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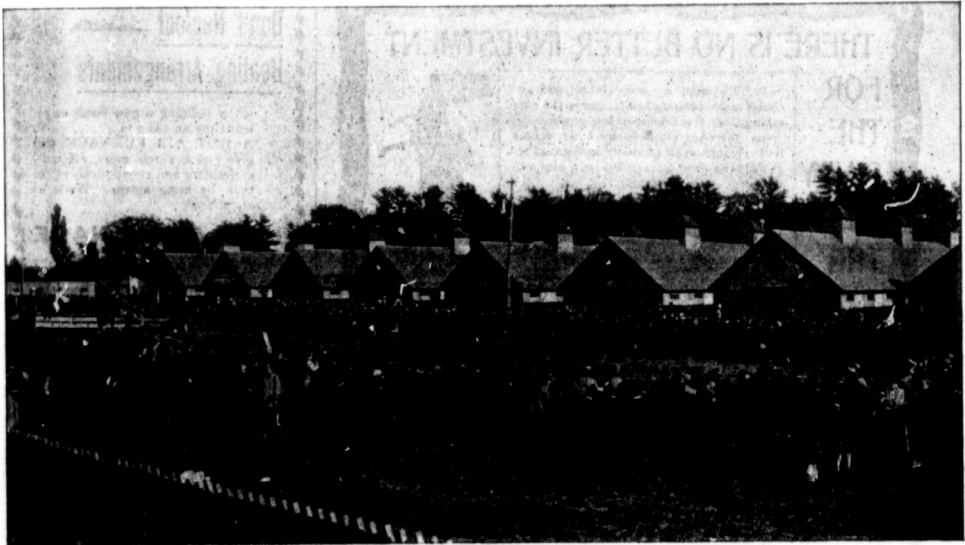
Toronto, June 18, 1901.

The Farming World

A PAPER FOR
Farmers and Stockmen

Central Canada Exhibition Association

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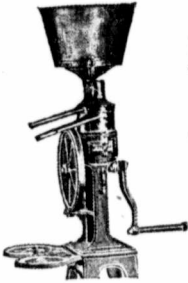
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The Farming World

For Farmers and Stockmen

VOL XVIII

JUNE 18th, 1901

No. 43

Good Cattle Scarce

THERE is a scarcity of really prime beef cattle in the country. Of this fact it is, perhaps, hardly necessary to remind the readers of The Farming World. For the past two or three months our market reports from week to week have shown a great scarcity of this quality not only on Toronto market but elsewhere. While this has been the case the supply of inferior and unfinished animals has, with one or two exceptions, been greatly in excess of the demand.

The lesson to be learned from this is that it does not pay the farmer to raise and feed inferior stock. A really prime, well-finished animal always finds a place at the top of the market at a good profitable price. This is the kind that should be bred and fed and for which there has always been and always will be a good active demand. It costs no more to raise and finish a good animal than a poor one, so that the extra price received is nearly all profit.

A feature of the situation worth noting is the great scarcity of feeders, a fact that must be conducive to present high prices remaining for sometime. This scarcity of feeders is not a local question merely. All through the Western States the same complaint is heard and large feeders are finding it difficult to get their usual complement of store cattle even at much higher prices than they have been accustomed to pay. Similar reports come from Great Britain. Some Scottish farmers are said to have paid this season as high as 40s. per cwt. live weight for store animals even when fat cattle have been selling there at 5s. per cwt. less. Unless high prices are maintained and increased in many instances somebody has got to lose. The careful and experienced feeder is, however, not likely to pay such high prices for his store stock, unless he sees a way of getting his money back, which may be taken as pretty good evidence that the outlook for beef cattle is a pretty bright one.

The High Commissioner for Canada in his report, referred to elsewhere, makes the following statement regarding the development of the dressed meat trade:

"Even if it were proved that to ship chilled beef were more profitable than to send live cattle, Can-

ada could not make the business pay until possessed of a far larger stock of animals of high quality—because chilled beef ought to be of high grade—and until provided with better shipping facilities."

It will thus be seen that this new trade which is likely to develop to fairly large proportions in this country, affords no better opportunity for disposing of inferior animals than old conditions did. The prime beef animal is the one wanted and our farmers must be prepared to supply this if our market for this product is to be extended. There are too many competitors in the field to admit of its being enlarged by any other means.

Our trade in beef cattle with Great Britain is growing, nevertheless, and more good quality sent over would cause it to advance very rapidly. For the four years ending with 1896 Canada sent to Great Britain 362,832 head of cattle, as compared with 433,888 animals for the four years ending with 1900. This is an increase of about twenty per cent. and indicates a more healthy growth of the export trade in cattle of late years.

Agents and Pedlars.

Some weeks ago one of our regular correspondents to the Farm Home department dealt with the subject of agents and pedlars, special stress being laid upon the annoyance and the wasting of the farmers' time caused by these individuals. This article aroused considerable interest in more than one of the country sections and the question was taken up by correspondents of some of the local papers. A correspondent of The Penetanguishene Herald, in dealing with the matter, in which he strongly commends the article in The Farming World, says:

"There are some agents, though a minority, who are honorable and who demand our respect, but not even for these can we sacrifice a principle. The agency business is on a rotten basis, and its evil effects are evident. Many a poor farmer who had not the moral courage to say "no," and stick to it, has been induced by smooth-tongued agents who lie and misrepresent their goods, to buy what he cannot afford to pay for, and very often inferior goods into the bargain. These are victims which should excite our commiseration even more than the tramps, for farmers are wealth pro-

ducers, while the agent belongs to a class who uses roads more than anyone else, but who does no roadwork and pays no taxes, and who is in the most proper sense of the word a human parasite. We are at present cognizant of several cases where machines have been thrust upon the hands of men who had no earthly use for them, and who in sober judgment would never buy them. Do we need to be told when we need machines? The merchant never comes to our homes and tells us that our tea and sugar are done and that it is time to order more. The only necessary office which an agent fills is that of providing a central place where farmers can produce their machinery. The system which we advocate is that such a central place be established and let "one" man represent "all" manufacturers, and let each farmer go when he likes and get whatever kind he likes, without being misled. Then nine-tenths of the agents could go home and hoe potatoes, and the other tenth would waste no time in canvassing but would simply supply the demand. Then manufacturers would have to depend for their success, not on the convincing powers of their agents, but on the inherent merits of the product."

"Such in brief is our notion, and any intelligent man can see its advantages if he is not blinded by prejudice."

From all this it would seem that the agency business is being very much overdone and is fast becoming a nuisance and a needless expense to the country. No doubt there are good and bad agents representing good and bad enterprises, but of late it would appear as if the bad ones so much outnumbered the good ones as to bring the whole business into disrepute. A respectable agent representing a legitimate business and selling a useful and necessary class of goods that farmers are in need of, should serve a good purpose in any community. But where agents and pedlars of all kinds of goods, for which there is little or no special need, endeavor to force their wares upon farmers, whether they want them or not, the business becomes an unmitigated nuisance. We quite sympathize with any farmer forced to put up with these troublesome fellows who stop at nothing so long as they can dispose of their wares. We have such characters in the city, and there is not a day passes but one or more pedlars, and gen-

erally more, ring the door bell in their desire to see the mistress of the house and inveigle her into parting with her cash for nothing but trash.

But the mere mention of these facts does not help matters much. So long as pedlars, etc., can secure the right to go from house to house or from farm to farm and offer their goods they will continue to do so. If a high fee were imposed by each municipality for the right to sell in this way it might serve to shut off a number of the "tramp" pedlars who seemingly are the greatest nuisance.

The whole agency business is the outcome of the methods of doing business in these modern times. In all lines of trade the middleman or the go-between, between the manufacturer and his customer, has forced himself in and there he will doubtless remain until some new methods are evolved. Perhaps the early years of the new century will witness a change in this plan of transacting a large share of the business of the country. If, as The Herald correspondent suggests, machine and implement agents would confine their efforts more to warehouse or office work, they would not leave themselves open to such criticism as we have noted. This plan, accompanied by a judicious advertising of the fact, would serve all practical purposes in any farming community.

Canadian Dairy Products Unsatisfactory.

Many Complaints as to Last Season's Trade.

In the report of the High Commissioner for Canada to Great Britain for 1900, made public last week, there are a couple of interesting though perhaps unpleasant paragraphs for dairymen that are worth noting. They are:

"The exports of butter from Canada to the United Kingdom only amounted to £640,760, out of a total of £17,450,432. In the previous year the import from Canada was £1,113,956. The great feature of the trade in butter has been the continued expansion of the imports from Denmark, which now controls one-half of the trade. A new competitor has also appeared in Russia, which sent last year more butter to the United Kingdom than Canada and its quality is very well spoken of. The impression seems to be general that the quality of the Canadian butter was not as good last year as it had previously been. That this can be remedied is shown by the fact that some of the parcels of Canadian butter imported were as good as any that could be found on the market. A Welsh correspondent complains of an increasing tendency to develop a fishy flavor in much of the Canadian butter. This is believed to be the result mainly of unclean separators, which, in a corrosion of metallic substances, tends to develop the flavor in question.

THE CHEESE TRADE

"Although there has been a satisfactory expansion in the cheese trade during the year, I am sorry to say that a good many complaints reached me on the subject. How far they are founded on fact I do not know, but I feel that I must direct attention to them in order that they may receive proper consideration. I am told that Canadian cheese lack the keeping properties for which they were formerly noted, and some of my correspondents are of the belief that the product is cured too hastily. Others urge that not so much care is taken in the manufacture as formerly, and they have gone so far as to specify particular brands and particular districts as affording evidence of their contentions. On the other hand there are still complaints about the boxes not being strong enough for the cheese, and not fitting in properly. This leads to damage to the cheese as well as to the boxes, and I understand that it is a fertile cause of complaint between the shipper and the importer."

Lord Strathcona submitted the communications which he had received to a Canadian expert, who expressed himself as follows: "The report does not make pleasant reading, but the facts as a whole are true. Personally I do not think the falling off in trade and complaints made are due so much to falling off in quality of Canadian cheese and butter as to the marked improvement that has been made in the quality of cheese and butter of Canada's competitors, chiefly New Zealand, the United States and Russia. The greatest fault found is that Canadian butter and cheese go off flavor quickly. That this fault can be remedied we know, for the products from certain factories in Canada, both in butter and cheese, can beat the world at international contests. It is the average Canadian factory that is losing trade for Canada—the small creamery and cheese factory, with cheap equipment and furnishings, poor butter or cheese makers, and patrons whose only interest is to deliver milk at the factory which will pass a not too particular maker. The remedy is to establish larger factories, employ only first-class makers, who will only accept milk from which gilt-edge butter or prime cheese can be made. Competition is increasing, and Canada cannot stand still."

Several correspondents have complained to Lord Strathcona that the cheese from the Ingersoll section develops a disagreeable garlic flavor.

The above certainly does not form very pleasant reading for our dairymen. It, however, never does to gloss things over. If there is anything wrong it should be made known, in order that a remedy may be applied. As to the general complaint of deterioration in the quality of Canadian dairy products we are of the same opinion as the expert and believe that this fault-finding is caused more by the improved quality of the cheese and butter from

other competing countries. Canada may not have advanced much during the past few years, but we hardly think she has retrograded in regard to the quality of her dairy products. As other countries improve their products it becomes harder for Canadian dairymen to maintain the position they now hold.

In regard to butter, whatever may have been the complaints as to last year's shipments, the butter sent forward this spring seems to be giving excellent satisfaction. As we pointed out in last week's issue reliable reports from the Old Land show that Canadian butter now stands only second to Danish in the estimation of the bulk of the English trade, while many Danish shippers fear it as their strongest competitor in the British market.

Regulations Optional.

Many farmers in Ontario appear to be under the impression that recent regulations adopted by the Ontario Government in regard to the destruction of the Codling Moth on apple trees are compulsory upon all persons. These regulations have been made in accordance with the provisions of the Noxious Insects Act passed in 1900. This is a local option act and comes into force only in those municipalities that adopt it by by-law.

"Weak" and "Open" Cheese.

The Official Referee on Butter and Cheese at Montreal, who is an officer of the Department of Agriculture, reports that a large proportion of the second grade cheese which has been received at Montreal this season, belongs to the class usually known as "weak" and "open." In view of this fact, Mr. J. A. Ruddick, Chief of the Dairy Division, Department of Agriculture has issued the following leaflet, which is now being distributed:

Description.—"Finest" cheese must have a close solid body. The presence of numerous, irregular holes makes what is known as "open" cheese. "Weak bodied" cheese are of the same character with some excess of moisture.

Cause.—Openness in cheese is usually the result of an insufficient development of acidity in the curd before salting and putting to press. An open, loose body is sometimes caused by lack of sufficient pressing. Some curds will not make close, solid cheese under any amount of pressure, yet on the other hand no cheese is ever as close as it might be unless heavy pressure has been gradually and persistently applied.

Remedy.—This effect may be overcome by allowing more acid to develop in the curd before salting; that is to say, more time should be allowed from the drawing of the whey until the curd is salted and put to press. The less acid there is in the curd when the whey is drawn, the longer will be the time required to mature it properly.

The Dairy Test.

The week ending with the first milking, Wednesday, June 5, 1901, shows quite a shake-up in the rotation for leadership among the various breeds, in the Pan-American milking test. The Guerneys still lead, with \$10.50 profit, then, greatly to everyone's surprise, come the Red Polls with \$9.97; then third the Ayrshires \$9.72, Jerseys fourth \$9.26, Holsteins fifth \$9.07, Brown Swiss sixth \$7.84, French-Canadian seventh \$7.80, Polled Jerseys eighth \$7.79, Shorthorns ninth \$7.47, Dutch Belted tenth \$5.77. —Jersey Bulletin.

Manitoba Crops.

The Department of Agriculture for Manitoba issued last week its first crop bulletin for the season. The reports received are all of the most encouraging nature, and everywhere the farmers are hopeful of a large yield. No damage was done by the recent drouth, and conditions at present are almost ideal. The acreage shows an increase on the average of about 10 per cent., and is now well over the 2,000,000 acre mark for wheat alone.

