeing, that done at time of thinning, is usually all that is required. In thinning the young plants, it is generally believed that a larger yield of a better quality of roots is produced when they are left comparatively close in the rows. If thinned to a great distance, they grow too large and coarse, and are not of so high feeding value. Anywhere from ten to fifteen inches would be a good distance, many growers preferring about 12 inches. Frequent cultivation throughout the season is necessary, as with all other root crops, in order that excessive evaporation may not exhaust the soil moisture to such an extent that the roots suffer. This crop does not give as valuable a return as a corn crop, but it is profitable, especially in a dry season, and on farms where fodder is scarce.

These roots are best fed somewhat as a soiling crop; that is, pulled out and fed with the tops to the cattle in the pasture or yard. Being soft, cattle of all ages can eat them without their being cut. Some use a large turnip knife to chop them in pieces to make it easier for the cattle to eat them, but this, while of some value, is unnecessary, because the animals will manage very well without this trouble being taken. It must be remembered that turnips give a strong flavor to milk, therefore care must be taken not to feed the dairy cow too liberally on these, and not at all until after milking. Better if some other feed can be provided for the milch cows. Where the land is available for a few rows of this crop, it will be found very profitable as a means of tiding the young stock and the beef breeds over a period

of scanty pasture which is very often experienced in the autumn following an exceptionally dry summer season. Farmers who have conditions suitable for the production of this crop, and who see before them a shortage of fall feed, would do well to give this old and well-known crop a trial.

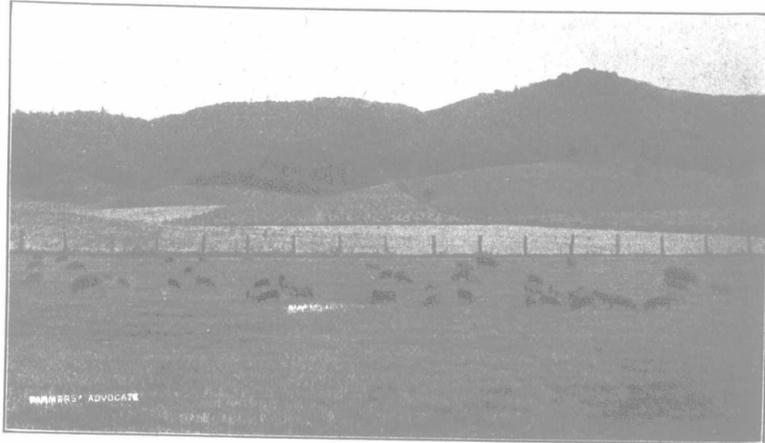
Shorthorn Bulls for Crossing Purposes.

The Shorthorn breed of cattle has become, perhaps, the most popular of all the beef breeds in Canada, as well as in many other countries. Not so much its value for the breeding of fancy pedigreed stock makes the breed popular with the average farmer, but rather its value when used for cross-

good type of Shorthorn bull, raise a good type of butchers' cattle which are always in demand on the market.

This using of the Shorthorn bull on these inferior cows is a means of greatly improving the class of beef cattle on the market, and, because of the use of this breed of bulls, the number of Shorthorn grades in the country has in times past increased very rapidly from year to year. These bulls seem to nick with cows of almost all combinations of breeding. They seem to give the calves size and a quickness of growth, combined with a smoothness and other desirable feeding qualities which bulls of few, if any, other breeds are able to pass on to their progeny when mated with such a class of cows.

Where only grade and common cross-bred cows are kept, and where the calves are used for the production of beef, and placed on the market as such, at any age whatever, the owner cannot do better than use a Shorthorn bull. In cases where heifers are to be kept for milking purposes, a bull of heavy milking strain is desired, and perhaps in such cases it would be just as well to use a dairy bull, if only milk production was to be considered, but where the grade herd is to be improved, a bull of a heavy - milking Shorthorn tribe



Swine Husbandry in Minnesota.

A good herd of young pigs and sows on blue grass pasture.

ing with the grade cows of the country. Comparatively few farms are stocked with pure-bred cattle, the largest percentage being grades, and chiefly grade Shorthorns. The farmer who is breeding grades is anxious to make the largest possible returns from his herd, and to do this he is anxious to establish a dual-purpose stock. To this end, he must have cows that will produce a liberal quantity of high-testing milk, and at the same time raise calves which can be turned over to the butcher as high-class meat at an early age. The large, smooth, evenly-fleshed Shorthorn bull, with his usual prepotency, is just the sire that many farmers desire, because, when used on their grade cows they are always reasonably sure of getting a calf of comparatively good beef type.

Many of our dairy farmers keep grade Shorthorn cows and use pure-bred Shorthorn bulls of heavy-milking strains. One reason they advance for keeping this kind of cows is that a cow is only at her best for a few years, at least, and becomes unprofitable if kept until old, consequently, she must be disposed of usually to the butcher,

should be used, if available.

Of course, where dairying is the exclusive business, some of the dairy breeds are preferable, but where general farming is followed, many farmers favor a breed which will give a reasonable supply of the dairy product, and at the same time produce calves suitable for marketing purposes. There are many breeds which give excellent results either for beef or milk production, but few breeds, if any, can be so profitably used for a combination of these as can the Shorthorn, and probably bulls of no other breed give such satisfactory results for crossing on females of mixed breeding.

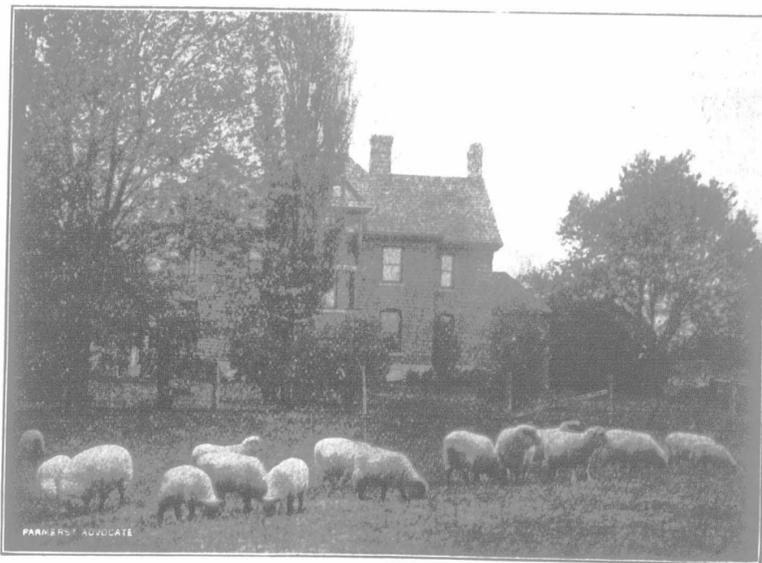
R. W. & R.

THE FARM.

An Advocate of Alfalfa.

Editor "The Farmer's Advocate":

Much has been said about alfalfa. Here is my own experience: The growing of alfalfa is like growing other crops. The ground must be prepared in good condition to receive the seed. The selection of seed, and the land upon which alfalfa is to be grown are two most important things in successful alfalfa-growing. As to the locality where this wonderful forage plant will best succeed, I now contend that it can be successfully grown anywhere in Western Ontario, with the exception of swampy lands, and these can be made to grow this plant quite successfully by drainage and the free use of lime sown on the land, as my own experience has taught me. I now have four acres of such land, which, after 5 years'



An American Shropshire Breeders' Home.

and if of a beef type, and possessed of sufficient size, she can be sold to better advantage than a dairy type of cow. These cows, if of a heavy-milking strain, are found to give a fairly large quantity of milk containing an average percentage of butter-fat, and are very useful dairy cows.

Experience has taught the breeders that, for crossing on the breeds of cattle, where size and feeding quality is wanted in the calves, there is no other breed quite equal to the Shorthorn. The common cows of the country, when mated with a

seeding, produced ten big loads of fine hay at first cutting in June. I may state that the preparation of this small field was as follows: First, I chopped the brush off, and cleared and broke, then sowed corn. In the fall I subsoiled it, as there was about eight inches to one foot of black muck on top, and I wanted to let the clay underneath mix through it. In the spring, seeded 20 pounds per acre, sowed with barley as a nurse crop. Barley sowed at 1 1/2 bushels per acre, with alfalfa sowed behind drill, then harrowed and rolled.

The selection of seed is a very important point, and success depends as much upon the right selection of seed as upon any other one thing. The best and purest seed to be had should be chosen. The fewer weed seeds it contains, the better will be the stand of alfalfa, and the less trouble there will be in preventing weeds from smothering the young plant. The purest seed is the cheapest. Where seed of good quality can be had, which has been grown near where it is to be sown, it is to be preferred to seed grown at a distance, as it is more acclimatized.

The quantity to sow per acre to secure a good stand varies with the seed, the condition of the soil, the season, and the thickness of stand desired.

The amount that I sow is about twenty pounds per acre. The last field of twenty acres that I have sown, I mixed two bushels of orchard grass in with the alfalfa, as I thought that it would be beneficial in helping to cure it and protect it from the weather when it is put up in coils. There is not much danger of having too thick a stand, as there is in having it too thin. When thick and even, little or no trouble is had with weeds after the alfalfa has well started. If too thin, it is very difficult to thicken the stand without plowing it up and reseeding, and there will be much trouble with weeds. Strive to have a good even stand, without patches or bare spots.

I have been successful by seeding in the spring just as soon as the ground is warm and dry and growth good. It will germinate quite quickly in warm weather in May or even the latter part of April, according to the season. I would recommend sowing broadcast or by drill, but be sure to harrow after, so as to cover it about one to one and a half inches deep. If your ground is light, roll it, so as to keep the strong winds from blowing.

Two things should be considered in determining when alfalfa should be cut: the weather and the stage of bloom. Any time from when the alfalfa begins blooming to when it is about one-fourth in bloom, is a good time for cutting it, provided the weather is good. Some speakers in the Farmers' Institutes recommend to cut when the new shoots start above the ground, but I do not just quite agree with that, because I think it gets too woody, and stock will not relish it so well, as they will leave more stems in their mangers. Alfalfa does not cure as readily as other hay, as the stems or stalks are more solid, without much pith in them, and, therefore, it needs more sunshine to cure it properly.

So much depends on the weather that no definite rule can be given. We cut the alfalfa in the forenoon, after the dew is all dried off, and ted it after dinner, then ted the next day before noon, when dew is drying off, so as not to knock too many leaves off, then rake and coil it, leaving it for a day or so till it sweats, then haul it to the barn or stack. The leaves fall off badly when very dry, and as they are the richest portion of the plant, the raking and tedding should be done at a time when the leaves can be saved as much as possible. We think, when hauling to the barn, salt thrown on the hay, say a gallon to the ton, improves it. There is so much difference of opinion about putting up this hay that no two persons agree in all particulars. Experience and observation will direct the matter. As alfalfa sheds rain badly, it should not be stacked out of doors, unless covers are provided for stacks. Canvas covers dipped in linseed oil will pay their cost in two or three seasons.

Alfalfa hay should be fed much as any other hay is fed. Some feeders like it for work horses, others do not. There is nothing better for colts, brood mares, milk cows, steers, calves, sheep, hogs, and the leaves are good for hens to make them lay in winter, when eggs are high in price.

I might say here that hogs relish this in winter as in summer, but do not kill any of them when feeding heavy on this hay or grass, as I think it makes the pork taste ushy. Alfalfa should not be pastured the first year after sown. It will be better to wait till after the third year, so that it will be well rooted; that is, permanent pasturing. In pasturing it, cows and sheep should not be allowed too much at a time till they get accustomed to it, as it is worse than clover for bloating. Horses, colts and hogs thrive marvellously on it. It should not be pastured very closely, as close and continuous cropping will kill it. It is advisable, I think, to pasture it lightly the second year, instead of cutting it the third time, pasturing not later than 20th of September, allowing it plenty of time to grow again to protect the roots for winter.

Every farmer should have a field of alfalfa; it is the poor man's friend. I may just state that we have sown another five acres this spring. Finished tiling it April 3rd, 1911, and sowed about ten days later, at the rate of 18 or 20 pounds per acre. On June 2nd, part of the stand was five inches to a foot high, according to the thickness of the barley, which was sown about five pecks per acre.

D. M. WEBSTER,
Middlesex Co., Ont.

Happy on the Farm.

Editor "The Farmer's Advocate":

I have read with considerable interest the discussions in your paper about "The Boy and the Farm." Of course, some boys never did and never will like farm work. I had "railroad fever" myself, but less than a year cured me, and I know now what a pleasant time one can put in on a farm. I would rather take a team and do any kind of farm work than work in town.

Have read "An Observer's" remarks about the Clydesdale driver, and I think that the man he mentions would be money in pocket if he were to buy a good driver. It would save his work

Conserve the Soil Moisture.

Midsummer is at hand, and the problem that concerns the busy tiller of the soil is how he can best conserve the soil moisture. Very little can be done in this direction on the fields which are producing grain crops, but corn, root and fallow land may be so handled as to retain a large proportion of the moisture already in the ground, as well as any that may happen to be precipitated during the remainder of the season. Evaporation is excessive during the hot, clear summer days, and moisture which will be required by the plant is thus drawn off and lost. Corn and other hoed crops require much moisture for the highest

yield; therefore, it is important that some means be taken to control, as far as possible, this loss of moisture. The acreage of corn is increasing yearly, and it is now an important crop in all districts where it can be grown with a reasonable amount of success, and this year, when the hay crop is light, growers should make an effort to repair the shortage in hay by producing an exceptionally heavy yield of corn. The same applies to the growers of root crops.

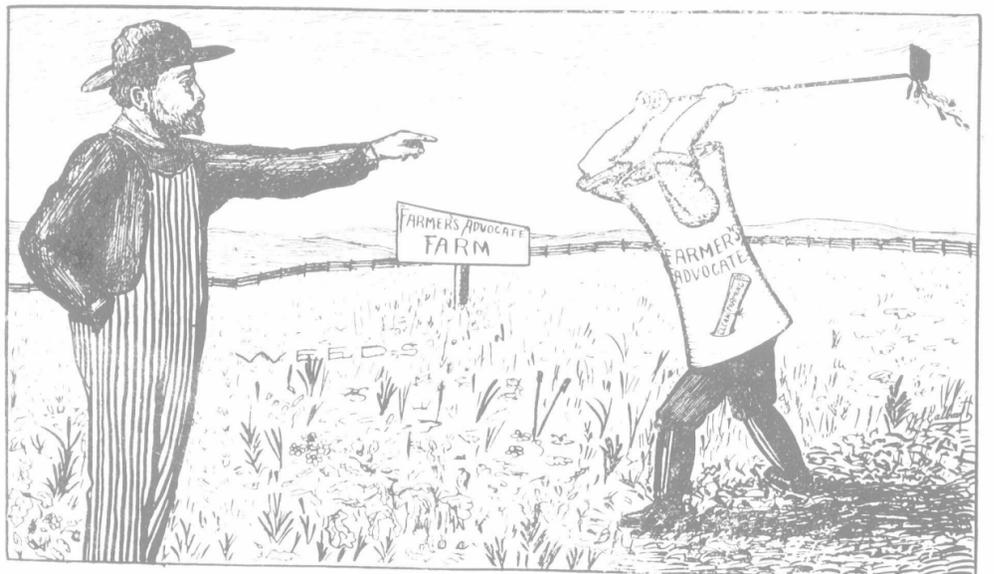
People generally know that a layer of top soil kept finely pulverized is an effective means of checking evaporation, and is the best means of moisture conservation. Knowing this, the question often arises as to how deep the mulch should be, and how best to maintain it. It is now believed that a comparatively shallow layer of fine earth, kept loose by frequent stirring, is more effective than a mulch formed by deeper cultivation. When deep intertillage is practiced, too large an amount of soil is stirred and exposed to the air and sunlight, which causes the layer constituting the mulch to lose all its moisture. The mulch itself dries out quickly, so it is evident that the lighter the mulch, provided it constitutes enough to

make a thorough blanket, the better the results will be. Frequent cultivation is the only method of maintaining this mulch. The cultivator should be kept going at least once each week, and after each shower. It is surprising how quickly the moisture supplied by a light rainfall disappears from a solid, uncultivated surface. The rain destroys the mulch, and for this reason it is important that the mulch be reproduced as speedily as possible. Consequently, as soon as the land is in a fit condition to work after the rain has ceased, no time should be lost in getting the surface stirred again. The soil may contain all the necessary constituents which go to make up plant food, but if moisture is deficient, the plant



How He Enjoys It!

horses, and a driver of 1,100 or 1,200 pounds would soon pay for herself if never hitched for pleasure. There are many trips to town where a heavy horse could not do a mile in better than ten minutes, and a driver of the size mentioned could go in five or a little more, and do it easier. Besides, would not the boy be more contented? Before I got a farm of my own, I worked for my father for some time, and could always get a horse to go away for baseball or football games. Nothing was said about wages, either, but when I wanted a start, I got it, and no fuss over it. Might say that I know of a man who would not let his men work overtime, as he thought they could not do so and keep in condition. H. H.



Canadian Farmer: "Good preaching is all right, but preaching and practice together should make a powerful combination." [This is the cartoonist's idea of fighting weeds. The way we actually go at it was shown in the picture of the four-horse cultivator, issue June 15th.—Editor.]

cannot grow to the degree of luxuriance that would be possible of it if abundance of moisture was available. Most soils on which corn and hoed crops are grown are in good condition as far as plant food is concerned, often being given a coat of barnyard manure previous to the planting of this crop, so that the success of the crop depends largely on weather conditions and soil moisture.

Dry, warm weather is the kind that corn flourishes in, provided there is enough moisture in the ground to keep the plant growing. Roots require much moisture, even more than does corn. This season gives indication of supplying sufficient heat for the best growth of the crop, and also, unless rains come soon, promises to be a comparatively dry one. In view of this latter fact, too much cultivation cannot be given in order to keep a perpetual mulch on the ground, and thus hold all the moisture possible in the soil for the use of growing crops. Keep the cultivator going, and the increased yield will more than pay for the extra labor involved.

Mow the Fence Corner Herbage.

Canadian farmers are each year menaced by the introduction on their premises of new weeds, or at least weeds new to their locality, or to their particular farm. Weeds are spreading fast, and some means must be resorted to in order that our country be not overrun with these pests. Weeds spread in different ways, and their seeds are often fitted with appendages and appliances to aid the other natural elements in their dissemination. Running rootstocks are also a means of spreading weeds.

The great amount of land taken up by fences in most districts is a matter of comment. Many of these fences are unsightly, and at the same time expensive, while the uncared-for land rendered unproductive by them serves as a flower garden for hosts of noxious weeds. The law compels the cutting of weeds on roadsides, and this is done, while just over the fence they are seeding abundantly, and the seeds are being washed and blown over the cultivated lands, where they germinate and grow to maturity in the various grain and meadow crops, and occasionally even in the hoed crops.

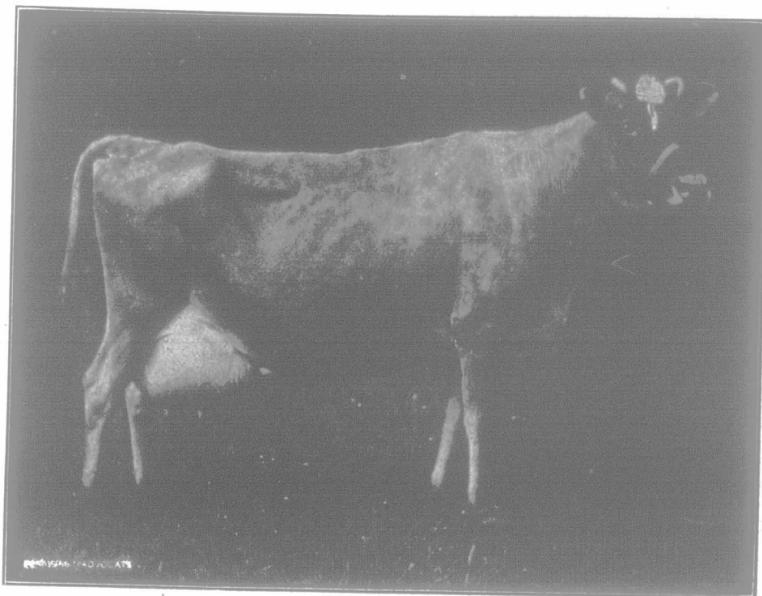
It is quite a common thing to see a man summer-fallowing a strip of land, and in many cases cultivating a hoed crop, for the express purpose of eradicating sow thistle, twitch grass, bladder campion, hawkweed, Canada thistle, or some other noxious weed, while growing luxuriantly and undisturbed in the fence-corners, and waving their seed-laden racemes, heads or panicles, as the case may be, in the breezes which serve to distribute their fruit over the very field which is under special cultivation for their extirpation, are these same pests. The running rootstocks, as soon as the cultivation ceases, push out from their tough sod-bed along the fence and spread in the looser, more recently cultivated soil, to be dragged from place to place during future cultivations, and establish the roots of the pest in various parts of the field, from which, if not carefully cultivated, it may spread throughout the entire field.

Fences are in many cases a wilful waste of valuable land, but it is not the waste nor the large amount of capital which is tied up in these obstructions that is their worst feature. If the land on which they stand was merely rendered unproductive, little harm would be done, but this land is a fertile strip of soil which produces foul seeds enough to seed down the countryside, and thus become a menace to the production of the land under cultivation.

The fences are here, and are here to stay, for a time, at least, and so are the weeds and other useless growth that flourishes along their borders. Many farmers are from year to year doing away with these superfluous dividing lines between different portions of their farms, and it is to be hoped that this good example will be followed by all our land-owners who wish to have attractive, clean farms. But the unnecessary fences cannot be removed in a day, nor yet in a year. It will take time, and the question arises how best can the weeds that are already established along the fences be combated, and how can their spread be prevented? Time was when labor was more plentiful, and the farmer took the time to have a man go around his fences and cut all foul growth each season. This is very commendable. By topping the weeds just before the production of seed, many species can be successfully kept from spreading. This is very effective with some perennials, like the Canada thistle, and is always a sure method of preventing seeding of the undesirable weeds and shrubbery so prevalent along the fences. Many farmers still cling to the practice of mowing the grass and everything growing therewith in the fence-corners along their meadow fields at the time of the cutting of the hay. This fence-corner hay, as it is called, is not usually of

much value, being suitable for cattle feed only, but this practice serves a very important purpose, that of cutting all the noxious weeds along with the grass. Where a short rotation of crops is followed, and the field is frequently in hay, the fence-corner weeds are kept in check to some extent, at least, by this method. It would be much better to have them cut each year, but a half loaf is better than none, and much good can be accomplished even by this.

It is surprising what a conglomeration of species can be found growing along the fences. Nearly all orders of plants are represented, and everything, from the commonest of inoffensive



Viola.

Jersey cow. First at Bath and West Show, 1911. Exhibited by Mrs. Ward.

roadside plant, to the most noxious and tenacious of weed common in cultivated fields, may be found flourishing and luxuriant along the fence, where, unnoticed and unobstructed, it sends forth its fruiting stem or its running rootstock to reproduce and spread its species not only along the fence, but to all parts of the fertile fields. Watch your fence-corners, and when a new or unknown species appears, get it identified, and, if undesirable, destroy it. Keep the grass and the accompanying herbage cut once a year, if possible, and, if not able to do it this often, do it as frequently as possible. Many weeds, like the burdock, can also be killed by spudding or cutting with a spade below the crown. This can be profitably attended to immediately following a rain, when there is little to be gained by working the land. Where the prevalent weeds have running rootstocks, careful cultivation in the proximity of the fences is required, and care must be taken not to drag the roots out into the field, as they are very likely to take root, grow, and give further trouble.

Do away with all useless fences as quickly as possible, but until this can be accomplished, do



Precocious Jersey Heifer.

not rest on your oars, but cut all the fence-corner growth to prevent the weeds going to seed. The time to cut them is just before flowering. It is better not to leave it too late, or some may mature seed even after being cut. The work is most thoroughly done when all growth is cut, because, where the weeds only are cut, there is danger of missing some in the grass. Use the days that are unsuitable for haymaking and harvesting in cleaning up the fence rows of their foul weeds, and the war on these in the open fields can be waged with much more certainty of success, and with much less danger of the newly-cleaned field becoming reseeded with the lately eradicated or new specimens.

THE DAIRY

Care of Factory Milk.

At this season of the year, particularly, factory patrons should remember that milk may become tainted from (a) absorbing bad odours, (b) the dust and dirt that may get into the milk during and after milking, (c) rusty and unclean utensils, (d) the cows eating unsuitable feed, (e) the cows drinking impure water. A bulletin from the office of Dairy Commissioner Ruddick again points out that milk should be cooled as quickly as possible during or after milking. Milk is injured, rather than improved, by aeration. The easiest and most effective method of cooling milk for cheesemaking is to place the milk in a tank of cold water or water and ice, and strain each cow's milk into it as soon as milked. Put the covers on the cans as soon as possible after milking is finished. This will prevent tough or leathery cream, and keep the dust and dirt from blowing into the milk. In warm weather, the evening's milk should be cooled to 60 or 65 degrees, if delivered the following morning. Milk to be kept longer than overnight should be cooled to 50 degrees or under. It is not necessary to cool the morning's

milk if delivered in a separate can. Milk that makes gassy curds is usually dirty. Clean milk and clean utensils will never produce gassy curds. Generally speaking, a patron who delivers tainted or gassy milk to a cheese factory causes a more serious loss to his fellow patrons than one who skims or waters his milk.

A Phenomenal Heifer.

Nature sometimes does peculiar things. The Jersey heifer shown here is Pretty Kate, No. 10091, Canadian Jersey Cattle Club Records. She is just fifteen months old, and is not due to calve until next October, but she is now giving ten and a half pounds of milk a day. She has been milked since May 24th, when it was found necessary to do so because of the condition of her udder. This heifer was milked once a day at first, but now twice a day, and two and a half pounds of butter has been made from her milk in one week. She weighs six hundred and twenty pounds. It was feared at first that milking her so long before calving might injure her, but, in addition to good pasture, she is now fed about a quart of chop at every milking, and her condition shows no sign of failing. She is the property of Mrs. E. Lawrence, of Middlesex County, Ont.

GARDEN & ORCHARD.

The Once Despised Potato.

The potato was not always the popular and useful vegetable that it is to-day among civilized peoples. For instance, Turgot, the most eminent of all French statesmen, in so far as efforts to improve the agricultural and economic conditions of the country were concerned, introduced the potato, among other new food plants and grasses. Curious opposition developed. It was claimed that potatoes should not be eaten, because they caused leprosy, and because no mention was made of them in Scripture. The latter consideration has not been urged against the tomato, but only the other day the attention of one of the editors of "The Farmer's Advocate" was called to the prejudice that still exists in the minds of some against eating tomatoes, because they are thought to be the cause of cancer. It was only by a world of pains that Turgot was able to induce the upper French classes to adopt the potato as a part of their diet, thus wearing away the prejudices of the masses of the people. In order to accomplish this, he had to induce no less a personage than the King himself to issue a special order that the new vegetable should be served on his table.

Citrus Industry in California.—I.

By W. R. Dewar.

Oranges and lemons are the best-known fruits of the citrus family. The pomelo or grape-fruit, citron, kumquat and shaddock are others not so well known, and, excepting the pomelo, are of no commercial importance in California. Fruit-growing is easily the paramount industry in California, and, as a wealth-producer and home-maker, outdistances general agriculture and stock-raising, or gold-mining, or even the much-boasted petroleum industry. And in fruit-growing, the citrus branch leads the deciduous, not only, to my mind, as a wealth producer, but in general progressiveness and organization. The orange and lemon men can certainly teach the deciduous growers in organization. I think they can also act as teachers in the general completeness of cultural methods followed in their groves, and from the social or homemaking side.

Citrus-growing, to any extent, is limited to a few counties in Southern California, Riverside district leading, with Redlands a good second. It is stated that 10,000 to 12,000 growers are interested in the cultivation of the fruit, 100,000 to 150,000 people depend on it for a livelihood, and it represents from \$150,000,000 to \$200,000,000 capital invested. Last year, to be exact, 33,099 carloads of citrus fruits were shipped from the State, and this year it is estimated that nearly 50,000 carloads will go forward. Experts have made these statistics for us, and they also tell us that this industry is one of the most perfectly organized rural industries in the world. It can hold undisputed lead on this continent, at least.

All these statistics and statements one can read about over and over again on paper, but an inquirer searching to find how such a position has been attained, runs upon stories of early endeavor that are interesting and even romantic. Indeed, most descriptions of the "golden apple" contain a great deal about Hesperides, the Golden West, and Eternal Sunshine, and one has to sift a lot to get the commercial facts. However, romance is the lure of the West, and the orange, being a southern fruit, cannot be altogether free from it. Coupled with climate, romance is the great asset of the Western "boomster" and real-estate dealer; but even in the most prosaic of countries or of industries there is a glamour and a romantic side attached to most things when seen from the comfortable hotel or pullman of a traveller or read about in real-estate literature. If that traveller be wise, he will go farther, and inquire into the basis of things. Then he will usually find that it takes many commonplaces to make one romance. Let him look at the romantic side alone, and he is apt to miss the most important details, and vice versa; let him look at or, better still, work at, the commonplace alone, and he is apt to become cynical of all romance which makes life worth living and progress possible. Ergo, let him try all. He must do so to understand the wonderful growth of the citrus industry in Southern California. For there is enough sunshine and gold in that industry, if studied comfortably, to satisfy the most romantic, and there is enough commonplace in hoeing weeds, sorting lemons, or compiling daily returns, to fill one with eternal ennui of all sunshine and gold. Yet these all—the sunshine and the commonplace—have been essential to the success of the orange and lemon in Southern California, and have evolved two organizations which stand in the front rank of commercial horticultural effort. These are known as the California Fruit-growers' Exchange and the Citrus Protective League of California.

Before going on with a description of these organizations, it would be advisable to trace their history in conjunction with the growth of the citrus industry, because both the industry and the organizations have been evolved after years of struggle in a past colored with romance, marked here and there by temporary failure, but always lighted by superb confidence, unslacking industry, and a far-seeing intelligence.

Away back in 1769, over 140 years ago, a lone Franciscan Father, Junipero Serra, toiled along on foot with a body of Spanish soldier-colonizers who were going overland from Mexico City to a new country, which we now know as California. Any one who has been in such a country can imagine the indomitable pluck and great religious zeal necessary to carry him on over those parched and burning mesa-lands, covered with mesquite and cacti, to a country inhabited only by savage Indians. But to the priest it was enough that he was carrying the story of the cross. We are probably more interested in the fact that he was carrying in his cassock many fruit seeds, notably of the orange, lemon and olive, which, upon the establishment of the first mission, at San Diego, in Southern California, he planted with great hopes but little ado in the mission garden. Here, then, was started California's citrus fruit industry. Other missions were soon established at intervals up the coast to points even north of San Francisco, and each had its own garden, with the familiar trees, to remind the self-exiled monks of

their beloved Spain. For, with care and irrigation, the orange and lemon had thrived as well as in their adopted homes around the Mediterranean. The first settlers to follow these mission efforts were Spanish grandees, who received grants of large tracts of land from the Spanish King. On their vast ranches of thousands of acres they thought only of cattle-grazing, which the dry, scrubby mesa country was really only fit for before the introduction of extensive irrigation; so that for nearly 100 years the monks' object les-

inevitable reaction of such a boom, and it proved a rough jolt to many. The growers awoke from their dream to find that they had overplanted; that they had planted in all sorts of ridiculous places, without due regard to soil, freedom from frost, or availability of water for irrigation; that they had planted poor varieties, had forgotten about insect and fungous enemies; and, as if careless of receiving any profit at all, had permitted the dealers to dictate prices and the transportation companies to dictate rates.

