

The Farming World

A PAPER FOR

Farmers and Stockmen

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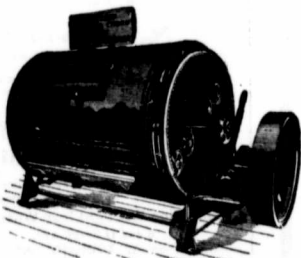
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COWANSVILLE, QUE.

The Farming World

For Farmers and Stockmen

VOL XVIII

JUNE 11th, 1901

No. 42

The Live Hog Trade.

Some Pointers for Breeders and Feeders.

The conditions surrounding the live hog market just now seem to be peculiar to this season only. Never in the history of the bacon trade in this country have such high prices been paid for live hogs as during the past few weeks. For a very short period last year prices reached the seven dollar basis here only to drop again just as quickly.

For several weeks now we have had unusually high prices, and everyone in the trade seems to be wondering how long they are going to keep up. Packers are seemingly just as much in the dark on this score as the producers are, and so a kind of a week to week business is being transacted, no one being able to diagnose with any degree of certainty what the future will bring forth. Present high values may be maintained with slight variations the whole of the season, or they may take a sudden slump without any previous warning to either packer or producer.

An unusual feature of the situation this season, and it is one that seems to be applicable alone to the first year of the century, is the somewhat hand to mouth business that is being done by the English trade and the susceptibility of that trade to be influenced by purely local and temporary conditions. A dull day when trade is not brisk seems to influence the regular trade as it never did before and prices have fluctuated according as each day's trade has been brisk or dull. Of course the very high prices would have a tendency to curtail buying for the future and to limit business largely to the present, but this does not altogether account for the influence purely local conditions seems to have on the English trade this season.

THE FARMERS' HARVEST.

But whatever may be the influences affecting it this season it is gratifying to know that the farmer is get-

ting good prices for his hogs. And these high values do not appear to be peculiar to Canada alone. The Danish farmer and the farmer of the Emerald Isle is also reaping a big profit out of the hog producing business. For the past year at least there has been no more profitable business for the Canadian farmer than the raising of hogs. And the wonder is that our farmers have not gone more extensively into the business than they have.

Though the market has been brisk and active our exports of bacon are not increasing very materially. In fact for some months back there has not been the quantity of bacon shipped out of the country that there was during the corresponding period of last year. This will come as a surprise to many who have been led to believe that our exports of bacon were growing very fast because of the increase in the number of packing establishments and the operation of several co-operative pork factories during the present year. The real fact of the matter is that there are not enough hogs in the country to keep the factories we have at the present time running to their full capacity, and packers who have a regular list of English customers to supply are compelled to pay higher prices in order to get sufficient goods to hold the trade. All this is for the farmer's benefit, who, so long as it continues, need have little concern as to how the packer is going to finance his end of the business.

QUALITY IMPROVING.

The quality of Canadian bacon is improving gradually and there is a constantly growing demand for it in Great Britain. The percentage of softs this year is very small as compared with a year ago. This is ascribed by some in the trade to be due to the higher prices which have prevailed for corn, thus compelling farmers to find more suitable feeds for producing bacon. There are a few sections of Western Ontario, however, that are still in bad re-

pute both as regards the type of hogs and their methods of feeding.

But why don't the output of hogs by our farmers increase? Either their breeding methods are bad or they have no faith in the future of the business. As to the former there seems to be room for improvement. There appears to be a tendency on the part of too many farmers to retain only young sows for breeding purposes. These, as a rule, do not produce large litters and it takes a long time to get into large herds. If farmers would keep their breeding sows longer and not exchange them so soon for younger ones there would be larger litters and more vigorous pigs. By retaining their best sows and keeping them until they are older a great improvement could be made in the way of increasing the supply of hogs.

But farmers are now evidently waking up to the profitableness of raising more hogs. Of late there has been a marked decrease in the number of sows marketed, showing that farmers are retaining a larger number at home for breeding purposes. We heard of a farmer last week who went to a drover's yard and selected twelve sows for breeding purposes. All this is along the right line, the only objection being that it should have taken place a year or two ago, and then the extra supply would have been on hand for present high values.

RAISE MORE HOGS.

We believe, however, that it will pay farmers even now to go into the raising of hogs on a much larger scale than they have been doing. Though present high values may not be guaranteed for any great length of time the outlook, as far as we are able to estimate it, seems to be very favorable for profitable prices for a considerable time to come. There is quite a margin between \$7 per cwt. and \$4 per cwt., which is perhaps, about the price that the average farmer can afford to produce the bacon hog for, and a radical change in the conditions at present govern-

ing the market would have to take place to bring a drop of 50 per cent. in price.

So our advice is to raise more hogs of the bacon type. Feed them with the foods that will produce the best quality of bacon and a profitable market is assured. For several years back the periods of low prices have been the exception, not the rule, and they have become much less frequent the past year or two, showing a tendency in the market to approach gradually toward uniformly high or profitable prices all the year round.

The Preparation of Wool for Market.

Though wool is low in price, and there is seemingly little prospect of an advance in the near future, farmers should not neglect to put their wool up in the very best condition for marketing. In fact, there are stronger reasons for having the wool put up in the very best condition when it is cheap than when it is dear. Whether sheep are kept for wool production or for mutton production, no part of the product should be neglected, and the wool as well as the mutton should be placed upon the market in the very best condition possible.

At a meeting of the members of the wool trade of the United Kingdom, held at Bradford, England, last December, a committee was appointed to look into the question of the proper handling of wool for market. The report of this committee was recently made public, of which the following is a summary:

"For many generations it has been the pride of the British and Irish agriculturists that their wool was got up for the market in a manner superior to that of any other country. In their early efforts to arrive at this pre-eminence, our ancestors obtained the assistance of the law, and an act of Henry VIII. provided that 'No person shall wind or cause to be wound in any fleece any wool not sufficiently rivered or washed, nor wind nor cause to be wound within any fleece clay, lead, stones, sand, tails, deceitful locks, cots, lambs' wool, nor any other deceitful thing whereby the fleece may be more weighty, to the deceit and loss of the buyer.' The penalty for infringement of this act was sixpence per fleece, which was raised to two shillings per fleece by an act of George III. Nearly forty years ago these acts were repealed, along with some others which were obsolete. During recent years, however, a new spirit appears to have been creeping in, and practices have been indulged in which have resulted in friction, and sometimes law. Leaving out the mountain wool, such as Scotch black-faced, which has a market of its own, and reducing all the wool to the absolutely clean or scoured state for purposes of comparison, the following is the production of competing wool: United Kingdom, 90,000,000 pounds; Australasia and River Plate, 262,000,000 pounds. In 1898

the Argentina alone bought 6,632 stud sheep from this country, at a cost of 94,323 pounds sterling (about \$471,615), and in the imports from that country may be found wool which will compete with almost any class grown in the British Isles.

This is essentially a farmers' question, for it cannot be too clearly understood that the user will soon tire of it. The trader asked for nothing new or arduous. All he requires is an honest adherence to the best traditions of the past if he is to do his share in preserving the past pre-eminence of the native product. To do this the trader expects the grower to observe the following points:

(1) The sheep should not be allowed to run too long after washing before being clipped, as this means, in effect, getting the wool back into greasy condition.

(2) Nor should they be clipped while wet, as this takes away the liveliness from the fibre and causes the wool to rot.

(3) They should not be clipped in dirty places, such as barns littered with chaff and straw and other matters, which get into the staple and cause endless trouble and annoyance. The cost of this fault to the user is serious, as it is often impossible to get this foreign matter out without the use of chemicals.

(4) When the fleece is wound, no clags of earth or dung should be left on the fleece, nor put in while winding.

(5) No locks, tailings, skin wool, black nor cots should be wrapped up inside fleeces, nor greasy wool wrapped up inside washed fleeces.

(6) The fleeces should be tied up with bands made by twisting a portion of the fleece itself. Strings composed of vegetable matter, such as hemp, jute, etc., are bad, and ought not to be used.

The most careful manipulation by the manufacturer often fails to detect small pieces, which do not make their appearance until the cloth is dyed, because the dyes which are required for wool will not do for vegetable matter. Pieces of cloth are often damaged in this way to a very aggravating extent.

In view of the fact that a large and increasing quantity of our home-grown wool is now sold by auction, it is satisfactory to note that the auctioneers of wool will regard as "false packing" the non-observance of the recommendations Nos. 4 and 5 of this report, and in their new conditions of sale will reserve the right to make suitable allowances to the purchaser in such cases.

Keep the Cultivator Moving.

There is no more important work on the farm than that connected with cultivation. Many farmers now make the hoed crop take the place of the summer fallow, as they claim that it supplies everything in the way of cleansing land from weeds, that the latter plan was credited with doing in the old days.

But to get the full benefit of the

root and corn crop in this direction the cultivator must be kept going. The time to begin is when the plants are sufficiently above ground to admit of the rows being seen distinctly. After that the cultivator should be kept moving nearly all the time if the hoed crop is large. The more the cultivator is kept going the less hand weeding will be needed.

Not only does this cultivation help to eradicate the weeds, but it very much improves the growing crop as well. By the stirring of the soil and exposing it to the atmosphere the plants are stimulated to better growth and the increase in the crop will much more than pay for the extra time given to cultivation. Farmers, then, should give considerable attention to this matter during June so that they may have the work well under way before haying begins.

Canadian Butter to the Front.

As shown in our last week's market report the exports of Canadian creamery butter so far this season show a large increase as compared with 1900, the figures being over 15,000 packages for May, 1901, as compared with about 5,000 packages for the same month last year. This is a large gain and gives an approximate idea of the amount of business we may look for in this line this season. In addition prices have been good and, as a rule from 1½ to 2c. per lb. over the prices of a year ago.

But what is more gratifying than all this is the high standing Canadian butter is obtaining in the British markets. Even Canadian fodder butter is reported to be giving good satisfaction to the English consumer this spring who should be willing to pay higher prices for our grass butter. And we believe he will so long as it is of the finest quality and reaches him in good condition. As indicative of the growing desire for Canadian butter it may be said that the advance in prices during the past month was in no way due to any speculative element, but to the healthy tone of the English market.

Many English dealers now look upon Canadian grass butter as ranking next to the Danish in quality. In fact, Danish shippers have frequently stated that of all the butter imported into England they fear the Canadian as a competitor most.

This is admitting a good deal and shows that the Canadian made article is rapidly forging to the front in Great Britain. Consequently the methods that have been conducive to these results should be applied without any lessening of energy or skill. By giving attention to every detail of the business from the cow and her milk to the finished product, and having it landed in good shape, it should not be long till we are at the very front as regards the quality of our creamery butter. Last year cheese, owing to high prices, etc., was the big feature of dairying in Canada. But it would seem as if our butter makers never relaxed one

iota in their efforts to produce a really fine article. At any rate Canadian butter has not suffered any because of the reaction in favor of cheese, and stands higher to-day in the estimation of consumers than ever before.

The American Corn Crop.

Production Limited—Market Increasing—Canadians Interested.

In The Saturday Evening Post of June 1, Mr. George A. Phillips, of the Chicago Board of Trade, gives a most interesting review of the corn industry of the United States. No less than 83,000,000 acres of land are annually devoted to this crop, and the average return is two billion bushels per year, or eighty per cent of all the corn grown in the world. The value of the 1900 crop at farmers' prices was \$751,000,000.

Up to 1896 only about three per cent. of the American corn crop was exported, or from 35,000,000 to 65,000,000 bushels. During that period the prices received by the farmer ranged from twenty to twenty-five cents a bushel, save as influenced by unusually short crops. But about this time a marked increase in the commercial uses of corn began. It came into use more largely as a human food, and this feature has progressed until to-day there are thirty large milling concerns engaged in the manufacture of food products from corn. Large quantities are used for the manufacture of glucose, while the exports of starch made from corn have increased in value from \$475,000 in 1890 to \$2,604,000 last year.

But the increased demand for commercial uses is merely incidental to the main volume of increased demand—that of the export trade of corn itself and the meats produced by its feeding. The exports of corn alone increased from 31,000,000 bushels in 1891 to 210,000,000 bushels in 1900, valued at \$85,000,000. In addition, corn-fed meats, the equivalent of 300,000,000 bushels are sent abroad every year.

The significant fact to be noted in this review, and it is of importance to Canadian farmers and cattle feeders as well as to those of the United States, is that the land suitable for corn production in the United States is to-day almost wholly utilized. There can be no material enlargement of the corn fields, except at the expense of some other crop, and the extent to which this is possible is decidedly limited. The only way, therefore, of increasing the output is from improved methods of cultivation, and this is subject to considerable limitations.

Contrast with this the other important fact that during the past five years there has been a tremendous increase, amounting to nearly 400,000,000 bushels, in both the domestic and foreign demand for corn; and we have a condition of affairs in connection with the corn crop of the United States that must mean a higher range of values in the future for that cereal, and a corresponding-

ly higher price for the cattle fed upon it. And it is in connection with the beef cattle trade that this whole question is of the greatest importance. Higher prices for corn mean greater cost in the production of beef in the western and corn growing states which, if it means anything at all, indicates that Canadians will have much less to fear from American competition in the beef cattle trade in the future than in the past. With production at a standstill and the demand increasing rapidly, the making of the cheap corn-fed beef in the west will, in the near future, be merely a matter of history.

The Temiscaming Excursion.

A considerable number of excursionists to the Temiscaming district returned last week. The journey from the new region to Toronto occupied three days. The following account of the trip appeared in the daily press of last week.

"Practically all are extremely well satisfied alike with the trip and the district. The arrangements made by Mr. Southworth and his staff were admirable. In all, 162 land-seekers went on the trip, and by Monday 107 locations had been taken up. It is expected that about 25 more will be secured by members of the party. This means that about one new township will be added to New Ontario. The new settlement is very compact, nearly all having located in the Township of Armstrong. This township, which was practically untouched, is now taken up to the fifth out of the six concessions. In addition, a number have taken land in Harley, and a few in Kerns.

The programme consisted in the main of tramps from Thornloe back to the available land, an experienced guide being sent with each party. On Monday a number of excursionists left Thornloe on a steamboat trip up the Blanch River, where also an excellent area of farming land is to be found. Mr. Southworth has gone into the Temagami district, accompanied by Mr. G. W. Ross, Jr."