Destroying Weeds.

A copy of Bulletin No. 3, "Noxious Weeds and How to Destroy Them," issued by the Territorial Department of Agriculture, has just been published. This is an enlarged edition of Bulletin No. 2, issued last season, and contains several additional illustrations. The Bulletin consists of a synopsis of Prof. Fletcher's addresses on the subject of the eradication of noxious weeds, delivered during 1899, a chapter on the worst weeds of the Territories; then follows descriptions and illustrations of "Some Weeds of Special Interest," some observations on "Poisonous Plants," "The Noxious Weeds Ordinance," notes on "Noxious Insects," and a classified list of weeds found in the Territories.

Wiring Cheese Boxes.

There has been considerable discussion of late on all the cheese boards and shipping centres over the wiring of cheese boxes so that they will not break open. Numerous methods have been suggested, but none adopted. Mr. Robert McIntosh, of Lakeside, now comes forward with a device which he has invented and patented. It is a little contrivance for pulling the wire tightly over the box. The wire goes around the bottom and over the top where the thin ends are caught in a little piece of band steel about six inches. On this is a lever, which, when pulled around and secured holds the box tight. There is little doubt that it will be met with favor by the cheese exporters.

Studies in Nature

Edited by C. W. Nash

The editor of this department will be glad to identify for subscribers any specimens of natural history sent to this office for that purpose, and will answer any questions on the subject that may be asked through The Farming World.

BIRD NOTES.

The other day I took a walk along one of the principal highways in East York. I did not leave the road, yet in the distance I covered (about eight miles) I saw enough bird and insect and plant life to afford interesting subjects for study for many days. As the birds I saw are those which are most likely to come under the notice of my readers, I will describe some of them and their ways, so that they may be recognized when seen in future. In doing this, I will take them in their proper order, according to modern classification, and not as I met with them.

BIRDS OF THE ROADSIDE.

The first orders are those containing the diving and swimming birds; of these I saw none, nor are any likely to be seen in the immediate vicinity of much-travelled roads in Southern Ontario at this season. The next orders comprise the waders and shore birds; representatives of these are frequently to be found along or near the roadside; on this particular occasion, however, I only saw one, viz., the spotted sandpiper. This little shore bird, in the nesting season, may turn up almost anywhere; it is generally well-known, and has many local names applied to it, such as, Teeter Snipe, Wagtail, etc.; these it derives from its peculiar habit of swinging its tail up and down, a movement that is particularly noticeable immediately after it alights and when it stops after a run. The bird is olive above, the feathers showing a bright lustre and marked with fine, black lines; it has a white line over the eye; beneath, it is white with many round, black spots, more abundant and larger in the female than the male; beak, yellow, tipped with black. Young birds in the first season are pure white below, the black spots being absent.

These sandpipers arrive here about the beginning of May, and at first confine themselves to the shores of our lakes and rivers, where their graceful movements may easily be watched as they run rapidly along at the edge of the water, stopping abruptly now and then to pick up an insect and go through the tail-wagging performance; after a week or so of this method of life, during which they no doubt arrange their courtship and matrimonial affairs, they spread all over the country for the purpose of nesting; some few, however, still remain in their lake and riverside haunts. I have found their nests in pasture fields on summer fallows, in grassy orchards, fields of standing grain, and on sandy beaches. The nest is a depression in the ground, frequently neatly lined with dead grass; in it are laid four

pretty eggs of a yellowish clay color, heavily blotched and spotted with blackish brown. Like all its relatives, it arranges its eggs with all the small ends together in the centre of the nest.

When on the ground, this sandpiper is as graceful and active as any of its tribe, but when on the wing its flight seems somewhat stiff and constrained; its wings do not seem to move with the same freedom exhibited by the other shore birds, but, for all that, it is a remarkably strong and swift flier. Its note (by which it may always be recognized) is a loud "tweet, tweet," not very musical, perhaps, but on the shore it seems to harmonize with its surroundings.

From an economic point of view, these birds are decidedly valuable; they feed upon nothing but insects. I once shot one in a pea field, which had its crop filled with pea weevils.

SPRAYING FORMULAS.

In dealing with the Codling Moth in last week's issue the insertion of the spraying solutions was overlooked. They are as follows:

No. 1.

- White Arsenic1 pound.
- Unslaked Lime.....2 pounds.
- Water 3 gallons.

To prepare for spraying, mix the arsenic with the lime while the latter is being slaked with a little of the water. When the lime and arsenic are reduced to the consistency of cream, add the remaining water and boil the whole for an hour. Put this in 200 gallons of water, and the spray is ready for use.

These directions must be carefully followed, or the foliage will be burned by the arsenic.

No. 2.

Bordeaux Mixture.

- Copper Sulphate.....4 pounds.
- Fresh Lime..... 4 pounds.
- Water 40 gallons.

Dissolve the sulphate of copper in four gallons of water, in a wooden vessel. Slake the lime in an equal amount of water. Then mix the two and add enough water to make forty gallons. This mixture will keep for any length of time. If it is to be used on peach trees, add an extra pound of lime to the above.

Immediately before using, add one ounce of Paris green for every ten gallons of the solution, and stir well. It will then be a valuable insecticide as well as a fungicide.

Spray with this solution,

1st. When the buds are swelling.

2nd. Just before the blossoms open.

3rd. As soon as the blossoms have fallen, and afterwards as occasion may require.

No. 4.

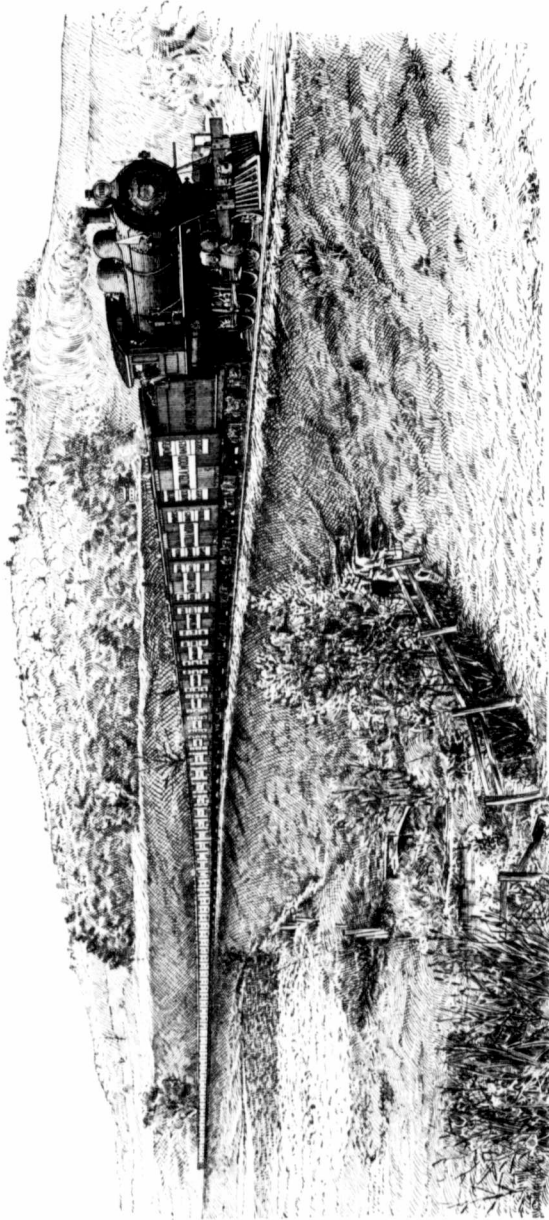
Paris Green Solution.

- Paris Green.....1 pound.
- Unslaked Lime.....1 pound.
- Water 160 gallons.

The above is suitable for apple and shade trees, potatoes and plants of vigorous foliage. For plum, peach, and delicate plants, use 250 gallons of water. A slight increase of lime in the mixture will do no harm.

The Largest Shipments of HARVESTING MACHINES... EVER MADE

The train carried 3,000 machines, representing a value of \$100,000. This shipment will convey some idea of the demand that has been created for WOOD machines in the western territory in its first year of doing business in that section since 1892.



Every
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Been
Actually
Sold

The above cut is an actual photograph of 60 freight cars loaded with WOOD machines, and destined to points in Kansas, Nebraska, Iowa, Missouri, Illinois, Minnesota, South and North Dakota.

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The Sugar Beet World

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

EDITED BY JAMES FOWLER.

Sugar Beetlets.

Don't let the crop suffer for an extra 50 or 75 cents per acre in work, for it will come back ten-fold.

Farm tenants and farm laborers will find a far better reward by engaging in the culture of beets than in any other branch of farming.

Large yields mean large beets, large beets mean very little sugar and not profitable to either the manufacturer or the farmer.

Farmers used to give as an excuse, that they wouldn't grow beets for fear that it would be overdone. Michigan this year will have 75,000 acres and there is room for more.

It's a mystery to most growers why the general public refuses to accept the sugar beet as a table product, when it is so much superior to the old red variety. Those who grow sugar beets prefer it to all others for table use.

The Standard Cattle Company of Leavitt, Neb., are doing some experimental work with fertilizers, irrigation, etc. They have recently employed a young man from the Ontario Agricultural College to give his attention to these matters.

A party of one hundred and seventy Russian sugar beet workers, from Hastings, Neb., have gone to Caro, Mich., to work in the beet fields. These Russians are experienced workers in the beet fields, and have been employed in different sections of the country for several years.

The vacancies in the sugar beet row are sometimes filled by transplanted beets. The results are usually ill-shaped roots, though the yield and quality of the roots do not seem to be affected by the operation. The practice, however, is not generally financially profitable.

The results of co-operative experiments in New York show that the more fertility and tillage a crop requires the better it is suited to prepare the land for a crop of beets. In Nebraska good beets have been grown after millet, and in Wisconsin beets grown after cereals or summer fallowing were of good quality.

Some informant tells us that the sugar beet does not require any particular kind of soil for its proper production. We are most emphatic in saying that experience teaches that it is a particular kind of soil that is needed. Any old soil won't do for sugar beets. Neither should new land be selected, as it never produces a high tonnage of beets rich in sugar. The soil should have been under cultivation at least two years.

It has been decided to erect a plant at Bay City, Mich., for the purpose of utilizing the molasses

from a number of sugar factories. The Saginaw Sugar Company is interested in the enterprise. Just what is to be produced from the molasses has not been learned. Carman N. Smith of Minneapolis is promoting the deal.

Personal.

Messrs. Hugh Blain, Reginald H. Stewart and Norman B. Gash of Toronto, made a tour of inspection recently of the Michigan sugar factories.

Major Benj. Boutell of Bay City, Michigan, the sugar king of Michigan, was in Toronto recently on private business.

Mr. Wm. R. Perrin of Chicago, Ill., is in Toronto. Messrs. Perrin & Co. manufacture a special line of machinery for sugar factories and have a branch factory in Toronto.

Mr. R. H. Stewart, 36 Grange avenue, Toronto, who has recently made a tour of the sugar factories of the United States, is at present visiting the different sections of Ontario, where there are prospects of establishing the industry, he being prepared to put a large amount of money in all feasible propositions.

Mr. Guy Sawyer Dyer, representing Messrs. E. H. Dyer & Co. of Cleveland, Ohio, spent several days in Toronto recently looking over the prospects for the building of sugar plants in Ontario, and is well pleased with his trip. Mr. Dyer is a most affable gentleman and made many friends during his brief visit who will be pleased to meet him again.

H. C. Kennedy, president of the Warton Beet Sugar Company, and W. D. Forrest, secretary, have resigned as directors of the company, and G. P. Ames and J. C. Simson have been appointed to fill the vacancies until the annual meeting. Mr. Young has been appointed as president and H. C. Kennedy and Geo. Overholt as agents, their duty being to instruct beet growers as to how to cultivate and harvest beets.

Bunching and Thinning Beets.

Prof. Wartensleben, of Leavitt, Mich., in a paper on "Bunching and Thinning," gives the following valuable suggestions to the grower:

If the ground is in favorable condition the seed will germinate in about four days. The young plants will put in their appearance about four or five days later. As soon as the beets are up and the rows can be plainly discerned, they should be cultivated. It is necessary to cultivate at least once previous to bunching.

The proper time for bunching is while the beet is in its four leaf stage, which is usually for two or

three weeks after the beets are planted.

For this branch of the work an ordinary garden hoe is used. It requires but little practice to acquire efficiency in bunching. To assume the easiest position that is least straining on the body while bunching is to take the position most natural. If the buncher or operator with the hoe is right-handed he must straddle the row to the left of the one he wishes to bunch. Then placing the blade of the hoe over the right hand row, assumes a slight stooping position natural in all work with the hoe. He next places his left hand above with an over-clasp, then taking a hold below with his right with an under-clasp, leaving enough space between the hands to give the necessary striking power. He now finds himself in readiness to start. Raising his hoe with an easy swing about two feet he lets it descend within one and a half inches to the right of the row and draws it squarely across at a uniform depth of about one-half inch.

In repeating the operation while moving forward, he leaves a small bunch varying from one to two inches in length.

Now bunchers will have to watch themselves closely and restrain from striking twice in the same space. A good stand can be easily spoiled also oftentime forming a habit thoughtlessly of which it is troublesome to break themselves afterward.

Before discussing the sized implements to be used, let us survey the field and see in what condition we find it in: The strength and nature of the soil, the stand and whether it is weedy or not. For an ordinary soil, which is in fairly good physical condition, the six inch hoe should be selected providing the rows are eighteen inches apart, which with a two-inch bunch will give the beet about one square foot of ground from which to draw its nutriment. This expert and practical growers have decided as giving the best results, growing a beet that is satisfactory in sugar content and also yield per

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Will contract to build complete beet sugar plants, including all machinery and buildings; also furnish the necessary technical and skilled help to operate them.

acre. On the same soil, if the rows are sixteen inches apart, the seven inch hoe would be advisable, and if the rows are twenty inches apart the five inch hoe is resorted to. It is not advisable to plant twenty inches; all those that have had practical experience agree upon this, but a great many that grow their first crop will insist on planting twenty inches. Their reason being that the horse in cultivating will destroy the beets, the rows seeming too narrow comparing same with corn, potatoes and the like, which we have been accustomed to. One season usually suffices to correct this error.