The slump had come with a vengeance. Many thousands of citrus trees in the nursery rows, normally worth \$1.50 each, were sold for 8 cents apiece. Lemon-growing was so much a losing proposition that growers were grafting all their lemon trees over to oranges, and even oranges were oftentimes grown at a loss. I have seen it stated that, even as late as 1892-3 growers received not one penny for shipments on commission, and in many cases had to pay a certain amount of the freight charges. They were paying for the privilege of growing golden oranges in the golden sunshine of the golden west. Truly romantic, wasn't it? Something like Niagara fruit-growers have been known to do.

However, some of the orange-growers were wise. They were intelligent, and still confident. They loved their homes, and liked to make a little money once in a while. Although the annual production of citrus fruits then amounted to only about a thousand cars, they foresaw a rapid yearly increase, and knew that something must be done to save the industry. Out of their necessity arose their salvation, as always.

A mass meeting of growers was called in Los Angeles at the beginning of the season of 1885-6. It is recorded that the growers flocked to it as the Ontario growers did to Ottawa a little time back. Speech is very free in America, and we do not have to look up records to imagine the many nice things said. Suffice it to say that, after several days' session, an association was formed, known as the Orange-growers' Protective Union. This organization started off very well, but the dealers fought it fairly and unfairly, until they broke it up. It was the same story of big prices on first shipments, or big prices to a few growers in each district, which prices were by no means concealed; and then, after victims had been ensnared, and their association broken—any old price at all.

Then came the disastrous season of 1892-3, when the grower was lucky to get rid of his fruit at any price. Individually, he was at the mercy of the dealer and transportation company. As a result, more mass meetings were held, more resolutions passed, and eventually the old organization was resuscitated under more perfect conditions. From that time on it grew, changed names once or twice, and gradually underwent reorganization for the better, as the directors learned from experience, until in 1905 it received the name of the California Fruit-growers' Exchange, and became virtually the perfected organization that it is to-day. And this season of 1910-11, so perfected is its marketing system, it is standing the test of a bumper crop of close upon 50,000 cars without a tremor. Its system has been and is being freely copied all over the

United States, from the apple orchards of Utah and Oregon to the orange groves of Florida. It has put nearly all the private dealers out of the citrus business, as many closed and partially-ruined packing-houses attest. It transacts business over a territory 500 miles long, and spends \$100,000 a year advertising California citrus fruits. It has sold many million dollars' worth of fruit in one year, and not lost over a few hundred dollars in collection (this year its sales must reach nearly \$25,000,000). It pays its manager \$8,000 a year, or more, and

several Eastern representatives proportionate salaries. Still, it has cost the growers less than three per cent. on their gross returns. How is it done?

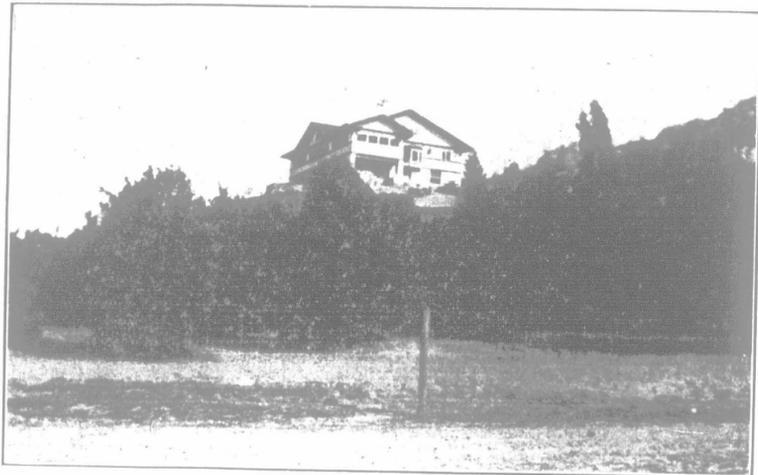
I shall describe the organization, its marketing and advertising system, and the allied supply company, in the next article.

Gradation in superlatives would seem to be the California orange-growers' principle in the branding of his fruit. Listen to this: Extra fancy, fancy, extra choice, choice, and standard. What does "standard" stand for?



Cross at Mt. Rubidoux, Riverside, Cal. In memory of Fra Junipero Serra. Col. Wm. Cody, "Buffalo Bill," at base.

sons in citrus culture were not considered of more value than to suggest planting a few trees around each home. The Americans began to come over the Rockies in the gold rush of '49 (out West, 1849 is unknown; it's only '49), but it was not until 1870 that they went into Southern California to any extent. Judge North, of Tennessee, headed the first party, which bought land where the present City of Riverside stands. It is recorded that they paid \$3.50 an acre for it—land which now fetches anywhere from \$500 to \$3,000



"Prosperity." Millionaire's residence overlooking California orange grove.

for orange and lemon groves. These men planted groves, and began irrigation schemes which laid the foundation of present prosperity. Citrus culture spread, gradually at first, until about 1880, and then, owing to several reasons (the most important of which was the building of transcontinental railways), it sprang ahead with great acceleration. Its commercial success had become established; pioneers had become very wealthy, citrus nurseries were springing up all over, groves were planted with feverish haste, and the value of land jumped to fabulous prices. Then came the

Apple Exports from North America.

The tables below give the exports of apples from Canada and the United States during the past seven years:

CANADA.		
(Years ending March 31st.)		
Year.	Barrels.	Value.
1905	997,488	\$2,551,474
1906	1,280,789	4,217,704
1907	998,618	2,702,623
1908	1,629,400	4,823,645
1909	1,092,090	2,804,282
1910	1,604,477	4,417,926
1911	523,658	1,756,884

UNITED STATES.		
(Years ending June 30th.)		
Year.	Barrels.	Value.
1905	1,499,942	\$3,859,375
1906	1,208,989	3,751,375
1907	1,539,267	4,652,966
1908	896,279	3,660,854
1909	896,279	2,782,007
1910	922,078	3,175,433
1911*	1,699,682	5,654,124

*Ending March 31st, 1911.

A New Bulletin on Peach Shipping.

A new bulletin, by J. A. Ruddick and W. W. Moore, entitled, "Trial Shipments of Peaches in 1910," has just been issued by the Dairy and Cold-storage Branch of the Dominion Department of Agriculture. In 1897, the Department made trial shipments of about 7,000 cases of tender fruits, of which 1,400 cases were peaches. During the past few years, in order to encourage the shipment of tender fruits to Great Britain, the Department has reserved cold-storage chambers on the steamers, and guaranteed the earnings thereon, for the accommodation of shippers of small lots. Icing charges up to \$5 per car on all shipments of early apples and tender fruits received at Montreal for export in cold-storage, from August 1st to October 1st, were paid by the Department in each year.

This action stimulated shipments of early apples and pears, but had little effect on peach shipments. Because of this, the Department made trial shipments of peaches in 1910, in order to procure data respecting the proper degree of maturity at picking time, the best method of packing, proper temperatures during transportation, and any other details of the business. The St. Catharines Cold-storage and Forwarding Company, Ltd., furnished the peaches and packed them as directed, and information as to the size of shipments was obtained from fruit brokers in England. During three weeks, 1,284 cases were shipped. All peaches were carried to Montreal in refrigerator cars and fast freight, with the exception of one shipment, which was forwarded by express. All peaches were closely watched, and all shipments landed in excellent condition. The number of days from sailing until the cargoes were discharged was from nine to sixteen, and all the peaches shipped by the department were disposed of by private sale, excepting two Liverpool arrivals which were sold under the hammer, etc. Average price received for the 1,284 cases was \$1.04 per case, leaving, after deducting charges of freight and commission, 80.7 cents per case, f.o.b., St. Catharines. The bulletin is illustrated with cuts of baskets and cases used, and contains much information regarding packing, prices, prospects, conditions, and quality desired, along with clippings from many English publications, all of which highly commend Canadian peaches. The general conclusions arrived at from this demonstration are:

That Canadian peaches can be delivered in Great Britain in good marketable condition, provided proper care is exercised in preparing them for shipment.

That only peaches of good quality, of large size, and with a touch of color, should be shipped.

That every detail of packing must be attended to with scrupulous care.

That, if peaches can be pre-cooled before shipping, they may be picked in a more mature condition, which would add to the flavor, size and appearance.

That shipment by fast freight in a well-iced and properly-loaded refrigerator car is better than by express.

That, in the ocean steamers, any temperature between 35 and 40 degrees will carry the peaches safely, if they have been delivered to the steamer in right condition.

That it is important to have the temperature gradually raised to about 55 degrees during the last 36 hours the fruit is in the ship's refrigerator, so that when it is landed there will be no condensation of moisture from the warmer outside air.

That it would be an advantage if, during the next few years, all the Canadian peaches shipped could be sold by one broker in each of the principal markets, so that undue competition might be avoided.

That only a comparatively small quantity of our peaches can be disposed of in Great Britain at the prices realized for our shipments the past season, and that if our growers desire an outlet for a considerable quantity, a much lower price will have to be accepted.

That the number of growers who are in a position to successfully cater to this export trade is limited, and that if it is gone into by the average grower or shipper, following the average slipshod methods, nothing but disaster may be anticipated.

THE FARM BULLETIN.

Macdonald College Principal.

The Board of Governors of McGill University, Montreal, have confirmed Prof. F. C. Harrison, B. S. A., D. Sc., F. R. S. C., in full status as principal of the affiliated institution, Macdonald College, Ste. Anne de Bellevue, Que., in which he was appointed Bacteriologist in 1905, and acting principal upon the retirement of Dr. Jas. W. Robertson, in the early part of 1910. The College, embracing departments of agriculture, pedagogy and domestic science, was founded, equipped and endowed through the generosity of Sir Wm. C. Macdonald, and stands as an enduring monument to the constructive genius of Dr. Robertson, who was aided for two years in the construction work and equipment by Prof. Harrison. The College, being barely past the initial stage, the duties of acting principal, in addition to those of his own chair, were obviously arduous and difficult, but he has displayed administrative abilities of a rare order, which the University authorities have now duly recognized.

Born in 1871, Prof. Harrison was educated at Westminster and other English schools, and by tutor, matriculating into London University in 1889. On coming to Canada, he took a full course at the Ontario Agricultural College, securing the degree of B. S. A., with honors in all subjects, from Toronto University, in 1892. He began professional duties by working up the travelling-dairy campaigns in Eastern and Western Ontario. For a time he acted as assistant to the late Prof. J. H. Panton, and had charge of the Ontario Agricultural College library. In 1896 he was appointed Bacteriologist, and a few years later, Professor of Bacteriology. He took post-graduate work at the Universities of Wisconsin and Cornell, and during the year 1900 studied dairy bacteriology at the University of Berne with De Freudenreich, and veterinary bacteriology with Tavel, also studying for six months at the University of Copenhagen. He was a post-graduate student at Cambridge University, and visited many other institutions of learning and research in Europe and America. He took the degree of M. Sc. (McGill) in 1908, and a year later the degree of Doctor of Science. He represented Canada at the International Dairy Conference, Buda Pest, in 1909. He was appointed a Fellow of the Royal Society of Canada in 1910, has been an active member of the American Public Health Association, and a member and councillor of the American Society of Bacteriologists. His capacity for work has been indeed remarkable, embracing not only administration, research and lectures, but the preparation of reports, articles for the agricultural press, and nearly a score of Ontario Agricultural College bulletins. One of the last of these, "Experiments with Nodule-forming Bacteria," introduced the distribution of nitro-culture to farmers in Ontario, which has met with good success, and is still continued from the O. A. C. Prof. Harrison has also contributed to various scientific journals, and has presented to the Royal Society of Canada a number of valuable scientific papers, which they have published. The foregoing references afford an idea of the rich individual endowment and capacity which Prof. Harrison brings to the development of the great agricultural and educational institution now fully committed to his charge, a work in which he has the cordial co-operation of a scholarly and practical faculty.

Mrs. Harrison, who has been the devoted associate of Prof. Harrison in his life-work, is a daughter of Dr. James Mills, formerly President of the Ontario Agricultural College, now a leading member of the Canadian Railway Commission.

June Wheat Cutting.

Fall-wheat cutting on light soil in East Middlesex, Ont., was in progress on Friday, June 30th. There was a fairly good stand of clean straw, with apparently well filled heads. This is phenomenally early for Central-western Ontario. There is life in the old Province yet.

Prof. W. Lochhead, B. A., M. Sc., Biological Department, of Macdonald College, is taking a holiday summer-school course at Ann Arbor University, Michigan.

The Parsnip Webworm.

On the 28th of June, in passing through his garden with Mr. Buchanan, at Marden, near Guelph, we observed a part of a row of parsnips with every leaf lying flat on the ground and quite withered. Examination disclosed that the leaves had been nearly or wholly severed by worms feeding on the bases of the petioles. Further examination along the parsnip rows and adjoining carrot rows revealed one or more of these worms in every plant examined. It seemed as though within a day or two not a green parsnip or carrot leaf would be left in the plot unless some effective remedy could be promptly applied.

The insect thus demonstrating its destructive powers on these two vegetables is a very active, yellowish-green or bluish-green larva, bearing on every segment a series of black dots and a few black hairs. Its head and the upper part of the first segment are also black. The largest specimens taken were nearly three-fourths of an inch in length, and in general appearance somewhat resembling the currant worm. It proves to be the same species that spins a thin web in the flowering tops of wild carrot and wild parsnip, the habit which has given it the name at the head of this note. The larva develops into a moth scientifically known as *Depressaria heracliana*, having relationships to the families that include the codling moth of the apple and the clothes moth.

The literature available does not speak of its attacking field or garden crops, but there are reports of trouble it has given some seed-growers. It certainly has powers of injury that make it well worth watching. The wild carrot is an entirely useless weed that has been spreading in recent years. Its suitability for feeding, and thereby spreading the parsnip web-worm, increases the duty of taking measures to exterminate it. The wild parsnip and the cow-parsnip—the weed which gives the insect its scientific name—also furnish it food and lodging. The tendency of the larva to burrow in the stem, and thus hide itself, makes prevention more promising than cure. Paris green or hellebore lodged at the root-crown would doubtless catch most of the insects. J. DEARNESS.

Toronto Open Air Horse Show.

Some nine hundred animals, every one well groomed and showing excellent care and management, turned out for the annual Dominion Day Parade and Show, in Toronto. The greater number of horses in the parade were commercial horses, and all types used in commercial enterprise were well represented. The fancy horses were there, also, and the classes for harness horses, trotters, pacers, saddle horses and ponies were well filled. The parade was headed by the band of the 48th Highlanders and the 9th Mississauga Horse, who were just returning from camp, bronzed and sunburnt, and mounted on horses which are a credit to the regiment. The entire parade was upwards of three miles long, and took an hour to pass a given point.

The heavy dray horses made a good showing, the three-horse teams, pairs and single-horse classes all having a large number of entries, and the horses present were a very good class of drafters. The Clydesdale or Shire breeding, particularly the former, comprised most of the heavy horses, but a few very nice Percherons were present, and added interest to these classes.

Delivery horses were out in hundreds, and they, together with their neat appointments, made a very picturesque appearance. All colors and combinations of horses', wagons' and drivers' attire were shown to the best possible advantage, and this class of horses denoted plainly that there will always be a market for the general-purpose horse, since nearly all the delivery horses belong to this class.

The harness-horse classes brought out some excellent turnouts, as did also the pony classes. These, with the trotters, pacers and saddle horses, formed the aristocratic section of the animals at the show, and proved conclusively that Toronto has some of the highest class of fancy horses.

This show and parade is held primarily for the work horses, and, considering that these animals are in harness six days per week, and are often worked long hours, they made a very creditable showing, and their owners and drivers have good reason to be proud of their horses. Suitable prizes are given in the various classes, and the show serves the purpose of keeping up the drivers' interest in their animals and outfits, and goes a considerable distance in improving the conditions for the hard-worked horse in the city. There is nothing which causes the drivers to take more interest in their animals than competing for a prize in a parade of this kind.

The Great Ayrshire Sale.

Wednesday, June 28th, 1911, will long be remembered by Ayrshire breeders, fanciers and importers of Canada and the United States as the day of all days when their favorite breed took a long step towards demonstrating its superiority as a popular dairy breed, and setting a record of the highest average ever paid for dairy cows at auction in Canada, and the highest average ever paid for Ayrshire cattle by auction in any country, when, at the dispersion sale of the Springhill herd of Robert Hunter & Sons, of Maxville, Ont., 102 females, 25 of them born in 1910, and 5 of them born in 1911, brought the grand total of \$35,590, an average for the entire lot of \$348.92, the highest price being \$950 for the cow Beuchan Sunflower 2nd (imp.), which went to the bid of Mrs. Erhart, of West Berlin, New Hampshire, the lowest price being \$55 for the three-months-old heifer calf, Springhill Kate. Fourteen bulls, nine of them being born in 1910, and three of them in 1911, brought the total of \$4,795, an all-round average of \$342.50, the highest price being \$2,600 for the three-year-old Bargenock Victor Hugo (imp.), which went to the bid of T. Ryan, of New York, the lowest price being \$25, for the two-months-old calf, Springhill Dorando. Mr. Ryan is to be congratulated on securing this great bull, acknowledged by men competent to speak with authority as without a superior in any country in individuality and breeding, and the remarkable uniformity and high-class excellence and quality of his get stamp him as one of the most promising sires alive. Very little behind him in individual excellence, and in the high-class character of his get, was Lessnessock Durward Lely (imp.), the five-year-old son of the renowned Scottish champion, Bargenock Durward Lely. This bull went to the bid of James B. Wilbur, of Manchester, Vt., for \$550. A synopsis of the entire offering shows 116 head selling for the grand total of \$40,385. Favored with ideal weather, and with an audience of upwards of a thousand of the leading breeders of the United States and Canada, the sale was officially opened by the secretary of the Ayrshire Association, Mr. W. F. Stephen, of Huntingdon, Que., who, in a few well-chosen remarks, spoke of the remarkable and rapidly-growing popularity of the Ayrshire as the ideal dairy cow, proving, as she is doing every day, by official tests, her great and persistent capacity as a milk-producer, testing high in butter-fat and other solids, after which the auctioneer, Andrew Phillips, of Huntingdon, Que., proved himself without a peer in this country as a wielder of the hammer in livestock sales, by running off the 116 head in a little over two hours, and the most satisfactory prices he obtained, a result which, it is needless to say, brought many smiles of satisfaction to the faces of all the breeders present; and just here it may not be out of place to say that, although there were a very large number of Americans present who came to buy, they found foemen worthy of their steel in the matter of bidding in such well-known Canadians as R. R. Ness, Howick, Que.; Hector Gordon, Howick, Que.; J. McMillan, Huntingdon, Que.; Mr. Rodder, Vaudreuil, Que.; D. M. Watt, St. Louis, Que.; J. Benning, Williamstown, Ont., and many others. Following is a summary of all those selling for \$100 and over:

FEMALES.

Beuchan Sunflower 2nd (imp.), 8 yrs.; Mrs. Erhart, West Berlin, New Hampshire...	\$ 950
Oldhall Cherry 7th (imp.), 4 yrs.; Mrs. Erhart	800
Springhill Cherry Lely, 1 yr.; Mrs. Erhart	300
Auchenbrain Buntie 22nd (imp.), 1 yr.; Mrs. Erhart	700
Auchenbrain Dewdrop 6th (imp.), 1 yr.; Mrs. Erhart	475
Springhill Beauty Hugo, 9 mos.; Mrs. Erhart	350
Springhill Whinflower Hugo, 9 mos.; Mrs. Erhart	325
Baby Grace of Kelso, 7 yrs.; T. Ryan, New York	350
Shewalton Mains Swell (imp.), 7 yrs.; T. Ryan	750
Harperwell Nell (imp.), 6 yrs.; T. Ryan	650
Auchenbrain White Rose (imp.), 5 yrs.; T. Ryan	700
Auchenbrain Buntie 16th (imp.), 6 yrs.; T. Ryan	200
Lessnessock Queen Kate (imp.), 5 yrs.; T. Ryan	875
Lessnessock Nell (imp.), 2 yrs.; T. Ryan	300
Lauriston Snowdrop 3rd (imp.), 2 yrs.; T. Ryan	200
Howie's Stately Queen (imp.), 7 yrs.; R. R. Ness, Howick, Que.	400
Castlemain's Biddy 2nd (imp.), 6 yrs.; R. R. Ness	550
Snowflake, 7 yrs.; R. R. Ness	300
Scotia's Belle, 5 yrs.; R. R. Ness	450
Lessnessock Flossie (imp.), 2 yrs.; R. R. Ness	225
Castlemain's Pansy 4th (imp.), 2 yrs.; R. R. Ness	550
Ardyne Perfection 5th (imp.), 2 yrs.; R. R. Ness	250

Garclaugh Mistletoe 2nd (imp.), 1 yr.; R. R. Ness	250
Lessnessock Jess (imp.), 1 yr.; R. R. Ness	250
Lessnessock Hughina (imp.), 1 yr.; R. R. Ness	325
Springhill Cherry Hugo, 9 mos.; R. R. Ness	425
Springhill Queen Hugo, 8 mos.; R. R. Ness	425
Heifer (imp.), 1 yr.; R. R. Ness	300
Castlemain Pansy (imp.), 8 yrs.; Mr. Vanderhoof, Ballord, Vt.	300
Dorothy, 8 yrs.; Mr. Vanderhoof	450
Lessnessock Stately 11th (imp.), 3 yrs.; Mr. Vanderhoof	350
Ardyne Carntyne 4th (imp.), 5 yrs.; Mr. Vanderhoof	300
Stacklawhill Nancy 3rd (imp.), 3 yrs.; Mr. Vanderhoof	300
Auchafour Martha 5th (imp.), 2 yrs.; Mr. Vanderhoof	325
Sheil Sally 3rd (imp.), 2 yrs.; Mr. Vanderhoof	250
Springhill Miss Owens, 2 yrs.; Mr. Vanderhoof	350
Springhill Soncy, 1 yr.; Mr. Vanderhoof	150
Chapelhill Dora 3rd (imp.), 2 yrs.; Mr. Vanderhoof	225
Castlemains Minnie 2nd (imp.), 6 yrs.; J. B. Wilbur, Manchester, Vt.	325
Lessnessock Lady Kate (imp.), 5 yrs.; J. B. Wilbur	300
Toward Point Alice 2nd (imp.), 3 yrs.; J. B. Wilbur	350
Lessnessock May Blossom (imp.), 2 yrs.; J. B. Wilbur	275
Bargower Miss Arthur (imp.), 2 yrs.; J. B. Wilbur	375
Springhill Prudence, 1 yr.; J. B. Wilbur	225
Stockerton Primrose 3rd (imp.), 8 yrs.; Hector Gordon, Howick, Que.	550
Lessnessock Pansy 2nd (imp.), 6 yrs.; H. Gordon	625
Auchafour Nellie 5th (imp.), 3 yrs.; H. Gordon	400
Kirkland Nellie Bly (imp.), 10 mos.; H. Gordon	225
Springhill White Lady, 8 mos.; H. Gordon	200
Lessnessock Hopeful Rosie (imp.), 7 yrs.; G. McMillan, Huntingdon, Que.	475
Auchenbinzie Jara (imp.), 2 yrs.; G. McMillan	550
Lessnessock Dora (imp.), 6 mos.; G. McMillan	175
Auchenbrain Favorite Beauty (imp.), 5 yrs.; Mr. Sherman, Cleveland, Ohio	350
Lessnessock Narcissus (imp.), 2 yrs.; Mr. Sherman	500
Heifer calf (imp.), 4 mos.; Mr. Sherman	180
Heifer calf (imp.), 3 mos.; Mr. Sherman	105
Heifer calf (imp.), 3 mos.; Mr. Sherman	115
Auchenbrain Bloomer 8th (imp.), 6 yrs.; Mr. Jenkinson, Pittsburg, Penn.	275
Lessnessock Susie (imp.), 3 yrs.; Mr. Jenkinson	200
Lessnessock Madeline (imp.), 3 yrs.; Mr. Jenkinson	450
Auchenbrain White Legs 4th (imp.), 5 yrs.; A. F. Spooner, Grovenor, Ohio	150
Chapelhill Lucifer (imp.), 1 yr.; A. F. Spooner	325
Springhill Snowdrop, 3 mos.; Prof. Grisdale, Ottawa	100
Netherton Queen Nancy (imp.), 1 yr.; Wm. Leitch, Cornwall, Ont.	350
Netherhall Lady Jean (imp.), 4 yrs.; Mr. Rodden, Vaudreuil, Que.	300
Auchenbinzie Nectorine (imp.), 3 yrs.; Mr. Rodden	475
Toward Point Nora 2nd (imp.), 3 yrs.; Mr. Rodden	325
Duncanzieme Snowdrop (imp.), 2 yrs.; Mr. Rodden	525
Lessnessock Miss Dirkie (imp.), 2 yrs.; Mr. Rodden	250
Lessnessock Madge (imp.), 2 yrs.; Mr. Rodden	325
Lessnessock Nan (imp.), 2 yrs.; Mr. Rodden	275
Springhill Strawberry, 2 yrs.; Mr. Rodden	525
Springhill Miss Wallace, 1 yr.; Mr. Rodden	200
Torr's Heatherbell 2nd (imp.), 1 yr.; Mr. Rodden	425
Torr's Princess (imp.), 1 yr.; Mr. Rodden	275
Hillhouse Dandy Girl (imp.), 10 mos.; Mr. Rodden	235
Lessnessock Queen Bee (imp.), 1 yr.; E. Johnson, Philadelphia	300
Lessnessock Lady Grace (imp.), 2 yrs.; E. Johnson	400
Glenshamrock Cherry 3rd (imp.), 3 yrs.; D. M. Watt, St. Louis Sta., Que.	250
Auchenfour Glen 6th (imp.), 1 yr.; D. M. Watt	250
Dairy Queen of Springhill, 6 yrs.; J. Benning, Williamstown, Ont.	425
Torr's Cony 3rd (imp.), 3 yrs.; J. Benning	300
Garclaugh Snowball (imp.), 4 yrs.; F. Freeman, Grovenor, N. Y.	225
Lessnessock Tibbie 2nd (imp.), 3 yrs.; F. Freeman	200
Cawhillan Dandy 3rd (imp.), 1 yr.; F. Freeman	225

Garclaugh Madge (imp.), 5 yrs.; E. J. Darrow, Pendleton, N. Y.	325
Lessnessock Miss Steele (imp.), 1 yr.; E. J. Darrow	225
Springhill Carntyne Hugo, 7 mos.; A. H. Sagendorph, Spencer, Mass.	275
Springhill Snowbird, 2 yrs.; A. H. Sagendorph	350
Springhill Christina, 1 yr.; A. H. Sagendorph	375
Toward Point Sweet Briar (imp.), 3 yrs.; Mr. Speakerman, Connecticut	425
Lessnessock Miss Wilson (imp.), 2 yrs.; Mr. Speakerman	625
Auchenclough Bloomer (imp.), 2 yrs.; Mr. Ogden, New York	350
Lauriston Ladysmith (imp.), 2 yrs.; Mr. Ogden	475
Cawhillan Tibbie 3rd (imp.), 1 yr.; Mr. Ogden	150
Heifer, not catalogued, (imp.), 2 yrs.; Mr. Ogden	325
Dalpeddar Lady Taylor (imp.), 9 mos.; P. D. McArthur, North Georgetown, Que.	200
Kilnford Bell 3rd (imp.), 3 yrs.; A. Dyke, Wisconsin	475
Craigbrae Snowdrop 2nd., (imp.), 3 yrs.; J. H. Black, Lachute, Que.	400
Springhill Whinflower, 2 yrs.; Geo. White	100
Lessnessock Lizzie 2nd (imp.), 1 yr.; E. Pike, N. Y.	200

BULLS.

Bargenock Victor Hugo (imp.), 3 yrs.; T. Ryan, New York	\$2,600
Lessnessock Durward Lely (imp.), 5 yrs.; J. B. Wilbur, Manchester, Vt.	550
Auchenbrain Pride (imp.), 5 yrs.; W. T. Rodden, Vaudreuil, Que.	400
Toward Point Superior (imp.), 1 yr.; Mr. Speakerman, Connecticut	325
Springhill Prince, 1 yr.; J. F. Barret, Crouchville, N. B.	115
Netherhall Right Forward (imp.), 9 mos.; R. W. Smith, Clanbrassil, Ont.	155
Netherhall Paymaster (imp.), 8 mos.; A. L. Alseph, Valleyfield, Que.	125
Springhill Victor King, 7 mos.; J. B. Wilbur, Manchester, Vt.	150
Lessnessock Sir James Miller (imp.), 6 mos.; James Boden, Danville, Que.	110
Lessnessock Cashier (imp.), 5 mos.; A. F. Spooner, Grovenor, N. Y.	100

White Liniment.

Editor "The Farmer's Advocate":
The following is a good "white liniment," as asked for in Question & Answer columns. We usually call it "white oil": $\frac{1}{2}$ pint best white-wine vinegar, $\frac{1}{2}$ pint turpentine, 2 eggs well beaten. Shake well in bottle after mixing. We have used this for the past twenty years, and find it invaluable for both human and animal use, for sprains, stiffness, etc. It is cheap and good. The resulting mixture should be thick and milk white, and, of course, should be well rubbed in.
Waterloo Co., Ont. WALTER HARGRAVE.

Editor "The Farmer's Advocate":
Here is a good recipe for white liniment enough to make one quart: $\frac{1}{2}$ pint of hard water, 2 ounces turpentine, 1 egg (shake thoroughly), 2 ounces spirits of alcohol, 2 ounces strong liquid ammonia. Put in water enough to make a quart. Must not be put on where there is a scratch.
Hastings Co., Ont. D. M. HAGERMAN.

Editor "The Farmer's Advocate":
Seeing an inquiry for white liniment, I will send it. Proportions to make one quart. Use either a quart bottle or self-sealer to mix in. First, put in one-half pint hard water; second, put in two ounces or eight tablespoonfuls of spirits of turpentine (shake for five minutes); third, beat one hen's egg five minutes; fourth, put in two ounces or eight tablespoonfuls of metholated spirits of alcohol and shake five minutes; fifth, put in two ounces liquor ammonia and shake. Put in hard water to make a quart, shake, and it is ready for use. This is a good liniment to use where the skin is not broken. Gets better the older it is.
Bruce Co., Ont. SUBSCRIBER.

Forest Reserve in the Rockies.