CORRESPONDENCE.

Does it Pay to Wash Sheep?

EDITOR THE FARMING WORLD:

Replying to your inquiry as to my opinion and custom of washing sheep before shearing I would say that we do not wash before shearing, and think it is more profitable for us to shear in the grease. Possible sometimes a little more money could be made out of the wool if it were washed, but when the comfort of the sheep is considered, I think all possible gain and much more is lost, for with sheep as with other animals the more comfortable they are the more profit will come to the owner. They can be shorn early in April and avoid the hot days before they could be safely washed, and vermin can be destroyed that much earlier.

I do not think washing injures

the sheep, but the struggling with the great load of wet wool is often very exhaustive. I think they would be better to be washed after shearing and before dipping, and am surprised that so many neglect the dipping, one of the most profitable attentions a shepherd can give his flock.

A. W. Smith.

Maple Lodge, Ont., May 28, 1901.

EDITOR THE FARMING WORLD:

I was greatly interested in the articles upon the good roads movement in your paper of May 28. I have asked myself some queries and among others where and how the million of dollars will be spent?

I am living in the Township of Caldwell, District of Nipissing, and under the Statute Labor law the roads are in a shameful condition, so much so, that a portion of one of the concessions which is corduroyed with timber from 6 to 8 inches in diameter has been floating since early spring through the flood of water. It has thus made travel to town or market nearly impossible with an empty wagon. This is one road out of many.

Now, will any of this money reach up to this road? Why leave the abolishing of statute labor to the discretion of township councils? Why not the Government abolish it at once, and issue some simple and clear laws upon the subject for the guidance of township councils. You may depend where it is left to councils to make by-laws for road labor many will be faulty. I urged the Township Council of Caldwell to adopt contract labor but they were afraid to act. Some said it might be too expensive. Another excuse was "They had no plan ready, etc.," and the strangeness is the township has bought a road machine, \$275! Now, by this township continuing statute labor the machine will be idle half the time unless it draws heavily on the taxes, as the men will do their statute labor. Therefore the Government should step in at once and abolish so unjust and unsatisfactory a law as the Statute Labor law. Instead of the Government experimenting with this million of dollars, those townships should be most helped who are in the greatest need and honest, practical men sent to see the work well and honestly done.

James Larden.

Cache Bay, Ont., June 1st, 1901.

Canadian Cattle Sell Well.

The big combination sale of Canadian Shorthorn cattle at Chicago, on Wednesday last, was a great success. In many respects the sale was a record-breaker. The total proceeds of the sale amounted to about \$46,000. Sixty animals in all were sold. Fifteen belonging to W. D. Flatt, Hamilton, sold at an average of \$1,070 each; the fifteen offered by H. Cargill & Son, Cargill, averaged \$724 each; Hon. H. M. Cochrane's W. C. Edwards & Co., Rockland, Ont., \$575 each.

Breeding and Feeding for Eggs

By Hugh Bertram, Jr., Vine Mount, Ont.

Breeding poultry for eggs might be said to be the same as breeding cows for milk production. The up-to-date dairyman keeps a record of his cows and raises only the calves from those cows that have proved themselves to be good milkers and profitable to keep. The calves being sired by a bull whose ancestors are noted for milk production. The up-to-date poultryman must do the same thing—watch his hens closely to see which are his best layers, and when he wants to get some eggs for hatching purposes he must choose a male bird if possible that has been bred in line from good egg-producing hens and mate him with only those hens that have given him the best results. By doing this from year to year and weeding out all those that have not come up to our expectations, we would soon have a flock of chickens that would give us good returns for the time and feed we might expend on them. There is no doubt that there are certain breeds which are more likely to produce layers than others, but by close attention we can pick good individual layers from almost any breed, and by breeding from them a good laying strain can be produced from that particular breed.

To be successful in producing eggs at the season of the year when they command the highest price we must try and raise chickens from the hens that have proved themselves to be good layers in the winter, and by having the pullets come early we can get them started to lay before the winter starts in earnest. Those pullets, along with hens that have not been allowed to grow old in the service, ought to produce eggs when they command the highest price. In order to get chickens hatched at the time we want them it may be necessary to use an incubator. Early in the spring the eggs that are to be kept for hatching should be gathered as soon as possible after being laid and kept in a place with an even temperature where they have no chance of being chilled.

The male birds ought to be kept away from the laying stock until about three weeks or a month before eggs are wanted for hatching purposes. There should be a male bird for every fifteen hens, a few more or less would make very little difference. This will insure the fertility of most of the eggs.

Where it is possible it would be better to breed chickens from year-old hens that have been mated with good strong cockerels, but where this is not possible, and pullet's eggs have to be taken for hatching purposes, it would be better to mate them with a cock bird.

After the chickens are hatched it is necessary to push them along and never let them stop growing until they have reached maturity.

FEEDING FOR EGGS.

We have all heard the saying among stockmen that the feed is half the

breed. This maxim applies equally well to poultrymen. Without the proper feed and attention, no matter how they have been bred for egg production, we can't expect our hens to pay us.

There are two things, I think, which are essential towards getting a supply of eggs in the winter season, viz., a balanced ration and exercise. Many a farmer keeps throwing in the wheat and corn to his hens but never gets an egg, and then blames the hen for laying when eggs are nine and ten cents a dozen. The blame lies at his own door. When the spring opens, nature steps in and remedies the evil that the farmer has been doing all winter by supplying the hens with a balanced ration consisting of all kinds of grit, insects, which supply the place of meat and grass, and all kinds of things which go to make up a balanced ration. This is exactly what we must strive to give them in the winter, along with plenty of exercise.

We must have a good, warm hen-house to start with, and if possible have it with a southern exposure. It is almost unnecessary for me to say, I hope, that the hen-house must be kept perfectly clean and free from lice. Have a scratching-pen in one end of it with a good lot of chaff so that the hens can scratch among it and keep them busy.

It might truthfully be said that: "Satan finds some mischief still for idle hands to do." Eating eggs, feather-pulling, and all such vices are learned from being fed too much of one kind of food, which makes the hens lazy. I am a believer in as large a variety of foods as possible for best results. Green food, cut clover, animal food, grit and grain with a mash night or morning is absolutely necessary, for we cannot produce eggs in the winter without these. The idea in feeding for eggs is the same as feeding cows for milk, viz., to produce the largest yield at the smallest possible cost.

I will conclude with what I consider a good egg-producing ration. In the morning feed a hot mash of equal parts bran, ground oats, and ground barley. When preparing it I would suggest boiling about a quarter the quantity of cut clover to what we use of the other mixture, add some meat scraps or meat meal, and when this is boiling stir in the grain mixture, taking care not to get it too sloppy. Feed this in a long trough so as to prevent crowding and fighting, and see that it is eaten up clean, the hens leaving with an appetite. At noon feed cabbage, sugar beets, or mangels, with a little grain and cut green bone thrown among the chaff. At night, or rather about 3.30 p.m., give a good feed of some kind of grain, corn, oats, buckwheat, barley, wheat, or Kaffir corn, changing the kind of grain every day or two. That ration, along with plenty of clean water, grit, sunshine, cleanliness, and a good dust bath, will, I think, make the hens lay lots of eggs.

When to Cut Alfalfa.

(Press Bulletin, Kansas Experiment Station.)

Alfalfa should be cut when not more than one-tenth of the plants have come in bloom. Cut at this early stage, the yield of hay for the season will be much greater than if the alfalfa is cut near maturity, and every pound of hay secured will be worth more for feed.

At the Kansas Experiment Station, a strip through a field of alfalfa was cut when one-tenth was in bloom, another strip was cut after full bloom had past. The strip cut early was nearly ready to cut the second time when that cut after full bloom was being harvested for the first time. The strip cut early grew vigorously through the season and made three cuttings and a good aftermath. The strip cut after full bloom gave a low yield the first cutting and did not grow sufficiently to yield a good second cutting. Early cuttings seem to invigorate the plant.

The late cutting of the first crop seems to injure the plant more than at any other time, and we have found it profitable to cut alfalfa the first time as soon as one-tenth was in bloom, even though the weather was bad and we knew that the crop would spoil in curing. The increased yield from succeeding cuttings over that cut late much more than makes up for the loss of the first crop.

The great value of alfalfa is the large amount of protein it contains, that material in feed that is absolutely necessary for the formation of blood, lean meat and milk. The higher the protein in alfalfa, the more valuable the crop. The Chemical Department of this Station found the effect of cutting alfalfa at different stages as follows:

	Protein.
One-tenth in bloom	18.5 per cent
One-half in bloom	17.2 " "
In full bloom	14.4 " "

The Colorado Experiment Station found the effect of cutting alfalfa as follows:

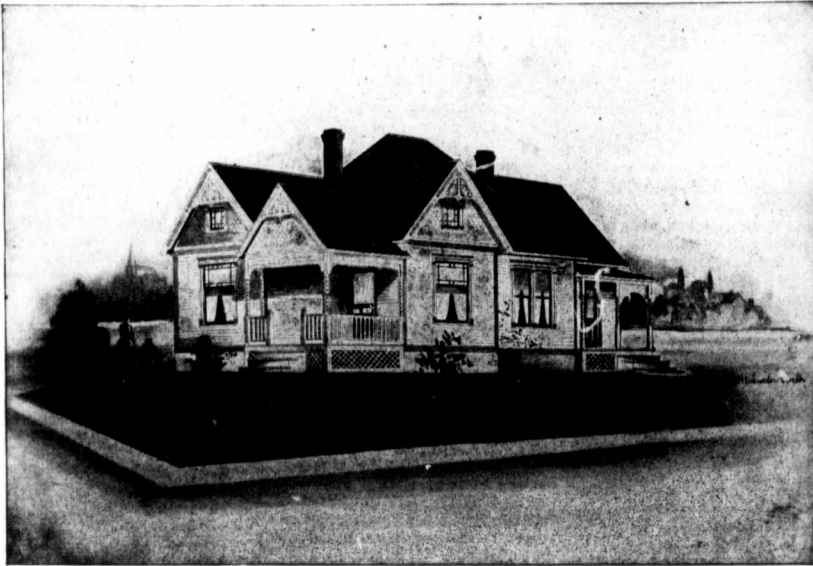
	Protein.
Coming in bloom	18.5 per cent
Half in bloom	14.6 " "
In full bloom	12.9 " "

The Utah Experiment Station for five years cut alfalfa at different stages of maturity and fed the crop in producing beef. The average production per year per acre was as follows:

	Hay, Tons	Beef, Pounds
In first bloom.....	5.35	706
In full bloom.....	4.90	562
Half blooms fallen.....	4.55	490

These experiments made in three states—Kansas, Colorado, and Utah—prove that alfalfa cut in the first bloom will give the greatest yield and feeding value. The leaves of alfalfa contain more than three times as much protein as the stems, a ton of alfalfa leaves containing as much protein as 2,800 pounds of bran. Every care should be taken in curing alfalfa to save the leaves.

H. M. Cottrell.



Ideal Farm Homes

Design number one is another of those nice little cottages planned for these columns, and it will be seen by looking over the floor plans and perspective that it is not only a very well arranged house but a very handsome one. There are six rooms, all on the first floor. The arrangement of this house is such that it is not intended for any rooms to be finished in the upper storey. The rooms are of good size, and the folding-doors between the dining-room and sitting-room and arch between the sitting-room and parlor make a grand room for receptions or parties.

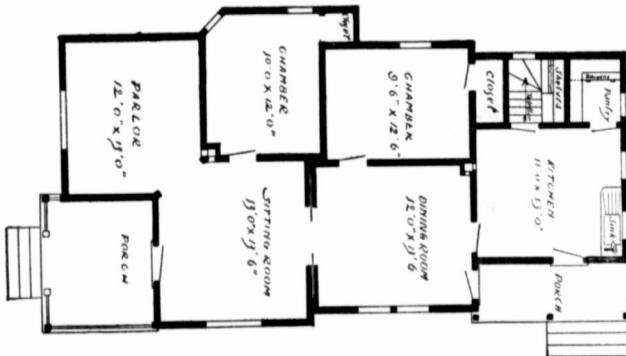
In selecting a lot for a house of this kind one always wants to remember

that they need a high lot for a low house. The breaking up of the lines of a house often means that the rooms will not be square, but in this case it seems to make no particular difference, all the rooms being square, with the exception of one little cut-off in one corner of the front chamber. The size of this house is 27 feet in width and 50 feet in length, exclusive of porches. The specifications and blue prints will give the builder or contractor exact dimensions of everything to be used, and it will be seen also, in going over the specifications, that the work must be done in thoroughly good shape. There is no bath-room in this house, and to build the house complete would

cost about \$1,200. This would pay for good material from start to finish.

In stating the amount of money it would cost to build any of these houses we do not say definitely what it will be, but leave a little chance for leeway, as in some places the prices are higher than in others. In some locations the contractors charge more than they do in other places, and wages are higher.

The blue prints, which consist of cellar and foundation plan, floor plan, roof plan, front, rear and two side elevations, wall sections, and all necessary interior detail, together with a set of typewritten specifications, can be had at this office for \$4.



Studies in Nature

A Review of Insect and Bird Life on the Farm

Edited by C. W. Nash.

We shall give from week to week under this heading short descriptive articles dealing with the more common insect pests and their remedies. The matter is necessarily condensed in order that as much may be got into the space as possible. Other topics will be dealt with as the occasion demands. All questions will be promptly answered

Codling Moth (*Carpocapsa Pomonella*).

Extent of wings, when expanded, about $\frac{3}{4}$ of an inch.

Head and thorax brown, mixed with gray. Forewings dark brown, crossed by many gray and brown scalloped lines, with an oval dark brown spot edged with copper color near the hind angle. Hind wings and abdomen light yellowish brown; very lustrous.

The body of the larva at first is white, its head black, the top of the first and last rings is black, and there are eight little black dots arranged in pairs on each of the other rings. Later its body becomes pinkish, its head, collar and the top of the last ring turn brown and the dots disappear. The chrysalis is of a bright mahogany brown color, the cocoon which encloses it having much the appearance of white tissue paper.