When beets are grown on poor soil, they can be allowed more space. For instance, on soil that will yield thirty-five bushels of corn, where the ordinary yield should be forty-five bushels, providing that previous crops had been properly rotated the seven-inch hoe can be used with the best results. But if the ground is very rich, as in old feed lots, plowed up clover patches and the like, the five-inch hoe should be used on the sixteen-inch row, as this is a preventative for the overgrowth of the beets.

It happens during very dry springs that the seed does not come regularly. This can oftentimes be traced to improper preparation of the seed bed. Very likely the ground was not thoroughly pulverized and packed, then again the soil varies—some looser than others. Where the soil was well packed, the seed did not reach sufficient depth to accrue enough moisture to sprout and come up, while where it was looser the drill planted it at a depth that insured rapid germination, while the former had to wait a rain. A case of this kind causes great inconvenience, for it necessitates two bunchings and thinnings, it being imperative that the first stand be bunched and thinned when it reaches the proper stage, and it being equally important that the second stand be bunched and thinned, as otherwise the good effect of the first bunching and thinning is entirely lost.

The thinning of the beets should be done as soon as they have sufficiently recovered from the bunching. It is a very serious mistake to allow the plant to become too large before they are thinned. A great deal of care should be used on this point, as there is a tendency where they are growing close together to twine around each other. The principle to be observed in thinning beets is to remove the surplus in such a manner as to remove all excepting the one intended to ripen, which should be left firm, disturbing its structure as little as possible. This is done best by the thinner, as he crawls on his hands and knees, straddling the row, by selecting the largest and healthiest plant in the bunch, taking it between his thumb and forefinger, holding it firmly; while with the fingers of the other hand he grasps the remaining beets and with a quick movement removes them from the ground. If the plants are twined about the one that is to remain,

the larger these entwining plants become, the more the entwined plants become disturbed in the thinning. The beets send out their little feeders or lateral roots very rapidly and in thinning out the surplus plants, these are very liable to be more or less disturbed. The larger the plant that is to remain the more likelihood there is that it will be disturbed; hence the thinning must be looked after in the proper season. Often times a neglected plant is set back from ten to twenty days, and frequently numerous plants die altogether when the season is dry and unfavorable. Thus we find that again we will have to guard against unnecessary destruction of the required stand. If the beet is exposed there should be a little earth placed around the root so that the rays of the sun may not harm it, and also leaving it in as good condition as possible.

As thinning is the most laborious in sugar beet growing, we will have to select laborers which will give the best results, and for this we find that boys and girls from 11 to 15 years old are best adapted, being more active than a grown person, thus accomplishing our desire at a far less cost.

Thinning is more exacting than bunching, while an average buncher will bunch three-quarters of an acre of beets, a good thinner may only be able to thin one-quarter of an acre. But the buncher can greatly reduce the work of the thinner by cutting the bunches down to as few beets as possible. Thorough bunching and thinning is the key to a successful beet raising. A poor stand caused by improper application of bunching and thinning cannot be remedied by thorough cultivation. A large beet may be grown, but it will be inferior in sugar qualities and thus be unfitted for the market. It is also essential that the thinner should pull all the weeds in the row, as that will very frequently save one hoeing, and it is a great deal easier for the thinner while down on his hands and knees to pick the weeds away, than it is for the hoer to stop and destroy them, also incurring extra expenses.

With all American ingenuity, they have yet failed to place a machine on the market that will displace the hoe in its domain. Various machines have been made but none have been a pronounced success.

In Prince Edward Island.

The citizens of Prince Edward Island are always alive to anything that has for the making of progress in agriculture. The beet sugar industry is now claiming some attention in that portion of the Dominion, and it is within the probabilities that this new source of profit for the farmer may be one of the main features of the agriculture of the island province.

The following is an extract from The Charlottetown Guardian, showing what one intelligent citizen

thinks of Prince Edward Island as a field for sugar beets:

"I am pleased to see that our newspapers are beginning to manifest a strong interest in the advocacy of the establishment of a beet sugar factory in this province; and I trust since they have commenced this laudable work, they will see the necessity of continuing strongly and uninterruptedly in their advocacy, till our farmers will find themselves in a position to reap the great advantages which would undoubtedly accrue to them from its establishment and proper prosecution. There is no industry that I know of that is capable of yielding larger profits to the farmers, if properly conducted, than the beet sugar industry. It has been practically demonstrated from the results of analysis made at the Experimental Farm, Ottawa, that the sugar beets produced under the climatic conditions that prevail in this province are exceedingly rich in saccharine matter, and if produced under proper available conditions, which would exceed the highest analysis yet obtained in either Europe or America. The reliability of this important report, emanating from such an undoubted authority as Professor Shutt, should exert a strong influence to stimulate our farmers, our business men and laborers to a high appreciation of the great possibilities that our natural resources are capable of placing at their disposal. With such bright and encouraging prospects, practically realisable in the not distant future, the duty that devolves upon us as an agricultural community becomes clearly defined. United effort must necessarily be made with a view to the early development and utmost expansion of the great and valuable natural resources which we happily possess. Proper methods must be adopted, and then energetic action in the skilful and cautious manipulation of such, will ultimately lead to success. Our farmers, as a rule, are remarkable for their intelligence, industry and perseverance, and when once convinced of the genuineness and practicability of a contemplated project, they will, by application of a high order of intelligence and an unremitting assiduity, soon succeed in accomplishing notable progress in what they undertake."

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and Cane Sugar Factories.**

**Adaptability of Location
Investigated.**

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Technical Advice.**

**Beet Seeds and all Neces-
sary Supplies.**

Feed Value of Beet Pulp.

Prof. C. D. Smith, of the Michigan Agricultural College, in responding to questions as to what elements of food are contained in sugar beet pulp and as to whether such pulp is better adapted to feeding milch cows or fattening cattle, says that the results of the experiments that have been carried on along these lines during the past winter are not yet compiled, although the experiment at Alma is just completed. Judging by the work elsewhere, however, he says it is safe to assume that beet pulp has considerable value. Compared with corn silage, it contains two-thirds as much digestible protein and more than half as much starch and carbohydrates. This does not mean, however, that it is half or two-thirds as valuable as corn silage, because when feeding stuff contains from 90 to 95 per cent. water its real value cannot be determined by the percentage of nutriment the chemists find in it. The steers ate from 60 to 90 pounds of pulp per day and they seemed to eat with avidity. When fed to milch cows it did not show a great value. On the other hand, where, as in the old countries, the water is quite largely expressed the drier pulp proves exceedingly valuable for cattle feed and thousands of steers are being fattened on it in France and Germany to-day.

Use Your Cultivator.

Cultivation should be begun as soon as the rows can be clearly seen, the earlier the better. This loosening of the soil allows the air to get to the plant more freely, thus forcing the growth and producing a better quality of beet. It is of importance to destroy the weeds as they take nourishment from the soil which should go to the beets. This can be done by cultivation every eight or ten days. In each successive cultivation the knives or hoes of the cultivator should be run more and more away from the beet and also run

deeper each time. The cultivator should be run through for the last time when the leaves are nearly met in the middle of the rows. The ground should be stirred up to the depth of six inches. But let me caution you not to hill up your beets as it presents more surface for evaporation. Level land retains moisture the best.

How to Start a Factory.

When a community of sugar beet growers organizes to engage in the cultivation of sugar beets, for the purpose of determining how much can be made per acre in growing the crop, the foundation stone is then laid on which a factory will be built. Success in raising the beets means the results of learning how to do the work. It requires skill, a knowledge of the soil, moisture conditions and labor necessary to produce a proper growth of plant, in order to be a successful sugar beet grower.

It will pay any community of farmers or soil tillers, who contemplate raising sugar beets, to employ an expert grower, one who thoroughly understands the requirements, from the plowing of the ground to the harvesting of the crop, in order that he may personally supervise the work.

Where poor families have taken hold of this work, with instructions as to the proper methods of cultivation, etc., they have in most instances made not only good wages but good family support for the entire year.

There are hundreds of acres of vacant lands within the city limits of large cities that could be made to yield a good livelihood to hundreds of our poor people, where nearly all the labor on the crop could be that of women and children. Managers of sugar beet plantations have universally endorsed the woman and child labor, in the beet fields, as superior in results to that of the full-grown man.

The work is healthy, clean and

honorable and the income is a good return for the time and labor employed. No one need be idle and not in a position to earn an honest living, so long as sugar beets will command \$4 per ton and the present market advantages are at hand.

Double Sugar Supply in the United States.

Much attention has recently been called to the fact that beet sugar is rapidly surpassing cane sugar in the amount produced in the world. Sixty years ago beet sugar amounted to less than 5 per cent of the world's supply. At the present time it amounts to more than 67 per cent. That does not mean that the production of cane sugar has fallen off, but that the production of beet sugar has increased more rapidly to meet the increased demand; for the world uses, in proportion to its population, probably four times as much sugar to-day as it did sixty years ago. The causes of the increase of beet sugar culture are obvious. They include the desire of European countries to supply their own demands and to engage in a profitable industry, the development of the beet industry in the United States and other countries, and the greater energy and enterprise of men in temperate climes than of those in the tropics.

It is the happy lot of the United States to have within its domain ample resources for producing both kinds of sugar. The great beet sugar countries of Europe can produce beet sugar alone; they are too far north for cane. Some of their own colonies in Africa or elsewhere in which cane sugar may be grown, but at an inconvenient distance from the place of consumption. But the United States has close at hand, within easy reach of its millions of consumers, the best beet sugar lands and also the best cane sugar lands in the world. In both kinds of sugar it is independent of the rest of the world's market.—Exchange.

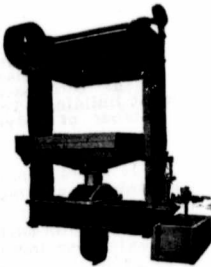
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The Agricultural Gazette

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', \$2.

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 50c. per head; non-members are charged \$1.00 per head. A member of the Sheep Breeders' Association is allowed to register sheep at 50c. 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 10,000 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 condensed form.

A. F. WESTERVELT, Secretary,
Parliament Buildings, Toronto, Ont.

List of Stock for Sale.

DOMINION CATTLE BREEDERS' ASSOCIATION.

Shorthorns.

Alton, T. & Son, Appleby.—3 bulls, 14 and 15 months.

Birdsall, F. & Son, Firsall.—Cows, 2 years; yearlings and calves; bull calves.

Bonnycastle, F., Campbellford.—Yearling bull; 9 bull calves; cows, heifers, and heifer calves.

Chapman, J. G., St. Thomas.—2 bull calves, 2 and 9 months.

Colwill Bros., Newcastle.—Heifer, 2 years.

Douglas, Jas., Caledonia.—6 bulls, 7 to 18 months; young cows and heifers.

Jefts, E. & Sons, Bond Head.—2 yearling bulls; 6 bull calves; cows, 2 years; yearling and heifer calves.

Scott, F. W., Highgate.—2 bulls, 18 months.

Weber, L. K., Hawkesville.—3 bulls, 10 to 12 months; 2 heifers, 1 and 2 years; 2 cows.

Jerseys.

Birdsall, F. & Son, Birdsall.—Bull, 11 months; bull calf, 3 weeks.

Ayrshires.

Drummond, D. Myrtle.—5 bulls, 1 to 10 months.

Taylor, F. W., Wellman's Corners.—4 yearling bulls; 2 bull calves; 4 heifer calves, 1 to 2 months.

Polled Angus.

Philips, F. W., Oakville.—Young and matured stock, both sexes.

Sharp, J., Rockside.—Bull, 16 months; females.

DOMINION SHEEP BREEDERS' ASSOCIATION.

Leicesters.

Armstrong, G. B. Teeswater.—Rams and ewes, various ages.

Dunnell Bros., Clanbrassil.—Aged ewes; shearing ewes; ewe lambs; 6 shearing lambs; ram lambs.

Eastor, A., Appleby.—2 rams, 2 shears; 4 shearing ewes.

Jefts, E. & Sons, Bond Head.—40 head, various ages, both sexes.

Cotswolds.

Bonnycastle, F., Campbellford.—7 yearling rams; 20 ram lambs; ewes and ewe lambs.

Dorsets.

Philips, F. W., Oakville.—Young and matured stock, both sexes.

Southdowns.

Jefts, E. & Sons, Bond Head.—Aged shearing and ram lambs; ewes, all ages.

DOMINION SWINE BREEDERS' ASSOCIATION.

Berkshires.

Bonnycastle, F., Campbellford.—Pigs, 6 weeks to 2 months.

Jefts, E. & Son, Bond Head.—Aged boar; yearling boar; 5 boar pigs; young sows; spring pigs.

Yorkshires.

Drummond, D., Myrtle.—Pigs, both sexes.

Mayloney, F. A., Chapeau, Que.—20 boars and sows, 5 weeks; 10 sows, 7 months; boar, 3 years; sow, 2 years; boar, 14 months.

Philips, F. W., Oakville.—Young and matured stock, both sexes.

Taseworths.

Colwill Bros., Newcastle.—6 boars, 3 months.

McDonald, W. R., Ridgetown.—Young pigs, both sexes.

Chester Whites.

Birdsall, F. & Son, Birdsall.—Pigs, 8 weeks.

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. F. Westervelt, Secretary, Live Stock Associations. In the case of persons wishing to employ help, the following should be given: particulars 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 department 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 three or four months, or for longer period if suitable. Must be good to horses and a good ploughman. No. 827 a.

Man and wife can find steady employment and comfortable home, or if children, a house will be provided, etc., near a good school. Also farmer's wife wants working companion, pleasant home, where kitchen girl is kept. No. 828 a.