The boundary of the Rocky Mountain Forest Reserve has now been located from the international boundary northward to a point due west of Lacombe. This was accomplished last summer (1910) by two parties sent out by the Dominion Forest Service. One of these, under G. H. Edgcombe, B. Sc., B. Sc. F., started at Calgary and worked southwards, while the other, under P. Z. Caverhill, B. Sc., worked northward from the same starting point. The full report of these gentlemen has just been published.
During the coming summer (1911) it is expected that the rest of the eastern boundary of the reserve will be located to its northern limit (about forty or fifty miles north of the latitude of Edmonton).

THE CANADIAN BANK OF COMMERCE

ESTABLISHED 1867.

Capital paid-up, \$10,000,000. Res., \$8,000,000.

The Canadian Bank of Commerce extends to farmers every facility for the transaction of their banking business, including the discount or collection of sales notes. Blank sales notes are supplied free of charge on application.

Accounts may be opened at any branch of The Canadian Bank of Commerce to be operated by mail, and will receive the same careful attention as is given to all other departments of the Bank's business. Money may be deposited or withdrawn in this way as satisfactorily as by a personal visit to the Bank.

MARKETS.

Toronto.

LIVE STOCK.

At West Toronto, on Monday, July 3, receipts numbered 130 cars, comprising 2,660 cattle, 47 hogs, 308 sheep and lambs, 62 calves, 13 horses. Quality of cattle good. Trade fair. Export steers and heifers, \$3.80 to \$3.95; common, light grass steers and heifers, \$5.30; cows, \$3.50 to \$5.50; veal calves, \$3.50 to \$5.50; milkers, \$58 to \$66, and one at \$75. Sheep, \$3 to \$4.50; yearling ewes, \$5; lambs, \$6.50 to \$7.25. Hogs, \$7.05, fed and watered, and \$6.75 f. o. b. cars.

REVIEW OF LAST WEEK'S MARKETS

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

Table with 4 columns: City, Union, Total. Rows for Cattle, Hogs, Sheep, Calves, Horses.

The total receipts of live stock at the two yards for the corresponding week of 1910 were as follows:

Table with 4 columns: City, Union, Total. Rows for Cattle, Hogs, Sheep, Calves, Horses.

The combined receipts at the two markets show an increase of 118 cars, 1,359 cattle, 3,922 hogs, 339 sheep and lambs, 89 calves; but a decrease of 14 horses, when compared with the corresponding week of 1910.

Receipts of live stock at both markets were moderately large, but not greater than the demand. The quality of fat cattle was fairly good considering the season of the year. The number of dry-fed cattle was larger than was expected, but grassers are becoming more plentiful as the season advances, and, in fact, there were many grass cattle of good quality on the market. Trade was generally good all week, but prices were stronger at the close.

Exporters.—Export steers sold from \$5.90 to \$6.20 per cwt.

Butchers.—Prime lots and loads of butchers' cattle sold at \$5.90 to \$6.25; good, \$5.75 to \$5.90; medium, \$5.40 to \$5.70; common, \$5 to \$5.30; cows, \$3 to \$5; bulls, \$4 to \$5.

Stockers and Feeders.—Supply not large, but fully equal to the demand, with prices lower, owing to dry weather. Feeders, \$5 to \$5.40; stockers, \$4.25 to \$5.

Milkers and Springers.—Receipts were moderate, with prices easy, ranging from \$35 to \$65 each, or an average of about \$50 each. The top price reported was \$70, for one cow only.

Veal Calves.—Prices remained steady, at \$4 to \$7 per cwt. for the bulk of deliveries, but there were a few choice calves that had been fed on new milk which sold at \$8 per cwt.

Hogs.—At the close of the week hogs sold at \$7.30, fed and watered, and \$7 for hogs f. o. b. cars at country points. At many outside points \$7.10 to \$7.15 per cwt. was reported as being paid for hogs f. o. b. cars, and at some points these prices were reported as being paid to farmers.

BREADSTUFFS.

Wheat.—No. 2 red, white or mixed, 80c., at outside points; Manitoba No. 1 northern, \$1.01; No. 2 northern, 98c.; No. 3 northern, 95c., track, lake ports. Rye—No. 2, 68c. to 70c., outside. Oats—Canadian Western, No. 2, 41c.; No. 3, 40c., lake ports; Ontario, No. 2, 37c.; No. 3, 36c., outside. Barley—For malting, 67c. to 68c.; for feed, 50c. to 56c., outside. Buckwheat—51c. to 53c., outside. Peas—No. 2, 78c. to 80c., outside. Flour—Ontario ninety-per-cent, winter-wheat flour, \$3.35, seaboard. Manitoba flour—Prices at Toronto are: First patents, \$5.10; second patents, \$4.60; strong bakers', \$4.40. Corn—American No. 2 yellow, on track, bay ports, 60c.

HAY AND MILLFEED.

Hay.—Baled, in car lots, track, Toronto, \$12 to \$13; No. 2, \$8.50 to \$10.50.

Straw.—Baled, in car lots, track, Toronto, \$6 to \$6.50.

Bran.—Manitoba bran, \$21 per ton; shorts, \$23; Ontario bran, \$22 in bags; shorts, \$24, car lots, track, Toronto.

COUNTRY PRODUCE.

Butter.—Market, if anything, a little firmer for creameries. Creamery pound rolls, 22c. to 23c.; creamery solids, 22c.; separator dairy, 19c. to 20c.; store lots, 16c. to 17c.

Cheese.—New, large, 12c.; twins, 12c.; old, 15c.

Honey.—Extracted, 10c. to 11c.

Eggs.—Market unchanged, at 19c. per dozen, case lots.

Beans.—Market unchanged, at \$1.85 per bushel, for broken lots, hand-picked.

Potatoes.—Car lots of Ontario potatoes are selling at \$1.15 to \$1.20 per bag, track, Toronto.

Poultry.—Spring chickens alive, 25c. per lb.; spring ducks, 20c. to 25c. per lb., alive. Spring chickens dressed, 28c. to 30c. per lb.; ducks dressed, 18c.; fowl alive, 11c. to 12c. per lb.

FRUITS AND VEGETABLES.

The Dawson-Elliott wholesale fruit and vegetable commission merchants, corner of West Market and Colborne streets, Toronto, report Canadian vegetables as follows: Strawberries, per crate, 9c. to 11c. per quart box; tomatoes (hot-house), \$1 per crate; cherries, cooking, 75c.; cherries, eating, \$1.50 per basket; raspberries, the first of the season, sold at 20c. per quart, by the case.

HIDES AND SKINS.

E. T. Carter & Co., 85 East Front street, have been paying the following prices: No. 1 inspected steers and cows, 11c.; No. 2 inspected steers and cows, 10c.; No. 3 inspected steers, cows and bulls, 9c.; country hides, cured, 10c.; green, 9c.; calf skins, 12c. to 14c.; sheep skins, \$1.05 to \$1.40; horse hides, No. 1, \$3; horse hair, per lb., 33c.; tallow, No. 1, per lb., 5c. to 6c.; wool, unwashed, per lb., 11c. to 14c.; washed, 18c. to 20c.; rejects, 14c. to 15c.

Chicago.

Cattle.—Beeves, \$4.65 to \$6.75; Texas steers, \$4.50 to \$6; Western steers, \$4.70 to \$5.75; stockers and feeders, \$3.25 to \$5.40; cows and heifers, \$2.25 to \$5.75; calves, \$5.75 to \$8.

Hogs.—Light, \$6.30 to \$6.75; mixed, \$6.30 to \$6.77; heavy, \$6.20 to \$6.70; rough, \$6.20 to \$6.35; good to choice hogs, \$6.35 to \$6.70; pigs, \$5.90 to \$6.50; bulk of sales, \$6.50 to \$6.65.

Sheep and Lambs.—Native, \$3.50 to \$4.40; Western, \$2.75 to \$4.40; yearlings, \$4.25 to \$5.10; lambs, native, \$4.70 to \$7.50; Western, \$4.50 to \$7.50.

Cheese Markets.

Campbellford, Ont., 11 1-16c. to 11c. Stirling, Ont., 10c. Madoc, Ont., 11c. Brockville, Ont., 11c. Kingston, Ont., 11c. Vankleak Hill, Ont., 10 15-16c. Russell, Ont., 11c. Winchester, Ont., 11c. Brockville, Ont., 11c. Kemptville, Ont., 11c. Cowansville, Que., 10c. to 10 15-16c.; butter, 21c. to 21c. St. Hyacinthe, Que., 10c.; butter, 21c.

Montreal.

Live Stock.—Exports of cattle from the port of Montreal for week ending June 24th, were 1,948 head, or 68 more than the previous week. Choice steers sold around 6c.; fine, around 6c.; good, around 6c.; medium, 5c. to 5c.; and common down to 3c. to 4c. Although a few of the lower grades of cows sold at 3c. per lb., the finer lots sold as high as 5c. Some common bulls sold at 4c., while 6c. was paid for choice.

Lambs showed no decline from the high price they recently reached, the demand being good, at \$5 to \$7 each. Sheep sold readily, at \$4.50 to \$6 each, while calves continued at from \$2 to \$3, according to quality. The market for hogs continued quite unsettled, and prices were still irregular, showing a wide range. Selected lots of hogs sold at 7c. to 7c. per lb.; mixed lots, 7c. to 7c. per lb., and heavies, 6c. to 6c., weighed off cars.

Horses.—Heavy draft, weighing from 1,500 to 1,700 lbs., \$300 to \$350 each; light draft, 1,400 to 1,500 lbs., \$225 to \$300 each; light horses, 1,000 to 1,100 lbs., \$100 to \$200 each; inferior, broken-down animals, \$50 to \$100 each, and choicest carriage and saddle animals, \$350 to \$500 each.

Dressed Hogs.—Abattoir fresh-killed stock, 10c. to 10c. per lb. The market for provisions of all kinds was active.

Eggs.—Stock continued to arrive from the country in poor shape, and the loss exceeds 10 per cent. Dealers claimed to be buying in the country at around 14c., and to be selling here at 17c. to 18c. for straight stock, and at 19c. for No. 1 to grocers, and 22c. for selects to grocers. Wholesale prices about 1c. less than quotations to grocers.

Butter.—Shipments have fallen off again sharply, those for week ending June 24th being less than 3,000 packages, against 7,600 the week before. However, shipments are greater than a year ago. Export demand has certainly fallen off considerably, and as a result of this the price of butter declined fully 1c. per lb. Dealers quoted grocers at 23c., wholesale prices 22c.

Cheese.—Shipments from Montreal for week ending June 24th, were 60,600 boxes, or 30,000 less than the week before. Finest Western, 11c. here, and Eastern, 11c. to 11c.

Grain.—No. 2 Western oats, 41c. to 41c. per bushel, car lots, ex store; No. 1 extra feed, 40c. to 41c.; No. 3 Canadian Western, 40c. to 40c.; No. 2 local white, 39c. to 40c.; No. 3 local white, 39c. to 39c., and No. 4, 38c. to 38c. No. 3 American yellow corn, 61c. to 62c. per bushel.

Flour.—\$5.30 per barrel, in bags, for Manitoba first patents; \$4.80 for seconds, and \$4.60 for strong bakers'. Ontario patents, \$4.60 to \$4.75 per barrel; straight rollers being \$4.10 to \$4.25.

Millfeed.—\$21 per ton for Manitoba bran in bags, and \$23 for shorts. Ontario bran, \$22; middlings, \$24; pure grain mouille, \$30; mixed mouille, \$25 to \$28.

Hay.—Dealers quote No. 2 hay at \$12 to \$12.50 per ton, carloads, track, Montreal; No. 3 hay, \$10 to \$10.50; clover mixed quoted at \$8.50 to \$10; pure clover, \$7 to \$7.50 per ton.

Hides.—Market dull. Spring lamb skins 20c. each, and sheep skins \$1 each. Calf skins 13c. per lb. for No. 2, and 15c. for No. 1. Beef hides, 8c., 9c. and 10c. per lb., according to quality. Horse hides, \$1.75 to \$2 each. Tallow, 6c. to 7c. per lb. for rendered, and 1c. to 4c. for rough.

Buffalo.

Cattle.—Prime steers, \$6.40 to \$6.50; butcher grades, \$3 to \$6.25.

Calves.—Cull to choice, \$5.25 to \$9.

Sheep and Lambs.—Choice lambs, \$7.75 to \$8; cull to fair, \$5.25 to \$7.50; yearlings, \$5.50 to \$6; sheep, \$2 to \$4.50.

Hogs.—Yorkers, \$6.90 to \$6.95; stags, \$4.75 to \$3.25; pigs, \$6.50 to \$6.55; mixed, \$6.85 to \$6.95; heavy, \$6.80 to \$6.95; roughs, \$5.50 to \$5.85.

QUESTIONS AND ANSWERS. Miscellaneous.

CUTTING LINE TREES.

I had some small trees along the line which I fastened the wire to, and my neighbor cut the tops off above the wire. Was he right in doing so?

Ontario. W. J. B.

Ans.—No. He had the legal right to cut the branches to a point even with the fence line in order to prevent overhanging, but not farther.

AUTOMOBILE LIGHTS—CLOTHES MOTHS.

What are Ontario regulations with regard to automobiles displaying lights. At what hour in the evening must they be lighted?

2. Please give description of ordinary clothes moth in insect stage, and also describe its life history. P. E. E.

Ans.—1. The front light, with the number on, must be kept lighted, also the tail light. Cars are ordered to be lighted at sundown.

2. The clothes moth is a very small, yellowish moth, often seen flying in houses early in the evening. It deposits its eggs on woollen textiles, furs, or feathers, and the larvae, when hatched out, feed for about three weeks, finally forming cases, lined with silk, from the material on which they are feeding. Within these cases the change to pupae takes place, and in due time the full-grown moths emerge. Plenty of air, sunshine, and beating, will free clothing from these moths. Naphthalene crystals strewn freely in closets and trunks will be found very useful as a preventive. Still better is the plan of tying up furs, etc., in close fibre or cotton bags, so tightly that neither moths nor caterpillars can enter. When the insects get into carpets, they may be destroyed by gasoline, used freely when neither fires nor lighted lamps are about.

PASTURE MIXTURE—ALFALFA. I have a piece of black muck with a subsoil of marl. It is tile-drained, but at times for a couple of days, is very wet. It is now planted to corn. I wish to seed it down principally for pasture.

1. Would it be advisable to seed it down by sowing seed on with hand-seeder immediately after last cultivation, about July 10?

2. Would it be better to plow after corn was off, and sow this fall?

3. What mixture would you advise?

4. I have a field of rye which will be ripe about July 10. Would it be advisable to plow then and seed to alfalfa, and how would you manage the alfalfa? B. B.

Ans.—1. It would scarcely be advisable to sow a pasture mixture in corn.

2. It would be better to sow the mixture with a light seeding of some other nurse crop the following spring.

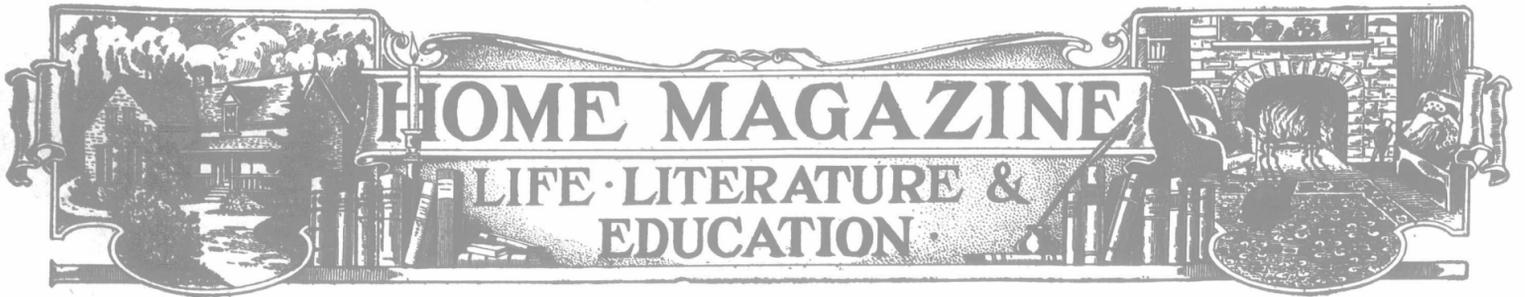
3. A good mixture for low land is: Orchard grass, 4 lbs.; meadow fescue, 4 lbs.; meadow foxtail, 2 lbs.; red top, 4 lbs.; timothy, 2 lbs.; alsike clover, 3 lbs.; white clover, 2 lbs., and possibly 2 lbs. of Kentucky blue grass.

4. After removing the rye, the land would be quite dry, and in poor condition for the growth of seed. The alfalfa would do much better if sown on a well-cultivated piece of land. It would be better to sow it next spring with a nurse crop of about 1 bushel of barley per acre.

GOSSIP.

Holsteins in Scotland! What next? The Scottish Farmer reports that several herds of the Dutch cattle are now to be found north of the Border, and at Lord Rayleigh's recent successful sale of Holsteins at Terling, in the south-east of England, a number of animals were purchased for Scottish herds in Aberdeen and Kincardineshire.

MORE CLYDESDALES FOR CANADA. In the last week in June, Clydesdales were shipped from Glasgow by the following importers: J. M. Gardhouse, Weston, Ont.; J. A. Watt, Elora, Ont.; J. Burnet, and McKirdy Bros., Napinka, Man. J. M. Gardhouse had also a valuable consignment of Leicester sheep.



John Ruskin.

John Ruskin.

With acknowledgments to Collingwood's Biography.

Ask almost anyone the question, "Who was John Ruskin?" and the reply will be given, glibly and unhesitatingly, "Why, to be sure, a famous art-critic."

So far as it goes, this answer is quite correct, but at this stage of the world's history it should be more generally recognized that Ruskin was much more than this; that he was a man ahead of his time, sometimes mistaken, perhaps, yet a modern prophet, criticized, repudiated, vilified in his own day, as prophets invariably are, for the very principles and teachings which often gain them most honor in an era to come. Ruskin's teachings do not seem as bizarre, as visionary, to-day as they did thirty years ago. To-morrow they may be more readily accepted than to-day. We must acknowledge this, for, whether we agree with his conclusions or not, we must, if we face facts clearly, recognize that many of the principles for which he fought have come to be, perhaps in the natural growth of things, the most powerful forces in the world to-day. In America, looking beneath the surface, we see those principles working; in Germany, in France, in Russia (greatly under the teaching of Tolstoi), in Britain itself, where the beginning has been made powerfully by the drastic measures introduced by Lloyd-George and the Liberal Government.

May we repeat that clause—"whether we agree with his conclusions, or not"? In these sketches, dealing with many men of many minds, we must necessarily touch upon thoughts and quote passages which may not recommend themselves to people who have sat under all teachings, reached widely different conclusions, and yielded, in some instances, to as widely differing prejudices. We shall, however, have accomplished an object if, by ever so little, we lead men to examine fearlessly, and with liberal mind, all sides of any question that may present itself; if we induce them to think and form their own conclusions, instead of accepting blindly the teachings of any man whatever. So only shall men be men, not sheep. And we appeal to those of our readers who may, stimulated by these brief and necessarily vague sketches,

be led to read the works themselves of the men of whom they treat, that they read with an open mind, rejecting such portions as they may reasonably reject, accepting such conclusions and sentiments as they can reasonably accept. In this way only can reading be of profit, for profit there is, even in the matter of rejecting, since the mind, to reject, must work.

Upon the other hand, be sure that in the works of every writer who has won permanent place in the ranks of literature there is much to commend, to enlighten, to stimulate. Do not throw down a writer of eminence because he has said something which does not coincide with your views. Examine into the matter. It is quite possible that you may be wrong, or prejudiced. If not, it will do you no harm to know what this man, who has won a pedestal in the House of Fame, has thought. Throw that pronouncement with which you cannot agree aside, and go forward with anticipation of pleasure to those things which must commend themselves to you, which must broaden you, give you something of strength or culture which you did not possess before. For you may be sure enough that this man has given of his best to the world, and in that best there must be much that is good. Do not accept Tolstoi in toto, nor Ruskin, nor any other man, unless you clearly can to your own heart and your own soul; yet, read the best thought, balance, think, for thinking, judging, accepting, rejecting, can alone develop the highest type of man and woman, such as it is the duty of every reader who chances upon this to strive to be.

To return, however, to John Ruskin, we have noted that he was art-critic, prophet, social reformer. A few words in regard to his life:

He was born in London, February 8th, 1819, the son of a wine merchant of Scottish origin. Indeed, the influences, teachers and early friends of the future author were chiefly Scottish.

His mother was his first teacher, and it is recorded that, from his infancy, she was astounded at his wonderful memory. From her, perhaps, he inherited the strongly religious bent of his nature, although his love for art, whether in painting, architecture, or literature, undoubtedly came from his father.

In "Præterita," the somewhat garrulous but wholly charming autobiography, written in his old age, he has told us in detail of those early years, and truly never did child experience a more unnatural childhood. At Herne Hill, Dulwich, to which the family removed when he was but four years of age, he began his long, early years of solitude and subjection, for, although babied, even to an astonishing extent when he had long since passed the threshold of manhood, he was, on the other hand, brought up according to the most strictly Puritan ideals. No playmate brightened the lawns at Herne Hill, no sweetmeats nor dainties were permitted, no toys, except a few building blocks. If he cried, he was whipped, and pathetic, indeed, are the accounts of the expedients to which he resorted to amuse himself. "The carpet, and what patterns I could find in bed-covers, dresses or wall-papers to be examined, were," he says, "my chief resources," and later, the watching of "sky, leaves, pebbles, flowers, some nests of ants

in the yard which the gardener would persist in disturbing," and a few birds which, when he managed to get them trustful, the cat usually got.

Doubtless, this plainness of living in the midst of luxury was a source of childish grief to him—he records it as an event that his mother once gave him "three raisins in a forenoon"—but his chief calamity was that he had "nothing to love." His parents, it appears, were too distant toward this one child entrusted to them. They were, he says, but "visible powers of Nature" to him; he had for long enough not even a dog for love and companionship, and he "did not love God" because he "found His service disagreeable"—a result inevitable enough (however beneficial to his manhood, thinking and style of writing), because of the laboriousness with which he was drilled in that service. "My mother forced me," he says, "by steady, daily toil, to learn long chapters of the Bible by heart, as well as to read it, every syllable, through, aloud, hard names and all, from Genesis to the Apocalypse, about once a year." His attendance at church was also, as may be judged, compulsory, and no doubt the mother would have been horrified had she known that in the quiet little man sitting dutifully beside her in the high pew, existed none other than a little rebel, to whom "the horror of Sunday used even to cast its prescient gloom as far back in the week as Friday." It was against the length and incomprehensibility of the service, however, not the spirit of the worship, that the childish heart rebelled.

As may be imagined, then, Ruskin was thrown early upon books as his chief amusement. To be precise, he was a "bookworm at five," and already sending to the circulating library for his "second volumes." At seven, he began to write books for himself, printing and illustrating them with infinite care, with pen and pencil. His first attempt was a poem, the "Tale of a Mouse," but later he essayed continued stories in prose. In art, his first production was a complete copy of a set of etchings to Grimm's Fairy Tales.

These early years were not, however, all of loneliness and self-resourcefulness. His father chose to be his own travelling agent for the business, and many are the tales which Ruskin tells of happy trips by post-chaise, even up into Scotland, when Mrs. Ruskin accompanied her husband for the sheer pleasure of going, while the little lad sat high between the two, on the small box containing his clothes. There were happy visits, too, to the home of an aunt who had married a baker at Croydon, where there was, for the small boy's chief companion, "Aunt's dog, Towzer, whom she had taken pity on when he was a snappish, starved vagrant, and made a brave and affectionate dog of; which was the kind of thing she did for every living creature that came in her way, all her life long."

While on these trips, too, he saw the mountains, and developed the germ of that affection for them that so marked his life. Indeed, it is told that, when in his fourth year he was asked by the artist commissioned to paint his portrait (James Northcote, R. A.), what he would choose for a background, he immediately answered, "blue hills."

At ten he was put under a tutor, and at twelve began drawing under a master, but no inconsiderable portion of his education was still informally gained from his parents. It was the habit of Mr. and Mrs. Ruskin to read aloud, of evenings, portions of the best literature, and the boy would listen, quietly, and wide-eyed, forming tastes and opinions which were to direct him all the more surely into his subsequent career in life.

It was, however, a gift presented to him when he was fourteen years of age, that marked out for him the especial way by which he was to enter that career—a volume of Roger's "Italy," illustrated by J. M. W. Turner. Almost immediately, it appears, the lad became enamored of Turner. Henceforth, he watched for Turner paintings, copied them, bought them at all hazards, and thus unconsciously prepared himself for the writing of the most remarkable eulogy, perhaps, ever penned, that eulogy of Turner and the conception of art for which he stood, occupying five long volumes, whose writing extended over twenty years of the author's life. And yet, with the writing of "Modern Painters," but a very small portion of the life-work of John Ruskin was accomplished.

It had always been the hope of Mrs. Ruskin that this one son should enter the church. She wanted to make him, he says, in his quietly humorous way, "an ecclesiastical gentleman, with the superfinest of manners, and access to the highest circles of fleshly and spiritual society," but in his case, again, the child proved "father of the man." Even at fifteen, at which time he first went to school, he was scribbling enough for the Architectural Magazine and other journals to earn his pocket-money. When he went up to Oxford, entered as a "gentleman-commoner" at Christ Church, he still kept up this desultory contributing, and with such promise that his letters, then published under the nom-de-plume, "Kata Phusin," were popularly believed to be written by an Oxford Don, and, in this ignorance of the fact that they were the work of a lad of eighteen and thereabouts, were quoted not infrequently as authoritative on matters of art, architecture, and natural history. Those who knew the identity of the writer were astounded. "Your son," wrote Loudon, to Mr. J. J. Ruskin, "is certainly the greatest genius it has been my fortune to become acquainted with; and I cannot but feel proud to think that, at some future period, when both you and I are under the turf, it will be stated in the literary history of your son's life, that the first article of his which was published was in Loudon's Magazine of Natural History."

It does not appear, however, that the young prodigy's sojourn at Oxford was ever a source of very great pleasure, or even of very great profit to him. In Præterita he gives us some interesting glimpses of it. He tells, with delightful simplicity, of his awe and awkwardness on first entering the great dining-hall, where "the change from our front parlor at Herne Hill, some fifteen feet by eighteen, and meat and pudding with my mother and Mary (a cousin), to a hall about as big as the nave of Canterbury Cathedral, with its extremity lost in mist, its roof in darkness, and its company an innumerable, unmeasuring vision in vanishing perspective, was in itself more appal-

ling than appetizing." He tells us of the friends that he slowly made; of the worrying attacks of ill-health that interfered so often with the routine of college-work; of the happy Sunday evenings spent with his mother in an adjoining street, where she had taken rooms that she might watch over him, while his father, for love of him, submitted to the loneliness at Herne Hill; but he tells little of any great aspirations engendered or influences gained at the University. Indeed, it does not at all appear that, as a student, he by any means distinguished himself there. In English, it is true, he attracted some attention, although it was not until on a third trial that he finally succeeded in winning the Newdigate Prize for a poem. In mathematics, on the other hand, he confesses himself, throughout his school career, a melancholy failure: "I went easily through the first three books of Euclid, and got as far as quadratics in Algebra. But there I stopped, virtually forever. The moment I got into sums of series, or symbols expressing the relations instead of the real magnitudes of things—partly in want of faculty, partly in an already well-developed and healthy hatred of things vainly bothering and intangible—I jibbed—or stood stunned."

In 1840, however, he became seriously ill, and his Oxford life came practically to an end. An unfortunately one-sided attachment for Mlle. Clothilde Adele Domecq, the daughter of his father's continental partner, who, he says, reduced him "to a heap of white ashes in four days," aggravated the trouble. He was pronounced a consumptive, and was taken by his parents to the Continent, where the winter and spring were passed in the study of cathedrals, paintings and mountains.

On his return, he took his pass degree. But a much more important occurrence was his embarkation upon a new enterprise, for which the way now seemed prepared. Some years before, in 1836, a fierce attack had been made upon some of Turner's pictures, then exhibited at the Royal Academy Exhibition. It had been the custom of the artists to use white and black for light and shade. Turner had had the audacity to use warm and cold color instead—an innovation, hence, fall upon Turner tooth and nail! In fiery indignation at these attacks, Ruskin had written a burning article in defence of his idol. He had intended it for Blackwood's Magazine, but before submitting it, had sent the manuscript to Turner himself. Turner, who merely laughed at the critics, had, in turn, forwarded it to the man who had bought the picture most fiercely attacked. This man had promptly lost the paper, and so, for the time, the matter had been dropped. Now, however, a copy of this lost paper was discovered; Ruskin conceived the idea of expanding it into a book, and so it became the germ of the first volume of "Modern Painters"—By a Graduate of Oxford." He had found his vocation; he would preach ideals of art, and with them ideals of life. Later, the interest in art was to be submerged by the interest in life, but of this he knew nothing now. He would write his book; and so the volume rapidly took form, and was finally published in 1843, when its author was but twenty-four years of age. Henceforth, the voice of Ruskin was recognized at that of a power to be reckoned with in English art and English literature, and English ideals.

(To be continued.)

Re King's Palaces.

Editor "The Farmer's Advocate":
On page 1060, Vol. XLVI., No. 978, I see, under the heading of "Some of the King's Palaces," two mistakes. The photograph labelled "Balmoral Castle, Scotland," is St. James' Palace, London; that labelled "Osgoode House" (don't you mean Osborne House, I. of W.?), is a back

view of Marlborough House, Pall Mall, London, taken from the Mall. I expect this will be one of very many letters on this subject. However, I hope you will forgive my pointing this out to you.

H. LYNE EVANS.
Nova Scotia.

[We are very thankful to Mr. Evans for his kindness in writing us re this matter. By an unfortunate accident, the original photos of the palaces could not be found at time of going to press, hence the confusion.—Editor.]

Hope's Quiet Hour.

The Way of Fellowship.

It is too hot for any concentration of thought this week. If I tried to give you a talk on any subject, it would certainly be as limp as one's collars—with all the starch melted out of the ideas. So I will give you a few extracts from a very beautiful book, which was one of my Christmas presents. The book is by Rev. F. W. Drake, and is called "The Way of Fellowship."

"God has made us for Himself. That is the secret of the Way of Fellowship. Therefore God ever claims our highest. He asks that we should love Him with all our heart, with all our mind, with all our soul, and with all our strength. That is the measure of the Fellowship which He seeks. In the secret springs of will and affection, in the hidden depths of life, God seeks the steadfast response of a growing consecration. And the soul, thus aroused to the call of Fellowship, God draws ever to Himself with that unchanging love which He bears towards the least shadow of His own Divine Goodness. It is a high ideal. We need encouragement to hold it ever before our eyes. For there is no road so fraught with sorrows of disappointment, so beset with the perils of impatience and the horrors of despair, as the path of the earnest disciple who would make a whole-hearted offering of his life."