This little moth is the worst pest that attacks the apple. It emerges from the pupa stage when the trees are in bloom and deposits its eggs, generally, upon or near the fruit then forming. In a few days the larvae are hatched, and they then enter the apple at the blossom end and bore their way through the fruit to the core; here they feed for about twenty-five days, when they become fully developed. They then issue through a hole which they eat out to the side of the apple and prepare to enter the pupa stage. If the apple remains on the tree the caterpillar crawls down to the trunk, and there makes a white papery cocoon in some crevice of the bark. If the apple falls the caterpillar seeks some convenient shelter and there transforms.

From the chrysalis stage the moth may emerge in two or three weeks, or it may delay until the following spring. Those that do emerge lay eggs for a second brood. The caterpillars of this brood do not generally enter the fruit at the blossom end, but at the side of the apple. In other respects their habits are the same as those of the first brood. As small larvae are sometimes seen late in the season, it has been suspected that a third brood may occur, but it is more probable that the moths of the second brood are irregular in their emergence from the chrysalis stage, and that these late larvae are produced by delayed moths of the second brood.

The principal food of the larvae of the Codling Moth is apples, but it

frequently attacks pears, quinces, and wild haws, and more rarely some of the stone fruits.

REMEDIES

The most effective remedies in use against the Codling Moth are: Poisoning the caterpillars before they enter the apple, and destroying the cocoons on the trees.

To poison the caterpillars on apples and pears, the first application must be made as soon as the blossoms fall, and a second spraying should be given before the calyx closes and the fruit turns down on the stem. The efficacy of spraying for the destruction of this insect depends upon getting the poison to lodge in the calyx cup of the fruit, before the little leaves at the side of the cup are drawn down over it, so that when the caterpillar attempts to enter the fruit at this point, it will take some poison when it first eats into the outer skin. When the calyx closes, most of the larvae will have entered it and will be so protected by its folds that they will be safe from any poison applied afterwards.

To prevent the second and subsequent broods from injuring the fruit, spraying the trees at intervals through the summer will be found effective. Use solutions Nos. 1, 2 or 4 (see spraying).

The destruction of such of the larvae as escapes the poison is very important, as in this way the production of future broods may be largely prevented. To do this take a piece of coarse sacking, about fifteen inches wide and long enough to go round the trunk of the tree, fold it three times so as to make a band about five inches wide, fasten this band about half-way up the trunk of the tree. The larvae, when fully developed, leave the apples and crawl over the trunks of the trees seeking shelter, under which they pass through the pupa stage; these bands afford the protection they seek, and they gather under the folds of the cloth in large numbers. The bands should be placed around the trees about the tenth of June and kept there until the end of October. The bands should be taken off and examined every two weeks, and the larvae and cocoons found on them destroyed.

Municipal Councils have the power to compel owners of orchard trees to place bands upon them, etc. (See 63 Vict., Chap. 117, Ont.)

All apples that fall from the trees should at once be gathered and fed to hogs, or otherwise destroyed. If practicable, pigs should be given the run of the orchard.

The Flat-Headed Apple Tree Borer (*Chrysothrips Femorata*).

Beetle about $\frac{1}{2}$ an inch long. Color, greenish black; the head, legs, and underside of the body have a coppery

lustre. On each wing cover are three smooth, polished raised lines, running lengthwise.

Larvae.—The first segments of the thorax much broadened and flattened, much wider than the rest of the body. Length one inch, color pale yellow.

The beetles appear about the end of May, and from that time to the end of July, may be found upon the apple trees, etc. Their eggs are deposited upon the bark of the trunk and limbs of the trees. As soon as hatched, the larvae bore into and feed upon the sapwood. On the approach of winter they hibernate. Early in spring they change to pupae, and remain in that condition for about two weeks, when the perfect beetles eat their way out. They live only one year within the tree, and are more apt to attack unhealthy, neglected trees than thrifty, healthy ones.

REMEDIES.

The presence of the borer within the tree may be detected by the sawdust-like castings, at the entrance of its hole, or by the sap which flows from it. It may then be cut out or killed by probing with a piece of flexible wire.

To prevent the attacks of these borers, dissolve about one quart of soft soap in two gallons of water, and add to this a little lime and crude carbolic acid. With this paint over the trunks and limbs of the trees as far as possible. Three applications should be made. The first at the end of May, second in the last week of June, and the third at the end of July.

Round-Headed Apple Tree Borer (*Saperda Canidæ*).

Beetle.—Antennae nearly as long as body; upper parts light brown, with two white stripes running from head to end of wing covers; underparts white; length about three-fourths of an inch.

Larvae.—Body, whitish, nearly round, tapering to the end; head, chestnut brown.

The beetles occur from early in June to the end of July, and during that time deposit their eggs upon the trunks of their food trees, frequently selecting the apple. The eggs are laid upon the lower part of the trunk, usually within a few inches of the ground. When hatched, the larvae bore into the wood, and there feed and undergo their transformations to the perfect insect, when they eat their way out. The larvae state continues for nearly three years, during which time the borer is burrowing in the tree. The beetle is nocturnal in its habits, resting among the foliage during the day.

REMEDIES.

The remedies to be used to prevent injury from the attacks of this insect, are the same as those given for the flat-headed apple tree borer.

The Sugar Beet World

Devoted to Sugar Beet Culture in Canada and Allied Industries. Specially Representing the Farmers' Interests.

EDITED BY JAMES FOWLER.

ONTARIO BEET SUGAR ASSOCIATION. OFFICERS FOR 1901.

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A Factory for Walkerton.

Incorporation is being asked for a sugar factory at Walkerton with capitalization of \$500,000. It is expected to make this a co-operative affair, the beet growers to be largely interested.

No Duty on Machinery.

The act recently passed by the Dominion Government in relation to the admission of beet sugar machinery free of duty reads as follows: Machinery of every kind and structural iron and steel, when imported under regulations to be made by the Minister of Customs, for use in the construction and equipment of factories for the manufacture of sugar from beet root, until the first day of April, 1902, is placed on the free list.

At London, Ont.

Mr. R. H. Stewart, of London, England, is at the Tecumseh House. He is looking for a good investment, and is convinced that he has found it in the beet sugar business. Recently he toured the Michigan sugar beet district and believes that the industry is beyond the experimental stage and is an assured success. He is not a promoter, he says, but is willing to provide the bulk of the money necessary for a factory. Hon. John Dryden, Minister of Agriculture, and Professor Shuttleworth directed him to come to London as the centre of a good beet growing district. Mr. Stewart would be pleased to meet any Londoners interested in the industry at the Tecumseh House to-night.

—Advertiser.

Sugar Beets in Nova Scotia

Prof. H. W. Smith of the Provincial School of Agriculture, Truro, N. S., says:

"There is no question about our ability to grow sugar beets in Nova

Scotia, but the question is can we grow them with sufficient percentage of sugar year after year to warrant the establishment of a factory (sugar house is a better term.) This can only be determined by trial, by growing some beets in different localities and determining the percentage of sugar.

The sugar house is a large and expensive building and involves a large amount of capital. It requires a large acreage of beets to supply it, these may be grown at quite a distance from the factory and shipped to it so that one factory would do for the Province.

"The important problem first to be solved is the quality of the beets which we can produce. If it can be shown that they are rich in sugar, then, provided that suitable protection is given the industry, it might be established here."

Hints About Beet Growing.

By Thomas Pecha,

Beet growing is not always easy to introduce among farmers, but often meets with much opposition. The farmers, as a rule, require to be convinced that their customary, easy-going system of farming is not appropriate to the raising of sugar beets, which involves a good deal of work at a season when there is plenty of work on the farm as it is. For this reason many farmers are opposed to beet culture.

While there is much latitude in the choice of beet fields, certain fundamental conditions must be observed. There should be a sufficient depth of black earth, stones should not be too abundant, and the subsoil should allow good drainage. Heat and moisture exert a greater influence upon yields than the soil itself and fertilizing. The precipitation during the time of vegetation affects both quantity and quality of yield of the sugar beet to a greater extent, probably, than in the case of any other cultivated plant.

A chief requirement of scientific beet culture is deep fall ploughing. It is necessary to afford atmospheric influences abundant opportunity to act upon the soil during the winter. Spring cultivation need not go beyond loosening up the soil. The beet requires a good, finely broken up soil, but it should be well closed. On the best beet soils, which, owing to large lime and vegetable earth content, are naturally loose and give less cause for fear of hardening, cultivators and heavy rollers are used diligently in preparation for seeding. Heavier soils require different treatment. At times it is necessary to use the plough in the spring time, particularly if the field is inclined to be overgrown with weeds. The loss of winter moisture and formation of clods is much less dangerous than weeds. The former can be made up for by a good rain, the latter can be broken up by the cultivator, but weeds are difficult to fight, and an ounce of prevention is better than a pound of cure.

The chief requirement for proper spring cultivation, then, is the practical judgment of the experienced farmer. If he is in the happy condition of not needing the plough in the spring, the next question is the selection of the proper implement. In all cases where it is a matter of preparing a soil well ploughed in the fall, whether light or heavy, it is generally sufficient to use a common, heavy, sharp arrow once or twice, provided the winter was dry and the spring not too wet, and the soil did not cake too hard under the snow or become too muddy, and the time is not so far advanced that he has to deal with grown weeds instead of their shoots.

It goes without saying that there are limits to early seeding. No seed should be put in the ground that remains wet. On the other hand, if the season is too dry, the seed is apt to get too deep into the ground, especially in light, friable soil. It is better to seed shallow than too deep. A proper depth is important for uniformity of stand, and indirectly for the yield. Too deep seeding gives a late and short crop. The depth of seeding should be one-half to one inch. One need not be afraid if a few seeds remain on the surface after the seeder has passed.

It is better to seed too much than too little. No one ever regretted using too much, but many a farmer has suffered from too little seed. If the plants are too thick they can be thinned. As a general rule, about 20 pounds to the acre should be taken.

Another important matter is the selection of distance, according to the type of beet used. A great deal must be left to the judgment of the farmer in this respect, as he alone is familiar with the soil, its strength, the fertilizer used, the weather conditions, etc.

THE FARMING WORLD

Experience shows that beets planted in north and south rows have an advantage over those planted running east and west. Other things being equal, the former have a higher sugar content, greater weight and higher purity co-efficient, but grow less foliage. Beets planted running east and west have greater resistance to drouth, produce more foliage, but are exposed more to weeds. The distance of the plants should maintain a certain relation to the distance of the rows. The most suitable distances for average conditions is 18 inches for the rows and 8 inches for the plants in each row. The farmer who succeeds in obtaining a uniform stand has half the crop secured.

The work of taking care of the growing beets consists of the hoeing, bunching and thinning. All of these matters exert certain influences upon the crop. The hoe should be used intelligently, and a sharp implement employed. Hoeing increases the bulk of the beet, gives it a fine form, promotes a faultless foliage, increases the sugar content and adds to its value for manufacturing purposes. "The sugar is hoed into the beet." Thinning is the most difficult, expensive and important work in beet growing and should be valued according to quality, not according to the area covered. Hoeing should be continued until one cannot walk in the field without injuring the leaves, which are the real sugar makers. From this time on work in the beet field should cease.

Waterloo Avenged.

One of the great staple trades of old time in England—a trade which helped largely to build up the fortunes of Bristol and Greenock, and even of London—was the refining of raw sugar. That industry has now gone to the dogs, and from the same cause which has turned the colonial plantations into waste places—the European sugar bounties.

At Bristol there were five refineries at work a few years ago; to-day there is only one. At Greenock in 1884 there were sixteen refineries; in 1900 two. Statistics of a similar kind might be quoted in respect to London, to Dublin, to Liverpool and other towns. Glance only at the change which 16 years have wrought. In 1884 out of a total consumption in this country of 1,950,000 tons of refined sugar, British refineries supplied 800,000; to-day out of a total consumption of 1,500,000 tons our refineries supply only 600,000 tons. In 1884 we refined 80 per cent. of the total consumption. Had we kept that proportion we should now be refining 1,000,000 tons a year.

A century ago Napoleon conceived the idea of growing beet sugar in Europe for the sake of destroying the wealth of England's famous West Indian colonies and of injuring the home refining industry, which contributed to the wealth and therefore the power of the nation which dared to stand up against him. That was the origin of the bounty system. Our troops vanquished Napoleon at Waterloo; to-day the beet sugar has avenged Waterloo.—London Express.

The Growth of the Industry in the United States.

The American farmer has suddenly discovered that he can raise with large profit as good sugar beets as there is in the world, and the American manufacturer has learned that he can make those beets yield the highest grade of pure sugar. Twelve years ago the total production of beet sugar in America was 255 tons; six years later the production had jumped to 16,000 tons, and last year (1899) the production was about 80,000 tons. For 1900 those who know predict a production exceeding 150,000 tons, nearly doubling the output of a year ago, and making the beet sugar yield of the country nearly equal to the cane sugar yield. And thus out of almost nothing, the United States has built a sugar industry in half a dozen years, the output of which this year will be about double that of the island of Porto Rico. And the work has barely begun. In 1898 Michigan had one sugar beet factory, two years later in 1900 she had ten factories. In California the largest beet sugar factory in the world has just been completed, larger than anything in Europe, although Germany has been years at the business. This enormous factory cost \$2,750,000, using 3,000 tons of beets for the purpose daily, and consuming yearly the product of 300,000 acres of land.

Beets vs. Wheat.

Mr. William Ruterbush, of Portsmouth township, Bay county, Mich., was a pleasant caller at our office during the week, and in talking of the beet crop Mr. Ruterbush made the statement that it was a God-send to many farmers in this section, and that he had been able to make some money since the crop was introduced into Bay county. "For ten years before beets came in," said he, "I was hardly making a living on my land, but now I am making some money. I have already made \$3,000 in the raise of farm values besides making well from my beet crop. I have 260 acres of land and I can make more from my beets than I can from all the rest of the land.

"In 1898 from two acres we, that's my brother and I made \$181. We didn't know much about the crop then. In 1899 we had 10 acres and

we made \$500, and this was an awful bad year for beets and a good many farmers lost money, but we did pretty well.

"Last year we had in 19 acres and made over \$1,000 clear money, and we think this was pretty good. We have learned much about the crop and was able to handle it very much cheaper this year than any other year, and we expect to put in 30 acres for this year.