Man wanted for general farm work. Duties to commence immediately. Must be willing and obliging. Will give \$18 a month for five months, or will hire by the year. Address, McD., Sturgeon, Deerhurst, Ont.

Young man wanted to work on a farm at Lachine Rapids, Que. Wages \$18 a month and board the year round, for a good and steady man who can plough and understands all other farm work. No. 829 a.

Good young man wanted to work on a farm at Maxville, Ont. Must be steady and understand farm work. Wages \$15 a month. No. 830 a.

Young man wanted to work on a farm in Essex County. Six cows are kept, and man would be expected to help with chores. During haying and harvest would have to work until sundown, at other times until six o'clock in the evening. No. 831 a.

Thoroughly competent man wanted, married or single, for two or three months, to work on mixed farm of 150 acres. Good wages paid for first class man. Would engage by the year. Apply immediately to H. G. Heaven, Boyne, Ont.

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

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 opening for industrious farmer. No. 826 b.

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 b.

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

Beets can be topped more quickly with a hoe before drawing than with a sharp knife after drawing. In Nebraska the time required for topping an acre of beets before drawing was eleven hours, while the time required for the same work with a sharp knife, after the beets were drawn and laid in rows, was seventeen hours.

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 Institution that has carried on the work.

G. C. CREELMAN,
Superintendent Farmers' Institutes.

Orchard Meetings.—A Great Success.

By G. C. Creelman, Superintendent of Farmers' Institutes.

As was anticipated, the meetings held in the orchards throughout Ontario are being well attended. No new movement in connection with the Institutes has taken so well, unless it be the poultry demonstration held at the winter meetings.

IN HALTON

As has already been reported, the meeting held at Mr. Peart's place at Burlington, was, notwithstanding the weather a most successful one. 200 people were present, and everyone carried away practical ideas in reference to the best varieties of large and small fruits; the best methods of cultivation; how to prune, graft, and how to pack fruit for market.

AT ST. CATHARINES.

The next week the Lincoln County Farmers' Institute assembled in the orchard of Mr. T. Archibald, Lake St., St. Catharines, and besides general discussion and practical demonstrations of the best methods of caring for an orchard, Prof. Lochhead, of the Ontario Agricultural College, gave an interesting address on "Fungus Diseases of Fruit and Fruit Trees." Mr. Robert Thompson, an officer of the Institute, writes of this meeting:—

"As a rule, we can seldom get a quorum at our Annual Meeting. This year we had 90 in attendance, and they were all wide-awake, too. Prof. Lochhead had questions fired at him from all directions, and he proved to be in every case equal to the occasion. In matters pertaining to insects and fungus diseases, we have never seen his equal."

AT AGINCOURT, IN EAST YORK

The East York Farmers' Institute is, in some respects, ahead of any other Institute in the province. It is the only Institute that holds regular meetings every two weeks, during the winter and spring. Their own local men are appointed to open up some timely subject, and the neighbors take a hand and thresh it out. They have also a Seed Fair each spring, and at this meeting the different varieties of grain are brought in and prizes offered for the cleanest and purest samples. The members of the Institute then arrange to exchange seed, or if they have none to exchange, arrange to buy what they need for the season. And now this progressive Institute has started outdoor meetings, and the one held at Agincourt on June 4th

was a model of its kind. 300 members were present, and the secretary assures me that Prof. Hutt was bombarded with questions the entire afternoon, and that all returned home much pleased with the venture, and quite determined that they would repeat the experiment again next year.

AT CRAIGHURST, IN SIMCOE COUNTY

There is, probably, no better authority on fruit for Simcoe County and the Georgian Bay District than Mr. G. C. Caston, Director of the Experimental Fruit Station at Craighurst, twelve miles north of Barrie. The land is very light, hence can be cultivated immediately after the heaviest rains. He has all the leading varieties of plums, apples and cherries, blackberries, currants and strawberries.

Mr. Caston personally conducted the meeting, and the 200 farmers present followed from orchard to orchard while the Director pointed out the peculiarity of the different varieties; how to graft, spray, and care for an orchard. A spirited discussion was kept up for over two hours, as questions were asked and answered on matters pertaining to fruit.

WORTH MILLIONS TO ONTARIO.

At this Fruit Station two points have been thoroughly demonstrated that might, if heeded, save millions of dollars to the fruit-growers of Ontario. The first is the use of the Tallman Sweet Stocks for all hardy varieties of fall and winter apples. Mr. Caston has top-grafted on this stock, Greenings, Northern Spies, Ben Davis, and Kings, and has found nearly all of them to make an almost perfect union and a vigorous, healthy tree. The advantage of this method over growing spies on their own stocks is, first, they come into bearing earlier, and second, they are not so liable to break down under heavy loads, or split apart when covered with snow and ice.

IRRESPONSIBLE AGENTS.

The second point demonstrated is the wisdom of placing an Experimental Station in the district. The Director has grown most of the varieties that are offered for sale by fruit tree agents in that district. Some of these, which the agents have represented as being hardy and quite suited to our climate, have been found to be utterly useless; many of them being too tender to stand our winters, and others not producing enough fruit to pay for the cultivation. These varieties Mr. Caston has left standing, properly labelled, as an object lesson to the neighbors for twenty miles around, and the people of the South and Centre Simcoe now write to the Director each year for advice as to the best varieties, before ordering their trees.

All who attended the meeting at Craighurst returned home well pleased, and the Institute determined at their meeting to make this an annual affair.

West Northumberland will hold a similar meeting on June 12th, at Trenton, on the farm of Mr. W. H. Dempsey, and Grenville Institute will hold a meeting in the orchard of Mr.

Harold Jones at Maitland, on the same day. The services of Prof. Hutt, of the O.A.C., Guelph, and Prof. W. T. Macoun, of the Experimental Farm, Ottawa, have been secured for these meetings.

The Social and Intellectual Side of Farm Life.

By Thomas P. McDonald, Teeswater.

I am sure we have all been interested and instructed by the splendid addresses and discussions we have heard this afternoon and evening. These gentlemen have told us a great deal that will benefit us if put into practice, but farming does not alone consist in ploughing and sowing, in growing crops and feeding animals. Profitable as these may be if rightly conducted we cannot accept them as the all and end of our career. We have social and intellectual natures to cultivate as well, and it is on this side of the question I shall speak for a moment or so.

There are many changes taking place in agriculture, none more noticeable than the marked difference compared with former years in the relative social positions of the farmers and their families, compared with those who are engaged in other callings in towns and cities.

It is not many years since the farmers seemed to have nothing in common with the commercial and professional men. There was a pretty clearly defined line between the people of the towns and cities and those whose lives were spent upon the farm. This state of things, for the good of all concerned, has in a large measure passed away. All classes now seem to realize that there is a close association of interests between all classes.

In the early days of Canadian farming there was little to break the monotony. It was "work" all day long, from early morning till late at night the whole year round. The introduction of labor saving machinery has done much to lighten and simplify farm labor. Our country is growing; the land is getting cleared, and our farmers are getting better and more nicely furnished homes.

Homes irradiated with good books and music, flowers and trees are coming to be the rule. Friends, this is a strong demonstration of the fact that there is nothing incompatible between cultured minds and refined homes and successful agriculture.

This change is going on all over this fair Dominion of ours. There is no class in all the community who better deserve a fair share of enjoyment in their homes than do the farmers of this country. None have worked harder for it. This change has had much to do with making our sons and daughters more contented with farming as an occupation. One of the most fruitful causes of discontent, and one of the chief reasons why farmers' sons have left the farm for other occupations, has been the lack of pleasant social life upon

the farm. Friends, I think the remedy lies largely with ourselves.

I do not say that boys should not leave the farm. I believe that if a boy has a liking for any other legitimate occupation and has suitable talents in that direction, he should go on and cultivate such talents. Some of the brightest lights in all lines of life, commercial, professional and literary, have come from the farm.

But to return to my subject. Have we not seen many a farmer making money by successful farming whose home was a model of what a good home ought to be. His family growing up around him happy and contented, laying in stores of knowledge obtained from good books, periodicals and papers. Such young people are the peers of the young people in the towns and cities, both in culture, refinement and intelligence. It is those who have gone out from homes like these, whether in city, town or country, that have done so much to make Canada what it is—the fairest and foremost of the colonies of the British Empire. It is those whose early life has been spent in homes like this that will make successful men and worthy citizens. However, there are many people who do not seem to be advancing with the age, who will not use the means of acquiring knowledge themselves, nor give their families the opportunity of doing so. Their homes are often cheerless and the surroundings uninviting. As you enter these homes you find no literature worthy of the name. What chance of succeeding in life have the young people growing up in such homes? If others who have been brought up in more favored homes beat them in life whose fault is it? Give the boys brought up in the country a fair chance and they will hold their own with those brought up in the cities and towns.

There are no conditions in life more favorable to the development of sturdy energy and manly self-reliance than those which are to be found in well-regulated country homes.

Again, we must remember that a marked change has come about in farming of late years. The land has become less productive. It costs more to produce a bushel of grain than formerly, and this Twentieth Century which has brought us so much improvement in farm machinery and appliances, also brings about facilities of transportation which place us in competition with the whole world.

The time has come when brain power and the sciences bearing upon agriculture are going to be more important factors than they have been in the past. The successful farmer of the future is going to be an educated man.

"Experience proves in every soil
That those who think must govern
those who toil."

In all the advancement that is going on in every industrial calling the powerful factor is intelligence. Intelligence produces the same re-

sults in the workshop and on the farm, but the education required for one does not fit a man for the other. Each requires a special knowledge and training. Besides a farmer requiring a general education to enable him to fill the position of a good citizen, it is just as important in his calling as in that of any other, that he have a special education. Where can he get such an education? In the Agricultural School. I am glad we have such an institution as the Ontario Agricultural College. We cannot all attend a college but we can all have the advantage of good literature in our homes, and this enlightened age has brought such literature within the reach of all. I think every farmer should avail himself of the advantages afforded by the Farmers' Institute, and also read one or more of the excellent agricultural papers published.

Upon the young men of to-day rests the responsibility of raising the status of farmers and the standard of agriculture. Let us place before ourselves a high ideal and strive to attain it.

Watering Stock in the Stable.

By T. Strachan, Brussels.

Until asked to give this paper, this is a subject to which I had never given much thought. At the same time I think it is a matter of great importance for discussion. It is certainly an element in our calling as agriculturists that we cannot do without. It is an ingredient in the culture of stock that can neither be ignored or overlooked. On my own farm I felt that I enjoyed one great blessing, that of an abundant supply of water, summer and winter, and which I supposed met the requirements of animals of all kinds on the farm. As I thought, so convenient was the supply, I felt no desire for improvement. I thought a beautiful stream of water, clean and clear running all the time from the side of the hill was all that was required, and I was satisfied. But when I was informed that this, however convenient, could be improved, and that water could be taken even up a hill into a house or stable, I began to desire something better. However convenient some things are by natural means they may be improved artificially, and so we have the right to make them more subservient to our convenience and saving of labor.

Although you may have a good spring or well, even somewhat near your stable, with a good pump, still there is a good deal of labor in loosening cattle from their stalls and driving them even a little distance that they may obtain a sufficient supply of water. If requiring to go a little distance the snow may be deep and the path narrow. The strong cattle will insist that they must have their water first, and the weaker ones will be made to stand around until the stronger ones are served. When they obtain sufficient water they are not satisfied to step aside for others to drink, but they must stay around,

lording it over the weaker ones as if they took pleasure in keeping the weaker ones away until they condescended to leave. Often the weaker animals get cold, disheartened and discouraged, and even in a drifting storm will often return to their stables rather than stand the exposure any longer. Sometimes the stronger cattle meet them in the path and compel them to leave the track, and the probability is they will return without having obtained any water, except the snow they may have licked while patiently waiting their turn. If many cattle are turned out together and consequently have to wait long around the watering place, many of them get so cold they are injured from exposure, which retards their thriving as they would under more favorable circumstances.

This picture, which I have so imperfectly endeavored to draw, will, to some extent, apply to water, even if somewhat near a stable with no shelter. I think, then, it would be the duty and to the interest of every farmer, if they have not watering boxes in their stables, that they should have warm shelter for their cattle, that they may not be exposed to the cold of winter, at least.

I have sometimes heard at our Institute meetings that a cow is a machine. I cannot agree with this view, a machine being an article having neither life nor feeling. A cow is a very sensitive animal, requiring great care and consideration; and being highly appreciative of kindness and gentleness. They keenly feel cold, rough treatment and neglect, and under such treatment become abject, timid and exceedingly sensitive. I do not say they think sufficiently that they wish they had a warm stable with all the modern improvements and comforts, but if properly treated they will look contented, sleek and beautiful. I do not know from practical experience about watering cattle from boxes in their stalls, but I know from experience that watering cattle in a warm stable is beneficial and a great saving of labor, and that cattle getting water at pleasure thrive better than those who obtain it at stated times. Those who can have water in their stables by hydraulic power or other means have a great advantage, which can scarcely be overestimated. I do not know how much I would be willing to take to go back to the old system of watering cattle as formerly. A person might think it was stretching if I refused one hundred dollars to go back to the old system, but I could not take it. No man would be willing, when he considered the saving of labor and the comfort to the stock, and saving of self and cattle from exposure to the cold. To have water in a warm place and convenient should be the aim of every farmer, and none should rest satisfied without having this convenience in his stable.

Jas. A. Lockhart on June 1st began shipping 8,200 New Mexican lambs which have been fattened at the sugar factory. The lambs are expected to weigh out at eighty-five pounds.—Rocky Ford Republican.

Farm Implement Department

Not Enough Receptivity.



First Visitor—"What do you think of it, Hank?"

Second Visitor—"No good, gimme a critter that can hear when you cuss!"—Chicago Daily News.

Spraying Outfits.