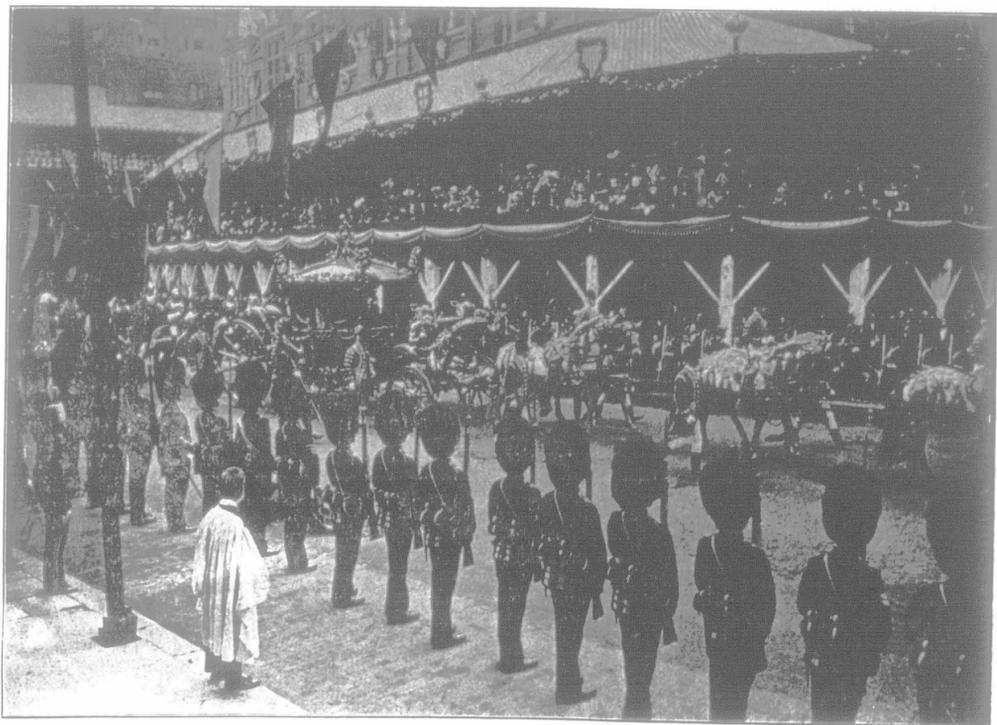
"The Spirit of God works in different ways in different souls. Each soul is of value as great as mine. Never ought I to be so conscious of the value of all other souls as when in growing penitence I bow before the Cross and adore the wonder of their redemption. Never must I be so loving, so patient, so winning in my ways. Let that be the test of my growing surrender. Does it take me out of myself? Does it make me live in God? Does it make me more tender of others for whom Christ died? The world watches us in our growing

fellowship, not unkindly, but wistfully, expectantly, with an infinite hunger at its heart, and a pathetic hope that when it sees us at our best, there may dawn upon its gaze a vision of beauty so attractive, so compelling, that it can no longer withhold its allegiance, but must itself be taken captive by the love of God, and enter humbly on that way of Fellowship which has ever been its high destiny in the Heart of the Eternal. . . .

"Let each day begin with a simple act of faith in the love of God, and the atmosphere of God's love will surround us all the day. Whatever happens, God's love is the one thing each day which we will never allow ourselves to question. That is the pivot on which life hinges; that is the light which is to irradiate every dark corner; that is the driving power of our enthusiasm, the secret of our peace, the certainty of our happiness. . . . And every moment, whether of difficulty, anxiety, or joy, will bear its own message of God's love. Beneath the squalor and meanness of the most miserable conditions of life, we shall detect the quiet workings of God's love, the lowly adjustment of the infinite resources of Divine pity to the needs of sinful men, God's unceasing appeal for Fellowship. There will be no failure in our response to His call, while we thus keep the certainty of His love before us day by day. We cannot fail to love Him while we remember that He first loved us."

"Prayer is conscious fellowship with God—not merely communion with God, but co-operation with God. In the neglect of this truth lies the origin of most of our difficulties about prayer. Co-operation, not compulsion, is the secret of true prayer. Often our first idea about prayer is that it means our strenuous effort to alter and change the direction of the Divine Will. We see what we need. We would impress that need upon the mind of God, and the intensity of our prayer is in proportion to our determination to bend God's Will. But prayer calls us not to compel God, but to co-operate with Him; calls us unto fellowship of will with Him. . . . If prayer, then, is not a changing of the Divine Will, where is the use, the help, the comfort of praying? If God's Will must in all events be fulfilled, would it not be sufficient if we be dumbly resigned and bow our heads meekly before the sovereign magnificence of the Divine Will? Those questions are always being asked. And the solution lies in realizing that the essence of Prayer is Fellowship. It is the free and full entering of the human will into conscious fellowship with the Will of God. This must always involve a great effort and a continuous strain. In the prayers of Christ Himself we can see this. The

very fact that He, in all His Perfection, should pray, and pray so earnestly and so often, is significant of what prayer must mean for us. The nights spent in prayer, the hours of solitude, the agony of blood, are eloquent of the demand upon the will which true prayer must ever make, as man rises into fellowship with God. . . . Prayer is the right direction of the redeemed will. It is the uplifting of the will by which we desire above all things the consummate fulfillment of God's Holy Will of Wisdom and of Love. We bend all the forces of our personality that way. We will it vehemently. It is the active outgoing of ourselves with all our faculties of heart and mind and will to co-operate with God. 'Thy will be done' is the supreme prayer. . . . And the effort of my will, by God's gracious ordinance, sets free the energies of the Divine Wisdom and Love. God was waiting for the submission and surrender of my human will before He could grant His full blessings. But His blessings, when they are granted, will not be according to the poor measure of my own weak wisdom and love, but according to the perfect measure of His own Divine insight and infinite love. He will grant the best. . . . Holiness of character must be the condition of effectual prayer; not, of course, consummate holiness, but a will that pursues what it knows of holiness. The desire to rise to the highest and best one knows, the real effort to identify self with all that is beautiful and good, the absolute repudiation of all that is known to be wrong—that is the condition of true prayer. Thus prayer shows itself in the life, and the life becomes prayer. . . . Many of us have lives that are filled to the brim with busy activities, that wear out brain and soul and tire out hands and feet. While we know and feel the need of quiet hours to be alone with God, the day gives no chance of mere than the merest moments, if the work is to be fully done—work that gets us up early and sends us weary and late to bed; work so absorbing that our energies are worn out by its strenuous demands. Then it is good to remember, that if our work is consciously dedicated to the glory of God, it is prayer. It is the oblation of the will along the lines that God has marked out for us. It is the means of our Fellowship with God. And though, because of the mental stress of the work, we cannot at each moment be actively conscious of God, yet it is work which at the beginning has been dedicated to Him, and again and again we are able to make short acts of realization of the Presence of God. Such work sanctifies us, and unites us to the Will of God, and deepens our Fellowship with the Will of God, who eternally works. Many an earnest



A Bit of the Coronation Procession.

scruple may thus be relieved, if, when we know that such all-insistent and exacting work is going to engage all the energies of the day, we are careful at the beginning to inspire that work with the spirit of oblation and lift it up into prayer. In this way the humble work of countless toilers sends forth day by day an energy of holy influence which strengthens the Fellowship of the Saints, and proves itself very Prayer, 'the ascent of the soul to God, the beginning of that blessed converse which shall be the fullness of eternal bliss.'"

The Beaver Circle.

Our Senior Beavers.

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

The Little Prince and Princess.

To-day we show you the pictures of the young Prince of Wales, who, if he lives, will one day be our king, and the little Princess Mary, who is, you may be sure, the pet of the British Court. Not long ago the young Prince had a seventeenth birthday, and very soon he is to go into the Navy to serve as midshipman, as his father did. The other day the Prince and Princess visited the Canadian soldiers who went over for the Coronation. Needless to say the soldiers sang "O Canada" for them, proud enough, you may be sure, in singing of our own dear land to its future sovereign.

The Deepwoods School Fall Fair.

Some time ago we told you how the "True Blue" Society was formed at the Deepwoods School for the protection of birds and flowers, and kindness to all living things. We also told you how, at the suggestion of Will Baker, the girls and boys undertook to have little gardens at home; and of how, through these gardens, they learned to know that the birds and toads, which ate up harmful insects and caterpillars, were their friends.

All through the summer all of the children, and particularly "The Ten" who had really started the society, worked hard. Of course Tom Haynes and Will Baker, who had done some gardening and farming before, had the best gardens, but they were very good about telling the others the best way to make things grow.

For instance, Tom Haynes, when going along the road one day, peeked over the fence to see how Nettie Sills' garden was coming on. There it was, without a weed to be seen anywhere, and with all the rows thick and green like emerald wreaths. It was very pretty, but Tom only whistled.

"Hi! hi! This will never do," he said to himself, and in a moment he was flying up the path to Nettie's home. Nettie herself came to the door, very fresh and sweet in a clean white pinafore.

"Come down to your garden, Nettie," said Tom, "I want to show you something."

"What is it? A new kind of grub? Ugh, I found such an ugly big green one on the tomatoes,—with its head up, mind you!"

"A very pretty one, I should say," said Tom. "It changes later into that curious hawk-moth that we saw hovering like a humming-bird over the phlox the other night, but it does harm for all that."

"Isn't it odd, Tom," said Nettie, as the two walked down the path, "how many new things we have found to talk about since we started those gardens. I thought a garden was made up of plants, but, dear me, I find it is made up of birds and butterflies, and moths, and caterpillars too."

"And toads," laughed Tom.

"Oh, yes, we mustn't forget the toads. There's a big, fat, old fellow that comes out into my garden every evening. I've tried to see him eat a fly, but I can tell you if he moves his body slowly he makes up for it with his tongue. But, here we are at the garden."

Tom stooped over and began drawing the plants aside. "See here, Net," he

said, "these things are thick as hair on a dog's back. You'll have carrots and beets the size of lead pencils in the fall if you don't thin them out."

"Why, I did—a little bit," responded Nettie.

"A little bit! I should say so! See here," and Tom began to pull out the tender green things by the handful.

"Oh, Tom! As much as that?"

"As much as that."

"All right," and in a moment Nettie too was busily engaged in thinning out, reaching to a great distance to spare the clean pinafore.

"My nice clean walks!" she pouted playfully. "Tom, what do you do with your weeds and—and things?"

"What do you do with yours?"

"Why, I carried them all off to one side, and let them dry out. Then I burned them," said Nettie triumphantly.

"I put mine in a heap to turn into fertilizer for next year," said Tom, and so the two chatted on, diligently thinning out the while, until the carrot bed



H. R. H. The Prince of Wales.

looked like a regiment of soldiers all spaced out, each little plant standing primly and independently by itself.

Another day Will Baker, when passing, saw Nettie pouring on water from a watering-can.

"How often do you do that?" asked he.

"Oh, every night," replied Nettie, "and really, sometimes,—but don't whisper it to anyone—I am so tired. Why, I've carried six canfuls already, and you know how far it is to our pump."

Like Tom, Will was over the fence in a jiffy. Stooping down, he began to sprinkle handfuls of dry dust all over the wet soil about the plants.

"Why are you doing that?" asked Nettie, puzzled.

"Oh, a great farmer you are!" laughed Will. "I'm just trying to save you work. If you do this every time, after watering the plants, you need not carry water nearly so often. The dust, you see, forms what is called a 'mulch,' that keeps the water from evaporating so quickly. After a rain, too, and now and again between times, stir up the soil with a hoe, just a little, about an inch deep. This will form a mulch as it dries out, and keep the moisture down about the roots where it ought to be."

So the work and talk went on during the summer. What each learned he or she passed on to the rest,—for these boys and girls were "True Blues" you know, and could not stoop low enough to hide anything that would help anyone else.

Needless to say, with such good care the plants grew well. The tomatoes began to form, carrots and beets developed stout little tap-roots of the prettiest yellow and red, cabbages and lettuce began to "head in," and cucumbers and summer squash began to show all sorts of queer, long, spiny, crooked and turban-shaped forms under the green leaves. Last, but not least, the flowers began to come into bloom, pink and white, and blue, and yellow, and flame-colored, and it appeared that the time for the long-talked-of school fair was in sight.

(To be continued.)

The Letter Box.

Dear Puck,—This is my first letter to the Beaver Circle. I go to school every day; only last week (written early in June) I had to help my father to work up the corn ground and to plant the potatoes. I have two sisters and one brother younger than myself. I am the eldest of the family. My birthday was on Monday, the 5th of June. I like driving the team for my father. Well, I guess I will stop for this time, as it is my first letter.

I would like very much if some of the Beavers would correspond with me.

Hoping this will escape the w. p. b., and wishing the Beaver Circle all success.

JOSEPH McDERMOTT,

Conroy P. O., Ont. Age 13.

Dear Puck,—This is my second letter to the Beaver Circle; my first one went to the w. p. b. My father has taken "The Farmer's Advocate" a number of years. I have always taken an interest in your Circle. My father has two hundred and seventy acres of land. I am the oldest in the family. I have two brothers and one sister younger than I am. We all know that boys and girls who live on the farm have a great many pets. I have a dog; she is yellow in color and very fond of work. I have two colts, Dock and Queenie. Dock is two years old, but Queenie is only one week old. My brother has five little kittens; I like to pet them and tease them with a straw. I also have four calves; three of them are black and white and the other one is blue and white.

I go to school every day. I tried for the fourth book at midsummer. Our teacher's name is Miss Armstrong; she is from London, Ontario. I must close, wishing the Circle to have splendid success.

Varency, Ontario. EARL MARR.

Age 11.

Dear Puck,—This is my first letter to the Beaver Circle, although we have



H. R. H. Princess Mary.

taken "The Farmer's Advocate" for a long time, and I enjoy reading the letters very much. Can anyone tell me what kind of a bird has a red breast and dark wings and tail, and lays light blue eggs and is smaller than a robin? As my letter is getting rather long I will close. I wish some of the Beavers would kindly correspond with me. Hoping this will escape the w. p. b. Good-bye.

ANNIE JAMIESON

Randwick, Ont. (Age 14).

Dear Puck and Beavers,—As I will soon be ten years old, and in the fourth book at school, I thought I would like to write to you. My father takes "The Farmer's Advocate," and I enjoy reading the letters very much. As this is my first letter to the Circle, I will try and not make it too long, but I want to describe to you a corner of our wood. It is all little hills and hollows, all covered with flowers and trees and ferns and moss, with lots of brush piles. One little hill has just one large tree, and is all covered with moss. I will close

now, wishing the Beavers every success. I remain, Yours truly,

SADIE E. McKELLAR

Glencoe, Ont. (Age 9, Book III.)

Several Senior Beaver Circle letters are still held over.

Note.

Will all Beavers who write letters to the Circle, and who are in the Third Book, please state, each time, whether in Junior or Senior Third Class. Please do not forget this.

Our Junior Beavers.

[For all pupils from First Book to Junior Third, inclusive.]

Do You S'pose?

Do you s'pose little flies with their thousands of eyes,

When their mamma is busy with tea, Ever climb in the chair and get in her way,

And cry, "Lemme see, lemme see?"

Do you s'pose little fish, when their mammas wish

To take a short nap—just a wink— Ever pound on the floor with their soft little fins,

And whimper, "Please give me a d'ink?"

Do you s'pose little quails, as they creep

through the rails, Ever ask mamma dear, when her head aches so hard,

"But why can't I whistle to-day?"

Do you s'pose little bees, as they hum in the trees,

And find where the honey sweets lurk, Ever ask of their papa, who is busy near by,

"I know—but what for must I work?"

Do you s'pose, do you s'pose that any-one knows

Of a small boy who might think a while

Of all this and more? You do? So I thought—

And now let us see if he'll smile!

Little Beavers' Letter Box.

Dear Puck,—This is my first letter to "The Farmer's Advocate," and I would like to see it in print. My father has taken "The Farmer's Advocate" for nearly twenty years. I have two brothers, Robert and David. I enjoy reading the girls' and boys' letters in the Circle. I am in the Part Second at school. We have over two hundred chickens that were hatched out of our incubator. Our farm is near the Tay River. We live two miles from school, and two from the post office. Well, I think I will close, as it is bedtime.

ELSIE PRISCILLA RITCHIE

Burgess, Ont. (Part II.)

Dear Puck and Beavers,—This is my first letter to the Beaver Circle. My father takes "The Farmer's Advocate" every week, and I like reading the letters. We live in Bradford, about ten minutes' walk from the main street. We have only one pet. It is the baby, Herbie. He can sing and dance. He will be two years old on the 4th of November. I like my teacher. Her name is Miss Orton. I think this is all I can say for the first time. Good-bye.

DAISY MORRIS

Bradford, Ont. (Age 9, Book II.)

Dear Puck and Beavers,—My father has taken "The Farmer's Advocate" for some time. I like to read the Beaver Circle, and thought I would join. I will tell you some of my pets: I have three cats; their names are Spotty, Rover, and Jiddet. I have a pet dog, too; his name is Barney; and a little colt, Jerry. I live in the country on a farm, on the Longwoods road. My school is two and a half miles away. I go back to the bush for the cows, then I come home and hoe in the garden. I think this letter is getting too long. I will close now.

GEORGIE HUSTON

(Age 10, trying for Book II.)

Strathburn, Ont.

A Game to Play.

ORANGES AND LEMONS.

Two of the players join hands, facing each other, having agreed privately which is to be "oranges" and which "lemons." The rest of the party form a long line, standing one behind the other and holding each other's dress or coat. The first two raise their hands so as to form an arch, and the rest run through it, singing as they run:

"Oranges and lemons, Say the bells of St. Clement's. You owe me five farthings, Say the bells of St. Martin's. When will you pay me? Say the bells of old Bailey. I do not know, Say the bells of Bow.

Here comes a candle to light you to bed, Here comes a chopper to chop off your head!"

At the word "head" the hand archway descends and clasps the player passing through at that moment. He is then asked in a whisper, "Oranges or lemons?" And if he chooses "oranges" he is told to go behind the player who has agreed to be "oranges" and clasp him around the waist.

The players must be careful to speak in a whisper, so that the others must not know what has been said.

The game then goes on again in the same way until all the children have been caught and have chosen which they will be, "oranges" or "lemons." When this happens the two sides prepare for a tug of war. Each child clasps the one in front of him tightly, and the two leaders pull with all their might until one side has drawn the other across a line which has been drawn between them.

The Ingle Nook.

[Rules for correspondents 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.]

Weeds

Last year a friend of mine was out of the city during June, the month in which weeds, as well as flowers and vegetables (but more so), wax lusty and strong. She had left her flower-garden in charge of her husband, and so I was not very much surprised when he "hove" upon my horizon one day with perplexity on his face and a request upon his tongue, that I would "go over and show him which were flowers and which were weeds."

I wonder how many of you have had the same difficulty in regard to not only flowers, but vegetables also. Some people seem to have an eye for weeds without any teaching; or perhaps it is an eye for the soft green garden things instead, an eye born of the true garden spirit, the love in the heart that enables one to point out an interloper at once, just as the mother-hen recognizes and resents immediately the small foreign addition to her flock, no matter how similar a ball of fluff and cheep it may be.

Have you ever noticed, too, if you have the garden-spirit within you, how invariably you look upon the weed as a personal enemy? You feel spiteful towards it; you regard it as a wolf in the fold, and you hoe at it with a rancorous vim and a sense of triumphal victory. It is as though you attributed to this lusty foreigner a faculty of reason leading it to sneak in by by-ways or boldly take possession of your domain.

Well, one need not blame you. These weeds cause you many an extra hour of labor if, incidentally, they force you into doing some good by loosening the soil. If left over-long, they drink up the moisture and plant-food from about their roots, and, growing as grossly as they do, soon succeed in overtopping your more delicate garden-plants, which, consequently, dwindle in the shade. Besides, practically all of our coarse, troublesome weeds are, really and truly, foreigners. Nearly all of the more beautiful and delicate plants we have, the dear ferns and wild-flowers of the woods, are native; but the rough burdocks, docks, plantains, b...weeds, etc., even the

so-called "Canada" thistle, which is not a native of Canada at all, have been introduced, in one way or another, from Europe or Asia, and true patriots are we if we make war on them, tooth and nail,—seeing that, like veriest enemies, they try to filch our living from us. Nevertheless, there is much that is interesting about even the worst of these rough foreigners.

proper treatment for them when they grow in such places, is to cut or spud each plant below the crown in hot, dry weather, then apply a handful of salt or a teaspoonful of coal oil to the cut part immediately afterwards. As burdocks are biennials, this method, if thoroughly carried out, should eradicate them in a couple of years. The botanical name of

to pull these plants out—you know that—yet, as they are perennial, strenuous treatment seems necessary, the best being to cut them off beneath the crown in hot, dry weather, and apply a handful of salt,—precisely as for burdocks, you see. By the way, dock leaves make "greens" that are not too bad at all in early spring.

And now to the garden proper:—Above all the pests that worried us, there may be placed, first and foremost, round-leaved mallow. Charles Dudley Warner found his Waterloo in "pusley," professing for it such hate or such awe that finally he could not find it in his heart to write the name of it in full, but referred to it as "p-sl-y." Had he lived in Ontario, the skeleton might have appeared as "m-l-w."

Round-leaved mallow grows with a vitality that might be admirable if it weren't so exasperating. When you were a child, you revelled in its rather pretty pink and white striped flowers, and its seed-heads like little green cheeses, but now that you are a gardener you fail to see the romance. You hoe and hoe, but hoeing only seems to make it sprout up ten to one, and by and by you find that ever so little a bit of root left in the ground quickly becomes the parent of a new plant. Thenceforth you resolve that you will pull it out; but it is the kind of plant that, as you tug at it, has a tendency to let you sit down suddenly and—heavily; the top of it comes off with a jerk. Finally, one day it rains, and you find that Dame Mallow's heart is softened. She yields quite easily to a firm tug, so long as the ground is moist, and so you make the best of your time, and the weeds fly to put a top story on the compost-heap which, I hope, you are making in the corner of your garden somewhere.

Lamb's quarters? I suppose you have them a-plenty, and use them as a substitute for spinach, too. They are really wild spinach, you know. I always used to be glad to see a rather plentiful supply of them in early spring.

And, then, redroot pigweed—good also for greens, but only when very young. What a coarse, ugly weed it is, and how very much moisture it sucks up out of the soil. From tropical America it came originally, and so it flourishes well on hot, "muggy" days, branching out and flowering so prolifically that from one medium-sized plant 12,000 seeds may be expected. When the flowers are "out," the resemblance is not hard to trace to the "Prince's feathers" and coxcombs of the garden, and so one is not surprised to find that the pigweed is really an amaranth, if one of the black sheep of the family. The best way to keep it down is to hoe it persistently, allowing it to get no foothold.

Perhaps you are bothered a little with the wild convolvulus, the scapegrace of the morning-glory family, which, in spite of its pretty, innocent-looking pink flowers, manages to give some trouble by climbing where it is not wanted. You may find a few specimens of its cousin, the dodder, too,—that odd thread-like parasite that thrusts its roots into other plants and lives on their juices. And, without doubt, in some parts of Canada, you will have a tilt with ragweed, which starts out with such promisingly pretty leaves, and ends by becoming coarse and producing very disappointing spikes of ugly little greenish flowers. Why it should ever have had the name Ambrosia, or "food of the gods," connected with it, unless in satire, is a mystery, since, as someone has remarked, "not even a billy-goat will eat it." Ragweed is a bad weed. Do not let it get the start of you.

Another weed, fair in appearance, but to be kept at arm's length, is the "stinking Mayweed." The foliage is of a tender green, and finely cut, like cosmos, and the white flowers are daisy-like, but the odor is—well, perhaps, second to that of skunk-cabbage, more or less. Occasional hoeing is the price of freedom from this plant should it appear in the garden, but it is not very hard to eradicate.

I have written this screed on the assumption that the weeds have, from time to time, got the start of you, which I sincerely hope they have not. The ideal way to overcome them is, you know, to keep scratching away with the little rake-like weeder



Mrs. French at Work on a Piece of Lace for the Coronation. [She has been making lace for over fifty years.]

Among "the pictures that hang on Memory's Wall," covering my garden experience, hang pre-eminently those of a few of these weeds.

First of all, along the edge of our garden-plot, next the fence, were the burdocks, which did not, perhaps, give so much trouble in the garden itself, but

the family to which all the burdocks belong is, by the way, Arctium, from a Greek word meaning "bear," probably in allusion to the shaggy appearance of the bur. Although nothing but a pest with us (except for the making of Burdock Bitters, some would say,) the plant is considerably esteemed in Japan, where the



Shepherd's Purse.



Round-leaved Plantain.



Round-leaved Mallow.



Convolvulus.

were hated because of the fancied (?) look of shiftlessness that clung to them. We used to cut them down and cut them down, yet, though they did not flourish like the green bay tree, those burdocks actually put forth their purplish flowers and wretched little burs close to the ground, so determined to propagate were they. Later, we found out that the

root has been thickened and improved, and is cooked as a vegetable.

Next to the burdocks, among the interlopers along the fence-side, were the docks—the brown docks that you probably know so well, with long, narrow leaves, masses of brown seeds, each resembling a tiny beechnut, and roots that seem to reach to China. No use to try

that are now on the market, or by hoeing "shallow" between the rows, and pulling out by hand the weeds that appear in the rows,—all this from the very beginning, and continuously, so that the weeds never grow an inch at all, at all. This is really the easier method, too, because, with plants as with other things, "a stitch in time saves nine." Moreover, the very frequent stirring up of the soil is exceedingly good for the vegetables or flowers. . . . But I had my doubts as to whether all of you knew the names and manners of the weeds that are likely to come about you, and so I had to speak of the full-grown plants, drawing on my "book of mistakes" for reminiscences of the time when I, like, perhaps, some of you, left undone, too long, things that I ought to have done. Were I gardening now, I should try very hard to take time by the forelock, and so prevent a peck of trouble; and I should see to it that I had the very latest and best "helps" in the tool and implement line. Good tools do no little towards producing good work.

Just one more weed—this time one that is likely to appear in your dooryard,—the broad-lived plantain. What a pest it is, notwithstanding its reputed usefulness, when crushed, as a poultice; and how it ruins the appearance of an otherwise tidy grass-plot! Bailey says the best way to eradicate it is to secure a better stand of grass by making the ground rich, and so treating it that it will hold moisture; but if there are not too many plants, you can make a great improvement by spudding them out in hot, dry weather, and applying salt, as for burdocks and docks. Au revoir, for to-day. D. D.

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SHE MEANT SENSATIONS.

In a primary school examination, over which I once had the pleasure to preside, one of the questions was with regard to the five senses. One of the bright pupils handled the subject thus:

"The five senses are: Sneezing, sobbing, crying, yawning, coughing. By the sixth sense is meant an extra one which some folks have. This is snoring."—Woman's Home Companion.

Our Ingle Nook Page of Opinions.

Will you believe it?—only three of all the ladies to whom we wrote for last month's "Opinions" responded. Well, it is scarcely to be wondered at. People don't feel like writing articles in hot weather (pity the poor editors!), and summer is a busy season for other things; so, all things considered, I think we had better drop the Page of Opinions for a while. It is better to spend a leisure half-hour, in this glorious weather, lying under a tree in the sweet do-nothingness that we all need now and again, or on a little trip to lake or riverside with a few friends, than stewing over a desk, hot, uncomfortable, and wondering how to get the ideas logical and the sequence effective.

"All the same," we have reason to thank, all the more, the three who have so kindly dared work and weather to help our opinion-giving along.

The subject this time is one from whose discussion, it is to be hoped, you tired summer people may be able to glean a few helpful hints—"How can a farmer's wife best secure necessary change from constant work in summer?"

An Opinion from Grey Co.

How many women on the farm would read this with a laugh, and the remark, "Oh, that's not for me, I have too much to do to take a rest in the summer"; but how many wives do we find who never seem to see that they must take a rest till it is just a few months' or years' too late, and they suddenly find their health gone and their days of usefulness at an end? How surely the old adage, "Penny wise, and pound foolish," seems to suit some cases.

If you can possibly do so, take a holiday; go to the place you have had your heart set on going, but have put aside so long, perhaps to let Mary take a trip, or Jenny to visit her school chum. Mothers, you are doing your duty better to your family by taking care of yourselves and keeping young and fresh and interesting, than by always giving the girls a chance while you stay at home and work, work, from daylight till dark. They will enjoy looking after things to let mother away if you only give them a chance.

If you cannot go from home for a holiday, try and get a good rest at home. Give your best rooms a good cleaning and shut them up for the rest of the summer and live out doors. I'm sure you have an orchard or shade trees near the house; have your meals under the trees, and see how you will enjoy them, and how much work you will be saved. Take your most comfortable chair to the coolest, prettiest spot you can find, and try doing your mending there. How many beautiful spots there are at our own door, and we are blind to them till the passing stranger pauses in admiration. When your friends come to see you, take them out to your shady nook, make them comfortable in your old rocker or in the hammock, and see how they will enjoy themselves. Just here, let me tell you how to make a comfortable hammock if you feel you cannot afford to buy one. Take the staves of an old barrel, the larger the better; bore a hole in each end, get a good stout rope and run through each end; place staves in proper position, secure the ropes, and hang up, with the aid of an old comforter and pillow, you have a most comfortable resting place for a little labor, and almost no expense.

Fresh air is being constantly brought before our attention as the best aid to our health, yet how many of us shut ourselves inside the four walls of a house and deprive ourselves of our greatest blessing.

I have just had a very pleasant holiday of two days at our Women's Institute County Convention. This convention was held at the pretty little town of Flesherton, and was a marked success. I know there are many women who do not care for our society. With all respect to their opinion, I must say the farmer's wife who does not join if she can do so is very foolish. Many a

little change and pleasure would come her way through the Institute. She would also find her list of friends becoming much larger, and herself becoming interested in her surroundings in a way that will be surprising. Keep bright and cheerful as long as possible my friends, we are only passing this way once, make the most of our lives, get the most good out of them, and see the most good in others.

And may you all enjoy your vacation, be it at home or abroad.

Grey Co., Ont.

MAB.

May I add another suggestion for a hammock? Get a piece of the very strongest duck, bed-ticking, or sail-cloth, long enough to allow for broad hems at each end. Turn back and run two rows of stitching with very strong thread or backstitch along with waxed shoemakers' thread, in such a way that a slat or piece of broom-handle may be run through at each end of the hammock, while a second double strip of cloth is still left, with stitching each side, next the hammock portion. I hope this is clear. Now cut round holes through this double portion, overcast with waxed thread, and then buttonhole with the same, forming a row of holes at each end of the hammock to receive the rope. Next get two iron rings and a clothes-line. Cut pieces of the rope to fit, run them through the holes, then draw them together at the right distance through the iron rings, and fasten very firmly, and your hammock is all ready to be hung on the hooks. The recommendation of this hammock is that it may be very conveniently packed, and with a bit of extra rope for suspending, taken to the woods or anywhere else one chooses.

How to Get a Holiday.

Dear Dame Durden,—I hardly feel competent to give a satisfactory solution of the great problem of "How a farmer's wife may secure change from constant work," as our pleasures, like our dress, depend on our taste and the length of our pocketbook; but, to the average busy woman on the farm, I think it is well worth while to arrange for a short holiday if only for a few days, besides keeping a little in touch with our neighbors, and perhaps doing some little church work and attending the local Institute if meetings are near us, that we may have something to think about beside our own pet cows, chickens, etc., and that we may not get in an old-fashioned rut; that is so easy to fall into and hard to get out of.