"This same land put into wheat would not pay good rent for the land. In 1898 we had 40 acres of wheat and it went 30 bushels to the acre, and we received 73 cents per bushel for the wheat; in 1899 we had in 43 acres, and that was a failure, and we only got about 300 bushels which we sold at 75 cents per bushel; last year we had in 20 acres from which we got about 400 bushels which we have not sold yet. Wheat at present prices will not pay any farmer to raise, and I would not grow any only for keeping up a good rotation.

"I keep a large herd of cattle and feed a great deal of beet pulp and find it very valuable. I know that it increases the milk flow, for I have watched it with my cattle, and to take the pulp away from them would mean the falling off of more than a quart each day. The beet industry is the best thing that ever came to the farmer, and it increases the value of your land each year. There is no danger of the crop robbing the land of its fertility if farmers only try to keep up the land, but any crop will rob the land if you don't put back what you take away."—Mich. Sugar Beet.

Benefits the Ground.

The thorough methods of preparation of soil and cultivation necessary for beet growing gets and keeps the ground cleaner and in better condition than under grain cultivation. Some have advanced the idea that the raising of sugar beets injures the soil for the growing of corn, but the Bloomington Pantagraph's correspondent at Tremont made an examination the last of August, 1900, of several cornfields in that vicinity which had grown sugar beets the year before and found the following yields per acre: George Getz, 26 acres, 60 bushels (and six acres of beets were better than the beet crop on the same land the preceding year); C. Hell-

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TORONTO

The Agricultural Gazette

The Official Bulletin of the Dominion Cattle, Sheep, and Swine Breeders' Associations, and of the Farmers' Institute System of the Province of Ontario.

THE DOMINION CATTLE, SHEEP, AND SWINE BREEDERS' ASSOCIATIONS.

Annual membership fees:—Cattle Breeders' \$1; Sheep Breeders', \$1; Swine Breeders', \$1.

BENEFITS OF MEMBERSHIP.

Each member receives a free copy of each publication issued by the Association to which he belongs during the year in which he is a member. In the case of the Swine Breeders' Association this includes a copy of the Swine Record.

A member of the Swine Breeders' Association is allowed to register pigs at soc. per head; non-members are charged \$1.00 per head.

A member of the Sheep Breeders' Association is allowed to register sheep at soc. per head, while non-members are charged \$1.00.

The name and address of each member, and the stock he has for sale, are published once a month. Over 100 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and probable buyers resident in Canada, the United States and elsewhere.

A member of an Association will only be allowed to advertise stock corresponding to the Association to which he belongs; that is, to advertise cattle he must be a member of the Dominion Cattle Breeders' Association, to advertise sheep he must be a member of the Dominion Sheep Breeders' Association, and to advertise swine he must be a member of the Dominion Swine Breeders' Association.

The list of cattle, sheep, and swine for sale will be published in the third issue of each month. Members having stock for sale, in order that they may be included in the Gazette, are required to notify the undersigned by letter on or before the 9th of each month, of the number, breed, age, and sex of the animals. Should a member fail to do this his name will not appear in that issue. The data will be published in the most convenient form.

A. P. WESTERVELT, Secretary.

Parliament Buildings, Toronto, Ont.

classes of swine, cattle, sheep and horses, should notify A. P. Westervelt, Secretary of the Live Stock Associations, Parliament Buildings, Toronto, in order that the inspector may be procured. Particulars as to the breed and number of animals offered should be given. Transportation of accepted stock will be paid to and from Buffalo.

Farmers' Institutes

Under this head the Superintendent of Farmers' Institutes will each week publish matter relating to Institute work. This will include instruction to Secretaries and other officers, general information about Institutes and Institute work, suggestions to delegates, etc. He will also from time to time review some of the published results of experiments conducted at the various Agricultural Colleges and Experiment Stations of Canada and the United States. In this way he hopes to give Institute members some valuable agricultural information which they might not otherwise receive, on account of not having access to the original publications. If any member at any time desires further information along any of the lines discussed, by applying to the Superintendent he will be put in direct communication with the Institute that has carried on the work.

G. C. CREELMAN,
Superintendent Farmers' Institutes.

FARM HELP EXCHANGE

The Farm Help Exchange has been started with the object of bringing together employers of farm and domestic labor and the employees. Any person wishing to obtain a position on a farm or dairy, or any person wishing to employ help for farm or dairy, is requested to forward his or her name and full particulars to A. P. Westervelt, Secretary, Live Stock Associations. In the case of persons wishing to employ help, the following should be given: particular as to the kind of work to be done, probable length of engagement, wages, etc. In the case of persons wishing employment, the following should be given: experience and references, age, particular departments of farm work in which a position is desired, wages expected, and where last employed.

These names when received together with particulars will be published FREE in the two following issues of the "Agricultural Gazette" and will afterwards be kept on file. Upon a request being received the particulars only will be published, the names being kept on file.

Every effort will be made to give all possible assistance, to the end that suitable workers, male or female, may be obtained. Every unemployed person wishing to engage in farm or dairy work is invited to take advantage of this opportunity.

Help Wanted.

Young man wanted for 5 or 6 months to do farm work on farm near Bradford, Ont. Good wages for right person. No. 825 a.

Good farm hand wanted for six or eight months, or by the year if right man can be procured. Must be sober, good morals, and be able to do general farm work. The farm is situated in a splendid part of Parry Sound District and offers good openings for industrious farmers. No. 826 a.

Wanted, man to do general work on a farm situated on the bank of the Rideau River, 10 miles from Ottawa. Must be able to milk six or eight cows morning and evening. Working hours on farm from seven to six. Wages suiting to age and experience. No. 824 a.

Wanted, a man who understands feeding dairy cattle and pigs; steady employment by the year; wages \$25 per month. Also two farm hands; \$20 per month for the summer. Farm within one mile of Ottawa. Electric cars to farm. Address R. Reid & Co., Hintonburg, Ont. b.

Wanted, man to work on a stock farm. Must be good ploughman and

used-to-feeding stock. Will pay \$200 with board and washing, to the right kind of man. Apply A. J. Watson, Castlederg, Ont. b.

Man wanted for several months to work on a farm. Must be willing and not afraid of work. Permanent employment if satisfactory. Considerable stock is kept. No. 819 b.

Young man required for a farm who can milk and make himself generally useful, also drive milk wagon if required. No. 820. b.

Good, steady man wanted for the summer months or by the year, to work on a farm near Galt, Ont. No. 821. b.

Young man wanted to work on a farm for six months. Wages \$15 per month with board and washing. No. 822. b.

Young man wanted to work on a fruit farm at Queenston, Ont. No. 823. b.

Situations Wanted

Position wanted as dairy feeder, milker and general handler of dairy herd, by young man 29 years of age, who has a Guelph Dairy School certificate. No. 935. b.

N.B.—Where no name is mentioned in the advertisement apply to A. P. Westervelt, Parliament Buildings, Toronto, giving number of advertisement.

Ontario Live Stock at the Pan-American Exposition

Inspectors have been appointed by the Ontario Department of Agriculture to inspect Ontario live stock offered for exhibition at the Pan-American Exposition. It is a matter of great importance that only representative animals of the various breeds should be on exhibition to show what Ontario can do in the line of breeding and feeding pure bred live stock.

Intending exhibitors in any of the

The Farmer and the Agricultural College.

That the Ontario farmer is very much interested in the College at Guelph is evidenced by the numbers that visit that institution each June. Last year nearly 35,000 persons took advantage of the Farmers' Institute excursions, and spent a day or two in inspecting the College and Experimental Farm. This year applications have been already received from 33 counties, asking for a date in June to again run an excursion to the Agricultural College.

A PERSONAL ACQUAINTANCE.

By a personal visit in this way the individual farmer becomes better acquainted with the College Professors, and they in turn are able to help him in many ways.

ASSISTANCE TO CREAMERIES AND CHEESE FACTORIES.

The College authorities, for instance, have recently issued a circular in which they say:

It is the wish of the Bacteriological, Chemical and Dairying Departments of the Ontario Agricultural College to get into touch with the makers in the cheese factories and creameries of the Province, with a view to rendering assistance in cases of difficulty which may be due to undesirable bacterial and other infections.

Difficulties frequently arise and we might mention a number of cases to show that within the last two years certain troubles or affections in factories were found to be caused by infection with harmful bacteria. The following may be mentioned as some of the most frequent causes of trouble:

DEFECTS IN THE FACTORY ITSELF. In new or modern factories, there are not likely to be any grave defects in the building, but in some of those constructed years ago, there may be defects in construction, or needed repairs may be neglected. Probably the commonest defects are:

(1) Leaky floors which allow whey or other liquids to drop through and decompose, giving rise to bad odors and very undesirable kinds of germ life, that get into the vats and cause serious trouble.

(2) Flies, which are a great nuisance in factories, as they feed or walk upon all kinds of decomposing materials, and then visit the cheese factory, crawling over or dropping into the milk, and depositing various kinds of germ life, which are thus placed in situations favorable for further growth and development.

To avoid the trouble from leaky floors, many of the best factories in the United States and Canada are putting in cement floors.

FAULTY EQUIPMENT. Great care should be taken in buying good utensils and seeing that they are kept in repair. The joints of tinware are often badly soldered and in some places not soldered at all. All joints should be made by lap-jointing and soldered flush with the tin. If this is not done, small spaces are left which it is impossible to keep clean and sweet; and these become so many crevices for the development of germ life.

BAD DRAINAGE. Several examples of bad flavored cheese caused by germs in drainage filth, have occurred during the last two years. In these instances the drains have usually been blocked, or have not had sufficient fall to take away the drainage quickly. Consequently masses of putrid material, whey or buttermilk, have collected in certain parts of the drain and have given rise to trouble in the factory.

GASSY FERMENTATIONS. This is the worst and commonest trouble in cheese factories, and is caused by bacteria breaking down the sugar in the milk and producing gas therefrom. This gas causes the appearance known to cheese makers as pin hole or gassy curds. These harmful germs gain admittance to the milk in the process of milking or after the milk is drawn from the udder. Particles of manure, stagnant waters, and dirty pastures contain this class of gas-producing germ in large numbers; and it is easy to see how they gain access to the milk by careless milking. Cows lying on the ground or walking through stagnant water get their hairy crabs seeded with these noxious forms; and they are dislodged from the animal's coat into the milk pail by the movements of milking. The high temperature at which milk is usually kept during the summer favors their growth, and they consequently become very numerous in the milk. We have recently made several analyses of water sent from cheese factories, and we have found therein

large numbers of gas-producing germs.

To avoid as far as possible the contamination from milking, it is advisable, before commencing:

(1) To brush well the cow's udder and that part of her thigh, flank, and side next to the milker.

(2) To rub the udder and teats carefully with a clean, damp cloth.

BAD FLAVORS. There are many well known defects in cheese, generally indicated by such expressions as "off flavor," "not clean flavor," "sainted," "goose flavor," "yeasty," "bitter," etc., all of which are abnormal flavors due, in the majority of instances, to noxious bacteria gaining access to the milk—sometimes by carelessness in milking, as explained above; sometimes from dirty whey tanks; sometimes from carrying sour whey in milk cans; and other times from the use of contaminated well water.

The cheese in an eastern factory was pronounced "off flavor," and an examination revealed the fact that the germ causing the trouble was in the well water which was used in setting the vats. The water had acted as a starter; and a change in the water supply at once removed the trouble.

The high temperatures of curing rooms in the summer time favor the growth of many of these undesirable germs in cheese.

COLOR OR PIGMENT IN CHEESE. A number of abnormal changes manifested by the production of various colors in cheese are caused by bacteria. A common result from such bacteria is red or rusty cheese, the discoloration being noticeable on the edges of the particles of curd. Blue, black, and green cheese are also caused in this way, but not so frequently.

Mottled or discolored cheese likewise belongs to this category.

IMPERFECT COAGULATION. Cases where normal coagulation could not be secured have been found to be due to lack of lime in the milk and to the alkali nature of the water used in setting the vats.

LOSS OF FAT. In some sections, at certain seasons of the year, abnormal loss of fat occurs for which no good reason can be given.

PRESERVATIVES. Where it is suspected that some preservative has been used to keep the milk sweet, a sample may be sent in for examination.

LACK OF FLAVOR. This trouble is often due to the absence of the proper flavor-producing organism, a condition which is overcome by the use of a culture. In a lengthy research on the flavor of butter caused by the bacteria commonly found in milk, we separated some twenty different species, made starters from each species, and inoculated pasteurized cream therewith, in order to ascertain the effect of each individual species on the flavor of the butter. In the majority of cases, the butter lacked flavor; and in six instances, it had a very undesirable taste.

"PUTRID BUTTER," "LARDY BUTTER," "BITTER BUTTER," "FISHY BUTTER," ETC. The peculiar tastes or flavors of all these varieties are caused by the presence and growth of undesirable bacteria in the cream.

Having thus briefly referred to some of the more common defects in factories and the causes of many of the troubles in the manufacture of butter and cheese, we may emphasize the fact so often stated, viz., that the markets of the world are becoming more and more particular and want nothing but prime articles. Hence, it is necessary to make and export only the best produce.

SAMPLES.

In order to help makers, we are prepared to undertake the bacteriological and chemical investigation of any of the above or similar troubles. Whilst it is manifestly impossible for us to investigate every difficulty which may arise, we are willing to inquire into all serious troubles, or all cases in which the trouble is continuous. We shall do our best to find the cause and suggest remedies.

With this object in view, we ask that samples of milk, butter, or cheese injuriously affected in any way be at once sent to the Dairy Department, with a letter giving all details as fully as possible. Large quantities need not be sent, but care must be taken to send samples which fully represent the trouble complained of. About two ounces of butter or cheese, and three or four ounces of milk, whey, or buttermilk are sufficient; and, if properly packed, they may be sent by mail.

If any doubt arises as to the purity of the water used in the factory, send it to us and we will examine it for the presence of gas-producing germ and as to its general suitability for factory use. Send about four ounces in a clean bottle that has been thoroughly washed out with boiling water. Where an exhaustive analysis is necessary, more water will be required. In such cases, the examination will be both chemical and bacteriological; and the following directions are given:

CONTAINER. A bottle of not less than one-half gallon capacity is to be used, preferable one with a glass stopper. If there is no glass stopper, the bottle must be fitted with a new cork.