In the whole realm of farm machinery none fill a more important place than machines for spraying and spraying apparatus. No well-equipped farm should be without such an outfit, and it will pay every farmer many times over to follow a systematic and thorough spraying of his orchard and fruit garden. It is practically impossible to secure an abundant crop of good fruit unless spraying is given some attention. Not only is a spraying outfit necessary for the destruction of insect pests, but it is of very great value in whitewashing and painting farm buildings.

The general advocacy of spraying of late years has brought with it the introduction and manufacture of all kinds of spraying apparatus, some good and some not so good. In this respect Canada has not been behind other lands, and some of the very best spraying outfits to be found on the market to-day are home-made. At the very top of the list is the Spramotor, manufactured by the Spramotor Co., London, Ont. This machine is without doubt one of the very best of the kind made and has been tried in various ways and for a number of purposes, including ordinary spraying, whitewashing, painting, etc.

The excellence of the Spramotor consists in the perfectness of its detail. We illustrate several of the parts in order that our readers may be able to form some conclusion as to its mechanism. The valves are known as brass ball valves, which, in combination with its patent detachable seat and cage, make the only effective and durable appliance, and we warrant them for the use of any mixture, even to thick lime whitewash applied while hot. These valve seats being detachable, can be renewed at any time at a trifling

cost and are made this way as an extra precaution and as a special feature.

In starting operations, the plunger rod is disconnected and the handle actuated, thereby operating the agitator to thoroughly mix the contents of the vessel containing the mixture to be used. The plunger rod is then connected with the handle. The continuous action of the latter now operates the plunger as well as the agitator, which receives double the length of stroke of the plunger. The mixture within the vessel is drawn up into the plunger tube at every stroke through the valve.

The down stroke of the plunger force the mixture through the passage way, through the upper valve and out through the discharge pipes, the lower and upper valves alternately opening and closing as necessary.

When desired, kerosene oil may be introduced between the valves, as shown at "A," when it mingles with the fluid drawn through the suction tube and is expelled with it in a fine spray, avoiding the necessity of emulsifying the oil for use as is now commonly done.

These valves are continually being ground to the seat, and the construction is such as to give the balls a spinning motion at each opening and closing, thereby insuring their remaining perfectly round and tight in use.

A special feature of the Spramotor is the strainer, which, secured on the bottom of the suction, insures the proper straining of all mixtures entering the motor, thereby preventing the nozzles becoming stopped. The strainer is of novel construction, the wire gauze supported by

the gauze at any time, or remove it, the wire is readily sprung from under the lugs and is as readily replaced to hold the gauze in place when desired.

Another feature of a spraying apparatus is the agitator or mixer. To get satisfactory results in spraying or painting the chemicals or paints must be thoroughly well mixed before commencing to apply them. It is also of the greatest importance



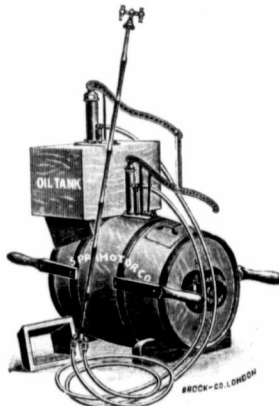
The Spramotor at work in Wellington, New Zealand.

in spraying to have the barrel full of mixture of uniform strength.

The agitator, must, therefore, act independently of the motor, as well as automatically with it. By means of a simple device this is accomplished in the simplest possible way, being in the form of a dasher and sleeved around the suction and actuated from the handle, the agitator is under perfect control of the operator; therefore, by withdrawing the centre pin connecting the plunger, the motor will be at rest while the operation of agitating the mixture is performed. The insertion of the plunger pin, which may be done instantly, permits the agitator and motor to be operated together.

This improvement is invaluable, as it effectually prevents damage being done by spraying with the solutions too strong at the commencement, or the nozzles becoming clogged.

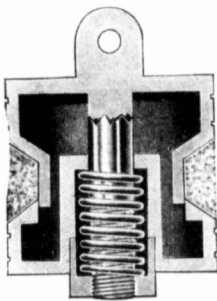
A pressure of spraying of 75 lbs. per square inch is about right for spraying purposes, and as the pressure of 250 pounds can be easily developed with the Spramotor, we see the extent of the reserve. Pumps designed for extreme pressure are necessarily of small cylinder, and therefore of limited capacity, usually of extreme length of handle and very short stroke, which involves such a quick, jerky action which will be very trying to the operator if long continued. Any man who has sprayed all day will appreciate this. In the Spramotor the objections have



ribs which prevent the gauze being sucked inwardly when its apertures are closed by a leaf or other obstruction. In order to retain the gauze in position, there is formed upon the strainer the projecting lugs under which is inserted a brass wire ring as shown. If it is desired to renew

been removed, and the only directions are cast on the handle, "long full stroke."

The plunger, a section of which appears elsewhere, is in two parts and so formed that the coil-spring continually presses the parts together when newly packed, preferably with cotton packing (it being the only material thus far tested that will withstand the action of hot lime), the spring is removed and the nut screwed up to its place and the plunger opened to its full extent. After the groove is full of packing the spring is placed in position and the plunger put into its place in the tube and a few strokes of the handle will assist the spring and make it tight.



Sramotor Valves.

The plunger consists of two parts, sleeved together and so shaped as to form between them a recess triangular in cross section. Into the recess in the centre of the upper part extends the sleeve formed on the lower part of plunger. Formed on the upper part of the plunger and extending through the sleeve is a spindle. The sleeve has two shoulders formed thereon. Screwed upon the end of the spindle is a nut of such size that it will not pass the shoulder in the lower part of the plunger. Between the nut and the shoulder is placed a coil spring, which tends to maintain the two parts of the plunger together.

When the plunger is in use the recess is full of a suitable packing, and as the parts of the plunger are normally somewhat separated, the tension of the coil spring tending to draw the parts of the plunger together, causes the bevelled sides of the recess to force the packing outwardly against the inside of the plunger tube, thus insuring a close fit.

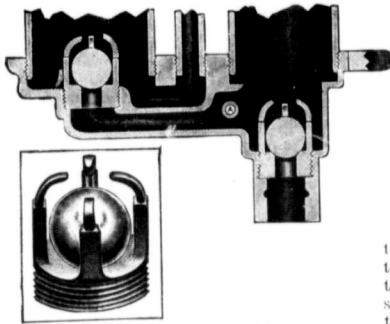
When the plunger is forced downward the pressure of the fluid upon its lower parts tends to increase the spreading action upon the packing, whereas when the plunger is raised this pressure is removed and the plunger can be raised without unnecessary friction.

The inventor's aim was to devise a plunger that could be cheaply made, durable when using cement covering or whitewash, that could be easily and cheaply replaced with some cheap material, capable of withstanding the action of the acids

and sandy mixtures, one that would adjust itself to the wear and tear of hard usage, as well as with the least possible friction, and remain tight at any pressure.

The idea of metal or hard packing, of whatever nature, could not be employed, owing to the fact that the grit in the cement or whitewash was found to cut, not only the packing but the grooves in which the packing was placed, as well as the tubing against which the hard or spring packing pressed. Another reason was the impossibility of keeping the plunger when so packed tight, as many as 10 strokes per minute being lost from this cause alone to maintain 100 pounds pressure; and it also was discovered that unless a

results. The peculiar upward and inward curving twist to the finger ends produces a moldboard effect, which causes the cut grass, clover, etc., to lightly roll back from and along the angle of the rear end of platform. This movement is automatic and continuous when the gate is up. It causes a light rolling movement out behind the truck of the mower, making a light, open windrow. For bunching clover or any growth the gate is left down till the bunch is formed against it, when a slight swing to the hand lever allows it to pass out behind the truck and out of the way for the next round. Its great merit lies in the fact that it delivers the cut seed clover out of the way of the team and machine,



Sramotor Automatic Plunger.



Sramotor Strainer.

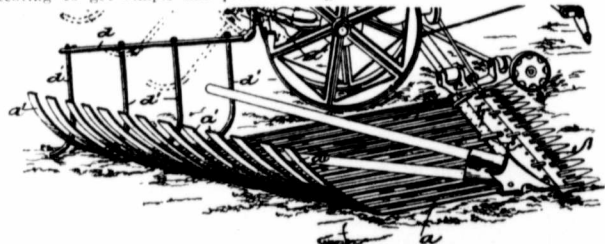
thus saving, the makers claim, all the seed that can be saved. It leaves the hay clean and free from roots, stubble and dirt, and in such shape that it cures quickly. It is made of high carbon spring steel, fits any make of mowing machine and is easily attached and removed.

Borrowing Farm Tools.

In my opinion the loaning of farm tools is a habit more than an actual necessity with many farmers, as some people have inherited the habit of borrowing from their neighbors from the early days of the settlement of the country when the supply of agricultural implements was very limited and in consequence the people of a neighborhood became constant borrowers. Many of them and their children have clung to the old ideas of borrowing farm implements to the present day, when all agricultural implements are to be found at every store of note in every town. The man who is in the habit of going to his neighbors for his needed supply forgets to buy when he has money at his command, and when the time comes to use the tools he again finds himself without them or perhaps the means with which to purchase them and so has to borrow again—Field and Farm.

Side Delivery Clover Buncher.

The side delivery clover buncher shown herewith is the result of over three years of experimenting and testing to get simple and practical



Side-Delivery Buncher and Automatic Windrowing Attachment for Mowing Machines.

The Farm Home

Making a Man.

Hurry the baby as fast as you can,
Hurry him, worry him, make him a
man;
Off with his baby clothes, get him in
pants,
Feed him on brain-food and make him
advance,
Hustle him, soon as he's able to
walk,
Into a grammar-school; cram him
with talk.
Fill his poor head full of figures and
facts,
Keep on a-jamming them until it
cracks;
Once boys grew up at a rational rate,
Now we develop a man while you
wait.
Rush him through college, compel him
to grab
Of every known subject a dip and a
dab.
Get him in business and after the
cash,
All by the time he can grow a
mustache;
Let him forget he was ever a boy,
Make gold his god and its jingle his
joy,
Keep him a-hustling and clear out of
breath,
Until he wins—nervous prostration
and death.

"Human Parasites."

The generally accepted meaning of the term parasite is—a form of animal life which draws its life sustaining nourishment from some other form of animal life without paying its board bill.

Our recent discussion of agents, tramps and "the like," seems to have roused the ire of the well fed agents who very decidedly object to being called parasites, and in retaliation it is claimed that The Farming World subsists as a "human parasite," sucking the very life blood from a community. Is this statement true? Any farmer, any one with sufficient intellect to be a farmer and a reader of agricultural papers, knows that though The Farming World draws its subsistence to a large extent from the farming community, it does not forget to give good value for every cent, every dollar, it takes from us. It has never been my privilege to meet any of the members of The Farming World staff, but I feel sure that this paper is carried on, not that certain people may make a good living, but that the farmers may be better fitted for their calling, and I believe I do not exaggerate when I say that in every case we receive in useful information not less than 500 per cent on the money we invest in subscription. It does not suck our life blood, it enriches it. Proved conclusively that good farm journals do not, even to the forty-second remove, belong to the parasite family. Can

the agent say as much? If there are any grades in the agent-tramp-peddler gang, the agricultural implement agent must belong to the highest caste. But where does he get his nourishment, and he usually waxes fat, even though he does not put on quite so much style as the life insurance agent. Does he make his living by drawing from the wealth of the manufacturer? Not much! The firm may pay him a regular salary, but he knows and we know that it must come from the farmer who buys the machine. Then does he give the farmer any return for the salary he gets, to say nothing of the time wasted? I think not. He can tell us no more about the machinery than does the manufacturer tell in his printed circular. One half day's trial or a comparison with other machines at the exhibition is worth more to the purchaser than a month of agent palaver. He usually sets up the machine but in nine cases out of ten the farmer knows more about it than the agent. If the agents were all sent to Africa or China the farmers would be dollars in pocket. When new implements were required he could, for less money, send a wire message to the factory, thus wasting no time with agents.

To-day we want a new wind mill, etc., but where are the agents? Out lolling in some other place trying to sell to the man who wants his next year. No use in sending to the firm as they sell only through agents. If we must have agents, why do they not set up an office and stay in it? For a year or more we have had agents big, agents little, agents old, agents young, agents white and agents black calling time and again to try and persuade us that we do not know what we require, but that they know all about it. There was one rather amusing. He was a stranger; came before noon and waited around watching the well-boring machinery and, of course, when dinner time came he put in his horse and fed it and came in to dinner with the rest. He still waited until the middle of the afternoon. He did not sell, in fact, I do not think he even left a descriptive circular, so I cannot say what firm paid his salary that day. We helped him out with his board bill for, of course, he did not even say "thank you." Agents are "parasites," even though some of one's friends may be gaining a livelihood in that manner. But let us open their eyes to the fact that it would be more manly to go to New Ontario and wield an axe in clearing a farm or to buy a spade and go out ditching and more womanly to take in washing than to become a book agent.

M. E. Graham.

The Chinese laundryman who sighs for more trade must be a sort of wishy washy person.

Hints by May Manton

Woman's Lounging Robe or Wrapper,
No. 3824.

To be made with Short Train or Floor Length, Full Length or Elbow Sleeves.

A dainty lounging robe that is sufficiently tasteful to allow of her receiving her intimate friends, is essential to the comfort of every woman of refined taste. The very charming example illustrated is peculiarly adapted to just such use and can be made of thin, washable fabrics for warm day wear, or of soft, simple, woolen material for cooler weather; but in the original is of white batiste with violet rings, and is trimmed with a foot ruffle and ruches of the



3824 Woman's Wrapper,
32 to 42 in. bust.

same, and frills of Mechlin lace with insertion to match.

The model is simplicity itself, is unlined and loose without being careless in the least degree. The fronts are fitted with under-arm darts only, and curve to meet the shapely backs that include the always graceful Watteau fullness. The sleeves are cut in one piece and extend to the elbows only, where they terminate in becoming frills. At the neck is a big ornamental collar which is held by ribbon ties beneath the chin.