I think every woman should go to one of the big exhibitions once in a while, where we see so much. You can hardly remember anything for a time, but it gives us a little idea of the great country we are in.

Then there is such a number of short, cheap excursions, both summer and winter, to different parts of the Province, that offer splendid outings. For those who love music, there are generally good excursions at the time of the Mendelssohn choir concerts; and for those who love flowers, there are the Horticultural shows, both rare treats, at small cost. Of course, this pertains to those living within an excursion distance of Toronto, but every city offers its attractions, and a few days in the city have a double advantage to us, of seeing something entirely new, and then being glad to go back home and be satisfied again with our own lot.

My own pet pleasure is just to see places, even around our own township that I have not seen before, if only going an unusual road to a familiar place. Some friends of mine took the slow and easy method of driving a few days' journey through part of the country they had not seen before, stopping to rest, and getting and paying for their own and horses' meals whenever meal-time came around, content to take things as they found them, and they had a most enjoyable time, and one that appeals to my taste, but perhaps not to many.

But once we make up our mind, let us stick to it with that end in view, for some time ahead, and not let the time we have set draw near, and suddenly remember our wardrobe is not in condition and funds low. By making up our minds to do without a few perhaps unnecessary fixings through the year, and putting the extra dimes into a "holiday box," it comes easier than taking it all at once to many of us. Or we may even set an extra old hen that she brings out a brood of chickens to be sold for a special trip. Then, when we have decided where to go, and have everything in order, let us enjoy our holiday thoroughly and not carry the whole farm with us in worry, and wonder how ever the home folks are going to manage a few days without our aid.

Grey Co., Ont.

DIXY.

Another "Opinion."

In writing on this subject I would like to refer particularly to those farmers' wives, who, like myself, live in what I may call one of the back-woods' sections of Ontario, where neighbors are few and scattered, and fashionable afternoon calls a thing unknown, with town several miles away, and a rough road to travel to get there. In sections like this, a "school picnic" will perhaps be the only social gathering for the summer, and often times even that is lacking, and it is not an unusual thing for the farmer's wife to remain at home day after day, busy, of course, at any or all of the "hundred-and-one" odd jobs that fall to the lot of the women on the farm, without having even the pleasant diversion of spending an afternoon and having tea in a neighbor's house.

To such woman I would say, just leave your work and your home once in a while and go. Things will not go to rack and ruin while you are gone as much as you think. To one who has to do her own cooking all the time, it is a treat to eat a meal prepared by other hands, and then we will likely go home with some new ideas by which we can make a pleasant change in our own meals or ways of doing some other work, and anyway we will feel so much brighter that work will be despatched more quickly, and so the time we have been away is not all lost after all.

But if a little visit to a neighbor's house is not possible, we might now and then prepare a little picnic lunch of perhaps a salad, some sandwiches, some fresh fruit if we can get it, and a little cake, and go with the children to some cool, "woody" place to eat it. The little ones will enjoy it as much as a real picnic, and a meal in the open that way is wonderfully refreshing. Sometimes the "men folk" have to take a lunch to the field. This makes a good opportunity for mother and the children to take theirs out too, and all picnic together.

But above all things I would say to the farmers' wives that in order to escape constant work, they should have plenty of reading matter in the home. Even if you are not much of a reader, if you have a good newspaper, and a magazine or two, with "The Farmer's Advocate," of course, you will see many things in them that will interest you, and rest you too. There are many odd minutes to spare when we would pick up a paper or magazine to read if it were handy, and it would help us to raise our thoughts above "the daily round of common toil."

So much has been written lately about women using labor-saving devices and having system in working that it seems unnecessary for me to say anything along that line, so I will just say, plan your work, know what you want to accomplish for each day, but if anything occurs to upset your plans, why just try and adapt yourself to changed circumstances, and make more plans, and if you can't work systematically, work as systematically as you can. WILL'S WIFE. Haliburton Co., Ont.

"An heirloom," explained the farmer's wife to her thirteen-year-old boy, "is something that has been handed down from father to son, and in some instances is greatly prized."

"I'd prize these heirlooms I'm wearing," remarked the youngster, "a good deal more if they wasn't so long in the legs."

1911

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"Pretty Girl Papers."
CARE OF HAIR.
 Healthy hair requires a clean scalp. It is not necessary to wash the hair in water every day or two as we school girls used to do to make our hair hang in ringlets; dry shampoos are better than too much dampness. Thick hair, when wet, if not thoroughly dried, is quite apt to sour, and, besides having an unpleasant odor, it is very dangerous; many people have traced the origin of catarrh and

deafness back to the day they neglected to thoroughly dry their hair after washing it.
 Once a month is often enough to give the hair a bath. Give it a dry shampoo once a week with the following mixture: One ounce of lavender spirits, two ounces of spirits of ammonia, and five cents' worth of glycerine. Mix well and bottle. Add a few drops of this to a small quantity of soft water, sufficient to lather freely as you need it. For the hair bath, dissolve a bit of castile soap in tepid water, add a pinch of salt and a small

piece of borax to the water, and rub the scalp thoroughly with the fingers.
 When the head is scaly and crusted with dandruff, caused from poor digestion, the best remedy I know of is the white of an egg beaten to a froth and applied to the scalp; this should be washed off with tepid water, into which a dash of camphor or bay rum has been added. This last prevents one from taking cold.
 Here is a recipe said to be excellent to prevent premature baldness, caused by a sick spell or falling out from any other reason. Take half a pint of elder water,

one-half ounce of tincture of arnica, a dram of ammonia (alcoholic), and a small handful of common salt. Mix well and rub into the scalp every day with a sponge. Rest the hair occasionally by changing it. If done up on top of the head, let it fall down and hang loosely around the shoulders a while. Continued parting in one place will thin out in time and make a bald spot. During the growth of new hair, great care should be taken in combing and brushing, and only soft brushes should be used. Many a lovely head of hair has been spoiled from



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MEN'S SOCKS. Sizes 9½ to 12. Colors: black, light tan, dark tan, pearl, navy blue, gun metal, mulberry. In light weight, 6 pairs \$1.50 (same in medium weight in above colors and in black with white feet, 6 pairs \$1.50). Light and extra light weight (mercerized), 6 pairs \$2.00. Light and extra light weight *Lustre Sox*, 6 pairs \$3.00. Pure thread-silk socks, three pairs (guaranteed three months), \$2.00. Medium worsted merino in black, tan, pearl, navy and natural, 6 pairs \$2.00. Same in finer grade, 6 pairs \$3.00.

WOMEN'S. Sizes 8½ to 11. Colors: black, light tan, dark tan, pearl, and black with white feet. Medium weight, 6 pairs \$2.00. Same colors (except black with white feet) in light weight *Lustre Hose*, 6 pairs \$3.00. Light weights in black, tan, and gun metal, 6 pairs \$2.00. Same in extra light weight *Lustre Hose*, 6 pairs \$3.00. Same in pure thread-silk, \$3.00 for three pairs (guaranteed three months). Out-sizes in black, medium weight, 6 pairs \$2.00, and in extra light weight *Lustre Hose*, 6 pairs \$3.00.

CHILDREN'S. Sizes 5½ to 10½ for boys, 5 to 9½ for girls. Colors: black and tan. Medium weight, 6 pairs \$2.00.

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Please Mention this Paper.

harsh usage. Wire brushes, fine-toothed combs, and steel hair pins, should never have a place in "my lady's toilet," and only the purest kinds of soap.

I have heard my grandmother tell of the beautiful long silken hair they had when she was a girl, and she attributed it to the use of grape sap. This, she said, was secured by tapping the grapevine in early spring when the sap or juice flows freely. Another well-known restorative is the old-fashioned sage compound. The extract is superior to the tea, unless one can have the pure leaf grown in the home garden. Take four ounces of dried sage, put it into a pint of rain water and a pint of bay rum. Let it stand for a week; stir occasionally and strain through thin cloth. This is sage extract. Retain your leaves and put with it two quarts of soft water; boil down to a quart. Mix with it the extract and add ten drops of nutmeg oil, and a dram of tincture of cantharides. It is claimed to be an unfailing remedy for hair that is prematurely turning gray, besides having a fine tonic effect upon the hair follicles.

One of the greatest hair destroyers ever invented is the curling iron. The finest head of hair is doomed when the curler begins its work. It leaves the hair faded, ragged, and looking like old weather-beaten hay. Nature designed the hair to hang gracefully over the shoulders, but womankind has sought out many new inventions.—Selected.

To the above, it may be added that pure vaseline, or a mixture of ten parts pure vaseline and one part white precipitate, well rubbed into the scalp, is one of the best things known for the hair. The only trouble is that it brushes out into the hair, making it rather oily, but occasionally one has to put up with a disadvantage. It is said that the Japanese, in order to make their hair shine, first brush their hair, then rub it vigorously and long with a piece of old velvet.

One of the best inventions we have seen is a crib which can also be turned into a bath, chair or walker. The framework is of wood, and is jointed so that it may be folded flat. As it is on rollers and weighs only eight pounds, it can easily be moved to porch or lawn, and the mother can have her little one near her while she works in the open air.

There is not a mattress in the crib, but in its place a body of white canvas duck, made deep and wide, which yields to every motion of the child. This can be easily laundered, and to make it still more comfortable, you can have a pad made of cotton batting between two layers of cheesecloth.

To change the crib into a chair, all that is needed is a readjustment of the canvas. The chair has a broad flap, which serves for a table for toys. Another readjustment of the canvas makes it into a walker. The bath is of white rubber, on a nickle frame. It fits into the top of the crib frame when the canvas has been removed. It has no seams and cannot leak. Another good feature is a canopy frame over which netting may be placed to keep off insects.

The crib is sold complete, with chair and walker, for four dollars and a half, three dollars extra for bath-tub attachment, and twenty-five cents for canopy top. If you do not care to spend the money on this, there are hammocks made specially for the young child, which cost less, and, like the crib, may be easily carried around.

Next in order comes feeding, which is not such a problem with a breast-fed baby as with a bottle-fed. Children from two years upwards are often harder to care for than infants in arms, as outsiders often thoughtlessly give them undesirable things to eat.

One rule to stick to for all children is not to overfeed them; much harm is done by overtaxing the digestion during the hot weather.

Be very careful to have everything connected with the food and baby himself scrupulously clean.

Have longer intervals between feeding than in cold weather, and do not feed during the night after baby is three months old.

The breast-fed baby needs to have water given him just as much as the bottle-fed. On very warm days, it is a good plan to give a little boiled water, or barley water, just before he takes the breast, thus diluting the mother's milk, and mak-

My Canada!
We look always with love and pride
Upon thy forests deep and wide,
And gladly say
"These giant fellows, mighty grown
with age,
Are part and parcel of our heritage."

My Canada!
So rich in glow and bracing air,
With meadows stretching everywhere,
With gardens gay,
With smiling orchards, sending forth to greet
Full breaths of perfume from their burdens sweet.

My Canada!
Thou art not old, thou art not skilled,
But through the ages youth has thrilled;
'Tis dawn with thee,
Thou hast a glorious promise, and thy powers
Are measured only by the golden hours.

My Canada!
What thou art now we know full well,
What thou wilt grow to be, ah! who can tell?
We see to-day
Thy lithe form running swiftly in the race
For all the things which older lands do grace.

My Canada!
With loyal sons to take thy part,
To hold thee shined within the heart,
Proudly we say,
"This is our country, strong, and broad,
and grand,
"God guard thee, Canada, our native land!"

—Jean Blewett.

Care of Children in Summer.

(By Margaret C.)

To keep the young child healthy and happy during the summer months is one of the problems of this changeable climate of ours; but there are a few rules which, followed carefully, invariably bring good results.

The children of the past generation, were, as a rule, dressed too warmly, and their clothing was too heavy. For the child up to two years, all that is necessary is a thin silk and wool knit band, wool gauze shirt with short sleeves, the lightest weight flannel skirt, and lawn or dimity dress, cotton stockings pinned to the diaper, and kid shoes.

For the older child, much the same clothing may be used, except that the band need not be worn, and rompers may be substituted for the dress on most occasions; also sandals instead of kid shoes. These may be worn without stockings in the very warm weather where there are few mosquitoes or black flies. Do not, on any account, let your little one run barefoot, as it spoils the arch of the foot, and besides this the germs of lock-jaw are often found in the dust, and the disease may be contracted through cuts or abrasions of the skin of the foot.

Let your little ones sleep outside as much as possible, always taking precautions to shield the eyes from bright light; a parasol lined with green is good for this purpose.

Never let a young baby lie in such a position that he can stare up at the sun or get its direct rays in his face. Always have the crib well screened with netting, so that neither flies nor mosquitoes can get near your child. Scientists now assure us that these insects are great spreaders of disease.

Fortunately for the mother, mechanical ingenuity has helped her in the nursery as well as the kitchen.

One of the best inventions we have seen is a crib which can also be turned into a bath, chair or walker. The framework is of wood, and is jointed so that it may be folded flat. As it is on rollers and weighs only eight pounds, it can easily be moved to porch or lawn, and the mother can have her little one near her while she works in the open air.

There is not a mattress in the crib, but in its place a body of white canvas duck, made deep and wide, which yields to every motion of the child. This can be easily laundered, and to make it still more comfortable, you can have a pad made of cotton batting between two layers of cheesecloth.

To change the crib into a chair, all that is needed is a readjustment of the canvas. The chair has a broad flap, which serves for a table for toys. Another readjustment of the canvas makes it into a walker. The bath is of white rubber, on a nickle frame. It fits into the top of the crib frame when the canvas has been removed. It has no seams and cannot leak. Another good feature is a canopy frame over which netting may be placed to keep off insects.

The crib is sold complete, with chair and walker, for four dollars and a half, three dollars extra for bath-tub attachment, and twenty-five cents for canopy top. If you do not care to spend the money on this, there are hammocks made specially for the young child, which cost less, and, like the crib, may be easily carried around.

Next in order comes feeding, which is not such a problem with a breast-fed baby as with a bottle-fed. Children from two years upwards are often harder to care for than infants in arms, as outsiders often thoughtlessly give them undesirable things to eat.

One rule to stick to for all children is not to overfeed them; much harm is done by overtaxing the digestion during the hot weather.

Be very careful to have everything connected with the food and baby himself scrupulously clean.

Have longer intervals between feeding than in cold weather, and do not feed during the night after baby is three months old.

The breast-fed baby needs to have water given him just as much as the bottle-fed. On very warm days, it is a good plan to give a little boiled water, or barley water, just before he takes the breast, thus diluting the mother's milk, and mak-

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Why don't some flours behave? Why don't they keep good?
 Because they contain too much of the branny particles, too much of the inferior portions of the wheat — may be little pieces of the oily germ. Which act on one another—that's why some flours "work" in the sack. FIVE ROSES is the purest extract of Manitoba spring wheat berries. Free from branny particles and such like. It will keep sound, and sweet longer than necessary. Keep it in a dry place, and when needed you find it even healthier, sounder, fresher, drier than the day you bought it. Buy lots of FIVE ROSES. It keeps.

Five Roses Flour

Not Bleached  Not Blended

LAKE OF THE WOODS MILLING COMPANY, LIMITED, MONTREAL

ing it easier to digest. On very hot days, keep him at the breast a shorter time, and offer him boiled water that has been cooled in a nursing bottle.

One whole meal of barley-water may be substituted if there is any tendency towards indigestion, and equal parts of barley-water and mutton broth, if he is over six months old.

Bottle-fed babies are much harder to bring through the summer, and quick action and good judgment are needed on the part of those in care of them.

Weaken the regular meals by leaving out an ounce of the regular mixture and adding an ounce of boiled water. If the gain in weight seems less than usual each week, it does not matter so long as there is no great loss. Always use milk from a mixed herd of cows, never from one cow. Even if the food agrees with him, it is wiser to give one meal of gruel or broth on an intensely hot day.

The Hygeia nursing bottle, is the best device we have seen for the purpose of feeding the infant. It is the invention of a physician, and is not a bottle, but a wide, open cell, with nipple made to resemble in every way, the natural source of babies' food. Both tip and bottle may be easily cleansed, doing away with brush and funnel. These bottles may be purchased for a small amount at almost any druggists'. On the surface of the cylinder is a measuring scale in ounces. All milk bottles should be thoroughly cleaned by rinsing first with cold water, and then washing thoroughly with hot soap suds; rinse in flowing clean water. If they are then placed in a rack in a moderately-hot oven, they will be sterile and ready for use. Never leave the empty or half empty bottle standing for any length of time after the infant has been fed. The tip should be turned, thoroughly washed, and left in a cup containing boiled water in which a small lump of either borax or baking soda has been dissolved.

Another great help to the mother is the

It Pays The Housewife
 to use the best sugar—because
 poor sugar means poor cooking.

St. Lawrence Sugar

is the genuine "Montreal Granulated"—absolutely pure, sparkling crystals of the most inviting appearance.

Ask your grocer for a 20 lb. bag of ST. LAWRENCE GRANULATED — also sold by the barrel and in 100 lb. bags.

The St. Lawrence Sugar Refining Co. Limited
 MONTREAL. 32

Thermos bottle. The milk is heated and poured into the bottle, where it remains at the desired temperature indefinitely. This bottle can also be purchased at your druggist's.

Too much attention cannot be given to the care of the milk, heating at 167 degrees F. being the only safe plan.

The older child must also be watched carefully, and care taken that he does not indulge in unripe or unsound fruit.

Cereals (with the exception of oatmeal,

which is heating), may be given when well-cooked and daintily-served; eggs only two or three times a week. A few, not more than five or six ripe strawberries, sweet enough to be eaten without sugar, may be given for breakfast; also a few perfectly-ripe cherries. When these are given, watch the results. Add to the menu dainty slices of well-baked whole-wheat bread and butter, asparagus well-cooked in salt and water, and well-boiled rice nicely seasoned.

Try to please the fancy of the child; build houses of small pieces of bread and butter, with here and there a few bits of fat broiled bacon instead of the butter.

Wheat should be sparingly used during very hot weather, milk, eggs and macaroni taking its place. Baked potatoes, rice and tapioca supply the starchy foods. Avoid the use of sweets, under-ripe fruit and stale vegetables. The old-fashioned bread and milk cannot be improved on for a supper dish.

Do not give fresh fruit to children after dinner; it is much better stewed, and for a child under five, is preferable that way even for breakfast.

The habit of drinking cold water is a good one to cultivate, especially in the morning and evening.

Serve both water and milk in wine glasses or fancy cups occasionally, instead of in the usual tumblers or cups, and you will find the child tempted to drink when he would otherwise refuse.

The commonest diseases of childhood during the summer months are diarrhea and prickly heat.

To prevent diarrhea, feed regularly, and do not overfeed; keep everything about the food perfectly clean, and where no flies are likely to alight on it.

If there are signs of diarrhea, give a dose of castor oil and stop all milk. Diarrhea is a poison which milk only aggravates. Give barley-water and pure cold water; it is a mistake to stop water. If not cured in a day, send for a physician.

Frequent cold sponges in very warm weather will often prevent prickly heat.

When developed, sponge with either of the following: Equal parts of vinegar and water, tepid water with a small lump of bicarbonate of soda dissolved in it, or water in which a lump of starch has been dissolved. You must find out for yourself which of these agrees best with your child. After a bath, use the

Clears the Skin



It is impossible for any woman to be truly beautiful without a clear skin. An otherwise unattractive face becomes radiant and beautiful as soon as the skin is made clear and free from blemishes.

Princess Complexion Purifier

The most wonderful and efficient of all beautifiers, removes without injury freckles, moth-patches, sallowness, sunburn, blackheads, discolorations, etc., leaving the skin soft, white and smooth. If you would have a permanent complexion that will rival a baby's in purity, tint and texture, use this lotion. Sold by all dealers—\$1.50 per bottle, or sent prepaid on receipt of price. Superfluous Hair, Warts, Moles, etc., eradicated by Electrolysis permanently and satisfactorily. Write for personal advice and our handsome free booklet "F."

Hisco Institute 61 College St. Toronto, Ont.

GET THE WASHER THAT CLEANS BY VACUUM

For 30 Days Free in your own Home. The greatest invention of the age. Thousands of women the world over have been able to solve the washday problem. No more backache and washday drudgery. The "EASY" is made entirely of rust-proof steel, and cleans easier and better than any other washing machine made with no wear on the clothes. No wooden tub to dry out and fall to pieces or become foul or unsanitary. It is on rollers which save lifting. Costs less than any other washer, and then pay for itself. Well it simply means if you don't; have an "EASY" Washer you haven't got the best. Prove it for yourself. Shipped, free for thirty days trial in your own home. We Pay Freight. If you are not delighted with it, return it at our expense. It costs you nothing till you are satisfied with it. It must sell on its merits. Write me now, personally, for our booklet of laundry receipts and free trial order form, and settle the washday problem forever.

L. G. BEEBE, Mgr. THE "EASY" WASHER CO.
51 55 Bruce Street Toronto, Ont.



COWAN'S PERFECTION COCOA

(MAPLE LEAF LABEL)

is all Cocoa—and has all the food properties—all the delicious flavor of the best cocoa beans.

DO YOU USE COWAN'S?

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at two cents per word each insertion. Each initial counts for one word, and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 30 cents.

FOR SALE—4 White Leghorns and cockerel, \$5.00; 8 Brown Leghorns and cockerel, \$10.00; 5 Rhode Island Whites and cock, \$10.00; 3 Black Orpingtons and cock, extra large, \$10.00; pair Buff Cochins, cockerel extra large, \$5.00. Five and eight weeks' chicks for sale; 2 Philo coops for sale. R. B. Scriven, Delhi, Ontario.

S.-C. White Leghorns Great layers and prize-winners. Eggs: \$1.00 per 15; a hatch guaranteed. **Geo. D. Fletcher, Binkham Ont.**

A JOB FOR JOB.

Wanted at Once—Two fluent and well-learned persons, male or female, to answer the questions of a little girl of three and a boy of four; each to take four hours per day, and rest the parents of said children. Apply at The Register office.—Neepawa (Manitoba) Register.

following powder over the skin: One tablespoonful cornstarch, 1 tablespoonful talcum powder, 2 teaspoonfuls boracic acid powder.

Spend as much time as you possibly can in the open air with your children, and less at the sewing machine making fancy clothes that require hours at the ironing-table. Give them a clean sand-pile to play in.

Give the older children little tasks to do that will help you and keep them busy. Get out into the open and interest yourself and them in all the beautiful things which God, through nature, has placed so lavishly around us.

Even if your housekeeping does for a time appear to be neglected, the improved health of yourself and little ones will make your work seem easier, and give all a brighter outlook on life. The children will remember happy days in the woods, with a simple lunch eaten out of doors, much longer than they will frilled skirts and company dinners.

News of the Week.

An Art Gallery is proposed for Hamilton, Ont. * *

Dr. John Clifford, the noted Baptist clergyman and Liberal political leader, of London, Eng., addressed delighted audiences in Toronto and Peterboro last week. * *

The new White Star liner, "Olympic," is 882 feet in length, and has a displacement of 45,000 tons. A new Cunard liner, soon to be launched, will exceed this displacement by 5,000 tons. * *

An event which may prove to be the most important of the century was brought about last week by the practical arrangement of the arbitration of all future differences between Great Britain and the United States. It is unofficially stated that France is anxious, also, to enter the compact. * *

It is disgraceful that civilized men and women should have trooped to Niagara Falls last week to see aviator Beachey risk his life in an aeroplane over the most dangerous spot, in case of accident, in Canada. People who patronize such sights have little cause to cry out upon the barbarian practice of bull-fighting. The twentieth century should have higher ideals of amusement.

Why He Fails.

Sometimes a man fails to get along in the world merely because he is forever relating his troubles to those whom he meets, until all who know him learn to side-step him, and he misses the chances that otherwise would be placed in his way. The man who wears all his worries on his sleeve is not a cheerful companion, and people learn to shun rather than to seek his company. Few successful men are grumblers, and grumbling contributes nothing to anybody's success. Each person has among his acquaintances some who are forever telling their little troubles—sometimes telling them to people who have troubles of their own ten times greater, but of which they say nothing, but go along their way smiling, playing the game, fighting the fight. Men learn to admire the fellow who never squeals when hurt, and they learn to despise the chap who whimpers every time he stubs his toe, loses a dollar, or misses a chance to make one. The very men who go about carrying gloom with them to shed on their friends, are often quickest to resent any such action on the part of others, and their own observation should teach them that other people have troubles of their own, do not want to listen to tales of woe, and that a wise man, if he have a hundred troubles, will lock them up in his bosom and present a cheerful front to all comers. This is one of the secrets for getting on in the world. The making of oneself agreeable, one's presence welcome, is half the battle. Most of those who are agreeable persons to meet and deal with are so, because they cannot suffer the pangs of their own

indigestion, but seek to pass these pains on to others. They kick, growl, grumble, censure others, and when men avoid them because they are tiresome, they boast that they are too bluntly honest to be popular. Boorish and envy-eaten persons describe their bad manners or the disease that consumes them, as "blunt honesty." It is too good a name for a bad defect. —Selected.

The Men of the Future.

These things shall be; a loftier race Than e'er the world hath known shall rise,

With flame of freedom in their souls And light of knowledge in their eyes.

They shall be gentle, brave, and strong To spill no drop of blood, but dare All that may plant man's lordship firm On earth, and fire, and sea, and air.

Nation with nation, land with land, Unarmed shall live as comrades free; In every heart and brain shall throb The pulse of one fraternity.

Man shall love man with heart as pure And fervent as the young-eyed throng Who chant their heavenly psalms before God's face with undiscordant song.

New arts shall bloom of loftier mould, And mightier music thrill the skies, And every life shall be a song, When all the earth is paradise.

There shall be no more sin, nor shame, Though pain and passion may not die; For man shall be at one with God In bonds of firm necessity.

—J. A. Symonds.

TRADE TOPICS.

Location is wanted for a milk-products factory in a dairy section producing 10,000 lbs. milk or more daily, on a main railway line to Toronto. See the advertisement in this paper, and write for particulars, care of "The Farmer's Advocate," London, Ont.

THE WESTERN FAIR OF 1911.

Always Good, Canada's Pioneer Exhibition This Year Will be Better Than Ever.

The Directors of the Western Fair, which opens in London, Ont., on September 8th, and continues for nine days, are determined to make this year's exhibition surpass all its long line of predecessors in every respect, and with that object in view, have been, and still are, working untiringly. Though the time for the big event is still more than two months off, sufficient progress has been made with the arrangements to make sure that the Fair of 1911 will afford surprise and delight for the tens of thousands of visitors who will throng the grounds during its progress. Of first importance, of course, are the standard departments—the displays of live stock, agricultural, horticultural, floricultural, and dairy products, and the rate at which space is being taken up is not only a guarantee that the various buildings and stables will be filled to completion, but should serve as a warning to intending exhibitors to get in their applications without further delay. This is particularly the case as regards the main building, where some important changes have been made, where space is being taken up very rapidly.

The prize list has grown considerably of late years, until now \$26,000 are offered in premiums to exhibitors and attractions. It is the liberality of the Directors in this respect that has made the Western Fair the popular exhibition it is among the farmers of Canada.

Of course, the modern fair must have its special attractions, and here, too, the Western is holding its own. There will be aerial, military, hydro-electric, and numerous other features, amusing, instructive and thrilling; there will be music aplenty, four splendid bands having been engaged. There will be high-class jumping and speeding contests; there will be an attractive midway, and there will be a magnificent display of fireworks nightly. To go over in detail the various attractions and describe them all would take up more space than is at command, but sufficient is here stated to convince even the skeptical if there are such where this great exhibition is concerned, that the Western Fair of 1911 will be bigger, brighter, better than ever.



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

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

ONTARIO VETERAN GRANTS WANTED—Located or unlocated; state price. Box 35, Brantford.

SITUATION wanted as manager of large dairy farm, or superintendent of large pure-bred herd. Life-time experience; age 30 years; excellent references. Herdsman, "Farmer's Advocate," London.

TWO young men, about 20, seek situations with pedigree stock; both experienced. Apply: C. Swinford, 91 Dundas St., Toronto, Ontario.

VANCOUVER, British Columbia—New York of the Pacific—Building lots, \$360 up. Easy terms. Best investment known. Bank references given. D. MacLurg, Broker, 340 Pender, Vancouver.

VETERINARY SURGEON WANTED—Bright, industrious, ambitious young man, graduate of Ontario Veterinary College, to represent a Live-stock Journal. Mr. Robertson, Box 444, Toronto.

VANCOUVER ISLAND, British Columbia, offers sunny, mild climate; good profits for men with small capital in fruit-growing, poultry, mixed farming, timber, manufacturing, fisheries, new towns. Good chances for the boys. Investments sale at 6 per cent. For reliable information, free booklets, write Vancouver Island Development League, Room A, 23 Broughton Street, Victoria, British Columbia.

WIRE FENCING FOR SALE—Brand new, at 20 to 50% less than regular price. Write for price-list. The Imperial Waste & Metal Co., Queen St., Montreal.

200 ACRES, Halton County, Trafalgar Township, stock or dairy farm, right at Hornby Station; could put milk on morning train for Toronto. 180 acres of workable land, balance maple and beech bush; two fine running streams; soil clay loam; farm is level and free from stone; well fenced; beautiful solid-brick house of 12 rooms; the barns are frame, 30x48, 24x6, 18x24; rural mail delivery. A money-maker for someone. Price, \$12,000.00. Terms arranged. Apply to: J. A. Willoughby, Georgetown, Ontario.

GOSSIP.

In a notice elsewhere in this issue, of the Quebec Provincial Exhibition, to be held in Quebec City, August 28th to September 5th, the date when entries close is given as August 4th, which is an error, the proper date of closing being August 14th.

At a consignment sale of Holsteins, at Lake Mills, Wisconsin, June 13th and 14th, 221 head were sold for an average of \$177. The highest price realized was \$1,000, for Johanna De Colantha 2nd Segis, consigned by F. J. Bristol. Several cows sold for \$400 to \$500. The highest price paid for a bull was \$305.

HOLSTEINS FOR CANADA.

The highest priced female at the recent Breeders' Consignment Sale at Syracuse, N. Y., was captured by H. J. Allison, for \$1,500, and comes to Canada. This cow, Brookside Segis Korn-dyke, is sired by King Segis, who has sixty-two officially tested daughters, among which are seventeen two-year-olds, with records of from 20 lbs. to 26 lbs. of butter in seven days.

Other Canadian buyers were Brown Bros., who purchased a bull for which they paid \$690; A. C. Hardy, who got a pair for \$400 and \$485, respectively, and P. J. Salley, who also bought two, paying \$315 for one and \$700 for the other.

Very high prices ruled at this sale, one bull calf selling for \$10,000, and the 223 head averaging \$423.

Canadian breeders are to be congratulated upon obtaining such high-class stock for breeding purposes in this country, and Holstein breeders will be glad to hear of this valuable addition to the breed in Canada, as well as to hear of the increasing demand for pure-bred dairy cattle.

Mr. Honeymoon Jones—Our room is very cozy, Mrs. Ozone.

The Landlady—Ah, sir, what a blessing! 'twould be if all my boarders were on honeymoons. They'd never notice anything.—London Opinion.