PREPARATION. The bottle must be thoroughly cleansed, all foreign substances being removed. Then it must be scalded out with boiling water, and allowed to drain until cool.

TAKING OF SAMPLE. If the sample is to be taken from a well, the water must be pumped out for about five minutes, or long enough to empty all pump connections before the sample is taken; if from a tap, the water must be allowed to run to waste for about ten minutes, or long enough to empty all local laterals, before sampling. Water standing in the pipes in a house is under very favorable conditions for the multiplication of bacteria. If, therefore,

the precaution of running off the water be not taken, a very erroneous conclusion as to the number of bacteria present, may be drawn. If the sample is to be taken away from a lake or stream, it must be taken some distance from the shore, the sampling vessel being plunged, say, a foot and a half below the surface, to avoid the surface scum. Samples are not to be taken immediately after a storm. Wherever the sample is taken from, the bottle must be rinsed out several times with the water to be analyzed before the sample is taken. The bottle must not be filled quite full, a small space must be left for the expansion of the water. It must be tightly corked and a piece of cloth tied over the neck to keep the cork in place. Sealing wax must not be used.

PACKING. The bottle must be packed in ice. The water should arrive at the laboratory at, as nearly as possible, the same temperature as when the sample was taken.

NOTIFICATION. Send notice by mail, stating by what express company you are sending the water, and the date of the shipment. Also give as fully as possible the history of the well or source of the water, and remarks on the sanitary surroundings.

NOTE. On application a suitable bottle, properly prepared, will be sent to the applicant.

PERSONAL VISITS. In cases where the affection is a serious one, a personal visit may be necessary, and will be made.

CULTURES. A second branch of our work, which we think will be of benefit to makers, is the manufacture of good cultures for use in making both butter and cheese. At present none of these are made in Ontario; and although they may be procured from the United States, the duty and consequent troubles prevent many from using them.

We therefore announce that a culture which possesses a good flavor and aroma will be sent to any who apply for it. Applications must state whether they want it for cheese or for butter.

In order to pay the cost of bottle, mailing case, postage, etc., the small charge of twenty-five cents per bottle will be made. Stamps will be taken instead of money, if it is more convenient for the applicant.

Applications for cultures should be addressed to F. C. Harrison.

ALKALINE SOLUTIONS. Recognizing the value of the alkaline solution to the factoryman and the difficulty he has had in obtaining it, we offer to furnish the solution to those who want to make use of it at a nominal cost of \$1.00 per gallon. When 10 c. c. of milk or cream is faken as a sample, one gallon of the solution will make about 400 tests. Applications for this solution should be addressed to R. Harcourt, Chemical Department.

SHOO-FLY

KEEPS OFF
FLIES ANIMALS.

FOR PROTECTING CATTLE, HORSES, DOGS, ETC.,

FROM FLIES OF ALL KINDS, GNATS, MOSQUITOES, FLEAS AND OTHER INSECTS.

SOLD IN CANS (QUART, 25c.; GALLON, 60c.) BY LEADING MERCHANTS.

PURCHASER PAYS EXPRESS CHARGES. **WM. RENNIE, TORONTO.** DIRECTIONS ON ALL CANS.

Money or stamps must in all cases accompany the applications for cultures and alkaline solutions.

H. H. Dean,
Prof. of Dairy Husbandry.
F. C. Harrison,
Prof. of Bacteriology.
R. Harcourt,
Asso. Prof. of Chemistry.
Ontario Agricultural College,
Guelph, April, 1901.

Pointers on Turkey Raising.

The following twenty-eight pointers on turkey raising are taken from a catalogue of an Indiana turkey raiser:

1. Never let the young turkeys get wet. The slightest dampness is fatal.
2. Feed nothing the first twenty-four hours after they are hatched.
3. Before putting them in the coop see that it is perfectly clean and free from lice, and dust them three times a week with Persian insect powder.
4. Be sure the hen is free from lice. Dust her, too.
5. Look out for mites and the large lice on the heads, neck and vents. Grease heads, necks and vents with lard, but avoid kerosene.
6. Nine-tenths of the young turkeys die from lice. Remember that.
7. Filth will soon make short work of them. Feed on clean surfaces. Give water in a manner so that they can only wet their beaks.
8. The first week feed a mixture of one egg, beaten, and sifted ground oats or rolled oats, mixed with salt to taste, and cook as bread, then crumbled for them, with milk or curds, so they can drink all they want. Feed every two hours early and late.
9. Give a little raw meat every day; also finely chopped onions or other tender green food.
10. After the first week keep wheat and ground bone in boxes before them all the time, but feed three times a day on a mixture of cornmeal, wheat middlings, ground oats, all cooked, and to which chopped green food is added.
11. Mashed potatoes, cooked turnips, cold rice and such will always be in order.
12. Too much hard-boiled eggs will cause bowel disease.
13. Remove coop to fresh ground often in order to avoid filth.

14. Ground bone, fine gravel, ground shells, and a dust bath must be provided.

15. Give them liberty on dry, warm days.

16. They must be carefully attended to until well feathered.

17. Finely cut fresh bones, from the butchers, with the adhering meat, is excellent.

18. A high roost in an open shed, which faces the south, is better than a closed house for grown turkeys.

19. A single union of a male and female fertilizes all the eggs the hen will lay for the season, hence one gobbler will suffice for twenty or more hens.

20. Two-year-old gobblers with pullets or a yearling gobbler with two-year-old hens is good mating.

21. Turkeys can be hatched in an incubator and raised to the age of three months in a brooder, but only in lots of twenty-five, as they require constant care.

22. Capons make excellent nurses for turkeys and chicks.

23. It is not advisable to mate a forty-pound gobbler with common hens, as the result will be an injury. A medium-size gobbler is better.

24. Young gobblers may be distinguished from the females by being heavier, more masculine in appearance, more carunculated on the head and a development of the "tassels" on the breast. A little experience may be required at first.

25. Adult turkeys cannot be kept in confinement, as they will pine away. By feeding them in the barnyard a little night and morning they will not stray off very far, but they cannot be entirely prevented from roaming, and the hen prefers to make her own nest.

26. Gobblers and hens of the same age may be mated, but it is better to have a difference in the age.

27. Pullets may lay small eggs at first, but the eggs will gradually increase to the normal size.

28. Keep these rules and read them over two or three times.

Poor Crops.

Prospects are bad for the sugar beet crop on low lands, the rain having almost ruined the crop in some sections.

The Farm Home

Be a Woman

Oft I've heard a gentle mother,
As the twilight hours began,
Pleading with a son on duty,
Urging him to be a man;
But unto her blue-eyed daughter,
Though with love's words quite as
ready,
Points she out the other duty—
"Strive, my dear, to be a lady!"

What's a lady? Is it something
Made of hoops, and silks, and airs,
Used to decorate the parlor,
Like the fancy rugs and chairs?
Is it one that wastes on novels
Every feeling that is human?
If 'tis this to be a lady
'Tis not this to be a woman.

Mother, then, unto your daughter
Speak of something higher far
Than to be mere fashion's lady;
"Woman" is the brightest star,
If ye, in your strong affection,
Urge your son to be a true man,
Urge your daughter no less strongly
To rise up and be a woman.

Yes, a woman! Brightest model
Of that light and perfect beauty;
Then the mind, and soul, and body,
Blend to work out life's great
duty.
Be a woman! Naught is higher
On the gilded list of fame;
On the catalogue of virtue
There's no higher, holier name.

Be a woman—on to duty,
Raise the world from all that's low,
Place high in the social heaven
Virtue's fair and radiant bow!
Lend your influence to each effort,
That shall raise our nature human;
Be not fashion's gilded lady;
Be a brave, true, whole-souled
woman.

Seeing the Pan-American.

By Miss Laura Rose, O. A. C., Guelph.

Many of us have looked forward during the past year or two to visiting the Pan-American Exposition at Buffalo. The months have quickly glided by, and the Exposition in all its grandeur and magnitude is now a reality.

It is a little early to see it at its best, but I had to see it last week or probably miss it altogether.

The question now asked by many is, "What do I think of it?" My first thought as I viewed the buildings and grounds was, What master mind or minds conceived a thing so beautiful!

The buildings stand as monuments of architectural triumphs, rich in color, lavishly artistic in design—the minutest detail not being slighted.

Landscape gardening—something which usually receives but slight attention in such an undertaking, is one of the features of this Exposition. The grounds are laid out with a freedom which abolishes all formality, and the lavish planting of large trees and all kinds of shrubs, plants and

bulbs indicate that effect and not expense is the main consideration.

The sunk garden, with its colonnade of tall poplars, interspersed with gleaming white statuary and lightened by beds of brilliant-hued rhododendron, seemed like a bit stolen from the palace grounds of the ancient Pharaohs.

One of the most striking features of the grounds is the Triumphal Bridge. From almost every point of view can be seen the four rearing steeds with their standard-bearers topping the huge columns which flank the four corners of the bridge.

The Court of Fountains reminded me of the old home of the French kings—beautiful Versailles. It consists of a series of basins containing centre-pieces of statuary, from which come numberless jets of water. The entire court is surrounded by masterpiece of statuary, and the whole effect cannot be described—it must be seen.

At the head of the Court of Fountains rises the Electrical Tower, 375 feet high, forming the nucleus around which all the other buildings seem to cluster.

The Plaza and Colonnade will not escape the most casual visitor's notice. The lone figures standing between the massive pillars of the Colonnade appeared especially beautiful to me.

The Exposition is beautiful by day, but when seen at night in the full splendor of the electrical display, our wildest imaginings of fairy land grow dim, and we stand enchanted and spellbound. Thousands upon thousands of electric bulbs outline each building against the dark sky, while myriads of similar lights make the grounds as bright as day. Such extravagant illuminating could scarcely have been attempted had not the Falls of Niagara furnished the power. It certainly surpasses anything the world has yet produced in the line of illumination, and will leave an impression on the mind of the visitor never to be effaced.

The exhibits within the buildings are much along the lines of the World's Fair and other similar large expositions, improvements here and there only marking the continual advance of man's endeavor.

Canada is well represented in all the different departments. I was quite proud of Ontario's fine display of apples.

So far, she is sustaining her good name in the dairy line. Several times I visited the Model Dairy Barn. The dairy breeds are well represented and much interest is being manifested in the contest. The dairy barn may be a model of its kind, but the butter-making room in connection with it, was in my opinion, on far too small a scale. That dairying is being recognized as one of the leading industries of our continent is shown by the large building devoted entirely to the exhibit of butter and cheese and dairy apparatus.

I have merely touched a few of the

leading points of this great fair. Those who have, or can make, an opportunity to see it should on no account fail to do so. It gives man an idea of what man is able to achieve, and should be an inspiration to nobler endeavor, no matter in how humble a sphere one may walk.

Hints by May Manton.

WOMAN'S BOLERO BASQUE, NO. 3833.

Boleros and bolero effects make the most marked feature of the season's styles, yet many women find them trying in the extreme. The smart combination illustrated has been designed with that fact in mind and is specially adapted to such figures as require to gain additional slenderness at the back, while it will be found becoming to almost all. The jacket fronts, over the soft gathered front and fitted girdle, are calculated to



3833 Basque Waist,
37 to 42 in. bust.

suit both the slender figures and those whose outlines require to be apparently reduced, while the basque back means graceful tapering lines. The original is made from etamine in pastel tan with chemisette of cream chiffon, under sleeves of point de Venice and trimming of Persian bands, but countless materials and combinations might be suggested. Duck is admirable with a batiste front. Cheviot and lightweight cloth are in every way suitable. Wool crepes, albatross and the like are entirely appropriate, while Louisine and other seasonable silks make a satisfactory effect.

The lining is cut with the usual number of pieces and closes at the centre front. Backs and under-arm gores are covered smoothly with the material; but the bolero and girdle portions are seamed in with the full front at shoulder and under-arm seams. The bodice belt or girdle is laced together at the centre front. The sleeves are exceedingly modish

and effective. The lining is snug and extends to the waists. To it are attached the full undersleeves and wrist-bands, but the upper sleeves are separate and are slipped over both. The upper sleeves are slashed and laced together to correspond to the girdle.

To cut this waist for a woman of medium size, $2\frac{1}{2}$ yards of material 21 inches wide, 2 yards 32 inches wide, $1\frac{1}{2}$ yards 44 inches wide, or $1\frac{1}{2}$ yards 50 inches wide, will be required; with $\frac{3}{4}$ yards for chemisette, $\frac{1}{2}$ yard of all-over lace 18 inches wide for undersleeves, and $3\frac{1}{2}$ yards of Persian bands to trim as illustrated.

The pattern 3833 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure.

The price of above pattern post-paid is only 10 cents. Send orders to "The Farming World," Confederation Life Building Toronto, giving size wanted.

English Muffins and Crumpets.

As these are usually made together and served at the same meal in English homes, we will give the recipe for both. They are better a day old, and are not often used there until the day after they are cooked. Dissolve one-half yeast cake in three cups warm milk, add one scant, level teaspoon salt, two teaspoons sugar, and one heaped teaspoon butter. Stir in about six cups sifted flour, or enough to make a mixture which is "almost too stiff to stir and altogether too soft to knead." Beat it long and hard. Now if you wish to make a part of it into crumpets, put one-third, or whatever portion you choose, of the batter into another bowl, and add enough more warm milk to make a batter that will pour slowly. Cover the two bowls and put them in a warm place to rise until very light. The crumpets being softer will soon be light, and should be cooked first. Let the griddle heat slowly for half an hour. Grease some narrow but large tin rings, somewhat larger than our usual muffin ring, lay them on the griddle, and when hot, draw the griddle back, while you turn about one-fourth of an inch of the batter into each ring. Let them cook slowly until the top is full of holes and the surface dry, then turn ring and all over, and let them cook about three minutes. They should be about one-half inch thick, and but slightly colored.

The next day, or when ready to serve them, toast them on both sides until hot all through and brown and crisp. The English hold them on a fork over the coals one at a time; but we can do them more rapidly in a toaster. Put bits of butter on the top, and stand in the oven until the butter is soft enough to spread easily. Cut once through the middle and serve on individual plates.