To cut this wrapper for a woman of medium size, 10 yards of material 27 inches wide, 9 yards 32 inches wide, or 5½ yards 44 inches wide, will be required, with frill at lower edge 8½ yards 27 inches wide, 7¾ yards 32 inches wide without frill.

The pattern 3824 is cut in sizes for a 32, 34, 36, 38, 40 and 42 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.

Three Ordinary Dishes

ORDINARY PANCAKES

Make a light batter of six eggs, a quart of milk and about six table-spoonfuls of dry flour; put a little lard or fresh dripping into a frying-pan. When it boils, put in a ladle or a small teacupful of the batter; move the pan about so that the batter will be of an equal thickness all over the pan; fry it to a nice brown color; when one side is done toss it, or turn over, without breaking. When it is cooked upon both sides lay upon a hot dish before the fire; when two or three are ready send them to table at once, with sugar and half-lemons, or sugar, and roll each ready for table. If more than two or three are laid together upon a dish at a time, the lower ones will be spoiled. A little ale is a great improvement to those that use it; it makes the batter quite light. The batter should be made an hour before, if convenient to the cook or housewife. Some people use the fresh-fallen snow instead of eggs, but it must be just fallen, and the batter must be made a little thicker.

BATTER PUDDING.

Beat well three fresh eggs, then make a thin batter with the milk and flour. Throw into it a small pinch of salt; pass all through a sieve into the beaten eggs. Have ready a well-greased, shallow pudding-tin; into this pour the batter. To be light, the batter should be beaten at least an hour before being put into the oven. A little sweet dripping may be added to the pudding when nearly half cooked. This pudding is better turned out upon a hot dish before sending to table.

BUBBLE AND SQUEAK.

Cut some roast meat into small pieces. Dust them with pepper and salt, and fry in boiling lard. When of a nice brown color, drain upon a hot sieve. While the meat is draining, chop up a boiled cabbage and put in buttered frying pan. Press it down closely and cover with a plate that fits. Put it over the fire for a few minutes, then uncover. Mix into it one ounce of butter, and dust well

with pepper and salt. Cover the pan again, and when heated through, place upon a hot dish and arrange the meat around it. Carefully lay poached eggs upon the cabbage, as many as may be required. Serve very hot with a boat of nicely-made gravy.

A Lack in the Practical Education of Girls.

There is too great a lack in the practical education of our girls. Such a practical phase of a woman's life as the realization and meeting of honest obligations never enters into a girl's studies at school, college, or, in the vast majority of cases, even at home. We go on and let our girls study useless ologies and isms, and accumulate a vast amount of undigested and unintelligible information which never, even for a single moment, will be of the slightest use to them in their lives. But of the practical things, yes, the fundamental principles which must govern their lives, they are taught either nothing or little; there is where we are floundering in this country, despite our boasts of progress in matters educational. The things we ought to know we know not, and the things which avail little are often our choicest boasts.—Edward Bok, in the Ladies' Home Journal for June.

A Regular Fanatic.—“What's the matter with that old hen?” asked the house cat. “She looks queer,” “She is queer,” replied the farm dog. “She'll bust, the first thing she knows.”
 “What's the trouble?”
 “Oh, she's one of these temperance cranks, and she's trying to keep from laying until the egg-nog season has passed.”

Conclusive.—“What does she say?” asked the crafty politician who had referred the committee to his wife for information as to his intentions.
 “She refuses to talk,” replied the spokesman of the committee.
 “Then it wasn't my wife you met, gentlemen,” rejoined he, with great positiveness. “It was somebody else.”

“With what remarkable weapon did Samson slay the Philistines?” asked the Sunday-school superintendent. For awhile there was no answer. The superintendent, to revive the children's memory, commenced tapping his jaw with the tip of his finger, at the same time saying, “What's this? What's this?” Quick as thought, a little fellow replied, quite innocently, “The jawbone of an ass, sir.”

Reasonable.—Agnes had been sitting for two or three minutes in deep thought, apparently; at last she looked up and said:

“Mamma, I know why people grow old; it's because they live so long.”

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THE PEOPLE'S CARNIVAL
WINNIPEG, Man.

July 29th to Aug. 2nd, 1901

NOTHING ever done by WESTERN CANADA'S GREAT INDUSTRIAL FAIR in the past will in any degree equal the effort being put forward this year.

RACES PLATFORM ATTRACTIONS PYROTECHNICAL DISPLAYS

will this year surpass in every way anything ever before attempted. Already the entry lists give promise of a wealth of display in—

LIVE STOCK EDUCATION AGRICULTURAL AND INDUSTRIAL PRODUCTS BUSINESS ENTERTAINMENT

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 Reduces fuel bills fifty per cent
 No offensive odors. No steam in house. No tired 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

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

The Farming World.

A PAPER FOR FARMERS AND STOCKMEN.

Publisher, D. T. MCANISH.
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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TORONTO.

Attractions at the Winnipeg Fair.

Amongst the marvels of the century just closed must be placed the wonderful advance which has been made in the training of dumb animals. There are performing dogs, performing cats, trained canaries, driving horses, and even performing fleas. But, turning from the least to the greatest, Samuel Lockhart has, for years, been exhibiting three elephants whose performances are truly marvelous. It has been well said of these intelligent quadrupeds, which will be seen at the coming Western Industrial Fair to be held at Winnipeg on July 29th to August 2nd, that they can do everything but speak. The "Three Graces"—for as such they are known—have been patronized by royalty, and have excited the wonder and admiration of children and grown persons wherever they have been seen. Fancy an elephant dancing, riding a tricycle, playing see-saw, manipulating, or rather hoofing, a hand organ, standing on his head, walking on beer bottles, playing with a rocking horse like the veriest boy. And yet such are the wonders which will be seen at Winnipeg during the week of the Fair.

The Brandon Fair.

The annual exhibition of the Western Agricultural and Arts Association, will be held at Brandon, Manitoba, on July 22nd to 26th, 1901. Several new features are added to this year's show, which make it more than ever representative of Canada's great western country. The prize list is now being distributed, copies of which, and full particulars regarding the fair, may be had on application to the manager, F. J. Clark, Brandon, Man.

Ottawa's Exhibition.

With new and novel attractions, and a prize list which embraces something of interest to everyone related to the agricultural world, the management of the Central Canada Exhibition Association present to their patrons their fourteenth annual exhibition prize list, to be held at Ottawa from September 13th to 21st. The Live Stock exhibit, Machinery Hall, the Poultry display, the Fine Arts department, the Horticultural features and the immense number of other attractions, form an irresistible attraction for the agriculturist as well as for all sorts and conditions of men who desire to combine pleasure with profit by a trip to an entertainment where education is combined with amusement, and pleasure and profit go hand in hand. The special attractions, which include everything, from a balloon ascension to a troupe of performing elephants, will be the best ever seen at any exhibition; while the evening spectacular, the Siege of Tien Tsin, will be unequalled for entertainment and instruction, representing the epoch in the world's history when the representatives of the armies of the six greatest powers on earth fought side by side against a common foe in the interests of Christianity. The cost of these productions is enormous, but the patronage of the public during the past, warrants the expenditure, and the management are determined that the people shall be pleased regardless of cost.

Intending exhibitors will do well to communicate with Mr. E. McMahon, 26 Sparks St., the Secretary of the Association, as early as possible and secure space, entry forms, prize lists, and all necessary information. Even at this early date applications are coming in rapidly, and everything points to the fact that the Exhibition

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The Great French Veterinary Remedy.
A SAFE, SPEEDY AND POSITIVE CURE.



Prepared exclusively by J. E. Gombault, ex-Veterinary Surgeon to the French Government Stud.

SUPERSEDES ALL CAUTERY OR FIRING
Impossible to produce any scar or Blenheim. The safest best Blister ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses or Gatties.

As a HUMAN REMEDY for Rheumatism, Sprains, Sore Throat, Etc., it is invaluable. Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address THE LAWRENCE-WILLIAMS CO., TORONTO, ONT.

Remember

Joliette Grinder

IS THE ONLY ONE THAT WILL RUN SATISFACTORILY WITH A 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.



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. 1 Smith-Premier	50 00	55 00	New Franklin	30 00	35 00
No. 2 Smith-Premier	75 00	80 00	Bar-lock	40 00	45 00
No. 1 Jewett	50 00	55 00	Latest Oliver	40 00	45 00
No. 2 and 3 Jewett	75 00	80 00	Hammond Ideal	25 00	30 00
No. 2 Remington	50 00	55 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

of 1901 will be the most successful in the history of the Association.

A New Turn in Dairying.

Home Separation and Creamery Patronage.

The creamery business was founded on the home separation of the milk through gravity methods. Gradually the system of the separation of the whole milk at the factory almost entirely displaced the old cream gathering methods, largely by reason of the shortcomings of the gravity or setting system. Within the past few years, however, there has been a trend in many localities toward returning to home separation—not the gravity separation of old, but the centrifugal separation made possible by the dairy sizes of the modern separator. This system is being widely adopted and largely extended in many of the newer creamery sections, where the country is rough and the patrons scattered, and also among the outlying patrons of whole-milk factories too far away to deliver their milk advantageously. There is a material saving in hauling through having to gather or return a much smaller volume of cream than of milk and in having to do so but every other day instead of every day. Then there is the important consideration of having the skim-milk warm and sweet for immediate feeding, to which so many whole-milk factories give so little consideration.

The Canadian Dairy Supply Co., Montreal, have arranged to send experts to assist in organizing and starting companies where there are possibilities of starting creameries with a patronage of from 300 to 400 cows, within a radius of ten miles. They will also be glad to supply on application any further information that may be desired on this important subject.

Live Stock at the Pan-American.

Rules and Regulations Governing the Exhibits of Canadian Breeders.

For the purpose of making a creditable exhibit of Canadian live stock at the Pan-American Exposition, the Hon. Sydney Fisher, Dominion Minister of Agriculture, through the Live Stock Commissioner, Mr. F. W. Hodson, has been pleased to make the following provision:—

In the Provinces of Ontario and Quebec the transportation of stock from a central point to Buffalo and return to the place of assembling, will be paid by the Dominion Department of Agriculture. In the Province of Ontario, the Hon. Mr. Dryden, Minister of Agriculture, has been pleased to name Mr. A. P. Westervelt, Parliament Buildings, Toronto, to make selections of Ontario live stock, and has undertaken to pay the expenses of transporting same from the homes of exhibitors to a central point, from

which point the transportation to and from Buffalo will be paid by the Dominion. Hon. F. G. M. Dechene, Commissioner of Agriculture for the Province of Quebec, has been pleased to appoint Mr. Robt. Ness, Howick, Que., to make the selection for that province, agreeing to defray all expenses, including transportation to a central point, from which point the transportation will be paid by the Dominion. In other provinces the expenses of transportation to and from the Exposition will be borne by the Dominion Government.

The railway fares of two men to accompany each car of stock will be paid from the point of assembling to Buffalo and return.

Feed will be supplied by the Government for all animals during their stay at the Exposition, but exhibitors must furnish sufficient food to supply their animals on their journey to and from Buffalo.

All exhibits must be approved of by Mr. E. B. Elderkin, Superintendent of Canadian Live Stock at the Pan-American Exposition, and it must be distinctly understood that no exhibits will be accepted unless they are of such character and in such condition as will prove a credit to the class to which they belong. It is the wish of the Department to have, as far as possible, all parts of the Dominion represented.

Prize lists are now out, and may be had on application to Mr. F. A. Converse, Superintendent of Live Stock, Buffalo; Mr. E. B. Elderkin, Superintendent of Canadian Live Stock, Buffalo; Mr. A. P. Westervelt, Parliament Buildings, Toronto; or Mr. Robt. Ness, Howick, Quebec.

The dates on which entries close are as follows:

Swine, July 1st; Cattle, July 15th; Sheep, August 1st; Horses, August 15th; Poultry and Pet Stock, September 16th; Dogs, August 1st.

Entries must be made to E. B. Elderkin, Superintendent of Canadian Live Stock, Canadian Building, Pan-American Exposition, Buffalo. In the Province of Ontario they must come through Mr. A. P. Westervelt, and in the Province of Quebec through Mr. Robert Ness.

Applications for entry forms may be made to any of the foregoing, but the applicant must state the class or classes in which he or she wishes to exhibit, as the entry forms are different in each case.

The prize lists give all information in regard to dates for computing ages and time of exhibit, as well as a large and generous list of special prizes.

The regulations for the transmission of Canadian live stock to the Pan-American are as follows:

A flag-label must be attached to each side of the car, and also to each package. These labels may be had on

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 conditionally 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, if it is cured where every-thing else has failed. When writing mention this paper and give full address to
THE LIEBIG CO., 179 King Street West, Toronto.

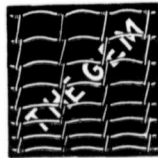
Cheese and Butter

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.



The . . . GEN FENCE MACHINE

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.



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

RIPPLEY'S COOKERS.
Sells from \$10.00 to \$4.00. Made of boiler steel. No flues to rust or leak. Can't blow up. Guaranteed to cook 25 lbs. feed in 2 hours, and to heat water in stock tanks 500 feet away. Will heat dairy rooms. Catalogue and prices mailed free.
RIPPLEY HARDWARE CO., Box 218, (U.S. Post 7, Green, Ill.) London, Ont.

CANADIAN PACIFIC RY.

WILL RUN	AT RETURN FARES
Home Seekers'	Winnipeg
60 Day	Delaware
Excursions	Antler
to the	Estevan
Canadian	Bincarth
North West	Moosemin
	Hamilton
	Swan River
	Regina
	Moosejaw
	Yorkton
	Prince Albert
	Calgary
	Medford
	Red Deer
	Edmonton

Going June 18th. Returning until August 18th. (All Rail or S.S. Alberta).
Going July 16th. Returning until September 16th. (All Rail or S.S. Alberta).
Going July 23rd. Returning until September 22nd. (All Rail or S.S. Alberta).

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

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

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' 25c. and 50c.

application to the Canadian office, Buffalo, to Mr. Westervelt, or to Mr. Ness.