GOSSIP.

Jersey bulls of serviceable age, bred from heavy-milking strains, are advertised for sale by Arthur H. Tufts, of Tweed, Hastings County, Ont., a station on C. P. R.

C. A. Archibald, of Truro, Nova Scotia, who recently advertised in "The Farmer's Advocate" for two carloads of young Shorthorn bulls, writes that he secured 37 out of the 40 required, and had to cancel a few that he had arranged for on account of their not being able to make connections in time, his contract having called for delivery on June 27th. Had the advertisement appeared a week or two earlier, the result would, doubtless, have been even more satisfactory.

By courtesy of Gerald Powell, Commission Agent and Interpreter, Nogent-le-Rotrou, France, we are favored with a few horse items of the Paris Show, which is for all kinds of live stock, horses and cattle. The different breeds of horses were all represented. Beginning with the draft horses, the Percherons were, as usual, the most popular and more plentiful. Buyers came from the United States, South America, Germany, Austria and Japan, the latter buying Percherons and French Coach for their Government. The two-year-old Percheron class brought out 52 of the best in the ring. After three-quarters of an hour, 15 were left for final inspection, and the first prize was awarded to Galop, belonging to August Tacheau. He is a gray of a very drafty type, being big, wide at each end, with best of feet, legs like bars of iron, good middle and a good mover. This horse was at Chartres Show two weeks before, but picked up a nail, and being lame, was not shown. I understand this horse was sold in a bunch to Singmaster & Son, of the United States of America, at a big price. The second prize went to Joseph Aveline's Jewitt, a gray, a good quality colt, but not so drafty as the winner. Jargon of Jules Chouanard, was third. The three-year-old class brought out the cream of the Perche district, the big, rugged gray of Mr. Brebion which was second at Chartres, took the blue ribbon here, and was a great favorite with the public, especially the American buyers, for after he had won, several Americans tried to buy him; eventually Crouch & Son secured him, the price being reported at 25,000 francs (\$5,000). Second prize was awarded to August Tacheau's Idonon, gray, first at Chartres two weeks ago. He is a very toppy horse, not quite so drafty as the winner, but better in the head and neck. The four-year-old class brought out some old acquaintances. Moulinet, the good-looking gray of Joseph Aveline, came out as fresh as paint; at Chartres two weeks before he was stale in his action; but here he moved quite free and was awarded first. I understand this horse was sold to Robinson & Son, Illinois, last winter, to be delivered after the show season. The big gray, Vinay, from the Tacheau stable, was second (he had already won first at Chartres), and another big gray, Huchoir, was third, belonging to Mr. Chapelle; he is big and drafty, weighing 2,400 lbs., and moved like a pony in his trot. The Prix d'Honneur for the best lot was easily won by the Tacheau stable. They were a grand collection, such as one rarely sees in any show-ring belonging to one man. Edmond Perriot showed a grand lot of mares, and won nearly all the prizes. The Boulonnais breed (French draft) made a good show; rather light gray in color, but draft horses in every respect; good tops with good feet; not the largest bone, but real flinty legs, and that shrewd horseman, Robert Burgess, of Illinois, bought most of the prizewinners of this breed in spite of their color. Mr. Legentil and Baron d'Herincourt divided nearly all the honors. The Nivernais breed has not so many entries as the other French draft breeds, as you know they are all black in color, big, rugged bone, and with a drafty appearance, but a little short in the rib, therefore not having so much middle as the other breeds. Messrs. Laporte, Denis and Shoste divided the honors.

Berkshire hogs of high class type and quality are advertised for sale by John S. Cowan, of Fairview Farm, Donegal, Perth County, Ont., Atwood Station, G. T. R.

Attention is called to the advertisement in this issue of the big twin fairs, to be held at Vancouver and Victoria, B. C. The Vancouver Show is to come off on the dates August 28th to September 4th, and the Victoria event September 5th to 9th. \$100,000 in prizes should prove a strong attraction, while the field as a market for pure-bred stock is one of the best, and the trip for Eastern visitors one of the greatest on earth.

QUEBEC PROVINCIAL EXHIBITION.

Twenty-one thousand dollars in cash prizes is the bill of fare hung up for exhibitors at the Provincial Fair, to be held at Quebec, from August 28th to September 5th. Classes for all breeds of stock are provided with liberal prizes, and a good market for the sale of pure-bred stock is available. See the advertisement, and write Secretary J. H. Fortier, Quebec, for prize list and entry forms.

TRADE TOPIC.

THE "OCEAN LIMITED."—"The Farmer's Advocate" has pleasure in acknowledging the receipt of a very attractive framed picture, one of a series issued by the Intercolonial Railway, for distribution in Ontario and the West. The picture shows the Intercolonial Railway's fast summer train rounding the shores of Bedford Basin, near Halifax. The scene is a lovely one, to which even the excellent execution of this handsome picture can scarcely do justice. The "Ocean Limited" leaves Montreal 7.30 p. m. daily, except Saturday, for Quebec, the Lower St. Lawrence resorts, St. John, Halifax, and makes direct connection for Prince Edward Island and the Sydneys. Grand Trunk trains arriving in Montreal use the same depot—the Bonaventure—so that transfer across the city is avoided. Contrary to certain popular impressions, the I. C. R. renders an excellent service, traverses a route of unexcelled scenery and charm, serving a section of the Dominion that is well worth knowing. For a delightful summer holiday, a tour of the Maritime Provinces could not well be surpassed. More Canadians should make it.

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.

BREEDING MARE.

Mare, due to foal July 2nd, cast foal May 2nd. Would it be wise to breed her this year or to let her have a year fallow. This was her first colt, rising four. A. W. G. C.

Ans.—If the mare is sufficiently well grown for the breed, and is in no way weakened or run down as a result of her mishap, we see no reason why she should not be bred again this season.

MARE WITH A COUGH.

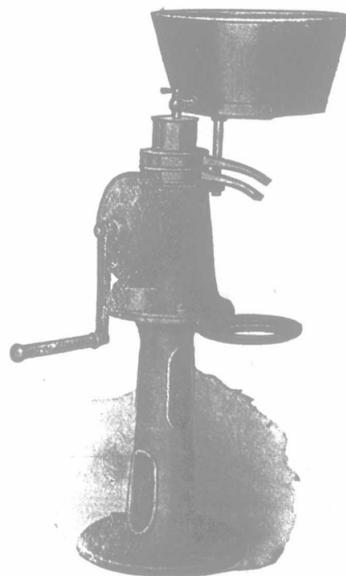
My driving mare took a sort of influenza last March and has had a slight cough ever since. She has been out on grass for the past month, and is taken in at night when damp and cold. Fearing it may develop into heaves, I would like to assist nature to get rid of it. What treatment would you recommend? A. C. M.

Ans.—Feed food of first-class quality. Never give musty or dusty hay or grain. Dampen her feed with a little lime water. Give a ball once daily composed of powdered opium, 1 1/2 drams; solid extract of belladonna, 2 drams; camphor, 1 dram, and digitalis, 20 grains. Add sufficient oil of tar to make plastic, roll in tissue paper, and administer; or dissolve in water and give as a drench.

EVENTUALLY The "PREMIER"

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SEPARATOR



LET IT BE NOW AND SAVE EXPENSE

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The Premier Cream Separator Co. Winnipeg, Man. TORONTO. St. John, N. B.

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ONTARIO LOAN & DEBENTURE COMPANY

Forty years' successful experience indicates the Company's sound financial policy.

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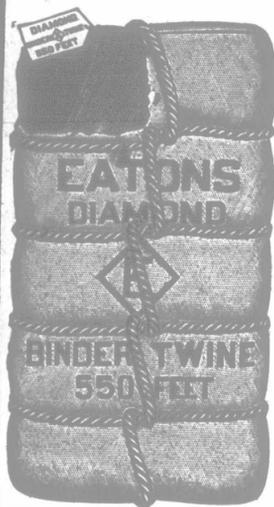
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THE BINDER TWINE THAT GIVES SATISFACTION

We are now in a position to supply the Farmer with either the 550-foot manilla and sisal or the 650-foot pure manilla binder twine, and at prices which will save him money. Diamond  Brand is a twine which we guarantee to be as good as the best on the market to-day. It has been thoroughly tested and is made for us by one of the oldest and most successful Binder Twine Companies in America.

DIAMOND BRAND 550 FEET MANILLA & SISAL



Average 550 feet
to the pound

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FOR 100 LBS.

Delivered to your
nearest railroad
station in Ontario

40c

Extra per 100 lbs.
For delivery in Quebec
or the Eastern
Provinces

THE REASON WHY

BECAUSE—It is superior in strength, and will stand the strongest test put to binder twines.

BECAUSE—It averages 550 and 650 feet to the pound, according to grade.

BECAUSE—Every ball carries our trade mark, a guarantee of its excellence.

BECAUSE—Every foot is thoroughly inspected and tested. It carries an evenness throughout which makes it stronger and also work easily on the machine without knotting or breaking.

BECAUSE—Should the twine you buy from us be unsatisfactory for any reason, return it to us at our expense, and we will promptly return your money.

ORDER EARLY. Send in your order promptly, to-day if possible. If you do not want us to ship the twine at once, say so in your order; state when you will want it, and we will ship it so it will reach you on the day specified—but in all events we would suggest that you order before July 1st. Thus you will have your order in and be sure to have the twine on hand, ready for harvest, exactly on the day that you want it.

DIAMOND BRAND 650 FEET PURE MANILLA

Average 650 feet
to the pound

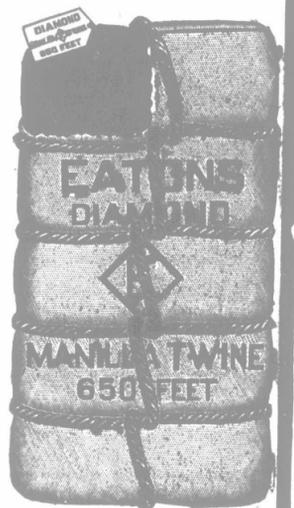
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FOR 100 LBS.

Delivered to your
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station in Ontario

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Extra per 100 lbs.
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THE GUARANTEE WE GIVE ON BINDER TWINE

We wish you to understand that you **RUN ABSOLUTELY NO RISK** in ordering Binder Twine from us, for if the twine is not exactly as represented, in weight and measurement, or if for any reason whatever you do not think the twine is the best binder twine value you have ever seen after you have examined it, then you can **RETURN IT AT OUR EXPENSE**, and we will promptly refund all the money you sent us, and include any money you may have paid out for transportation charges. **WE TAKE ALL THE RISK**, and if you are not satisfied with our binder twine, return it and **GET YOUR MONEY BACK**, rather than keep it and be dissatisfied, for we want your twine order next year and every year.

A 50-lb. Bale is the
smallest quantity
we sell

THE **T. EATON CO.** LIMITED
TORONTO CANADA

We will ship all orders
the day they are
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TRADE TOPICS.

Successful potato growers now attribute their success largely to spraying for prevention of the ravages of bugs and blight, and the Canadian Potato Machinery Co., of Galt, Ont., in their advertisement, call attention to their O. K. Canadian four-row sprayer, adjustable for wide and narrow rows, and high and low vines. Write them for their catalogue.

Those who have not already a copy of the 1911 edition of the Canadian Newspaper Directory, published by A. McKim, Limited, of Montreal, may find it to their interest to secure one whether they are advertising or not. The Canadian Newspaper Directory lists and describes 1,526 periodicals in Canada and Newfoundland. Of these 136 are daily, 1,102 weekly or semi-weekly, 265 monthly or semi-monthly, and 23 are published less frequently. In addition to this, the Directory supplies a comprehensive Gazetteer giving the population, the chief industries, the railway, telegraph and banking facilities, and other interesting features of every newspaper city, town and village in Canada. This work contains over 475 pages. It is splendidly bound, and is certainly a

WANTED! LOCATION FOR MILK PRODUCTS FACTORY

REQUIREMENTS:

Up-to-date dairy section producing 10,000 lbs. milk or more daily the year round.

Location: On main line to Toronto, with R. R. siding to factory.

Plenty good cold water and handy ice supply.

Prefer location where electric power is available.

Will pay 10 per cent. more than average price of three nearest cheese or butter factories.

Will lease or buy factory and equipment, or build and equip new.

Address:

Dairy, Farmer's Advocate, London, Ont.

Please Mention The Advocate

credit alike to the publishers and to Canadian newspapers generally. The price of the 1911 Directory is \$2.00.

GOSSIP.

SOME COMING SHOWS.

- Canadian Industrial Exhibition, Winnipeg, July 12 to 22.
- Highland and Agricultural, at Inverness, Scotland, July 25 to 28.
- Dominion Exhibition, Regina, July 31 to August 12.
- Cobourg Horse Show, August 15 to 18.
- Edmonton Exhibition, August 15 to 19.
- Canadian National, Toronto, August 28 to September 13.
- Central Canada Exhibition, at Ottawa, September 8 to 16.
- Vancouver Exhibition, August 23 to September 4.
- Quebec Provincial, at Quebec City, August 28 to September 5.
- Western Fair, London, Sept. 8 to 16.
- Miramichi Agricultural Exhibition, Chatham, N. B., September 11 to 15.
- Victoria Provincial Exhibition, Victoria, B. C., September 26 to October 1.
- Provincial Exhibition, New Westminster, B. C., October 3 to 7.

QUESTIONS AND ANSWERS.
Miscellaneous.

COWS HARD TO DRY—FEEDING CALVES AND HOGS—SUMMER-FALLOW.

1. I have a couple of cows that dried up late in the winter. They are due to calve about August, and when they were turned out to grass they came to milk again. I noticed how the milk was streaming from their udders, so I had to milk them, and they have been giving about ten quarts twice a day. Should I continue, or should I not? Will it affect the calf in any way? The milk seems all right.

2. I have read about _____ for young calves and young pigs. I have spoken to a dairyman to take all his calves, as I think I could make money out of it to feed 12 calves. I will have to pay about \$4.50 each, and can sell them at about \$15 in the fall. What would be the expense to feed this food mixed with water? Also a little chop to bring them up as well as if they were fed on skim milk and equivalent. In other words, how do they compare in feeding qualities? The reason I ask this is, I haven't very much milk this year, but next year I may have more. What would be the cost per calf in regard to _____?

3. I have spoken to our butter factory to take all the buttermilk, and can get it at about 10c. or 12c. per hundred-weight, and the manager of the factory is going to work up an extensive business, and will be able to supply me with about three tons of buttermilk per day. I live on the farm, and have 100 acres of good land, about 3 1/4 miles from a thriving town. Would it pay me to go into the pig business and use up all this feed? I have five brood sows of my own, but would have to buy all the rest of my pigs. I could get them for \$6 per pair. I could turn them out on clover, and give them buttermilk. I am taking the goods this year, and have only sixty pigs, but when a larger supply comes in, will have to put in a larger stock. Would you kindly advise me on this question? I would have to buy mostly all my own feed, except roots.

4. At how low a price could a person make money when feeding buttermilk at 12c. per cwt.?

5. I am feeding my brood sows on buttermilk alone, and they are getting too fat. Would it not be better to turn them out on grass and feed less? They are getting nearly a pail of ten quarts each now.

6. I have a piece of land 4 1/2 acres, which has become run out, and last year I sowed oats. They were late, and proved no good. There came a large crop of weeds and thistles. There is nine acres in the field, but am manuring about 4 1/2 for corn, leaving 4 1/2. I would like to know what to do. Would it be a good plan to summer-fallow this field and destroy a large per cent. of weeds, etc., and keep it worked and plowed again in the fall, or plow now and sow something? C. R. A.

Ans.—1. The cows should be allowed to be dry for a month or six weeks before dropping the next calf. Regular milking up until time of calving will have a detrimental effect on the development of the fetus, and upon subsequent lactation. It would be better to dry them up if possible.

2. Would suggest that you write the manufacturers in regard to the composition and cost of their preparation.

3. When buttermilk can be obtained so cheaply, the hog business should pay you well, especially as you are close to town and to the factory, and with the young pig at a reasonable price and clover abundant, there only remains the cost of concentrates and the management of the business. A great deal depends on these two latter, but hogs should be made pay well under these conditions. There is just a tendency to getting more pigs than can be well looked after.

4. This depends on the growthiness of the hogs, the cost of concentrates, and several other conditions.

5. By all means let the sows out on grass and decrease the milk. Exercise will keep them in good shape, and prevent them from getting overfat.

6. If the field is badly run out and the summer-fallow would doubtless reap its benefit. Summer-fallows are expensive, and after a thorough working, alfalfa or red clover might be sown. This crop would come on and probably give a good stand next year. It could be sown some time in July, and no nurse crop is needed.

PIG WITH LUMP.

Fig five weeks old, has a lump between the flank and the hind leg. The lump is somewhat soft, and does not prevent the pig from eating and growing well.

A. S. M.

Ans.—From the description given, we are at a loss to locate this lump anywhere but in the air under the pig. If he is thriving we would not worry.

LAW OF THE ROAD.

1. If A and B are meeting each other in carriages on the public highway, which side of the road should each take?

2. If A overtakes B and wishes to pass, which side should he take?

J. B. B.

Ans.—1. In Ontario the parties should always pass by on the right side in meeting. In the Maritime Provinces, and in Vancouver Island, the left side is the rule.

2. A should take the left side always when passing from behind.

RATION FOR HOGS.

Would you consider half corn and half oats, ground fine, a balanced food for hogs? Do you prefer soaked or dry feed for hogs? W. I. O.

Ans.—Corn and oats in equal parts make a very good concentrate ration, but it is a little "wide" for hogs, being about 1:7.7. If you could add a little skim milk, it would improve it. Soaking has only one advantage, and that is it prevents waste. Hogs often waste meal if fed dry. If soaked, it should not be allowed to sour, and 12 hours is a suitable time for soaking.

CHICKS AILING.

Kindly inform me of a cure for little chicks that lose their power to walk. They lose all strength, and cannot stand on their feet. Do you know of anything I could give them? J. G.

Ans.—No symptoms of indigestion or diarrhea are given, so we take it that the chickens have been overfed on heat-producing feed, and have not had sufficient exercise. Feed lightly and give plenty of green food, fresh air and exercise. It may be due also to some extent to lack of vitality, for which good feed, clean troughs, grit, fresh air and exercise, are the best treatment.

A ROADSIDE WEED.

Enclosed plant is growing quite thick on parts of our roadsides. Is it a noxious weed, and, if so, how should it be treated? GLADSTONE.

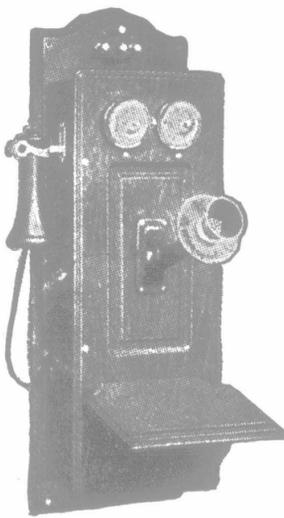
Ans.—The weed is St. John's wort (*Hypericum perforatum*). It is common in fence corners and on roadsides, and sometimes is found in pasture fields. It is not a very bad weed, but is a perennial, with running rootstocks. Keep it closely cut during the summer to prevent seeding. Where cultivation is practiced, it will not give much trouble. A handful of salt on each root will kill it.

GARGET IN COW.

We have a cow that had been in about two weeks, and one morning this week one quarter of her udder was all swollen up and hard, and can only get about a teaspoon of milk from it. Would like to know what to do for it, as we have been bathing it with hot water and salt. J. F.

Ans.—The symptoms given indicate a case of garget. It is good practice to purge the cow as soon as the swelling is noticed, with 1 lb. to 1 1/2 lbs. of Epsom salts in 1 pint of water, given as a drench, and follow this with a dessert-spoonful of saltpetre for three or four days, or this may also be given as a drench in a pint of water. Rubbing the udder half hour to an hour at a time night and morning with water as warm as the hand will bear, is also recommended. Always rub dry. Rub well with a mixture of turpentine and goose oil or lard. Keep the affected part milked out at each milking. It may be caused by injury, such as the introduction of germs by uncleanliness.

Shall we assist you to organize an independent rural telephone system?

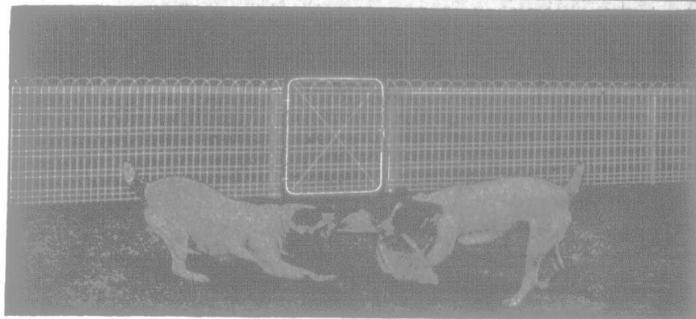


You are a progressive man and recognize the need of a telephone system in your locality, but you don't exactly know how to get the company started. Ask us. We are in a position to furnish accurate information in regard to every detail of the organization and incorporation of rural and local telephone systems. If desired we will furnish you with copies of by-laws, and will actively assist you in getting efficient telephone service for your locality.

Our business doubled in volume last year. This fact speaks well for the high standard of quality we put in our telephone products. Ask about our FREE TRIAL OFFER.

Get our prices on construction material. We can give you prompt shipment from stock.

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A fence of this kind only 16 to 23c. per running foot. Shipped in rolls. Anyone can put it on the posts without special tools. We were the originators of this fence. Have sold hundreds of miles for enclosing parks, lawns, gardens, cemeteries, churches, station grounds, etc., etc. Supplied in any lengths desired, and painted either white or green. Also, Farm Fences and Gates, Netting, Baskets, Mats, Fence Tools, etc., etc. Ask for our 1911 catalog; the most complete fence catalog ever published.

THE PAGE WIRE FENCE CO., LTD., Walkerville, Ont.
Branches—Toronto, Cor. King and Atlantic Ave. Montreal, 505-517 Notre Dame St. W. St. John, 87 Dock St. The largest fence and gate manufacturers in Canada. 507

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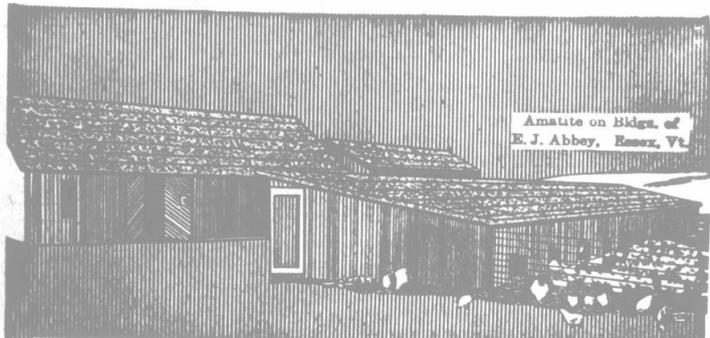
W. J. REID, President.

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80% DIVIDEND would make you run, wouldn't it?

It's just as important to get good returns from your gun as it is from your cash, and you get both when you invest in a GREENER GUN. No other gun in the world can equal the Greener for regularity and closeness of pattern, combined with striking force. The Greener was the first perfected choke bore, and the system of boring with which it won the Great London Field Gun trials of 1875, etc., is still the best to-day, and, in fact, the only one guaranteeing a pattern of 80% of the charge in a 30-inch circle at 40 yards, this means hard hitting as well; and is but one of the many features covered by the Greener Guarantee. It's worth thinking about and acting upon. Send for catalogue, mailed free. It will be sure to interest you.

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Needs No Painting

A MATITE roofing is *worned*. It doesn't need to be watched over and fussed with and cared for.

It takes care of itself from the start. As soon as it is laid on your roof, you can go away and forget about it.

You don't have to paint Amatite every two years as you do the "rubber" kinds. Amatite has a mineral surface which needs no painting.

The mineral surface is better and more durable than many coats of paint.

Back of the mineral surface is a layer of pitch, the greatest waterproofing compound known. Back of the pitch is a layer of felt (a whole ready roofing in itself), and behind this is another layer of pitch

and another layer of felt. The result is a strong, durable roof which can take care of itself in any climate without painting.

We will be glad to send you free a sample of Amatite Roofing so that you can see for yourself just what it looks like. Address our nearest office.

Everjet Elastic Paint

Low in price. Great in durability. Invaluable for prolonging the life of ready roofings, fences, iron work, etc.

Creonoid Lice Destroyer and Cow Spray

It will keep flies away from the cows. It will keep lice and nits away from the poultry, make everything sanitary and increase their output.

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RUN RIGHT

Get a Barrie 3-H.P. Engine. It will save you work. Will soon pay for itself. Simple, economical, durable. No trick to operate it. Practically runs itself, requiring no expert at-

tention. Mounted on skid, with Battery Box and all connections made. Everything complete. Just start it going. Send for descriptive booklet, and agency proposition.

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ONTARIO DISTRIBUTORS FOR
Canada Producer & Gas Engine Co., Ltd.
Barrie, Ontario

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SILENT

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EDDY'S

ROYAL GEORGE MATCHES

The most perfect, "strike anywhere," matches you ever struck.

Your dealer can supply you.

Always, Everywhere in Canada, Ask for Eddy's Matches

QUESTIONS AND ANSWERS.

Veterinary.

FOUL IN FEET, ETC.

1. I have two cows with hoof-rot on left hind leg. Is it fatal and contagious?

2. Can anything be done for impaction of the stomach? D. McC.

Ans.—1. This is called foot-rot. It is not contagious, and seldom fatal. It is caused by cattle standing in or walking through irritant material, as liquid manure, swampy land, rushes, etc. Keep them in a thoroughly dry, clean place. Clean out between the clouts, and apply hot linseed meal poultices until the soreness disappears; then dress three times daily with a five-per-cent. solution of carbolic acid.

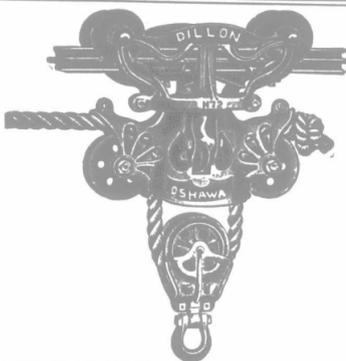
2. Give a purgative of 2 lbs. Epsom salts and 1 ounce ginger, and follow up with 2 drams nux vomica three times daily. If necessary, give 1½ pints ray linseed oil in 24 hours, and repeat the oil daily as long as necessary. In severe cases, an operation, which can be performed only by a veterinarian, is necessary. V.

PERIODIC OPHTHALMIA—LAME MARE.

1. Four-year-old mare is troubled with sore eyes. First one gets sore, and in about three days recovers; then, in about two weeks, the other gets the same. They have been sore alternately for some months.

2. Mare has been lame for two months. When standing, she puts her fore foot forward, and when backing she drags it. A. McD.

Ans.—1. This is a constitutional disease, and the attacks cannot be prevented, and it is probable she will eventually go blind from cataracts. Treat each attack by keeping in partially-darkened stall. Bathe eye three times daily with hot water, and after bathing put a few drops of the following into the eye, viz.: Sulphate of zinc, 10 grains; fluid extract of belladonna, 20 drops; distilled water, 2 ounces.



Save time and money by using

Dillon's Haying Tools

CARRIERS FORKS
SLINGS TRACK
PULLEYS, etc.

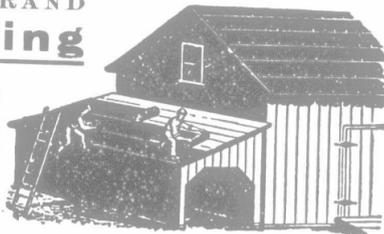
R. DILLON & SONS
South Oshawa, Ontario.
Also Litter and Feed Carriers.

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USE DURABILITY BRAND Mica Roofing

For steep or flat roofs; waterproof; fireproof; easily laid. We pay the freight on all orders of five square and over to any railroad station in Ontario or Quebec. Send stamp for sample, and mention this paper.

Hamilton Mica Roofing Co.,
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BY SEEING THAT THIS EXACT MARK

IS ON EACH BLADE. SOLE AGENTS FOR CANADA:

JAMES HUTTON & CO., MONTREAL.

BEST RESULTS ARE OBTAINED FROM ADVOCATE ADVERTISEMENTS.

2. The symptoms indicate navicular disease, which, when well established, cannot be cured. It is probable you may effect a cure if you give her several months' rest, and blister the coronet repeatedly. Get a blister made of 2 drams each of biniodide of mercury and cantharides, mixed with 2 ounces vaseline. Remove shoes and pare heels well down. Clip hair off the coronet for two inches high all around the hoof. Tie so that she cannot bite the part. Rub well with the blister once daily for two days, on the third day apply sweet oil and turn loose in box stall or on pasture. Oil every day until the hair has again grown. Repeat the blister every four weeks for several months. V.

MISCELLANEOUS.

1. Horse had scratches and his legs are left rough and scaly, with little hair. How can I cause the growth of hair and get the legs in normal condition?

2. What is the best known liniment for spavin? One that will not blister.

3. What will cure thickened and knotted cords? A. F.

Ans.—1. Where the hair roots are destroyed, as in this case, they cannot be reproduced. The daily application of oxide of zinc ointment should soften and remove the scales, and encourage the growth of hair.

2. Opinions differ as to the best application for spavins. Most liniments that are servicable for this purpose will blister if applied in sufficient strength and with smart friction. In order that a liniment may be useful, it must have an irritant effect, and the irritation produced depends upon the frequency with which it is applied, and the amount of friction used. The following usually gives good results: Tincture of iodine, 1 ounce; tincture of arnica, 1 ounce; gum camphor, 4 drams; tincture of benzoin, 2 ounces; oil of turpentine, 1 ounce; extract witch-hazel, 2 ounces; alcohol to make a pint. Apply twice daily. If it blisters, it can be weakened to any degree by the addition of water.

3. The above liniment used full strength, or repeated blistering, will reduce to some extent. V.

BEST RECORD
Ever Made by
Any Cream Separator.
Only
A SHARPLES
Could Do It.

We have repeatedly told you that Sharples Dairy Tubular Cream Separators wear a lifetime. One of our regular hand-driven Dairy Tubulars, of 500 pounds capacity per hour, recently finished work equal to 100 years' service in a live to eight cow dairy. Total cost for oil and repairs only one dollar and fifteen cents.

Ask us to mail you the fully illustrated record of this great demonstration of Tubular superiority. See how the parts of this Tubular resisted wear. Tubulars are guaranteed forever by the oldest separator concern on this continent.

Tubulars outskim as well as outwear all others. Have twice the skimming force. Skim faster. Skim twice as clean. Dairy Tubulars contain no disks.

You will finally have a Tubular. Get the Tubular first. You can see the Tubular for the asking. Our local representative will gladly show you the Tubular. If you do not know him, ask us his name.



Write for catalogue No. 193

THE SHARPLES SEPARATOR CO.
 Toronto, Ont. Winnipeg, Man.