When the muffins are light as honey-comb and the griddle well heated through but not too hot, turn the dough out gently into quite a depth of flour on the board. Break off bits of the dough about the size of a duck's egg, roll them about in the flour without pressure, and without working the flour into the dough. Let them stand

on the board until all are shaped, then lift one at a time, toss it about between floured hands to shake off the flour and keep it from sticking, drop it on the griddle, and when all are on and some distance apart, so they will not touch when spread, let them cook very slowly; when the top looks dry, draw them forward for a slight browning, and then turn and cook them slowly on the other side. It should take about twenty minutes to bake them, and they should be but slightly colored, and about one inch thick when done. When ready to toast the muffins, break them all round the edge, as if you were going to split them, then toast them on both sides until the crust will crack, pull them apart, put a generous amount of butter on the inside of each half, close it, and keep hot in the oven till all are ready. When all are toasted and buttered inside, spread a bit of butter on the outside, cut through in the middle and serve very hot on individual plates. They will be heavy if piled together.—American Kitchen Magazine.

Strawberry Shortcake.

Add 2 heaping teaspoonfuls baking powder, 1 tablespoonful of white sugar and a little salt to 1 quart flour; mix thoroughly while dry. Chop up three tablespoonfuls of butter in the flour thus prepared. To 1 large cup of sweet milk add 1 egg. Then put the whole together as quickly and with as little handling as possible. Roll into 2 sheets, each about $\frac{1}{2}$ an inch thick. Bake in well-greased pan, laying 1 sheet on top of the other. When done, and while yet warm, separate them; when cold, put between the two crusts a thick layer of strawberries well sprinkled with powdered white sugar. Arrange the largest strawberries on top, with small ends upwards. Cut in wedge-shaped pieces, and dust powdered sugar over them just before serving. You can substitute almost any kind of fruit for strawberries.



To produce the best results in fruit, vegetable or grain, the fertilizer used must contain enough Potash. For particulars see our pamphlets. We send them free.

GERMAN KALI WORKS,
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Is a guaranteed flesh producer

It makes animals eat well, do well and pay well. It produces that sleek, glossy coat that commands the fancy price. Cows fed DR. HESS' STOCK FOOD give more and richer milk. Make a test—your money back if it don't do what we claim.

7 lb. Sack, 65c. 12 lb. Sack, \$1.00.

Sold by dealers generally, or address, THE GREIG M'F'G CO., Canadian Agents, Montreal. For a two-cent stamp we will mail you our 64-page veterinary book. Address.

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Every druggist should have it; if not, they can get it from us, or we will send it on receipt of money and 25c. extra for express.

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Is the most modern machine of its class on the market to-day, and has all the latest improvements. It will cut, elevate and bind all kinds of grain, no matter how tangled. It NEVER REPEATS or misses a knot. The frame is built of steel throughout, and is the Acme of Mechanical Strength and Skill. Samples are in the hands of all our agents, and farmers are invited to see this perfect machine before buying. Everyone who sees it is delighted.

The Noxon Co., Limited, Ingersoll, Canada



The Farming World

A PAPER FOR FARMERS AND STOCKMEN.

Publisher, D. T. McAINSH.
Editor, J. W. WHEATON, B.A.

The Farming World is a paper for farmers and stockmen, published weekly, with illustrations. The subscription price is one dollar a year, payable in advance.

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Discontinuances.—Following the general desire of our readers, no subscriber's copy of THE FARMING WORLD is discontinued until notice to that effect is given. All arrears must be paid.

How to Remit.—Remittances should be sent by cheque, draft, express order, postal note, or money order, payable to order of THE FARMING WORLD. Cash should be sent in registered letter.

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CONFEDERATION LIFE BUILDING
TORONTO

Business Notes

Stock advertisements, pages 1069 and 1070.

Entries close August 3rd, for Canada's Great Exposition and Industrial Fair, which is to be held at Toronto from August 26th to September 7th.

On the front cover will be found Alpha de Laval announcement. This cream separator stands alone, without a peer. Communicate with Canadian Dairy Supply Co. for full particulars.

The Creamery Package Co., of Cowansville, Quebec, announces on front cover their Victor Combined Churn and Butter Worker. It will be to the advantage of readers to learn all particulars of this wonderful labor-saving machine.

C. Richardson & Co., St. Marys, announce on page 1052 a New Century Cream Separator. They claim for this machine increased capacity and ease of operation.

Clare Bros. & Co., Preston, advertise on 1052 a hot air furnace, which will give you more efficient, convenient and economical system of heat-

One Teaspoonful of Pain-Killer in hot water sweetened will cure almost any case of flatulency and indigestion. Avoid substitutes, there is but one Pain-Killer, Perry Davis' Balm and 50c.

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Second Edition at your Post Office daily. Contains latest cable dispatches and market reports.

Ask for Sample Copy **..\$2 per year.**

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ing your homes than by using stoves. Write for estimates.

Giles' Liniment, for either man or beast, is prepared by Lyman Bros. & Co., and is for sale by all druggists. An absolute necessity in your stable. See their announcement on page 1052.

Every farmer should learn the advantage to be derived from a set of low, wide-tired wheels. They are lighter, stronger and much cheaper than wooden wheels made to fit any wagon. Loads can be doubled with the same draft.

On back cover will be found Matthew Moody's right hand cut Patriot Binder. They claim it is the most reliable and up-to-date binder made. Ontario agents especially should secure territory. Moody pays the freight to your station.

Creelman Bros. Typewriter Co. are the only concern in Canada thoroughly equipped to repair typewriting machines. They have been advertising a list of machines at very low prices, which brings them within the reach of all. See their advertisement, page 1073.

You are losing time and money every day if you do not use sub-soil. \$5.00 invested in Vessot Sub-soiler will bring you in good returns. This concern manufactures the famous Joliette Grinder, which is claimed to be the only grinder that will run satisfactorily with a twelve-foot windmill. Announcement on page 1072.

The Buffalo Test.

For the week ending May 14, or the second week of the dairy test at the Pan-American, the average net profit for each cow of the respective breeds was as follows: Jerseys, \$2.06; Guernseys, \$2.34; Ayrshires, \$2.14; Shorthorns, \$1.57; Holsteins, \$1.73; Polled Jerseys, \$1.36; French-Canadian, \$1.27; Brown Swiss, \$1.57; Red Polls, \$1.65, and Dutch Belted, 62 cents.

The average number of pounds of milk given by each cow of the different breeds was as follows: Jerseys, 267.1 oz.; Guernseys, 268.2 oz.; Ayrshires, 347.1 oz.; Brown Swiss, 296.3 oz.; Polled Jerseys, 188.15 oz.; Holsteins, 357.11 oz.; Red Polls, 280.5 oz.; Shorthorns, 315.6 oz.; Frenched, 170.9 oz.

The Remount Depot.

A cable despatch last week stated that the Hon. Sidney Fisher, Minister of Agriculture, interviewed Lord Roberts on Tuesday regarding Canada's supplying army horses, and also with reference to the establishment of a remount depot in Canada. He will also interview Hon. Joseph Chamberlain shortly to discuss the British embargo on Canadian live stock. Afterwards Hon. Mr. Fisher and Prof. Robertson will make a series of visits to Glasgow, Manchester and other cities where Canadian products are most largely consumed.



HOG, HORSE, CATTLE, DOG,
Sheep, fire and water and snow drift proof.
The fence that fences—Cheap and lasts a lifetime—

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Beats them all, 120 rods 10-bar fence in 10 hours. COILED SPRING and other fence wire for sale at lowest prices. Write
McGregor, Banwell & Co.
Box 23, WINDSOR, ONT.



BULL-STRONG!
...PIG-TIGHT!...

An Illinois farmer said that after his harvest he had fully 200 bushels of loose oats on the ground that he could not secure any benefit from, because the fence around the field would not turn back. Figure the loss for yourself. He also said, all this would have been saved if he had used the Kitzelman Woven Wire Coiled Spring Fence, and the value would have gone a long way towards paying cost of the fence.

With the Duplex Machine any farmer can make it himself at the actual cost of the wire. Catalogue free for the asking.
C. O. DAVIS & CO.
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2000 lb. Drop Lever
SCALES
Diamond Steel Bearings
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Reduces fuel bills fifty per cent.

No offensive odors. No steam in house. No tiring housewives. No burning of food.

Will ship Cookers, express paid, to any address on receipt of the following prices:

6 Ideal Cooker, cooks for 3 to 6 persons, . . \$5 00
7 Ideal Cooker, cooks for 5 to 9 persons, . . \$6 00

Agents Wanted. Address

The U.S. SPECIALTY CO.,
69 Adelaide Street East, TORONTO, ONT.

When writing to our advertisers, it will be to your advantage to mention "The Farming World."

Toronto Prize Lists Ready

Mr. J. A. Couture, Secretary of the French-Canadian Cattle and Horse Breeders' Association, has written to Manager Hill, of the Toronto Industrial Exhibition, promising that if prizes are given, members of his association will make a great display of cattle and horses. The Exhibition Executive had the matter under consideration, and have recommended the different committees to make provision as requested. The prizes will have to be extras, however, as the prize list will be ready for distribution this week. Mr. Hill reports that a gratifying feature of the present prospects of the Exhibition is the promise of a number of new exhibitors; breeders and farmers throughout the province having apparently made up their minds to show at Toronto as a preliminary to exhibiting at the Pan-American. The close proximity of the latter should help Toronto in every way. Several makers of agricultural implements have announced their intention to show, and altogether the prospects for a fair of more than ordinary excellence are brightening daily. Mr. Hill will be pleased to send prize lists to all addressing him at 82 King St. East, Toronto.

Canadian Dairy Products at Buffalo.

The dairy industry of Canada is likely to be represented at the Pan-American Exposition, after all. The Government took no definite action in regard to this exhibit earlier in the season, and left it in the hands of the dairy associations to make an exhibit or not, as they saw fit. Committees were appointed to deal with this question, and bring in a report later on.

The Committee appointed by the Western Dairymen's Association met at Brantford last week, and decided to recommend that an exhibit be made. Arrangements were also completed for selecting the cheese and butter, and forwarding them to Buffalo. A preliminary competition will be held in Toronto, on July 5th, when J. A. Ruddick, T. B. Miller, and J. B. Muir, who were appointed judges, will select the best of the cheese and butter forwarded for the Pan-American. Makers in all parts of the province will be asked to compete.

The exhibits of cheese will consist of the first half of June make, both white and colored, and butter only that is made by the separator system, salted and unsalted, in one pound tins, and in 56-lb. packages. Exhibitors will be paid by the Association for the cheese and butter selected at its full market value, and it will also pay all charges from the shipping station to Toronto, and from Toronto to Buffalo.

Circulars will be issued to all the makers in the Province, who are asked to communicate with the Secretary of the Association, Mr. George Hatley, Brantford, Ont.

MAPLE LODGE STOCK FARM.

Shorthorns For Sale.

A few choice young bulls, and some excellent heifers and young cows. Our cows were awarded first prize at Prov. Dairy Test, 1899 and 1900. Imp. Knuckle Duster, and Imported Sir Wilfrid, at head of best. Leicester sheep, imported and home bred. The best. **A. W. SMITH, Maple Lodge F O., Ont**



RIPPLEY'S COOKERS.

Sell from \$10.00 to \$15.00. Made of boiler steel. No fires to start or look. Can't blow up. Guaranteed to cook 25 lbs. feed in 2 hours, and to heat water in stock tanks 200 feet away. Will heat dairy rooms, Cask & jug and press milked fresh. **RIPPLEY HARDWARE CO., Box 218 (U.S. Post, Graston, Ill.) London, Ont**

W. C. EDWARDS & CO. Breeders and Importers

PINE GROVE STOCK FARM, Rockland, Ont.

On the C.P.R. and G.T.R. Railways. Special bargains on young bulls of superior merit and select Scotch breeding. Also thick young heifers at the right prices.

Ayrshires, Jerseys, Shropshire Sheep, and Clydesdale Horses.

Post Office, Telegraph Office, and Steamboat Landing, Rockland, Ont., on the C.P.R.

W. HARNET, Manager.



LAURENTIAN STOCK and DAIRY FARM, North Nation Mills, Que.

Ayrshires, imported and home-bred herd headed by imported **Team Glen** Snd, No. 1310 D. A. H. B. **Jerseys** all of the celebrated St. Lambert family; herd headed by **Lagar Foggis of St. Anne's**, 35704 A. J. C. C. **Berkshire Pigs**. Young stock of all the above breeds for sale.

Post Office, Telegraph Office, and Railway Station, North Nation Mills, P.Q., on the C.P.R.

A. E. SCHRYER, Manager

Important Auction Sale SHORTHORN CATTLE

OWING to dissolution of the firm of ISAAC USHER & SON, the entire Queenston Heights Herd of Shorthorns will be sold on **WEDNESDAY, JUNE 19TH**, at the Farm, 3 miles north of Niagara Falls. Electric car service every 15 minutes. Also electric railway connections with Pan-American—Niagara River Steamers every 2 hours, from Toronto to Queenston.

Send for Catalogue containing particulars to

HUDSON USHER, Queenston, Ont.

CAPT. T. E. ROBSON, M.L.A., Auctioneer, Ilderton, Ont.

CHAMPIONS OVER ALL.

MAPLEWOOD HACKNEY STUDD

Property of FREDERICK C. STEVENS, Attica, N.Y.,

Again Furnished BOTH CHAMPIONS at the NATIONAL HORSE SHOW

STALLIONS IN SERVICE FOR THE COMING SEASON ARE

Langton Performer, Clifton 2d, Fandango, ALL CHAMPIONS.

Magnificent young stallions and mares sired by the above stallions and out of mares equally famous always on hand for sale. Beautiful, high acting carriage horses, bred, raised and trained at Maplewood, now ready for sale. Here you can purchase four-in-hands, pairs, andems, single drivers, ladies' pairs and children's ponies. For further particulars address, **E. T. GAY, Manager, Attica, N.Y.**

OAK LODGE YORKSHIRES



are acknowledged to be the best type of bacon hog to produce the ideal carcass for the best English trade. **CHAMPIONSHIP HERD AT TORONTO INDUSTRIAL EXHIBITION FOR NINE YEARS** also sweepstakes on Dressed Carcass at Provincial Winter Show. We have on hand now a large herd of different ages. Our prices are reasonable and the quality is guaranteed to be choice. Write

BRETHOUR & SAUNDERS, Burford, Ontario

PURE-BRED STOCK

NOTES AND NEWS FROM THE BREEDERS

These columns are set apart exclusively for the use of breeders of pure-bred stock and poultry. Any information as to importations made, the sale and purchase of stock and the condition of herds and flocks that is not in the nature of an advertisement will be welcomed. Our desire is to make this the medium for conveying information as to the transfer of pure-bred animals and the condition of live stock throughout the country. The co-operation of all breeders is earnestly solicited in making this department as useful and as interesting as possible. The editor reserves the right to eliminate any matter that he may consider to be unsuited to our advertising columns.