Every exhibit must be accompanied by an invoice, in duplicate, which shall give a description of each animal sufficient to identify; also registered name and number, and value. These invoices must be signed by the exhibitor, and mailed immediately upon shipment of stock, one to the Collector of Customs, Buffalo, and the other to the Superintendent of Canadian Live Stock, Buffalo; this is done so that there may be no delay at the frontier.

It is necessary to obtain triplicate bills of lading which shall set forth the route—naming each carrier and junction up to Buffalo, the original point of shipment, and show shipment billed via Black Rock. The triplicate bill of lading should be sent to Mr. Elderkin, the original to be attached to the way-bill to come with the shipment, and the duplicate bill should be retained by the exhibitor.

It is expected that satisfactory arrangements will be made whereby the live stock approved of by the Superintendent of Canadian Live Stock will be billed "prepaid," thereby avoiding the necessity of prepayment by the exhibitor.

All live stock must be accompanied by an authorized veterinary surgeon's certificate, setting forth that no contagious disease has existed in the district for twelve months past, and that each animal is free from disease, but no tuberculin test is required. On application, the names of veterinary surgeons authorised for this purpose will be given.

If an exhibitor disposes of an animal at the Exposition to remain in the United States, said animal must undergo the tuberculin test before it can be delivered.

All entry forms must be made in duplicate, and both forwarded to the Canadian Superintendent.

A Horse Show, along the lines of the Madison Garden Horse Show and Toronto Horse Show, is to be held in October. A booklet will shortly be issued, giving all information as to the rules, regulations, classes, and prizes of this Show.

WM. HUTCHISON,
Canadian Commissioner.
E. B. ELDERKIN,
Supt. of Can. Live Stock.

For Patrons of Creameries

In a bulletin just issued by the Agricultural and Dairy Commissioners' Department, Mr. J. A. Ruddick, Chief of the dairy division, gives the following advice to patrons supplying milk to creameries:

1. Only milk from cows in good health should be sent to the creamery.

2. Milk from a freshly calved cow should not be sent till after the eighth milking.

3. Pure water should be provided for the cows, and the cows should be prohibited from drinking stagnant, impure water.

4. A box or trough, containing salt, to which the cows have free access, should always be provided.

5. Cows should never be driven fast, and it pays to treat them with inviolable kindness.

6. It pays to make cows comfortable under all conditions.

7. All the vessels used in the handling of milk should be thoroughly cleaned immediately after their use. A washing in tepid water, to which a little soda has been added, and a subsequent scalding with boiling water, will prepare them for airing, that they may remain perfectly sweet. A brush is preferable to a dishcloth for use in cleaning. They should be protected from dust, which always carries large numbers of the bad forms of bacteria.

8. Cows should be milked with dry hands, and only after the udders have been washed or brushed clean.

9. Tin pails only should be used. 10. All milk should be strained immediately after it is drawn.

11. Milking should be done, and milk should be kept only in a place where the surrounding air is pure. Otherwise the presence of the tainting germs and odors will injure the milk.

12. All milk should be aired immediately after it has been strained. That treatment is equally beneficial to the evening and morning messes of milk.

13. In warm weather all milk should be cooled to a temperature of 60 degrees Fahr. or lower.

14. Milk-stands should be constructed to shade the cans or vessels containing milk, as well as to protect them from rain. Swine should not be fed near the milk stand.

A Scotch Joke.

At Scotch weddings some years ago it used to be the custom to batter the hat of the bridegroom as he was leaving the house in which the ceremony took place. On one of these occasions a newly married couple, relatives of the bridegroom, determined to carry out the observance of this custom to the letter.

The bridegroom heard them discussing their plans, and despatched a messenger to the carriage, which stood waiting, with his hat some time previous to his departure. Then, donning the hat of the male relative who had plotted against him, he prepared to go out to the carriage.

No sooner had he got to the door than his hat was furiously assaulted and almost destroyed. He walked out of the house amid the laughter of the bystanders and entered the vehicle. Then, taking the battered hat from his head, he threw it into the hands of its proper owner, exclaiming: "Hey, Mr. Dougall, there's your hat!" and donned his own, amid the cheers of all present. Mr.

Dougall was the unhappiest looking man in all Scotland for some time after that.—London Telegraph.

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 Druham

W. R. BOWMAN

Mt. Forest, Ont.
Breeder of POLLED ANGUS CATTLE
Young Stock of both sexes for sale.

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.

OXFORD DOWN SHEEP

J. H. JULL & SONS.

Yearling Rams and Ram Lambs, and Ewes of all ages, for sale. Prices reasonable. Our flock is headed with the best imported rams in Canada—prize-winners in England, first prize at Toronto Industrial and all leading shows in Canada.

Brant and Plain View Stock Farms,
Mt. Vernon, Ontario, Can

OXFORDS

AT FARNHAM FARM

50 Superior Yearling and Two Year Rams.
2 Extra Fine Imported Lambs.
100 Ram Lambs.
And a number of good Yearling Ewes and Ewe Lambs.

—PRICE REASONABLE.
HENRY ARKELL, Arkell, Ont.

FOR SALE

Four year old Bull. Lord Lavender = 26855 = Bred by John Miller & Sons, Brougham. Price \$125.

For particulars, address

H. PARKER
Durham, Ont.



Silver Creek Stock Farm

Shorthorn Cattle
Oxford Down Sheep
Bronze Turkeys

THOS. ARKELL,
Teeswater, Ont.

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 better suited to our advertising columns.

Horses.

A sale of harness horses was held at His Majesty's stud farm at Wollerton on May 28th. It was announced that this would be the last, as in future the King would keep only a small stud. Lord Roberts and Sir Redvers Buller were present, as well as a large number of noblemen and gentlemen from all parts of the country. A capital lot of mares and geldings fetched 5446 guineas, this being an average of over a hundred guineas. The highest price was 560 guineas, given by Sir Ernest Cassell for a pair of chestnut geldings shown in tandem. Three hundred and ninety guineas were paid by Mr. James Buchanan for a bay mare and gelding, 340 guineas by Mr. Christopher Wilson for a pair of bay carriage horses, a similar pair being bought for Sir John Gilmour at 320 guineas. Count Zborowski paid 420 guineas for a pair of bays, and a bay four-in-hand was sold to Mr. Smith, of Cadogan Place, for 480 guineas. Sir Redvers Buller purchased three horses at an aggregate of 375 guineas.

Cattle.

At a meeting of the English Aberdeen-Angus Association, held at Croydon on May 29th, it was unanimously resolved that the spring show and sale of 1902, under the auspices of the Association, should be held at Bingley Hall, Birmingham. After discussion it was decided that the sale should again be without reserve. Much satisfaction was expressed at the show of polled cattle at Croydon, these coming next in numbers to the Shorthorns in the "beef" breeds, the Shorthorns having seventy-six entries and the Aberdeen-Angus fifty-four.

The Hon. Sydney Fisher, Minister of Agriculture in the Canadian Government, and Professor Robertson, Commissioner of Agriculture, and other officials, arrived in Liverpool on Monday on business appertaining to the Dominion. They intend to purchase a special class of Shorthorns, Guernseys, and Ayrshires, to place on the Experimental Government Farms in Canada, to develop the trade of Canadian food products with this country, and to secure that these products, by means of special refrigerating plants, shall be delivered in perfect condition in Great Britain, and hope to get Canada off the schedule of countries having animals suffering from pleuro-pneumonia.—North British Agriculturist.

We have received a copy of a beautifully gotten up and nicely illustrated catalogue of the famous herd of Shorthorns owned by Mr. Henry Dudding, Riby Grove, Great Grimsby, Lincolnshire, Eng. Riby is situated on the breezy wolds of North Lincolnshire, within five miles of the coast,

between Great Grimsby and Hull. It is noted as being the birthplace of the late William Torr, of Aylesbury, whose famous herd of Shorthorns, comprising eighty-four head, was sold in 1875 for the sum of £42,919 16s. Mr. Dudding and his father and grandfather have been well-known breeders for the last 150 years, formerly at Panton, in the centre of the county, and latterly at Riby, which farm was taken in hand about twenty-five years ago, and now consists of nearly 3,000 acres. The Riby herd now numbers 250 head.

Special attention is directed to the opportunity presented in Mr. H. Parker's advertisement in another column, of securing a fashionably bred bull at a very reasonable price.

Whitewash for Dairy Buildings

In a German periodical appears a formula for a wash which can be applied to lime walls, and afterwards become waterproof so as to bear washing. Resenschek, of Munich, mixes together the powder from three parts siliceous rock (quartz), three parts broken marble and sandstone, also two parts of burned porcelain clay, with two parts freshly slaked lime, still warm. In this way a wash is made which forms a silicate if often wetted, and becomes after a time almost like stone. The four constituents mixed together give the ground color to which any pigment that can be used with lime is added. It is applied quite thickly to the wall or other surface, let dry one day, and the next day frequently covered with water, which makes it waterproof. This wash can be cleansed with water without losing any of its color; on the contrary, each time it gets harder, so that it can even be brushed, while its porosity makes it look soft. The wash or calcimine can be used for ordinary purposes as well as for the finest painting. A so-called fresco surface can be prepared with it in the dry way. For a useful lime wash for wood and stone, the following is a good preparation: Twenty quarts quicklime are slaked in a suitable vessel with as much hot water as will stand at a level of six in. above the lime. The milk of lime is diluted and first 15 grains of sulphate of zinc and then 7 grains of common salt are added. The latter causes the lime wash to harden without cracking. A beautiful cream color can be imparted to the mass by putting into it 7 grains of yellow ochre, or a pearly tint by the addition of some lampblack. A fawn color is produced by 2 grammes of umber and 7 grains of lampblack. A stone color can be obtained from 30 grains of umber and 7 grains of lampblack. The color is applied, as usual, with a brush.

LUMP JAW



Lump Jaw means death of the animal and may mean the infection of your herd and pastures. The application of

Fleming's Lump Jaw Cure

Trade Mark means quick and permanent cure of every case. Can't harm. Leaves no trace of disease. A common-sense remedy; easily applied. One to three applications cure. Endorsed by leading ranchers of the continent. Costs you not one cent if it fails to cure. Sent anywhere by mail. **PRICE, \$2.00.**

St. Ignace, Que. July 29th 1899.
Dear Sirs—Some time ago I bought a bottle of your Lump Jaw Cure and I succeeded in curing a bull, so I thank you very much. One of my friends has a cow that has a swelling on the neck just the size and he wishes to have a bottle of your remedy. Yours truly,
NAPOLEON RIVER.

FREE—A practical, illustrated treatise on Lump Jaw sent free to readers of this paper.

FLEMING BROS., Chemists
Room K, 58 Bay Street, TORONTO, Ont.

Giles' Liniment Iodide Ammonia

For Either Man or Beast

Each kind put up in 25c., 50c., and \$1.00 bottles. Horse dealers find it invaluable in their stables.

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.

LYMAN BROS. & CO.

(Limited)

71-73 Front Street East

TORONTO

ST. LAWRENCE COFFEE HOUSE

78 and 80 King St. East

"RESTAURANT" TORONTO

Dinner for 20c.

6 Dinner Tickets \$1 Served from 11.30 to 3
for : : : : 8 and from 6 to 8

Farmers and their wives visiting Toronto will find this to their taste.

The London Daily ...Free Press

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

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

THE LONDON FREE PRESS PRINTING CO., Limited, LONDON, CAN.

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

Market Review and Forecast

Office of The Farming World,
Confederation Life Building,
Toronto, June 17th, 1901.

The promising nature of the crops and the satisfactory condition of the dairy and live stock industries, have given a healthy outlook to general trade. There is, however, a rather quiet period just now, owing to its being between seasons of the spring and fall trades in quite a number of lines. The volume of business is quite up to other years. Money keeps steady at about 5 per cent. on call, while discounts on mercantile paper range from 6 to 7 per cent.

Wheat.

The wheat situation on the whole is not as strong as a week ago. The prospect for large crops, both in the United States and Canada, is having its effect on the speculative market. At Chicago, ten days ago, July wheat was pushed up to 79½c. Since then it has declined to 69½c, a slump of about 10c in a very few days, due largely to favorable crop reports. The last weekly returns show a decrease in the visible supply of wheat in the United States and Canada of 1,642,000 bushels and the world's supply in sight has decreased 1,328,000 bushels during the week. As compared with this time last year the visible supply is 9,115,000 bushels less, and the world's supply in sight 2,019,000 bushels less. The latter, however, still shows the very respectable volume of 77,612,000 bushels, which is quite ample for all requirements at the commencement of harvest on this continent, wheat cutting in Kansas have commenced about a week ago under favorable conditions.

The wheat crop for Manitoba and the Northwest Territories is estimated at from 45,000,000 to 60,000,000 bushels. Late crop reports show American wheat to be filling well, with a big yield in prospect.

Locally, trade is dull, with little business doing. Shippers' quotations here are 66c for red and white, north and west, and 67c middle freights, and 68c for spring east. On Toronto farmers' market red and white bring 71c, spring fine 70c, and goose 64c per bushel.

Oats and Barley.

The oat market, generally speaking, has ruled weak and lower. Quotations here are 32c for No. 1 white, east, and 31c middle freights. On the farmers' market oats bring 37c to 37½c per bushel.

There is a fair demand for barley. Prices here range from 42c to 43c as to quality. On Toronto farmers' market barley brings 46c per bushel.

Peas and Corn.

Very little business is doing in peas as the crop of 1900 is about exhausted. Supplies here are scarce, and the market firmer at 68c for milling. About 67c is the figure for export. On the farmers' market peas bring 68c to 71c per bushel.

The corn market is quiet since the

falling through of the corner, though another is now reported to be under way in the West. American No. 2 yellow is quoted here at 46½c on track, Toronto, and Canadian yellow at 45½c.

Bran and Shorts.

These are easier and lower. At Montreal, sales of Ontario bran are reported at \$13 to \$13.50, and also at \$12.50 in car lots; shorts at \$14.50 to \$15 per ton. City mills here sell bran at \$13.80, and shorts at \$11.50 in car lots, f.o.b. Toronto.