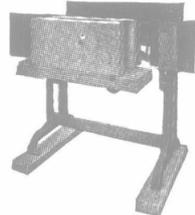
EUREKA
Glass Tank Sprayer



Solution tank is a quart Crown glass jar. If broken, it can be easily replaced for a few cents. Solution tubes are brass. None of the liquid used can be drawn back into the pump chamber, thus the chamber and valves are uninjured. This is the easiest operated and the most effective small sprayer on the market. Inquire of your hardware dealer.

Write for our complete catalogue of Sprayers and Garden Tools.
THE EUREKA PLANTER CO. LIMITED
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Singer Improved No. 4
Concrete
Block
Machine



8 x 8 x 16 inches
 Machine
\$44.50

Larger outfit at proportionate prices. Write

Department F for full particulars.
VINING MANUFACTURING COMPANY,
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Travelling Salesman
WANTED FOR ONTARIO

Must have a thorough knowledge of the principles of stock-feeding.

The Caldwell Feed Co., Ltd.
 DUNDAS, ONTARIO.

FOR JERSEY BULL Pure St. Lambert, SALE fourteen months old. Solid color. For **H. M. ROLPH,** particulars address: **Glen Rouge Farm MARKHAM ONTARIO**

Shorthorn Bulls for Sale—One 2-year-old roan, by imp. Choice Archer (83109); two bulls got by Choice Archer and descended from Miss Ramsden cows. Apply to **THOS ALLIN & BROS., Oshawa, Ont.**

PLEASE MENTION THE ADVOCATE.

QUESTIONS AND ANSWERS.
 Veterinary.

FOAL WITH WEAK FETLOCK.

Foal was weak when born, but gained strength and could rise alone in two days. When four days old, she became weak and swollen in one fore fetlock joint. My veterinarian came to see her, and he gave me a liniment to rub on and some medicine to give her, but she does not seem to be improving. She is now ten days old. W. R. A.

Ans.—Continue to treat her under the directions of your veterinarian, as he, having seen the case, is in a much better position to diagnose and treat properly, than a man who has not seen her. If the trouble be joint ill, it is probable she will be dead before this. If it be from an injury, she will probably have recovered. Cases of joint ill seldom recover, but when the preventive measures so often recommended in these columns are observed, the disease seldom appears. They consist in dressing the navel as soon as possible after birth, and four or five times daily afterwards until healed, with a good disinfectant, as a 10-per-cent. solution of carbolic acid, or a solution of corrosive sublimate 15 grains to 8 ounces water, and, of course, keep mare and foal in clean quarters. V.

FARDEL-BOUND.

One morning cow gave little milk, refused to eat or chew cud. We gave her a pint of linseed oil and repeated in 1½ hours. Next morning we gave her ¼ lb. saltpetre, and she was dead at noon. A post-mortem revealed a large quantity of bloody water in the abdominal cavity, small intestines red and congested, manaplies hard, and contents dry and caked; bladder empty. H. K.

Ans.—The cow had impaction of the manaplies, called "fardel-bound." The administration of the oil was good treatment. If you had given her a pint twice daily, and given 2 drams nux vomica three times daily, you might have effected a cure. In these cases, it is better to give a brisk purgative of Epsom salts, and follow up with oil until a free action of the bowels is caused. In many cases the disease proves fatal under the most approved treatment, but you spoiled all possibility of recovery by administering a poisonous dose of saltpetre. The dose you gave would probably not kill a healthy cow, but would make her very sick, but would prove fatal to a cow already depleted by disease. It is simply a case of a man administering medicines without an intelligent idea of their actions. One ounce is the maximum dose of the drug. V.

FLATULENT COLIC—WEAK FOAL

1. When my mare is in foal she is subject to wind colic. An injection of three quarts of warm soapy water, with a tablespoonful of turpentine, always effects a cure in ten minutes. When not in foal she is not liable to an attack. Is it advisable to breed her again, and, if so, at what date should the foal be born?

2. Foal was rather weak when born. A soft swelling formed on outside of leg, just below the knee. The foal is a month old, and is well and not lame. T. J. T.

Ans.—1. Some mares when pregnant are subject to different forms of indigestion. All that can be done to prevent attacks is to feed carefully and give regular exercise. Feeding a dessertspoonful of ginger daily tends to stimulate the digestive glands and prevent attacks. No treatment can be surer or more prompt than yours. Veterinarians seldom get such prompt results from injections, but as in your hands it acts so well and quickly, I would certainly advise you to continue it. In addition to the injection, a veterinarian would give 1 grain arecolin hypodermically, or a drachm of 2 ounces oil of turpentine and 2 ounces tincture of belladonna in a pint of raw linseed oil. As to the advisability of breeding her again, you must decide yourself. She will be liable to an attack at any time, and any attack may prove fatal. It makes no difference at what date she is bred.

2. This is a bursal enlargement, which will probably disappear. If it does not disappear, blister it repeatedly after it is weaned and in the stable during cold weather. V.

Central Canada Exhibition

Ottawa, Sept. 8th to 16th, 1911

Larger appropriations of prize money for horses, cattle, sheep, swine and poultry. \$16,000 in cash prizes, and over 100 gold medals and other trophies. Extension in grain and horticultural exhibits.

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Five acres added to grounds. Airship flights. Spectacular reproduction of grand naval review at Coronation. Gorgeous day and night fireworks, vaudeville, midway, and numerous other special attractions.

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AT QUEBEC, FROM
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Over \$21,000.00 in Cash Prizes

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EASTERN EXHIBITION

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\$20,000 PRIZES **\$4,000 RACES**

Exhibits larger and better in all classes. Unrivalled attractions. Great display of fireworks. All previous efforts surpassed.

One continual round of gaiety. You cannot afford to miss it.

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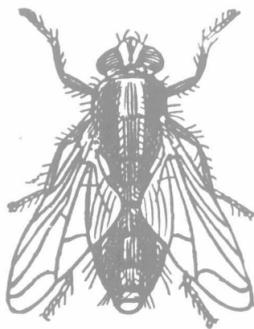
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are hatched in manure and revel in filth. Scientists have discovered that they are largely responsible for the spread of Tuberculosis, Typhoid, Diphtheria, Dysentery, Infantile Diseases of the Bowels, etc.

Every packet of

WILSON'S
FLY PADS

will kill more flies than 300 sheets of sticky paper.

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A safe, speedy and positive cure. The safest, Best BLISTER ever used. Removes all bunches from Horses. Impossible to produce scar or bluish. Send for circulars. Special advice free.

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will clean them off permanently, and you work the horse same time. Does not blister or remove the hair. \$2.00 per bottle, delivered. Book & E free. ABSORBINE, JR., liniment for mankind, reduces Varicose Veins, Ruptured Muscles or Ligaments, Enlarged Glands, Gout, Weils, Cysts. Always pain quickly. Price \$1.00 and \$2.00 a bottle at druggists or delivered. Will tell you more if you write. Manufactured only by W. F. YOUNG, P.D.F., 258 Lyman's Bldg., Montreal, Ca.

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CURES GALLS, OLD SORES AND ERUPTIONS, ULCERS, SCRATCHES, CRACKED HEEL, CALKS, CUTS, BURNS, SCALDS, etc. Put up in 25c., 50c. and \$1.00 sized bottles. If your dealer cannot supply you, send direct to us. We pay express.

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Court Lodge, Egerton, Kent, Eng.

Exporters of Pedigree Live Stock of all Descriptions. From now on we shall be shipping large numbers of horses of all breeds, and buyers should write us for particulars before buying elsewhere. If you want imported stock and have not yet dealt with us, we advise you to order half your requirements from us, and obtain the other half any way you choose; we feel confident of the result, we shall do all your business in the future. Illustrated catalogues on application.

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Gerald Powell, Commission Agent and Interpreter, **Nogent Le Rotrou, France,** will meet importers at any port in France or Belgium, and assist them to buy Percherons, Belgians, French Coach horses. All information about shipping, banking and pedigrees. Many years' experience; best references; correspondence solicited.

BOYS FOR FARM HELP The managers of Dr. Barnardo's for the boys who are arriving periodically from England to be placed in this country. The young immigrants are mostly between 11 and 13 years of age; all will have passed through a period of training in Dr. Barnardo's English Institutions, and will have been carefully selected with a view to their moral and physical suitability for Canadian life. Full particulars as to the terms and conditions upon which the boys are placed may be obtained upon application to Mr. Alfred B. Owen, Agent Dr. Barnardo's Homes, 50-52 Peter St., Toronto.

PLEASE MENTION THE ADVOCATE.

QUESTIONS AND ANSWERS. Veterinary.

WEAK PASTERNS.

Foal, now a month old, is badly down on the hind feet. In other ways it is well and strong. E. B.

Ans.—I am not sure that I know just what you mean by your colt being "badly down on the hind feet," but I presume you mean that it has weak pasterns, and when it puts weight on a foot, the fetlock pad descends towards the ground. This is not an uncommon condition in colts with long pasterns, and in most cases the parts gradually gain strength. Wrapping well with bandaging and bandaging carefully helps to strengthen, but great care in applying bandages, splints or other means of support must be observed in order to avoid sores. V.

NASAL HEMORRHAGE.

For four or five years my horse occasionally bleeds from his nostril. Blood escapes in drops. Once the bleeding was from the lower part of nostril, and my veterinarian stopped it with caustic. About two months ago the blood came from up in the nostril, and has continued more or less ever since, but it does not seem to injure his health. O. P.

Ans.—This is due to a weakness of the small bloodvessels, some of which rupture easily. Very little can be done. The application of pounded ice to the face, and the administration of 1 ounce tincture of iron in a pint of cold water as a drench three times daily will probably check the bleeding for a time, but it will be very liable to recur. V.

EFFECTS OF LIGHTNING.

Had a steer killed by lightning. The second day after I noticed another steer was not right. He acted as though his back was hurt, and was sore across the kidneys, was stiff, and would stagger. I was told it was black quarter, but as he did not die in ten days, I decided the diagnosis was incorrect and began to give him gruel, milk and whiskey. He improved, and now eats fairly well and walks freely. He has had diarrhea all through his illness. SUB.

Ans.—It is probable this steer is suffering from a slight electric shock, and as he is improving now, it is probable the improvement will continue. If diarrhea continues, give him 1½ ounces tincture of opium and 6 drams each of catechu and prepared chalk in a pint of water as a drench every five hours until it ceases. Also add to his drinking water one-fifth of its bulk of lime water. If his appetite is not good, give a dessertspoonful of the following three times daily, viz.: Equal parts sulphate of iron, gentian, ginger and nuxvomica. V.

MISCELLANEOUS.

1. How should a harness race horse's legs be treated after a workout or race?
2. What is your opinion of treating spavins with hot and cold water alternately?

3. Horse got leg over tongue of wagon and bruised and scraped it badly. He has to work all the time.

4. Horse hit knee with other foot, causing fever and swelling. I want to work him right along. E. M. G.

Ans.—1. Get a leg wash composed of tincture of arnica 1 ounce, extract witch-hazel 2 ounces, gum camphor 1 dram, alcohol 1 pint; add water to make a quart. After a workout or race, rub legs until thoroughly dry, then rub with wash. Apply absorbent cotton and bandage. Walk for ½ to ¾ of an hour, then let stand for 3 hours, and remove bandages.

2. Have never heard of this treatment, but am satisfied it would do no good. Spavins require counter-irritation, as blistering or firing and blistering.

3. Bathe frequently with hot water, and apply three or four times daily a lotion made of 1 ounce each of acetate of lead and sulphate of zinc, mixed with a pint of water. Of course, he should have rest.

4. This horse also should have rest. Treatment depends upon the severity of the contusions. If serum in any considerable quantity be found, the abscess must be lanced, and the cavity flushed out three times daily until healed, with a five-per-cent. solution of carbolic acid. If lancing is not necessary, wear a knee boot and treat same as question 3. V.

Poultry Fencing that is Stronger than Seems Necessary

We make our poultry fencing close enough to turn small fowl—then we make it extra strong, so it will last for years and keep the cattle out. The heavy, hard steel top and bottom wires hold it taut and prevent it from sagging.

PEERLESS POULTRY FENCE SAVES EXPENSE

It is well galvanized so as to protect it from rust. It makes such a firm, upstanding fence that it requires less than half the posts needed for the ordinary poultry fence, and that means a big saving to you. Write for particulars.

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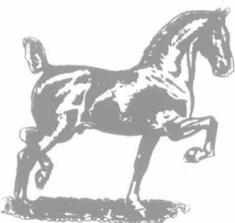


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Imp. Clydesdale Stallions and Fillies for Sale

Second shipment since March. Stallions from \$500 up to \$5,000. Fillies and mares in foal, from \$250 up to \$600. Don't be fooled or misled, but come here and convince yourself. Phone connection.

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Ormsby Grange Stock Farm, Ormstown, P. Que., Canada

IMPORTED CLYDE FILLIES

Owing to the rough voyage experienced by my May importation only six were offered for sale, and were sold. The balance, consisting of two three-year-olds, one four-year-old, two two-year-olds and six yearlings have now completely recovered condition. These, with a few home-bred ones, including two yearling stallions of great promise, are now for sale at very low prices, considering their quality and breeding. Don't miss this opportunity of securing heavy-boned, highly-bred young ones cheaper by far than you can import them. Terms liberal. **DUNCAN McEACHRAN.**

NEW IMPORTATION COMING

We still have on hand a few first-class stallions that we will sell worth the money in order to make room for our new importation early in the summer. Phone connection.

JOHN A. BOAG & SON, QUEENSVILLE, ONT.

A FEW CLYDESDALE SELECTS LEFT. I have one 6-year-old Clydesdale stallion that is hard to beat for size, quality and breeding; 6 others, rising 3 years, that are big, drafty, character colts, and bred the best; 3 Percherons rising 3. There is no better selection in Canada, nor no better prices for a buyer. **T. D. ELLIOTT, BOLTON, ONT.**

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We have for service this season the Champion Imp. Clydesdale stallions Netherlea, by Pride of Blacon, dam by Sir Everard; also Lord Aberdeen, by Netherlea, and the Champion Hackney stallion Terrington Lucifer, by Copper King. For terms and rates apply to the manager. **T. B. MACAULAY, Prop. ED. WATSON, Manager.**

JUST ONE 3-year-old Clydesdale Stallion

left. A well-bred colt that will make a ton horse. Price right for quick sale. **BARBER BROS. GATINEAU PT., QUEBEC.**

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My latest importation arrived June 6, 1911, ranging in ages from 1 to 4 years, and are all of good quality and large type. If you also a couple of stallions for sale at right prices. Long-distance phone. **GEORGE G. STEWART, Howick, Que.**

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In Clydesdales I am offering several stallions from 1 to 6 years of age, Imp. and balanced, choice in quality and producers, and one young bull fit for service. Prices very easy. **R. T. BROWNLEE, Hemmingford, Que.**

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

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

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The young bulls we have for sale are sired by: Magnificent, Imp., 2856, champion of Canada, 1910; Prince of Benton, Imp., 823, champion Toronto and Winnipeg, 1903; Lord Val, 2nd 868, champion Calgary, Halifax, Sherbrooke Dominion Exhibitions.

Jas. Bowman, Elm Park, Guelph, Ontario.
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Will sell both sexes; fair prices. Come and see them before buying.

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Clydesdales, Shorthorns and Cotswolds

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Some choice females at tempting prices. Red and roan, of milking strain. **L. A. Wakely, Bolton, Ont.** Bolton Sta., C. P. R., one-half mile from barns. Phone.

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Trout Creek Wonder at head of herd. Young bulls and heifers of richest Scotch breeding. Phone connection.

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Choice selections of bulls and heifers at all times for sale at very reasonable prices. **Robert Nichol & Sons, Hagersville, Ont.**

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Offers a choice lot of one- and two-year old heifers, all sired by Imp. Joy of Morning = 32070 =; also Leicesters, rams and ewes, of all ages. **W. A. DOUGLAS, Tuscarora P. O., Brant Co.**

WOULD CAUSE LESS TROUBLE.

A fond mother in Valparaiso, hearing that an earthquake was coming, sent her boys to a friend in the country, so that they might escape it. In a few days' time she received a note from the friend, saying:

"Take your boys away and send along the earthquake."—Judge.

Heart Trouble

Caused Dizziness, Weakness and Smothering Spells.

Through one cause or another a large majority of the people are troubled, more or less, with some form of heart trouble. Wherever there are sickly people with weak hearts, **Milburn's Heart and Nerve Pills** will be found to be the most effective medicine on the market.

Mrs. F. Leslie Craig, 114 Erie Ave., Brantford, Ont., writes: "It is with the greatest of pleasure I write you stating the benefit I have received by using **Milburn's Heart and Nerve Pills**. I suffered greatly from heart trouble which caused dizziness, weakness and smothering spells. I used a great deal of Dr.'s medicine but received no benefit. A friend advised me to buy a box of your pills, which I did, and before I had finished one box I felt so much better I continued their use by taking two boxes. I highly recommend these pills to any one suffering from heart and nerve trouble."

Milburn's Heart and Nerve Pills are 50 cents per box, or 3 for \$1.25, at all dealers, or mailed direct by **The T. Milburn Co., Limited, Toronto, Ont.**

QUESTIONS AND ANSWERS
Miscellaneous.

SOW SHOT.

I had a valuable sow which accidentally got out and strayed to a neighbor's place. It had never bothered him before, and his gate was open. He shot her, but did not kill her, but she is badly lamed—in fact, ruined for a brood sow. What steps must I take to recover damages?

F. G., Ontario.

Ans.—You should sue him in the Divisional Court.

STRAW.

1. A rents his farm to B in spring for three years, with no straw on farm. In meantime A sells his farm to C, buying B off to give up possession of farm to C November 1st, nothing being said about straw. But when A rented his farm to B, lease called for straw being fed on farm. C takes possession November 1st. Who is entitled to straw, B or C?

Ontario.

Ans.—We should say, C.

UNWARRANTED FENCING.

I am living in an unorganized township, and our cattle run at large. The road is made through our lots, and a bridge across a certain creek. Can the party owning the land on the side of the bridge be allowed to join his fence into the bridge and so deprive my cattle from getting water? The road was made by Government, and is supposed to be 66 feet.

Ontario.

Ans.—We do not think so.

CLOVER AND WESTERN CORN SILAGE.

1. Would it be all right to cut clover hay a little on the green side and put it into silo the same day you cut it?

2. Will Western corn, sowed in drills, do to put into silo without cutting it up? Will it cure and keep as well if packed and laid down?

M. A., Ontario.

Ans.—Green clover has been handled with fair success in the silo, but, as a rule, results have not been as satisfactory as curing in the usual way. Fill the silo with corn.

1. The late ripening "Western" corns do not make good silage. Ensiling corn whole has been done, but never commended itself to any extent to farmers. It is more difficult to keep well, and taking it out to feed is a very disagreeable job.

SILo QUESTIONS.

1. Is a silo 14 feet wide by 22 feet high, out of proportion for a herd of 10 cows in summer, and 13 head in winter?

2. Would you advise to build inside as in draft, or at the end of draft, 10 feet in diameter and 30 feet high?

3. Which size requires the most material to build?

4. Which has the larger capacity?

5. Would an oil canvas, cut to fit, and spread over silage, keep it from drying and spoiling in hot summer months?

6. Is a silo built inside warmer in winter and cooler in summer, thus causing better preserving of the silage?

7. Are 1/2-inch rods heavy enough for hoops?

G. N. C., Ontario.

I would very much like to build inside if I can be assured the silage would keep with so big an air space and so small a herd.

Ans.—1. This silo is a little large for the number of cows stated, and the diameter is a little large in proportion to its height. Some trouble might be experienced in keeping the silage in first-class condition.

2. Only under very special conditions is it advisable to build a silo inside. We would prefer the outside location. The 10 ft. x 30 ft. silo would be a little large for the number of cows, but doubtless some other young stock is kept, and this would be a nice size.

3. A very little more material is required in the 10 ft. x 30 ft.

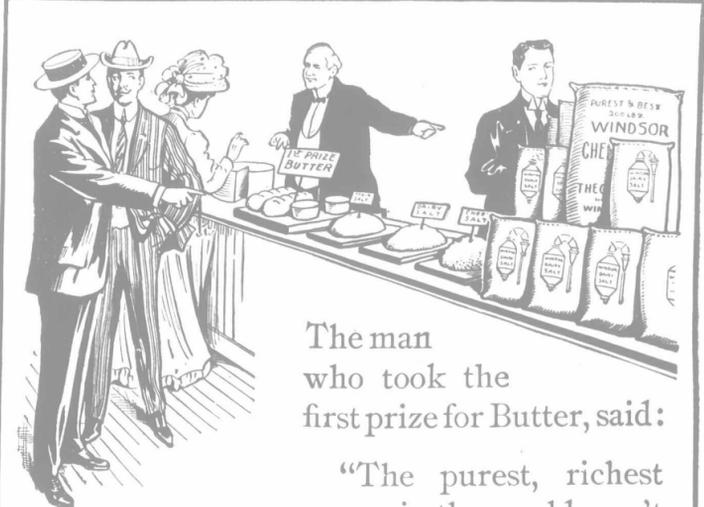
4. The 11 ft. x 22 ft. has the larger capacity.

5. Very little is gained by covering silage to prevent spoiling.

6. No advantage in keeping results from inside building.

7. These may be heavy enough in some cases, but 1/2-inch would not be too heavy.

WINDSOR CHEESE SALT

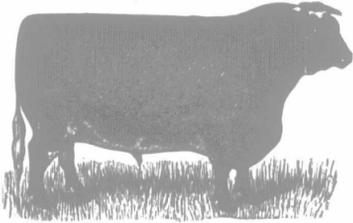


The man who took the first prize for Butter, said:

"The purest, richest cream in the world won't make prize butter without Windsor Salt."

Of course, I know how to make good butter and I am careful to use the best cream—but I consider Windsor Dairy Salt the biggest help that we dairymen have.

Practically every butter prize awarded at the Fairs last summer, went to those who like myself, used Windsor Dairy Salt". 40



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ARE OFFERING

15 High-class Scotch Shorthorn Heifers

At moderate prices, including Cruickshank Nonpareils, Cruickshank Villages, Marr Emmas, Cruickshank Duchess of Glosters, Bridesmaids, Bruce Fames, Kinellars, Clarets, Crimson Flowers, and other equally desirable Scotch families, together with a member of the grand old milking Atha tribe, which have also been famous in the showing.

Arthur J. Howden & Co., Columbus, Ont.



SHORTHORNS

Sold out of Bulls. Would be glad to have your inquiries for anything else.

CATALOGUE ON APPLICATION.

JOHN CLANCY, Manager. **H. CARGILL & SON, Proprietors.**

Shorthorns and Clydesdales

PRESENT SPECIAL OFFERING:

Seven choice young Scotch bulls, from 9 to 15 months; 25 cows and heifers of choicest breeding. This lot includes some strong show heifers for the yearling and two-year-old classes. A pair of imported Clyde fillies, two and three years old (bred).

W. G. PETTIT & SONS, Freeman, Ont.

Long-distance phone. Burlington Jct. Sta., G. T. R., 1/2 mile from farm.

WILLOWDALE STOCK FARM HAS NOW FOR SALE

a choice lot of young stock of each of the following breeds:

Clydesdales, Shorthorns, Chester Swine, Shropshire Sheep

Some extra good young bulls, descendants of Joy of Morning and Broad Scotch.

Write for prices and catalogue to: **J. H. M. PARKER, Prop., LENNOXVILLE, QUE.**

Robert Miller, Stouffville, Ont., Can supply young bulls and heifers of the very choicest breeding, and of a very high class, at prices that you can afford to pay. The young bulls are by one of the greatest sons of Whitehall Sultan. They are good colors, and will make show bulls. I also have two good imported bulls at moderate prices and of choice breeding, and some cows and heifers in calf to Superb Sultan; the calves should be worth all the cows will cost. Some beautiful young imported Welsh Ponies still to spare. It will pay you to write, stating what you want. Glad to answer inquiries or show my stock at any time. Business established 74 years.

High-class Shorthorns

I have on hand young bulls and heifers of high-class show type, pure Scotch and Scotch-topped, sired by that sire of champions, Mildred's Royal. If you want a show bull or heifer, write me. **GEO. GIER, GRAND VALLEY P. O. AND STATION, ALSO WALDEMAR STATION.**

SPRING VALLEY SHORTHORNS

If you want a good Shorthorn bull, we have them. Canadian-bred and imported. Females all ages. Also a few good YORKSHIRES—boars and sows. Prices right.

Phone connection. Kyle Bros., Ayr, Ont.

Springhurst Shorthorns and Clydesdales

I am now offering a number of heifers from 10 months to 3 years of age. Anyone looking for show material should see this lot. They are strictly high-class, and bred on show lines. Also several Clydesdale fillies, imp. sires and dams, from foals 2 years of age off. **Harry Smith, Hay, Ont., Exeter Sta.**

Lump Jaw



The first remedy to cure Lump Jaw was Fleming's Lump Jaw Cure and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser. Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy.

FLEMING BROS., Chemists,
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BUILT WITH CONCRETE BLOCKS
MADE ON
"IDEAL" FACE DOWN MACHINES



Grain Bin, built of Ideal Concrete Blocks, for The Marine City Roller Mills Co. Capacity, 5,500 bushels of wheat. Cost complete only \$860.

Even if you are going to build only one barn, silo or grain bin, it will pay you to buy an Ideal Concrete Block Machine.

It will enable you to make your own building material right on the spot, saving long hauls and delays.

You can make the blocks yourself, saving labor.

And you will have a building that will be absolutely fireproof, and last for all time without a cent for repairs.

An Ideal Machine will save you many times its cost, and enable you to have buildings as durable as stone for 1/2 the cost of brick.

Write for catalogues.

IDEAL CONCRETE MACHINERY CO. LIMITED
Dept. A, LONDON, Ont.

Reliable and energetic agents wanted in every locality.

Shorthorns, Cotswolds, Berkshires.

In Shorthorns: 60 head on hand, including cows and heifers and calves of both sexes. In Cotswolds: A few shearing ewes and a good bunch of lambs coming on for fall trade. In Berkshires: A nice lot now ready to ship.

CHAS. E. BONNYCASTLE, Campbellford, Ont.

Royal Clare = 66772 = FOR SALE

This bull is 5 years old; a roan; will weigh a ton, and is very fresh and active. Cannot use him any longer on account of his heifers. Write, or call on,

WM. SMITH, COLUMBUS, ONTARIO

Maple Grange Shorthorns

Royal Bruce, imp., a Bruce Mayflower, is the sire of all my young things. Nonpareils, Clarets, Myrtles and Lavinias. Heifers up to 2 years of age, of showing type. Several young bulls, thick, even and mellow.

R. J. DOYLE, Owen Sound, Ont.

JOHN GARDHOUSE & SONS

Still have for sale a right good lot of young Shorthorns; a few No. 1 Shire stallions and fillies just imported in August; also a choice lot of ram lambs. Weston Station, G. T. R. and C. P. R. Long-distance phone.

HIGHFIELD, ONTARIO.

SHORTHORNS, Clydesdales and Oxford Down.

Seven red and light roan bulls, 7 to 16 mths., by Blossoms Joy = 73741 =; some with imp. dams. Heifers 1 and 2 yrs. Clydesdales, both sexes. Flock of Oxford Down. All at low prices for next month. Phone connection. **McFarlane & Ford, Dutton Ont.**

Scotch Shorthorns FOR SALE

Three choice young Scotch bulls fit for service; two roans and one red. Bred rom imp. stock, also females of all ages. Bell phone. **A. C. Pettit, Freeman P. O., Ontario**

Fletcher's Shorthorns and Yorkshires

Stock for sale of either kind or sex.
GEO. D. FLETCHER, Binkham P. O., Erin Station, C. P. R.

QUESTIONS AND ANSWERS. Miscellaneous.

STRAWBERRY BLOSSOMS.

Are there male and female in strawberries? L. R.

Ans.—Not exactly, but there are perfect and imperfect blossoms.

REMOVING MARE'S FORELOCK.

I let a man have a horse for a day. When he got her she was all right, but when returned she had her foretop cut off. What could be done about it, or what is the penalty for cutting hair off a horse without the owner's consent? A SUBSCRIBER.

Ans.—We are not aware that there is a special penalty for such an offence, and we doubt if any action for damages you might bring would repay you for the trouble involved.

ALFALFA FOR STOCK—FEEDING HORSES.

1. Can alfalfa be safely fed to cattle when on pasture?
2. Should it be fed green or dry for milch cows?
3. Is there any danger in feeding horses grain or timothy when on grass?
4. Is alfalfa good for pigs?

A SUBSCRIBER'S SON.

Ans.—1. Alfalfa is a good feed for cattle at any time. No harm should result from feeding it along with pasture grass.

2. It is good feed for milch cows when fed either green or as dry hay. If properly cured, little nutrient material is lost in making it into hay.

3. Grain or timothy fed to horses when on grass should give no trouble, provided it is fed in reasonable quantity.

4. Alfalfa makes a good hog pasture while it lasts, and is also a good soiling crop for hogs.

NATURAL GAS AND ITS PHENOMENA.

"The Farmer's Advocate" has been a regular comer to our home for the past eight or ten years, and we have gained much valuable information from its pages.

Although we have never written to ask questions before, we have often read with interest the long columns of questions and straightforward replies published from week to week in your splendid magazine. The problem before us now is about natural gas. There are three or more companies now operating and transporting gas from these parts. Among them all, they have most of the farms leased for gas and oil, and each company wants to lease what remains.

1. About what percentage more will gas measure when metered out to the consumer at about a four-ounce pressure, than when metered from the well to the line under a resisting pressure of from sixty to one hundred pounds?

2. How many feet would a thousand feet of gas, under resistance of seventy-five pounds pressure, measure when relieved to a resistance of twenty-five pounds?

3. Would a share of one-eighth or 12 1/2 per cent. of the value of the output be too great for a land-owner to ask a company for the privilege to operate for gas and oil in a section where wells are producing from two to fifty dollars' worth of gas per day each?

4. Would a gas well produce much more value in a year when allowed to flow under resistance of 25 pounds, than if kept under a resistance of 75 pounds?

A. O. F.

In answer to the different questions regarding natural gas, I have to say:

Ans.—1. That gas measured at four-ounce pressure would record about four to seven times as much as if measured from 60 to 100 lbs.

2. If pressure relieved from 75 to 25 lbs., it would measure about three times as much.

3. With regard to the question as to what the land-owners should ask, I do not consider the information given is sufficient to give an intelligent answer, even if I thought it proper for me to do so.

4. I presume that by resistance "two pressure" is meant. If the line pressure is 25 lbs., it will produce more gas than if it were 75 lbs. The amount greater would be determined by the relative difference between the line pressure and the rock pressure.

G. R. Mickes, Mine Assessor.



IHC WAGONS HAVE STOOD THE TEST OF ALL LOADS AND ROADS FOR YEARS

THE real proof of the strength, durability, and value of IHC wagons is what they have done and are now doing for thousands of farmers throughout the Dominion. Light loads and heavy loads have been carried by IHC wagons, over good roads and bad roads, for so many years that there is hardly a farmer who is not familiar with the high quality that these names on wagons represent—

Petrolia Chatham

Either of these should be your choice if you want to be sure of lifetime service. The quality in both is the highest possible—the result of years of wagon-building experience, and the use of the best materials, shaped by skilled workmen operating with the finest manufacturing equipment.