Cattle.

Attention is again directed to the dispersion sale at Shorthorns, the property of Messrs. Isaac Usher & Son, Queenston, Ont., to take place on Wednesday, June 19th next. About 70 animals in all are to be disposed of, some 50 of which are of breeding age. The balance consists largely of calves, which will be sold with their dams. In a few cases the cows nursing their calves have been bred and are in calf to noted bulls, thus affording a rare opportunity to buyers to secure stock that will enable them to increase their herds very rapidly. A large variety of useful families of deep-milking strains, as well as good feeders and flesh-producers, are represented in the catalogue. Scotch-bred tribes are largely represented, and there is in the herd some of the best blood in Shorthorn circles.

Mr. Hudson Usher writes us, in regard to some of the individual animals to be offered, as follows:

"Our stock bull, Lord Gloster—26995—is a showy, roan fellow of choice quality. He is of the Cruickshank Duchess of Gloster family, sired by the great sire and show bull, Abbottsford, of the Cruickshank Village family, his dam being the dam of the celebrated young Abbottsburn, champion bull over all beef breeds at World's Fair, Chicago. Some of Lord Gloster's get have gone to the States, at good prices, and a son of his, Roan Cloud—31317—is at present one of the stock bulls in the herd of J. & W. B. Watt, Salem, Ont. We have two good young bulls sired by Royal Standard, a Toronto and Ottawa winner, one of the best sons of Judge (by imp. Royal Sailor), a first prize winner at Toronto, and champion at Winnipeg. Judge and his get have won Toronto prizes the past four years, one of them, Royal Banner, Toronto winner in 1899, having sold at Mr. Flatt's sale, at Chicago, last August, for \$1,505.

"The dams of these two bulls are of Messrs. R. & S. Nicholson's well-known 'Vacuna' and 'Leonore' families.

"Among the calves are 3 heifers and 1 bull by imp. Guardsman, sire of probably the most noted American bull of the day—the great St. Valentine, sire of the two championship winners at Chicago live stock show, 1900.

"The cow, Rose Hill, is of excellent Scotch breeding, sired by imp. Goldfinch's Heir 2nd, dam, imp. Rose of Kinaldie, and is a big, useful cow of choice quality. Her last year's calf, Ribbon's Choice (one of twins), was 2nd prize bull calf at Toronto and lately sold at a good price to Hon. Thos. Greenway, Manitoba.

"Fifteen of the cows have calves at foot, and most of these are again in calf to Lord Gloster, or to other first-class bulls, thus giving buyers an opportunity to secure three animals at the price of one.

"Prominent among the animals mentioned in the pedigrees, are such sires as imp. Blue Ribbon, imp. Guardsman, imp. Killerby, imp. British Statesman, imp. Traveller, imp. Royal Bampton, British Chief, Prince Albert, Nonpareil Chief, etc., etc."

Some of the names mentioned by Mr. Usher are familiar to Shorthorn breeders the world over, and indicate somewhat of the notable blood lines running through the herd. Parties desirous of securing good breeding stock cannot do better than attend the Queenston Heights sale.

The locality of the sale is of great historic interest, and the beauty of the surroundings enables the visitor to the sale to combine business with pleasure in a way that he will have few opportunities of doing in a lifetime. Brock's Monument stands on one corner of the farm. Five steamers ply daily between Toronto and Queenston, which is close to the farm, and Buffalo is only 25 miles distant by electric road, so that visitors can take in the Pan-American Exhibition in the same trip if they so desire. It is only 15 minutes by electric cars to Niagara Falls, which is at its best in June.

Capt. T. E. Robson, M.P.P., will conduct the sale, and everything will be sold. Look up special announcement elsewhere in this issue, and send for catalogue.

The Champion Galloway bulls of 1900:

Cedric IV., of Tawbroch (6466) has just landed at Guelph from St. John, N.B., quarantine, to head the herd of Lieut.-Col. D. McCrae, of Guelph. This bull has been a great prize winner in Scotland, and is by Camp Follower (5042), the winning strain in Galloway breeding at present. Mr. McCrae has also landed at Quebec, quarantine, 7 head of young Galloways, all prize animals in Scotland. These will be out of quarantine in time for Toronto Show in August, and will make a fine addition to the Guelph herd of Galloways.

Col. McCrae has recently sold the Galloway bull, Deloraine, 14,629, to Mr. Shipman, of Prince Albert, N.W.T. The winning yearling of last year, Kenneth of Maples, 14,431, has grown into a fine, big two-year-old, weighing over 1500 lbs. He has been sold to J. Van Veen, Lakeview Ranch, File Hills, near Fort Qu'Appelle. A younger bull, Caligula, 17,230, goes to Brookside Farm Co., Fort Wayne, Indiana, U.S.A., to one of the largest herds in the United States.

Stock

IMPERIAL HOLSTEIN-FRIESIAN STOCK FARM

10 Young Bulls from one month to four months, bred from Winnie R's De Kol.

W. H. SIMMONS,
New Druhm

RETTIE BROS.

HOLSTEIN-FRIESIAN BREEDERS

A few choice young animals for sale. **RETTIE BROS., NORWICH, ONT.**

GLEN CRESCENT SHORTHORNS AND OXFORDS.

A few shearing rams by imported "Royal Windsor 5th" and one two-year-old bull for sale.

J. W. WIDDIFIELD, Uxbridge, Ont.



ROCK SALT for horses and cattle, in ton and car lots. **Toronto Salt Works, Toronto**



LIVE STOCK LABELS

Send for circular and price list.

R. W. JAMES,
Bowmanville, Ont.



SHAWANOO HILL . . . FLOCK . . . of Cotswolds

We breed for Mutton and Wool. **Have for Sale** 50 shearing rams, 30 shearing ewes, and 100 lambs, good quality and excellent breeding.

JOHN RAWLINGS,

Forest, G.T.R. **RAVENSWOOD P.O. ONT.**

FITS

Liebig's Fit cure for Epilepsy and kindred affections is the only successful remedy, and is now used by the best physicians and hospitals in Europe and America. It is continually recommended to the afflicted. If you suffer from **EPILEPSY, FITS, ST. VITUS' DANCE,** or have children or relatives that do so, or know a friend that is afflicted, then send for a free trial bottle and try it. It will be sent by mail prepaid. It has cured where every other has failed. When writing mention this paper and give full address to **THE LIEBIG CO., 179 King street west, Toronto.**

CURED

Spooner's "PHENYLE" Powder "Phenyle" GERMICIDE DISINFECTANT....

KILLS CHICKEN LICE

and Lice on Horses and Cattle, and Ticks on Sheep. Keeps them Healthy, Easily applied; no dip required.

600, boxes, 1 lb. packages,25c. lb.
700, pails,15c. lb.
400, barrels,10c. lb.

If you desire to see and sell it, send direct to

ALONZO W. SPOONER,

Laboratory, PORT HOPE, Ont.

It will cure and prevent cholera.

Our market reports are reliable and up-to-date. They are written specially for The Farming World and are of inestimable value to every farmer.

Market Review and Forecast

Office of The Farming World,
Confederation Life Building,
Toronto, June 10, 1901.

The outlook for general trade continues good, and the volume of business transacted since the beginning of the year compares favorably with that of the corresponding period of last year. Just now, however, as it is between seasons, there is no great activity in wholesale circles. Money keeps ample for all requirements of legitimate speculation, and rates of interest keep steady, 5 per cent. being the ruling rate on call, while discounts on mercantile paper range from 6 to 7 per cent.

Wheat.

There has been no material change in the situation so far as prices are concerned. A cable despatch on Thursday reported the English market as fluctuating, but on the whole, a gain during the week in favor of the seller. A factor that has affected the speculative market has been the reported shortage in the Prussian crop of 183,750,000 marks. This, no doubt, partially caused the advance of 3 cents at Chicago on Monday last though the decline of over 3,000,000 bushels in the visible supply in Canada and the United States may have considerable to do with it. Another factor that caused a flurry in speculative circles was the reported concentration of 10,000,000 bushels by a Chicago firm with a view to squeezing the market. The market last week may be described as broad, with leanings both ways. The visible supply of wheat in the United States and Canada, and the amount of wheat and flour now in transit to Europe is equivalent to 78,934,000 bushels, as against 82,484,000 bushels a year ago.

As to crop reports, they are generally favorable for a big harvest on this continent. In Europe reports are not so favorable as noted above. In Britain crops are irregular, though an average yield is expected. In Russia, Italy, Spain and Algeria the crop promises well, but the outlook elsewhere is only for a medium crop.

Locally, business is quiet and prices lower. Here red and white are quoted at 67 to 68 cents as to location and freight rate to seaboard, goose 65c to 66c, and spring at 70c east. On Toronto farmers' market red and white bring 71c to 72c, goose 66c to 67c, and spring fine 71c per bushel.

Oats and Barley.

The oat market has been barely steady and prices are generally weaker. Quotations here are 32½c for No. 1 white east, and 31½c for No. 2 white middle freights. On the farmers' market oats bring 36c per bushel.

There is a fair export enquiry for No. 2 barley. The market here is steady at 43c to 46c as to quality and point of shipment. On Toronto farmers' market barley brings 46c per bushel.

Peas and Corn.

The market for peas is fairly steady, quotations being 66c north

and west, 68c east, and 67c middle freights. On the farmers' market here peas bring 66c per bushel.

The corn market has ruled quiet. No. 2 American is quoted at Montreal at 49c to 49½c. Here Canadian yellow is quoted at 46½c, and No. 3 American yellow at 48c on track Toronto.

Bran and Shorts.

The market for these is easier and lower. Ontario bran at Montreal is quoted at \$14 to \$14.25, and shorts at \$15.50 in car lots on track. City mills here sell bran at \$13.50, and shorts at \$14.50 in car lots, f.o.b. Toronto.

Eggs and Poultry.

Prices for fresh eggs have advanced 3d for 120 at Liverpool, with a good demand at the prices. Dealers there report that Canadian pickled stock is being held at too high a price. On this side the situation has not changed much, though there was a firmer feeling early in the week. A fair business is being done on local account. The warmer weather is beginning to cause more losses in receipts for bad quality. At Montreal packers are paying from 11 to 11½c for good sized lots. Here 10½c to 11c are the ruling figures in job lots. On Toronto farmers' market eggs bring from 11c to 11c per dozen.

On the farmers' market here dressed chickens bring 60c to \$1.00 per pair, and turkeys 11c to 13c per pound.

For the week ending June 15 the Canadian Produce Co., Toronto, will pay 18c per lb. for spring chickens, and 4c per lb. for old hens, live weight.

Hay and Straw

The Trade Bulletin gives the following regarding last week's hay trade:

"The supply has been decidedly more plentiful during the past week, but the demand seems to be about sufficient to take care of most of it. There has been quite a lot of business put through of late, which enables us to arrive at a more definite idea of actual values. A large load of strictly No. 2 hay has just been sold at \$10.50 here, and another lot of 25 cars of good No. 2 has been placed at \$10.50 laid down here on track, and a resale of a portion of it was made at \$10.75 and \$11. A round lot of No. 1 was sold at \$11.50 on track, and 10 cars of Nos. 1 and 2 (five cars of each) were placed at \$10.87½ delivered here. It is very evident that the edge is considerably off from the high figures ruling a short time ago, one dealer claiming that he can buy at \$1 per ton less money, while others say 50c less."

The offerings here have been large, with a steady market at \$9.50 to \$10 for baled hay in car lots on track. Toronto. On the farmers' market hay brings \$11 to \$13; sheaf straw, \$8 to \$9, and loose straw, \$5 to \$6 per ton.

Cheese.

The cheese market has ruled steady during the week, with no material change in prices from what we quoted last week. At the local markets prices have ruled from 8½c to 8¾ with 8¾ reported at Woodstock. The English market, however, has ruled firm, and a little more active with holders demanding and obtaining 1s advance; finest Canadian selling at 44s to 46s. The combined exports

THE .. WALKERTON BINDER TWINE CO.

LIMITED

Is composed of 5,527 of the most progressive FARMERS of Ontario, 95 per cent. of the stock being owned and controlled by them.

We are manufacturing a superior article of Binder Twine, and selling it at the lowest possible price. We make three grades, containing 550, 600, and 650 feet respectively, the prices for which are 9½, 10½, and 11¼ cents per lb., delivered at the customer's nearest station.

All accounts are payable by the 1st October, and we allow an additional quarter cent a pound off to those who pay cash on delivery. These prices and terms are exceptionally favorable, and it is expected that our friends, and all others who want an article that they can depend upon in the harvest field, where the true test is made, will place their orders early. If there is no agent in your locality, send to us direct.

Remember that this is a co-operative company, and any profits that may accrue will be distributed to the shareholders. There are no speculators to gobble up the profits in the WALKERTON BINDER TWINE CO.

We ask you to give us a trial, confident that the result will be satisfactory, and lead to extended business with you in future years. We are here to stay, and it would be folly for us to expect your patronage unless we give you entire satisfaction. When ordering your twine for this season's harvest, don't forget that we have the best and finest plant in Canada, and that we are turning out a very superior article at a small margin over the cost of production.

All inquiries will be promptly attended to, as we are always glad to give full information to our friends and patrons.

We expect to be able to fill all orders; but, in order to prevent possible disappointment, we would recommend that orders be sent in at the earliest convenient date.

THE WALKERTON BINDER TWINE CO., LIMITED

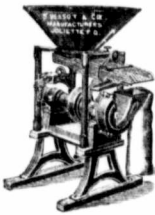
JAMES TOLTON, Sec.-Treas.

WALKERTON, ONT

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THAT THE Joliette Grinder

IS THE ONLY ONE
THAT WILL RUN
SATISFACTORY
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2-FT. WINDMILL.