Hay and Straw.

The demand for hay continues good, both for local and export requirements. The heavy drouth in Great Britain will likely cause a shortage in the crop there, while Canada will likely have one of the largest sheaves ever had. Montreal quotations for car loads of baled hay on track are \$11.50 for No. 1; \$10.50 for No. 2, and \$9 to \$9.25 for No. 3. Offerings here have been large, with the market steady at \$9.50 to \$10 for car lots of No. 1 Timothy 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.

Eggs and Poultry.

There is no material change in the egg market. Prices have remained steady and there has been a good, active demand. Picklers have had cool weather for gathering their supplies, which should turn out well, in so far as quality is concerned. Montreal quotations are 11c to 11½c in job lots. Here quotations are 10½c to 11c for case lots, with trade on the quiet side. On Toronto farmers' market fresh eggs bring 11c to 14c per dozen.

On the farmers' market here dressed chickens sell from 60c to 90c, and spring chickens at from 70c to \$1.00 per pair, and turkeys at 10c to 12c per lb.

For the week ending June 22 the Canadian Produce Co., Toronto, will pay 15c per lb. for spring chickens, and 4c per lb. for old hens, live weight.

Cheese.

The cheese situation is strong and active, and prices have advanced considerably during the week. At the local boards prices show an advance of from ¼c to ¾c over those of the previous week, quotations ranging from 8½c to 9½c, with higher values for some small lots. For the corresponding week of last year, prices ranged from 9½c to 10½c. Though there is a large supply of milk, shipments do not increase very rapidly. For the month of May, total shipments from Canada and the United States were 164,276 boxes, as against 297,911 for the same month of 1900, a decrease of 133,665 boxes. The extra supply of milk is evidently being converted into butter. The Trade Bulletin's summary of last week's market is as follows: "The market is firm with the promise of another good clean up for the week, a shipper informing us that he wanted to fill a good sized order for finest Western for this week's steamer, and he could not find the goods to-day, although he said he was prepared to pay a full rate. Sales were made yesterday and to-day on this market at 9c to 6½c for finest Western white, finest colored being held at 9½c. A report from the Eastern Townships says:—"The country is looking splendid and there is a big June make in those factories running on cheese, although the make in these districts will be small, as about one-half the factories are turning out butter and will continue to do so while the price remains at the present level." Eastern has sold at 8½c to 9c. Undergrades 8½c to 8½c

Butter.

The English market is reported firm under light supplies. Finest Canadian grass-fed creamery butter is quoted at 98s to 100s, and fancy lots at 101s to 102s. Though receipts on this side have been heavy, prices have advanced from ¾c to 1c per lb. during the week. Montreal quotations being 19½c to 20c for choice creamery. There has been very active buying in the country of June butter, and a very heavy make is in progress.

Creamery is selling here at from

The Dean of American Dairying

ON THE

De Laval Cream Separators



Mr. H. B. GURLER is well deserving of the title the dairying public has come to affectionately give him—"The Dean of American Dairying." No man has given more unselfishly of his time and energies to the advancement of practical dairying, and no man's judgment of any feature of modern dairy practice or creamery operation can be more unreservedly accepted by everyone than that of Mr. Gurler. His opinion is simply the highest obtainable.

[Copy.] Clover Farm, De Kalb, Ill., March 9, 1901.

The De Laval Separator Co., New York:

Gentlemen—It is now ten years since I made the acquaintance of the "Alpha" De Laval Separator at the Wisconsin Dairy School. I was convinced at that time that it was the leader in the race, and this opinion has been reinforced from year to year as I have had more experience with it. With me the "Alpha" is first and the others "nowhere."

Respectfully yours, H. B. GURLER.

New 1901 20th CENTURY DE LAVAL CATALOGUES—"Creamery" or "Dairy"—are now ready and may be had for the asking.

General Agents
for Canada—

Canadian Dairy Supply Co., 327 Commissioners St., Montreal

18c to 19c for prints and boxes. Grass dairy butter is coming in more freely, and there is a keen demand for choice lots. Prices are firm at 14c to 15c in job lots. On Toronto farmers' market butter brings 14c to 16c per lb.

Wool.

Dullness is still characteristic of the wool local trade. There is a very poor export demand. The quality of the offerings is poor, causing buyers to discriminate very much when purchasing. Buyers are doing very little business, though prices are still low at 13c for washed and 8c for unwashed fleece wool. At Montreal, conditions are no better, with dealers complaining that it is difficult to give wool away.

Cattle.

The cattle situation shows no material change from a week ago. American cattle markets have ruled strong for prime cattle; quotations at Chicago for good to prime steers being \$5.40 to \$6.25 per cwt. The very hot weather is interfering somewhat with the meat trade, and there is an easier feeling for butchers' stock in some places. Cables have ruled steady to strong. At Toronto cattle market on Friday there was only a moderate run of live stock, consisting of 877 cattle, 1,845 hogs, 539 sheep and lambs, and 36 calves. Trade for all stall-fed cattle of good quality was good at quotations given below, which were the ruling figures during the week. The high prices of the past few weeks have brought out a lot of unfinished grass-fed cattle that are not wanted at any price. All poor cattle were slow of sale. The quality of the stall-fed cattle was generally good, both butchers' and exporters'. There are very few heavy feeders offering, and one dealer on Friday could not get half the number he wanted. Stockers were fairly plentiful, with prices ranging from \$2.50 for off-color steers and heifers, to \$3 to \$3.25 for medium to good steers, 400 to 700 lbs. each, and \$3.40 for choice quality. All quotations for fat cattle are for stall-fed. Grassers are seemingly not wanted, either for the butchers' or the export trade.

Export Cattle.—Choice loads of these are worth from \$5.25 to \$5.40 per cwt., and light ones \$4.90 to \$5.15 per cwt. Heavy export bulls sold at \$4 to \$4.50, and light ones at \$3.75 to \$4 per cwt.

Butchers' Cattle.—Choice picked lots of these, equal in quality to the best exporters', weighing 1,050 to 1,150 lbs. each sold at \$4.75 to \$5 per cwt., good cattle at \$4.50 to \$4.70, medium at \$4.30 to \$4.50, and inferior to common at \$3.25 to \$4.25 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 \$3.50 to \$3.75 per cwt.

Stockers.—Yearling steers, 400 to 800 lbs. each, sold at \$3 to \$3.40, off colors, and inferior quality at \$2.50 per cwt.

Calves.—These are steady in Buffalo, choice to extra bringing \$5.50 to \$5.75 per cwt. At Toronto market ordinary calves bring \$2 to \$8 each.

Milch Cows.—These sold at from

\$25 to \$52 each. The bulk sold from \$35 to \$40 each.

Sheep and Lambs.

On Friday ewes sold at \$3.50 to \$3.75 per cwt., and bucks at \$2.50 to \$3. Butchers' sheep were quoted at \$3 to 34 per cwt. Spring lambs sold at from \$2.50 to \$4 each as to quality. The Buffalo market is dull and lower, with choice to extra lambs quotable at \$4.75 to \$5 per cwt., and sheep at \$4 to \$4.25 per cwt.

Hogs.

Though it was shown in this department last issue, that the Wm. Davis Co. would pay \$7.25 per cwt. for select bacon hogs, the prices did not advance any on this market, and Friday's quotations were \$7 per cwt. for select bacon hogs and \$6.50 for light and thick fats. Unculled car lots sold at from \$6.80 to \$6.90 per cwt.

For the week ending June 22nd, the Wm. Davis Co., Toronto, will pay \$7.37½ per cwt. for select bacon hogs, and \$6.87½ for light and thick fats.

The Montreal market is reported firmer at \$7 per cwt. for bacon hogs. The Trade Bulletin's London cable of June 13th, re Canadian bacon reads thus: "A firmer feeling has developed during the week; stocks of Canadian are light, and prices have advanced 1s."

Horses.

There has been some enquiry for heavy draft horses and drivers, at Montreal, during the week, though business is not at all active. A good export demand is reported at steady prices. Carriage horses are quoted there at \$180 to \$350 each; heavy drafts at \$190 to \$225; light roadsters, drivers and saddles at \$100 to \$200; and remounts at \$110 to \$140 each.

At Grand's Repository, last week, 175 horses were accepted for army remounts. The officers having the pur-

BRANTFORD STEEL WIND MILLS 19TH CENTURY

GALVANIZED ROLLER BEARINGS

MY! WHAT A COMFORT THAT BRANTFORD MILL IS

POWER AND PUMPING MILLS, STEEL TOWERS AND FLAG STAFFS, IRON AND WOOD PUMPS, MAPLE LEAF GRAIN GRINDERS, BEE SUPPLIES.

BRANTFORD CAN.

Butter Flavor

Windsor Salt is an absolutely pure Salt. Because there are no foreign substances in Windsor Salt your butter will have the rich, delicate flavor that a pure Salt alone can yield. Successful butter makers use it.

Windsor Salt

Best Grocers sell it.

THE WONDER OF THE AGE

ALL EYES ARE ON THIS INVENTION

Patented 1893, '95, and '96

HARVESTING PEAS



The Genuine Tolton Pea Harvester with New Patent Buncher at work Harvesting in the most complete manner from eight to ten acres per day.

1. Harvesters to suit all kinds of mowers, with all **self-delivering Bunchers**
 2. Harvesters to suit all kinds of mowers, with all **self-delivering Bunchers**
- Every Machine Warranted. Our Motto: "Not how cheap, but how good." No drilling holes in Mower Bar or Inside Shoe. A wrench is all that is required to attach it to any mower. Give your orders to any of our local agents, or send them direct to

TOLTON BROS. - - GUELPH, ONT.

chases in charge seemed pleased with the horses submitted for inspection. The buying of remounts in Canada has settled down to a regular staple line. The representatives here have apparently received orders from the War Office to buy as many suitable horses as they can get. There are now three groups of officers buying in as many different districts. Col. Dent, the chief, is in the Northwest; Major Gore in Quebec and the Eastern Provinces; and Captain Maudsley and Major Rowe in Ontario. They are buying horses in the whole Dominion at the rate of about 100 a day or 3,000 a month. This has strengthened the market considerably, and farmers are asking higher prices. Only good horses are wanted. The regular trade is about as usual. There is quite a demand for useful business horses. A car load of Indian ponies, consigned by the Hudson's Bay Company, will be sold at Grand's this week.

Old Ladies Are Privileged to Wonder.—“How long does the train stop here?” the old lady asked the brakeman.

“Stop here?” answered the functionary. “Four minutes. From two to two to two-two.”

“I wonder,” mused the old lady, “if that man thinks he is the whistle?”

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 11½ 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.

IDEAL MILK TICKET

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.

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					

Total milk supplied for the month.....lbs.
 Total butter-fat supplied for the month.....lbs.

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.

CANADA'S GREAT EXPOSITION

— And Industrial Fair

TORONTO

Aug. 26th to Sept. 7th, 1901

The Great Live Stock Show
of the Continent.

Increased Prizes and Improved Accommodation.

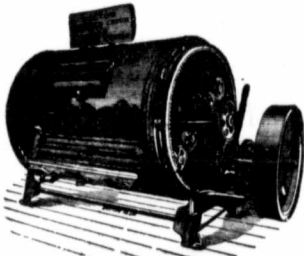
Interesting Competitions and Unexcelled Attractions.

Entries close Aug. 3rd

For Prize Lists, Address—

H. J. HILL,
Manager, Toronto.

ANDREW SMITH,
President.



NOW IS THE TIME

And the only time to do anything worth doing. If you have consistently studied the situation you know you need a combined churn in your creamery.

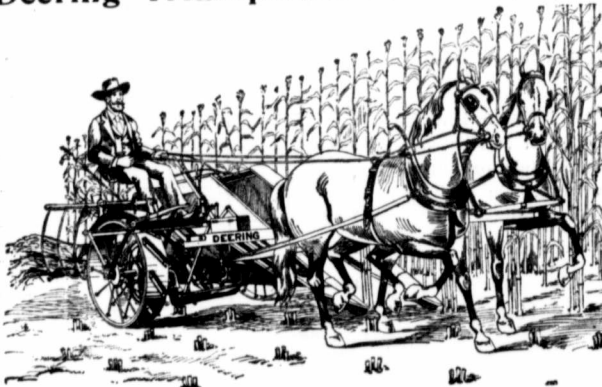
THE VICTOR COMBINED CHURN AND BUTTER WORKER

Is the machine that will get you in line to compete with other creameries employing modern apparatus. It will increase your yield, improve the quality of your output and save you labor.

All this means more money in the treasury and larger dividends to the patrons. Let us quote you prices.
Rollers and Engines, Australian Boxes, Refrigerating Machines, Hansen's Butter and Cheese Color and Rennet Extracts, Wells, Richardson & Co.'s Improved Butter Color, Spruce Tubs, Stearn's Style Spruce Tubs, Victor Combined Churn and Worker, Ideal Skim Milk Worker.

CREAMERY PACKAGE MANUFACTURING COMPANY
COWANSVILLE, QUE.

Deering Triumphant at Paris, 1900



DEERING IDEAL CORN BINDER

The only practical Corn Harvester built. Binds the corn in a horizontal position.

IT PAYS TO BUY DEERING MACHINES

DEERING HARVESTER COMPANY

Main Office and Factory:
Chicago, U.S.A.

Canadian Branch Houses:
Toronto, Montreal, London, Winnipeg

Maxwell's "Favorite" Churn.



Patent Foot and Lever	No.	Holds	LIST I
Drive	0	6 gal.	1 to 2 gal.
Patented Steel Roller	1	10 "	1 to 5 "
Bearings	2	15 "	2 to 7 "
Improved Steel Frame	3	20 "	3 to 9 "
	4	25 "	4 to 12 "
	5	30 "	5 to 14 "
	6	40 "	6 to 20 "

Superior in Workmanship and Finish

DAVID MAXWELL & SONS
St. Mary's, Ontario, Canada.