Petrolia Wagons are constructed of the finest quality wood stock which is thoroughly seasoned by being air dried. The ironing is of the very best. The inspection of each part is most rigid. Petrolia Wagons must be made so that they will live up to the IHC standard of excellence or they are never sent out of the shops.

Chatham Wagons have a long record for satisfactory service in Canada. Made with hard maple axles, oak bolsters, sand boards, rims, and spokes, and oak or birch hubs—they represent the highest standard of wagon construction. When you buy a Chatham wagon it is with the assurance of getting the utmost service and satisfaction out of it.

Be sure to call on the IHC local agent. Get a pamphlet. Let him show you one of these wagons. If you prefer, write for literature or any other information you want to the International Harvester Company of America at nearest branch house.

EASTERN CANADIAN BRANCHES—International Harvester Company of America
at Hamilton, Ont.; London, Ont.; Montreal, Que.; Ottawa, Ont.; St. John, N. B.

International Harvester Company of America

(Incorporated)
Chicago USA



IHC Service Bureau

The bureau is a center, where the best ways of doing things on the farm, and data relating to its development, are collected and distributed free to everyone interested in agriculture. Every available source of information will be used in answering questions on all farm subjects. If the questions are sent to the IHC Service Bureau, they will receive prompt attention.

Scotch Shorthorn Females for Sale

I am offering, at very reasonable prices, females from one year to five years of age. The youngsters are by my grand old stock bull, Scottish Hero (imp.) = 55042 = (90065), and the older ones have calves at foot by him, or are well gone in calf to him. Their breeding is unexcelled, and there are show animals amongst them. **A. EDWARD MEYER, Box 378, GUELPH, ONT.**

Irvine Side Shorthorns

2 extra good young bulls ready for service; both from an imp. bull, and one of them from an imp. cow. Also 1 good two-year-old registered Clydesdale mare from imp. sire, and out of imp. mare.

ELORA STATION, G. T. R. & C. P. R.
J. WATT & SON, SALEM, ONTARIO.

Pleasant Valley Farm Shorthorns

Herd headed by Scottish Signet, and consisting of females of the leading Scotch families. Have for sale several good young bulls; also cows and heifers. Correspondence solicited. Inspection invited.

GEO. AMOS & SONS, MOFFAT, ONTARIO
Farm 11 miles east of Guelph, C. P. R., half mile from station.

OAKLAND SHORTHORNS

Our herd, numbering about 50 head, should be inspected by any intending purchasers. Many of the cows are excellent milkers and grand breeders. Many young heifers and a few bulls for sale. Scotch Grey = 72692 = at head of herd, is one of the best bulls in Ontario. Prices reasonable.

JOHN ELDER & SON, HENSALL, ONT.

Maple Lodge Stock Farm

1854-1911

An excellent young "Lovely" bull, dam a first-class milker, for sale. **LEICESTERS**—The best rams and ewes for sale.

A. W. SMITH, Maple Lodge, Ont.

Shire Stallions and Mares, Shorthorn Cattle (both sexes); also Hampshire Swine.

Prices reasonable.

Porter Bros., Appleby, Ont., Burlington Sta. 'Phone.

Scotch Shorthorns

For sale: Some choice, smooth, heavy boned, fleshy yearling bulls for the farmer or breeder. Also a large number of cows and heifers from imported stock. Some show material among these.

Farm 1/4 mile from Burlington Jct. Sta. Mitchell Bros., Burlington, Ontario.

AM LEAVING FOR BRITAIN ABOUT THE END OF MAY. WILL PURCHASE SHORTHORNS AND HORSES

Parties wishing me to buy for them may correspond with me. In sending letters after the 27th of May address me care of Mr. Geo. Harrison, Gainford Hall, Darlington, England.

J. A. WATT, Salem, Elora Station, Ontario.

ELMHURST SCOTCH SHORTHORNS AND LARGE ENGLISH BERKSHIRES

H. M. VANDERLIP, Importer and Breeder, Cainsville, Ont., Langford Sta.
Burlington & Hamilton Road, in sight of farm, Bell phone.

Cow-Ease

Kills Ticks. KEEPS FLIES OFF Cattle and Horses

and allows cows to feed in peace, making **More Milk and More Money** for you. A clean, harmless liquid preparation, applied with a sprayer. Keeps cows in good condition and saves five times its cost in extra milk.

TRIAL OFFER

If your dealer cannot supply you, send us his name and \$1.25, and we will deliver prepaid to your address 1-2 gallon can of COW-EASE and SPRAYER for applying. For West of Missouri River and for Canada, above Trial Offer, \$1.50. **Satisfaction or Money Back. CARPENTER-MORTON CO. BOSTON, MASS.**

WE NEED THE MILK

For our milk contract, so all the bull calves from fifteen choice cows and heifers, due to freshen by April 1st, must go. This means attractive prices for you. Write us, you'll be surprised how good a call you can buy for how little money.

MONRO & LAWLESS, Elmdale Farms, Thorold, Ontario

THE MAPLES HOLSTEIN HERD

Everything of milking age in the Record-of-Merit. Nothing for sale at present but a choice lot of bull calves sired by King Posch De Kol. Write for prices, description and pedigree.

Walburn Rivers, Folden's, Ontario

HOMWOOD HOLSTEINS

Home of the champions. Headed by the great milk and butter bred bull, Grace Payne 2nd's Sir Colantha. Only choice, thrifty bull calves for sale at present. **M. L. HALEY and M. H. HALBY, SPRINGFORD, ONTARIO.**

Springbrook Holsteins and Tamworths

A choice bull calf, sired by Brightest Canary, whose two nearest dams average over 26 lbs. butter in a week. Dam, a four-year-old, record of over 12,000 lbs. milk in one year. 25 fine young Tamworth pigs two weeks old; sire and dam imported; best quality; booking orders at \$8 for quick sale. **A. C. HALLMAN, BRESLAU, ONTARIO.**

Evergreen Stock Farm

has for sale the stock bull, Sir Mercena Favorite, whose dam and sire's dam have an average record of 24.60 lbs. butter in 7 days official; also bull calf, average record of dam and s. dam 23 1/2 lbs. butter. **P. E. PETTIT, BURGESSVILLE, ONT.**

Holstein Cattle—The most profitable dairy breed. Illustrated descriptive booklets free. **Holstein-Friesian Ass'n of America, F. L. HOUGHTON, Secy, Box 127, Brattleboro, Vt.**

DON'T Buy a HOLSTEIN BULL till you get my prices on choice goods from eleven months down, from best producing strain. "Fairview Stock Farm." **FRED ABBOTT, Harrietsville, Ont.**

GLENWOOD STOCK FARM Have two yearling Holsteins and Yorkshires bulls fit for service, both of the milking strains. Will sell cheap to make room. **Thos. B. Carlaw & Son, Warkworth P. O., Ont. Campbellford Station.**

HOLSTEIN-FRIESIANS at Ridgedale. I have two young bulls fit for service, which will be priced at a sale for quick sale. Write, or come and see them. Shipping stations: Port Perry, G. T. R., and Myrtle, C. P. R., Ontario Co. Long-distance phone—**R. W. WALKER, UTICA, ONT.**

High Grove Jerseys No better blood in Canada. Present offering: Two choice young solid-colored bulls about 15 months old, out of heavy-producing dams. **ARTHUR H TUFTS, P. O. Box 111, Tweed, Ont.**

Diner—"How is it that most of the things on your bill of fare are struck out?"
Waiter (confidingly)—"Our new manager used to be an editor."—Boston Transcript.



"SNAP" is a wonder-worker in the home. Try it on those pots, pans and kettles that soap won't clean.

People are discovering new uses for "S-N-A-P" every day. Try it yourself. **15c. a can.**

QUESTIONS AND ANSWERS. Miscellaneous.

NIGHTFLOWERING CATCHFLY.

I am a subscriber to "The Farmer's Advocate," and I thought I would send in a weed for identification. I found it growing in a like this year. What is the name of it, and is it a bad weed?

H. M.

Ans.—This weed is nightflowering catchfly, sometimes called stickycockle. It is an annual and winter annual, often found in clover fields, and especially alsike. Hand-pull if not too thick. If very bad, cut the alsike for hay. Sow only clean seed, give thorough cultivation, and a short rotation of crops, exclusive of alsike, for a few years, and it will be eradicated.

INVERSION OF VAGINA.

We have a ewe that has been troubled with the outer entrance of the vagina coming out perhaps two or three inches and staying that way. Have put it back now several times, but it has come out again after a short time, and I notice straining, as if to urinate. What can be done for it? Please answer in "The Farmer's Advocate."

T. W. R.

Ans.—If the ewe has not lambed, this is inversion of the vagina, which is not uncommon. All that can be done is to return the part after washing it first with water with ten-per-cent. laudanum, then dressing with alum water, 2 ounces to the pint, and applying a leather truss cut into strips except at ends, and fastened by strings to a rope or strap around the neck, two strings to go between the legs, and two along the sides to prevent re-inversion. If the inversion has occurred after lambing, it is probably prolapsus of the womb, in which case, after washing the part with the laudanum solution, or a weak solution of carbolic acid, it should be returned to its place by the oiled hand, if there be room, or by means of a smooth piece of wood with a broad head, and the truss used as in the other case.

ORCHARD PLANTING—TOLL GATES.

1. What variety of apple trees would you advise us to set out in this northern district in order to meet the developing apple market?
2. What kind of apple tree would be best to set out in order to graft Spies onto them, as Spies do well with us?
3. Would it be of any benefit to the apples to give another spraying, or would it be liable to injure the young apple to apply a lime-sulphur solution?
4. We have sprayed three times in our orchard, but I have noticed on one or two trees that some of the apples have an apparently dry rot commencing on one side, and some are half eaten through. What would you suppose would be the cause of this?
5. Where could I procure an apple-barrel-packing machine, and what would be the probable cost?
6. Where would you advise me to procure nursery stock?
7. How many authorized toll gates are there in Ontario, and where are they located?

J. D.

Ans.—1. For early fall fruit, Duchess is a profitable variety. McIntosh Red is a very hardy tree, and produces delicious fruit for late fall and early winter. Wealthy and Snow also do well in some northern districts. Of course, if your district is not too cold, the old standard winter fruits are valuable, Baldwin, Spy, King and Greening being of the best.

2. A very good variety for top working is Tolman.

3. A fourth spray has a value in combating fungus and in catching the second brood of the codling moth, but it is getting rather late now.

4. Some portions of the tree may have escaped the spray, or it may not have been applied at the proper time to kill all the fungus. It may be due to scab fungus, or to the dry-rot fungus.

5. We presume you mean a press for barrel packing. The cost would be very small, and you should be able to procure it through your local hardware.

6. Any of the nurserymen in Ontario should be able to supply you. They would do well to advertise in these columns.

7. We do not know.

80% PURE CANE MOLASSES

IN THIS SCIENTIFIC RATION
Without equal as a fattener, as an aid to digestion and as a grain economizer for all live stock. You are losing by not using

CALDWELL'S MOLASSES MEAL

FOR HORSES, CATTLE, SHEEP AND HOGS
Substitute a few pounds of it daily for an equal bulk of grain, and watch your stock thrive. In no other form can you feed molasses safely and conveniently. Learn more about it.

ASK YOUR DEALER, OR WRITE

THE CALDWELL FEED CO., LTD., Dundas, Ont.
You are losing by not using CALDWELL'S MOLASSES MEAL.

FAIRVIEW FARMS HERD—HOME OF:

Pontiac Korndyke, the only bull living that is the sire of four 30-pound daughters, and the sire of the world's record cow for seven and thirty days. Rag Apple Korndyke, sire of eight A. R. O. daughters that, at an average age of 2 years and 2 months, have records that average 17 1/4 lbs. each, and over 4.2% fat for the eighth. Three of them made over 20 lbs. each. Sir Johanna Colantha Gladi, whose dam and sire's dam average 33.61 lbs. each for 7 days, which is higher than can be claimed for any other sire of the breed. We are offering some splendid young bulls for sale from the above sires, and out of daughters of Pontiac Korndyke and Rag Apple Korndyke.

E. H. DOLLAR, (near Prescott) HEUVELTON, NEW YORK

HOLSTEINS AND YORKSHIRES

More high-record cows in our herd than in any other in Canada, including the champion Canadian-bred three-year-old, and the champion two-year-old of the world for yearly production. The sire of these champions is our main stock bull. We have a large number of heifers bred to him that will be sold right to make room for our natural increase. Also bull calves for sale. We are booking orders for spring pigs, also sows safe in pig. We invite inspection of our herd. Trains met at Hamilton when advised. Long-distance Bell 'phone 2471 Hamilton.

D. C. FLATT & SON, MILLGROVE, ONT. R. F. D. NO. 2

Lakeview Holsteins!

Having sold all bulls old enough for service, now offer two bull calves, born August 19th and September 20th, 1910. Both are sired by Count Hengerveld Payne De Kol, and their dams have A. R. O. records of 11.55 and 16 lbs. butter in 7 days as two-year-olds. Telephone.

E. F. Osler, Bronte, Ontario

CENTRE AND HILLVIEW HOLSTEINS

Offers two June bulls, nicely marked, out of Record of Merit dams and Bonheur Statesman, whose daughters are testing high price of these; \$70.00 each f.o.b. Woodstock. Also younger ones. Long-Distance Telephone. **P. D. Ede, Oxford Centre P.O., Woodstock Stn.**

Woodbine Holsteins

Herd headed by King Segis Pontiac Lad, whose sire's dam is the champion cow of the world. Sire's sire is the only bull that has sired five four-year-olds that average 30 lbs. each. Dam's sire is the bull that has sired two 30-lb. three-year-olds. His two great grand sires are the only bulls in the world that have sired two 37-lb. cows. Bulls and bull calves for sale.

A. KENNEDY, Ayr, Ontario.

MAPLE HILL HOLSTEIN-FRIESIANS

Two yearling bulls fit for service; also choice bull calves. Three-year-old heifer due in July. Write for prices. Bell telephone. **G. W. CLEMONS, St George, Ont.**

Stockwood Ayrshires

Imported and Canadian-bred. High producers and high testers. Females of all ages for sale; also several young bulls, from 8 to 13 months old. Imp. sires and out of imp. dams. Right good ones, and bred from winners.

D. M. Watt, St. Louis Station, Quebec.

STONEHOUSE Ayrshires

The champion Canadian herd for 1910 at the leading shows. 32 head imp., 56 herd to select from. R.O.P. official records, the best and richest bred types of the breed. Anything for sale. Young bulls, females all ages.

HECTOR GORDON, HOWICK, QUE.

CRAIGALEA AYRSHIRES!

Our record: Every cow and heifer entered in Record-of-Performance, and retained in herd until test was completed, has qualified. Heifers and young bulls for sale of showing form. **H. C. HAMIL, BOX GROVE P. O., ONT. Markham, G. T. R.; Locust Hill, C.P.R. Bell 'phone connection from Markham.**

CHERRYBANK AYRSHIRES!

Imported and Canadian bred, with R. O. P. official records, headed by the renowned champion, Imp. Netherhall Milkman. Richly-bred females and young bulls for sale. **P.D. McArthur, North Georgetown, Que.**

Just Landed 45 two-year-old Ayrshire heifers, all bred to freshen in September and October. They are a beautiful, strong lot, with plenty of teat. Also 12 bulls fit for service, and a few yearling heifers. **R. R. NESS, HOWICK, QUEBEC.**

HILLCREST AYRSHIRES—Bred for production and large teats. Record of Performance work a specialty. Fifty head to select from. Prices right. **FRANK HARRIS, Mount Elgin, Ont.**

Ayrshires Bull calves, from 4 months to 9 months, from imported sire and Record of Performance dams. Records 50 to 63 pounds per day. **N. Dymont, R. R. No. 2, Hamilton, Ont.**

Special offerings at low prices from the Menie district: Bulls fit for service, 1911 calves. Dams of all ages; some with good official records; others, if their owners entered them, would make good records. Many females, any desired age. A few young Yorkshires. **ALEX. HUME & CO., MENIE, ONT.**

HILLVIEW AYRSHIRES—Imp. Hobland Hero at head of herd. Imp. and Canadian-bred females. Young bulls true to type and bred in the purple for sale, also a few heifers. **R. M. Howden, St. Louis Station, Que.**

SPRINGBANK AYRSHIRES The world's leading herd of Record-of-Performance Ayrshires. Contains more champion milk- and butter-producers than any other herd. Also big cattle, big udders and big teats a specialty. A few bull calves, true to color and type, from R. O. P. dams, for sale at reasonable prices. **A. S. TURNER & SON, Ryckman's Corners, Ont. Three miles south of Hamilton. Visitors welcome. Trains met by appointment.**

Brampton Jerseys Bulls fit for service are getting scarce. Just a few left. Yearling heifers in calf are in great demand; 6 for sale; 6 now being bred. Brampton Stockwell the sire. A few good cows and some calves for sale. Production and quality. **B. H. BULL & SON, BRAMPTON, ONT.**

Caught a Cold Which Ended in a Severe Attack of Pneumonia.

Too much stress cannot be laid on the fact that when a person catches cold it must be attended to immediately, or serious results are liable to follow.

Bronchitis, Pneumonia and Consumption are all caused by neglecting to cure the simple cold.

Mrs. G. W. Bowman, Pattullo, Ont., writes:—"Three years ago I caught a cold which ended in a severe attack of Pneumonia. Since that time at the beginning of each winter I seem to catch cold very easily. I have been so hoarse I was unable to speak loud enough to be heard across the room. Last winter, however, a friend advised me to try Dr. Wood's Norway Pine Syrup, saying it had helped her. I bought a bottle and before it was half used I was completely cured. I also find it a good medicine for the children when they have colds."

Beware of the many imitations of Dr. Wood's Norway Pine Syrup.

Ask for "Dr. Wood's" and insist on getting what you ask for.

It is put up in a yellow wrapper; these give from the trade mark; the price, 25 cents. Manufactured only by The T. Wilburn Co., Limited, Toronto, Ont.

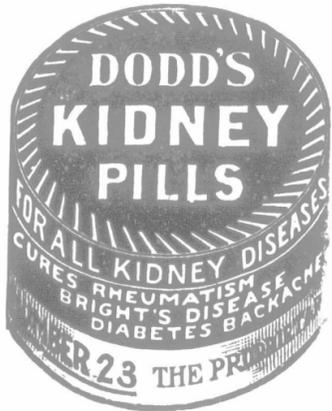
WOOL

Send particulars when ready to sell.
E. T. CARTER & CO.
84 Front St. E., TORONTO, ONTARIO

Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs—Present offering: Lambs of either sex. For prices, etc., write to **John Cousins & Sons, Harrison, Ont.**

When a bit of sunshine hits ye,
After passing of a cloud,
When a fit of laughter gits ye,
An' ye'r spine is feelin' proud,
Don't forget to up and fling it
At a soul that's feelin' blue,
For the minute that ye sling it
It's a boomerang to you.

Smile
Awhile,
And while you smile
Another
Smiles,
And soon there's miles
And miles
Of smiles,
And life's worth while
Because you
Smile!



QUESTIONS AND ANSWERS. Miscellaneous.

ROCKET.

Enclosed find a weed which I got in alfalfa seed. Could you tell me, through your paper, what it is, if it is a bad weed, etc.?
D. J.

Ans.—The weed is rocket (*Eruca sativa*). It has been introduced into Ontario with European alfalfa seed. It is an annual plant of the mustard family, and should be hand-pulled to prevent seeding. If too thick to pull, cut the alfalfa before the rocket matures seed. Care should be taken not to sow seed containing this weed.

OESTRUM ABSENT.

I have a mare that had a colt this spring, and she will not take the horse, as she does not come in heat. What medicine am I to give in order to produce oestrus?
A. B.

Ans.—Animals usually show their strongest sexual desire when gaining in flesh. If the mare is in good condition, reduce her feed for a time, and then feed her up again, taking care not to work her too heavily. A laxative diet is advisable, nothing being better than grass. Liberal feeding, with regular, moderate exercise, is about all you can do.

SPRAY FOR MUSTARD.

I saw in your paper some time ago, a formula for killing cadlock in grain by spraying with something. I can't find it now. If you could give us reprint we will take better care of it.
C. M. C.

Ans.—Spray at the rate of about 50 gallons per acre, with a solution of bluestone or copper sulphate, of a strength of about 2 lbs. in 10 gallons of water. Iron sulphate is even more effective than the copper sulphate, but is not quite so handy to use, and by reason of the greater quantity required is more expensive. It may be used at the rate of 80 lbs. to 40 gallons of water. Apply on a bright sunny day when the mustard plants are just about to come in bloom.

JOINT ILL.

Colt, now twenty-six days old, when a few days old puffed at knees; at four days the navel became moist and will not heal. Could you give cause and remedy?
I. R.

Ans.—From the description given, this is a case of joint ill or navel ill. Prevention is better than cure for this, as the disease is caused by a germ which enters the colt's system through the navel. The navel should be dressed as soon as possible after birth, and four or five times daily afterwards until healed, with a ten-per-cent. solution of carbolic acid or formaldehyde, or a solution of corrosive sublimate, 15 grains in 8 ounces of water. Treatment of the disease when it is once established is seldom successful. Hot poultices may be applied to the joints, and they can be well rubbed three times daily with camphorated liniment. Give the colt 5 grains iodide of potassium three times daily in a little of the dam's milk. Keep the colt quiet and comfortable, and give the mare 1 dram of potassium iodide three times daily.

DUTY ON SECOND-HAND MACHINERY.

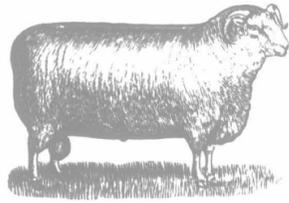
Is there any duty on second-hand machinery from the United States into Canada, or from Canada into the United States?
SUBSCRIBER.

Ans.—Under the Customs tariff of Canada second-hand machinery is subject to the usual requirements of the tariff as to duty. The value for duty purposes is represented by the fair market value of the machinery in condition as imported. There is no provision in the United States Tariff Act of August 5, 1909, for the free entry of second-hand machinery into that country. Such machinery is assessed with duty at the same rate as would be imposed upon new machinery of like character. As the value, however, of the second-hand machinery would be, presumably, less, the amount of duty collected thereon would be less than that collected upon new machinery. Machinery not otherwise provided for, is assessed with duty at the rate of 15 per cent. ad valorem, under paragraph 199 of the Tariff Act, which paragraph provides that rate of duty upon articles composed wholly or in part of metal.

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Am offering during the month of Feb. a choice lot of bred sows, young boars ready for service, and young pigs of different ages. Orders booked for spring pigs. Pairs supplied not akin. All at reasonable prices. Write, or call on:

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Sired by first-prize hog at Toronto and London. Also reg'd Jersey Bulls, from 8 to 10 months, from high-testing stock. Write:
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Pine Grove Yorkshires

orders for young pigs, not akin, for spring delivery. Property of **Joseph Featherston & Son, Streetsville, Ont.**

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A grand lot of boars fit for service. Some splendid sows to tarrow to first-class boars. 30 ewe lambs, including 2nd pen at Winter Fair. Long-distance phone Central Beeton.

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Boars fit for service. Sows three, four and five months old. Milton, C. P. R. Georgetown G. T. R. **W. W. Brownridge, Ashgrove, Ontario.**

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I breed Yorkshires, Tamworths, Berkshires, Hampshires, Chester Whites, Poland-Chinas and Duroc-Jerseys. I have constantly on hand both sexes of all ages. Show me a specialty. **John Harvey, Freightsburg, Que.**

FAIRVIEW BERKSHIRES

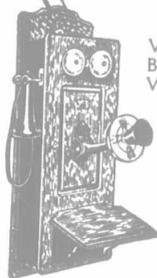
Ontario's banner herd. Prizewinners galore. For sale are: Young sows bred and others ready to breed, and younger ones. A number of young boars coming on. **JOHN S. COWAN, Donegal, Ont.**

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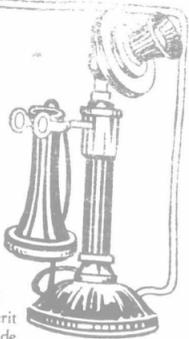
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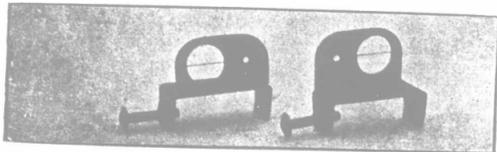
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TRADE TOPIC.

PROVISIONS TO WESTERN CANADA.

The Grand Trunk Railway System announce that on Tuesday, June 27th, July 11th and 25th, August 8th and 22nd, September 5th and 19th, 1911, Homeseekers' Excursions will be run from all stations in Ontario and Quebec to Western Canada, via Chicago and Duluth or via Chicago, St. Paul and Minneapolis, at reduced round trip fares.

The well-known double track line of the Grand Trunk from the East to Chicago appeals to the traveller, and with the superior train service that is offered by this line, including the famous "International Limited" from Montreal daily at 9.00 a. m., which is the finest and fastest train in Canada, many passengers will be attracted this way. The route via Chicago is a most interesting one, taking passengers through the principal cities and towns in Canada and in the States of Michigan and Indiana. In addition to this a choice of seven lines between Chicago and St. Paul and Minneapolis is offered.

Owing to the great number of Canadians who reside in Chicago, St. Paul, Minneapolis, Duluth and other cities en route, there is no doubt that the Grand Trunk will find many patrons who will take advantage of the opportunity thus afforded them for a brief visit at the stations with their friends.

Canadian citizens are exempt from so-called immigration examination, and there is no detention at any point.

Baggage is carried through the United States in bond without requiring any special attention on the part of the passenger. Inspection is not necessary at any of the points at the border.

Another feature that will appeal to the homeseeker is the comfortable transfer at points like Chicago, St. Paul and Duluth into freshly ventilated clean cars, avoiding the necessity of travelling a long distance in the same car.

In addition to the above routes, the sale of tickets is also authorized via Sarnia, and the Northern Navigation Company's magnificent steamers across Lake Huron and Lake Superior.

For further particulars, apply to any Agent of the Grand Trunk Railway System, or write to Mr. J. Quinlan, District Passenger Agent, Bonaventure Station, Montreal, or Mr. A. E. Duff, District Passenger Agent, Union Station, Toronto.

GOSSIP.

Thos. Allin & Bros., Oshawa, Ont., in their advertisement in this issue, offer for sale serviceable young Shorthorn bulls, sired by Imp. Choice Archer =50025=, by the Duthie-bred Archer, a Bruce Augusta, by the noted Cruickshank bull, Scottish Archer, and from Miss Ramsden dams.

Mitchell Bros., Burlington, Ont., report the following recent sales of Shorthorns: To Willard Winn, Lucerne, Indiana, a most promising yearling bull, by Bandsman, and out of Missle of Pine Grove 6th, by Marquis of Zenda (imp.). Mr. Winn also selected from our herd two choice two-year-old heifers from imported sire and dam. To Wm. Giffen, Creemore, Ont., a good yearling bull, possessing a lot of style and character, from imported sire and dam. To Jos. Langstaff, Allenford, Ont., a choice bull calf, by Village Duke (imp.), and from an imported Mysie dam, one of our best cows. To John Webster, Fordyce, Ont., a very stylish bull calf, by Bandsman (imp.), and out of Blythesome 2nd, a prizewinner at Toronto. To Solomon Schantz, Haysville, Ont., a massive, well-bred yearling bull, from imported sire and dam. To Jas. Brown, Thorold, Ont., an extra well-bred Cruickshank Orange Blossom yearling bull, from imported sire and dam. To Geo. A. McClure, Elders Mills, Ont., a Nonpareil yearling bull, by Bandsman, a promising herd-header, showing a lot of style and show qualities. We have sold all our bulls of serviceable age, but have 15 choice bull calves, 8 of them September and October calves that will soon be ready for service. They are all by our imported stock bulls, Bandsman and Village Duke. We expect to show at Toronto a young herd, which will include four good bull calves.

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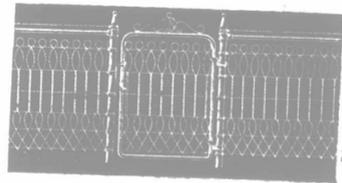
Prize lists contain prizes for all kinds of Live Stock, Poultry, Cats, Dogs, Fine Arts, Woman's Work, everything.

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11 and 6 quarts. Baskets, Crates, etc. Write for quotations. Special prices to vegetable and fruit growers' associations in car lots. Prices on application.

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The methods employed at the Arnott Institute are the only logical methods for the cure of stammering. They treat the CAUSE, not merely the habit, and insure NATURAL speech. If you have the slightest impediment in your speech don't hesitate to write us. Cure! pupils everywhere. Pamphlet, particulars and references sent on request.

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TRADE TOPIC.

The Caldwell Feed Co., Limited, of Dundas, Ont., are advertising for salesmen with a thorough knowledge of the principles of stock feeding. Competent men, open for such positions, might find it to their advantage to apply.

Life to be worthy of a rational belief must be always in progression.—John G.

HOW TO BUILD RURAL TELEPHONE LINES

ings, as branch wires can be run from the main line to the buildings and thus save wire and simplify the construction. Reference to Fig. 4, in which c, e, etc., represent the buildings to be connected, mn the main line and a and l the branch wires, will make this point clear.

POLES.

Poles twenty-two or twenty-five feet long of any good stock, cut when green, should be used. Cedar and chestnut are particularly desirable on account of their lasting qualities. The poles should be reasonably straight and well proportioned. The diameter

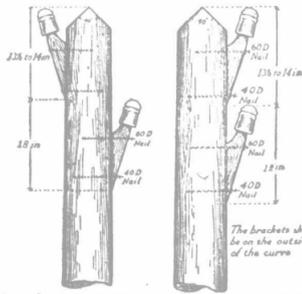


Fig. 3—Location of Brackets on Pole for Straight Lines. Fig. 4—Location of Brackets on Pole at Curves.

THE NORTHERN ELECTRIC & MFC. CO. LTD.

of the top of the pole should be about 5 or 6 inches. In order to prolong the life of the poles and add to their attractiveness, all the bark should be removed. Knots trimmed close and the butt cut off square. The top of the poles should be roofed as shown in Fig. 5.

POLE FITTINGS.

Where only one or two line wires are to be mounted on the poles, oak brackets fitted with glass insulators are fastened to the pole as indicated in Fig. 5 for straight lines, or as shown in Fig. 6 at curves. The brackets should be attached to the poles before the poles are raised.



BRACKETS.

Brackets Figs. 7 and 8 are usually made of oak and given two coats of metallic paint and have a thread on the upper end to which is fastened a glass insulator, a type, as used in telephone work, is shown in Fig. 32.

They should be about 18 inches apart. The upper bracket should be 8 inches from the top of the pole



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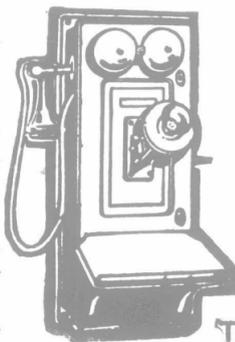
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