We will give you a trial to prove what we say.

S. VESSOT & CO.,

108 Front St. E. - - - Toronto

Factory at Joliette, Que.

Maxwell's "Favorite" Churn.



Patent Foot and Lever Drive.	No.	Holds	LIST 1
0	6 gal.	4 to 5 gal.	
1	10 "	5 to 7 "	
2	15 "	7 to 9 "	
3	20 "	9 to 12 "	
4	25 "	12 to 15 "	
5	30 "	15 to 18 "	
6	40 "	18 to 20 "	

Superior in Workmanship and Finish

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The Bulletin Press Association, New York.

from Montreal, Portland and New York, so far this season, show a decrease of 133,665 boxes. There is quite a large make now going on in the country, which may increase supplies later. At Montreal, stocks are taken quickly, indicating that our goods are wanted on the other side. Quotations there are, 8½ for finest Western colored; 8¾ for finest Western white, and 8½c for Eastern or Quebec goods.

Butter.

Though the English market is reported quiet, stocks are running light, and holders are conservative in their offerings. Canadian creamery is quoted at 95s to 98s, a fancy lot bringing 100s. Exports continue to show an increase over last year. The market on this side has ruled fairly steady all week, with a firmer feeling towards the end, under an improved enquiry. Finest creamery is quoted at Montreal at 19c to 19½c, and seconds at 18½c to 19c.

Creamery is steady here at 18c to 19c for prints and solids. Though offerings of dairy have been large, there is a good demand at 14c to 15c for choice lots. On Toronto farmers' market butter brings 15c to 18c per pound.

Wool.

The wool situation, generally speaking, is not a hopeful one. For the week ending May 31st there was a large increase in the amount of sales at several American markets as compared with the same period of last year. But activity elsewhere seems to have little effect on conditions here, and locally the wool trade is very dull. Dealers here are offering only 8c per lb for unwashed, and 13c for washed wool, and discriminate very much as to quality at that.

Cattle.

The cattle situation continues strong, especially for prime, well finished stuff. American markets have ruled steady during the week, and the outlook is fair. Cables are steady at 10½c to 11½c at Liverpool, and 11½c to 12½c at London for live cattle.

At Toronto cattle market on Friday, receipts were composed of 1,175 cattle, 1,000 hogs, 257 sheep, and 136 calves. The quality of the stall-fed cattle was generally good, but too many unfinished grassers were offered. Trade for fat cattle of good quality and well-finished, was good, but inferior grades were, if anything, a little slower than on Thursday. Prices for good shippers were firmer, and sold as high as \$5.40 per cwt. The quotations below are for stall-fed cattle, unless otherwise mentioned. Milch cows of good quality are scarce, and about 20 sold at from \$25 to \$57 each. Stockers were plentiful, with prices easy at quotations. Feeders are not quite so high as last week, but still command a good figure.

Export Cattle.—Choice loads of these are worth from \$5.00 to \$5.40 per cwt., and light ones \$4.75 to \$5.00 per cwt. Heavy export bulls sold at \$4.00 to \$4.40, and light ones at \$3.50 to \$3.90 per cwt.

HORSEMEN! THE ONLY GENUINE IS GOMBAULT'S CAUSTIC BALSAM.

None genuine without the signature of
The Saurance, Williams & Co.
Sole Agents & Proprietors for the
U.S. & CANADA. CLEVELAND, O.

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bruises or Hemorrhoids from Horses and Cattle. SUPERSEDES ALL CAUTERY or FIRING. Impossible to produce scar or bluish. Every bottle is warranted to give satisfaction. Price \$1.50 per bottle. Sold by Druggists, or sent by Express, charges paid, with full directions for its use. Send for free descriptive circulars.
THE LAWRENCE-WILLIAMS CO., Toronto, Ont.

NO SPAVINS

The worst possible Spavin can be cured in 45 minutes. Curbs, Splints and Ringbones just as quick. Not painful and never has failed. Detailed information about this new method sent free to horse owners.

Write to-day. Ask for Pamphlet No. 1.

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78 and 80 King St. East

"RESTAURANT" TORONTO

Dinner for 20c.

6 Dinner Tickets \$1 Served from 11.30 to 3
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Farmers and their wives visiting Toronto will find this to their taste.

Cheese and Butter

Makers of these articles, in many instances, do not pay the necessary attention to the quality of the salt they use. Some people think that "salt is salt," and it does not matter where it comes from or who makes it. This is a great mistake, for it is essential that to produce the best Butter or Cheese nothing but the purest salt should be used.

The number of prizes obtained by users of

"RICE'S or COLEMAN'S" DAIRY SALT

at the various exhibitions is conclusive proof that these brands of salt stand unrivalled. For prices, etc., address

R. & J. RANSFORD,
Clinton, Ont.

CANADIAN PACIFIC RY.

Upper Lake Service

During Season of Navigation Upper Lakes Steamships "Alberta," "Athabasca," and "Manitoba" will leave OWEN SOUND Tuesdays, Thursdays and Saturdays at 5.30 p.m., after arrival of Steamship Express leaving Toronto at 1.30 p.m. Connection will be made at Sault Ste. Marie and Port Arthur and Fort William for all points west.

A. H. NOTMAN,
Asst. General Passenger Agent,
1 King St. East, Toronto.

Butchers' Cattle.—Choice picked lots of these, equal in quality to the best exporters', weighing 1,050 to 1,150 lbs. each, sold at \$4.80 to \$5 per cwt., good cattle at \$4.60 to \$4.80, medium at \$4.40 to \$4.60, and inferior to common at \$3.25 to \$4.40 per cwt.

Feeders.—Heavy, well-bred steers, from 1,100 to 1,200 lbs. each, sold at \$4.50 to \$4.75, and other quality at \$4.40 to \$4.50 per cwt. Light steers weighing 900 to 1,000 lbs., sold at \$3.60 to \$3.90 per cwt.

Stockers.—Yearling steers, 500 to 800 lbs. each, sold at \$3 to \$3.50, off colors, and inferior quality at \$2.50 per cwt.

Calves.—These are lower in Buffalo, choice to extra bringing \$5.50 to \$6 per cwt. At Toronto market ordinary calves bring \$2 to \$8 each.

Milch Cows.—These sold at from \$25 to \$57 each. Choice cows would bring more money.

Sheep and Lambs.

Quite a number of spring lambs were offered on Friday, but they were generally not of first-class quality. The kind in demand are those that will dress 60 lbs. The skinny, lean kind should not be sent here. Sheep sell at from \$3.50 to \$4 per cwt. for ewes, and \$2.50 to \$3 for bucks. Yearling grain-fed lambs bring from \$4.50 to \$5 per cwt., and other quality at \$4 to \$4.50. Spring lambs sold at from \$2.50 to \$5 each. A fair demand for lambs has ruled at Buffalo, with the bulk of the sales under \$5 per cwt, with some few going as high as 15.10 to \$5.15 per cwt.

Hogs.

There is no change in the prices for hogs. On Friday best select Lacon hogs, 160 to 200 lbs. each, sold at \$7 per cwt., and lights and fats at \$6.50. Unculled car lots sold at about \$6.80 to \$6.90 per cwt.

The Wm. Davies Co., Toronto, will pay \$7.25 per cwt. this week for select bacon hogs, \$6.75 for light, and \$6.75 for thick fats.

Prices have eased off a little at Montreal, where quotations are \$7 and \$6.85 per cwt. for bacon hogs. The Trade Bulletin's London cable of June 6th, re Canadian bacon, reads thus:

"Owing to the falling off in demand and the accumulation of supplies, the price of Canadian bacon has slumped down fully 3s since my last cable, but at the decline there is an active demand."

Horses.

A Montreal report states that the local demand there is falling off. Some heavy drafts, drivers and saddle horses sold last week at from \$125 to \$225 each. A nice pair of matched bay carriage horses sold at \$750 for the pair.

Trade was not very brisk at Grand's last week. Most of the business was done on Tuesday, when about 45 drivers and carriage horses were sold at prices ranging from \$45 to \$160 each, as to quality and condition. During the balance of the week very little business was done.

BELL .. PIANOS ... AND ORGANS.



Built to last a lifetime
By the Largest Makers
in Canada.



BELL is the Musician's Favorite

The BELL ORGAN AND PIANO Co., Limited, Guelph, Ontario
Catalogue No. 41 Free



THE UNDERWOOD

REBUILT TYPEWRITERS

We have in stock at present and offer for sale rebuilt machines as follows:

	Cash.	Time.		Cash.	Time
No. 2 and 3 Caligraphs	\$30 00	\$35 00	No. 6 Remington	\$75 00	\$80 00
No. 5 Blickensderfer	25 00	30 00	No. 1 Yost	35 00	40 00
No. 1 Williams	40 00	45 00	No. 1 New York	45 00	50 00
No. 2 Smith-Premier	50 00	55 00	New Franklin	30 00	35 00
No. 1 Jewett	75 00	80 00	Bar-lock	40 00	45 00
No. 2 and 3 Jewett	75 00	80 00	Latest Oliviers	40 00	45 00
No. 2 Remington	80 00	85 00	Hammond Ideal	25 00	30 00
			Hammond Universal	40 00	45 00

A good many of these machines are practically as good as new. We have ten expert mechanics in our Repair Room; several of these men have been in the employ of prominent typewriter factories in the United States for many years, and are thoroughly familiar with all makes of machines. We mention this fact, since we are the only concern in Canada thoroughly equipped for this work.

ALL MACHINES CARRY A YEAR'S GUARANTEE

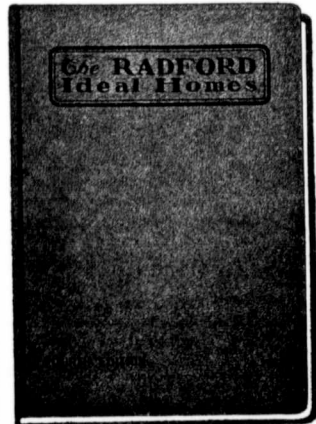
Creelman Brothers' Typewriter Co.
15 ADELAIDE STREET EAST, TORONTO

Plans of Ideal Homes

Are you interested in moderate-priced cozy homes? Get "Ideal Homes," containing 56 plans of medium prices, besides plans of four good, sensible barns, one store building, and two church plans; 34 of these houses range in cost from \$500.00 to \$1,500.00, the others from \$1,550.00 up. This cloth bound book of 72 pages, 8½x10½ inches in size, sells for 50 cents; but we have made special arrangements with the publishers so that we can furnish this book of House Plans free to anyone sending us one new subscription to THE FARMING WORLD. Any present subscriber, not in arrears, may have a copy for 50 cents. You cannot afford to miss this opportunity to save money when you are ready to build.

In remitting, send post office or express order to—

THE FARMING WORLD
Confederation Life Building, Toronto

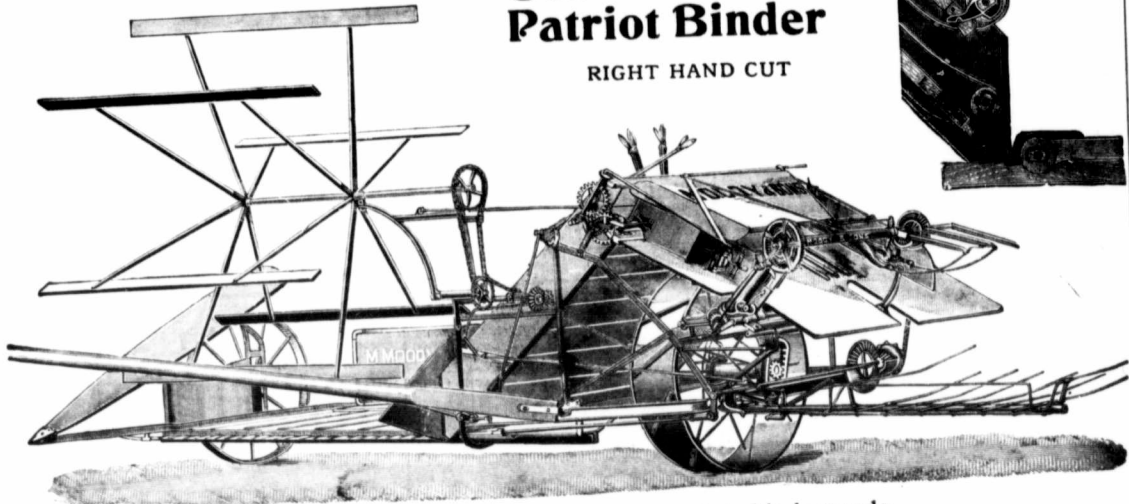


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MOODY PAYS FREIGHT

Our **Patriot Binder**

RIGHT HAND CUT



Absolutely the most reliable and most up-to-date binder made.

Labor-Saving Farm Machinery

MATTHEW MOODY & SONS Terrebonne, QUE.

IDEAL MILK TICKET

Monthly Statement

Of Milk delivered at the _____
Factory during the month of _____
By _____

PUBLISHED BY THE FARMING WORLD, TORONTO

1900	1st WEEK	2ND WEEK	3RD WEEK	4TH WEEK	5TH WEEK
	LBS.	LBS.	LBS.	LBS.	LBS.
Monday					
Tuesday					
Wednesday					
Thursday					
Friday					
Saturday					
Weekly Totals					
Per cent. of butter fat in milk					

THE old-fashioned pass book has been discarded by every up-to-date factory.

The Monthly Statement Card shown here is exact size of front. It is made of stout Manilla, and can either be delivered by the milk-hauler or sent to the patron in an ordinary envelope. On back of card rules are given for "The Care of Milk."

The Cards are now ready; order early.

PRICE:

25c. for 100; or a package of 1000 for \$2.00
Post-Paid.

A factory of 100 patrons will require from 800 to 1,000 tickets during the season.

ADDRESS

The Farming World

Confederation Life Building, Toronto.

On the dates underlined the milk was sour or badly tainted.

The butter-fat test covers the milk supplied for the week or weeks intervening between the last test and the one indicated by the per cent. of fat in above table.

Mistakes or complaints, if reported to the maker or the secretary, in writing, will be promptly attended to.

Read carefully and observe the rules, governing the care of milk, on the back of this card.