

The Farming World

A PAPER FOR
Farmers and Stockmen

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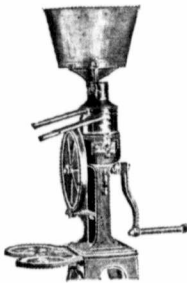
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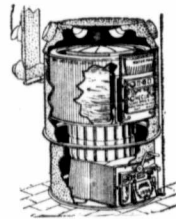
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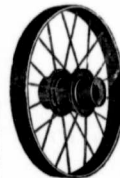
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The Farming World

For Farmers and Stockmen

VOL. XVIII

JUNE 4th, 1901

No. 41

The Beef Cattle Trade

Practical Pointers for Canadian Farmers



PRICES for beef cattle on Toronto market just now are higher than they have been for some time. The cause of this advance is claimed by dealers to be largely of local character, and present high values are not at all permanent. To a representative of The Farming World, Mr. Wm. Harris, of the Harris Abattoir Co., Toronto, who has just returned from Great Britain, stated that the prices paid on Toronto market during the past few weeks were too high to admit of cattle being exported at a profit. While the outlook in the old land is generally speaking good, there is nothing to warrant any great advance in prices for beef cattle on this side. There is no doubt a scarcity in local supplies just now, and in addition Mr. Harris' Company have been taking from 600 to 700 head of cattle per week off the market. This has created a local flurry and caused buyers to advance values considerably. The higher prices will no doubt bring out larger supplies, which will have a tendency to moderate values.

Mr. Harris believes that the coming method of disposing of the beef cattle of this country is through the dressed meat trade. His firm is now sending forward from one hundred and fifty to two hundred carcasses a week. So far the returns have been as satisfactory as one could expect in starting a new industry of this kind. The shipments have arrived in the old land in good condition, and appear to suit the trade there well. All that is required to put this trade on a good footing is to conduct it after the most improved plan and to secure the right quality of cattle. With these two requisites there is a big future for the farmers of this country in the shipping of chilled or dressed beef to England.

A serious drawback, however, is the discrimination in freight rates against the Canadian producer. The dressed meat trade of Chicago and the Western States has assumed very large proportions of late years, and both the railways and the steamship companies cater to this trade as much as possible in the way of cheap freight rates. Mr. Harris stated that our Canadian railways charged nearly twice as much for a car load of dressed beef from Toronto to the seaboard, as from Chicago. In fact, car loads of dressed meat pass through Toronto every day on the G.T.R. and C.P.R. from Chicago at about one-half the through rate that would have to be paid from here. This is discrimination with a vengeance, and is certainly a serious hindrance to the establishment of this new industry in Canada. It would seem

that our railways are standing in their own light by a discrimination of this kind. If they would lend every encouragement to the new industry by granting as low a rate from Toronto as from Chicago they would be promoting a distinctly Canadian trade, in which they would not have the competition of the American roads in conveying the product to the seaboard.

In developing either the live cattle or dressed beef trades farmers have a great deal yet to learn. The day of the big, fat four-year-old steer has gone by. He is not wanted for the export trade, nor for the local trade, either. The kind best suited to the English trade at the present time is the well bred and well fed animal, brought to maturity at from one and a half to two and a half years old. It suits the trade best both at home and abroad, and farmers should govern themselves accordingly. We were shown a carcass of beef by Mr. Harris which he claimed was rather too good for the local trade, but just suited to the English trade. This was not a large or extremely fat carcass, but just medium in these particulars. It weighed a little over 600 lbs. Carcasses of this weight, or say from 500 to 600 lbs. net, from young matured animals, are the kind the English consumer wants. Canadian carcasses of this quality command from 10c. to 12c. per lb. by the carcass in England, and are sold in the retail shops at from 15c. to 16c.

To produce this quality the farmer must aim to raise and feed animals that will mature at about two years of age. This can be done quite readily if gone about in the proper way. While there is a very great deal in the breed, there is also very much in the individual animal. Thrifty, well bred calves, well fed from the time they are dropped till they are sold are what is wanted. No animal can be brought to maturity at two years that is neglected when a calf as the majority of the cattle fed in this country are. And here, in our opinion is the weakest point in our system. Farmers stunt their calves the first year and check rapid growth just at a time when the most profitable feeding can be done. With fairly well bred and thrifty animals fed so as to grow rapidly from the beginning to the end, the production of this early matured or baby beef can be accomplished without any difficulty and with greater profit than in feeding animals which mature at from three to four years old. Experiments conducted at the Experimental Farm, Ottawa, and noted in these columns a few weeks back, show that steers matured at two year old made a profit of \$2 per head over those matured at three years, and from \$8 to \$9 over those matured at four years. It is clear, then, that by maturing his beef animals earlier the farmer is able, not only to supply the quality best suited to the English

trade, but to realize a much larger profit on his investment of feed and time.

In answer to our enquiry as to whether the scheduling of Canadian cattle in England was likely to be removed, Mr. Harris stated that the farmers in many parts of Scotland and England were anxious to obtain Canadian steers for feeding purposes. He had heard nothing from any official source to encourage one in the belief that the schedule would be removed, though there might be a possibility of it. In his opinion the shipping of feeders to the Old Land would not be in the best interests of this country. We can grow an abundance of good feed here, and Canadian farmers can make just as much money out of putting the feed and the cattle together as the English farmer can. And then there is the advantage of increased fertility to the land by feeding on this side, rather than by shipping the cattle and the feed across the Atlantic, as was known to be done before the schedule was in force, and having the British farmer put the two together and reap the profit on the finished animal.

Mr. Harris is very strong in his condemnation of the practice followed by many Canadian farmers of selling their young animals off as stockers for the Buffalo trade. Every day car loads of these young half-grown, stunted animals are sold on Toronto market for shipment to Buffalo. They go off at from 3c to 3 1-2c. per lb., and there is certainly no money for the farmer in the business. It would pay him twice over to feed these calves well from the start and finish them on his own farm. Every stocker that goes to the South of the line is finished in the United States chiefly in the west, and comes into competition in the Old Country with our own finished heaves. As long as such a practice continues we cannot hope to develop the beef trade of this country to its fullest extent. There is a great scarcity of good feeders in the province at the present time, and it will pay every farmer to raise and make finished heaves of his young cattle rather than sell them off as stockers.

From all this it will be seen that the beef cattle trade of this country is capable of immense development. The numerous importations of breeding animals of late years, and the increased attention to better methods of breeding by our farmers, mean a better class of beef animals in this country in the near future. Then by good feeding and early maturing Canada should be in a position to supply as good quality as can be had anywhere, either for the live cattle or dressed beef trade. The pointers given by Mr. Harris should receive the most careful consideration by our farmers.

The By-Law Defeated

Contrary to expectations the by-law to provide money for new buildings for the Industrial Fair was defeated on Friday last by a vote of 505 for to 1097 against. This is a very small proportion of the number entitled to vote. Had the by-law been submitted in January, when nearly all the vote is polled, the result might have been different. The strong support given the by-law by the manufacturers, merchants and property owners' associations made victory reasonably sure. But it would seem that property owners are too intent on keeping down taxes to be influenced by these organizations.

At any rate, the by-law was snowed under, and if new buildings are to be provided for the Exhibition of 1901 the funds will have to come from some other source.

The Directors of the Exhibition meet on Tuesday of this week to consider the matter, and there is a possibility of the buildings being provided by some other means. If all three cannot be financed this year a special effort should be made to erect the dairy building. No department of the Exhibition is more in need of accommodation than the dairy. It should be remembered that only three departments, the manufacturers, artists and dairymen were affected by this adverse vote. All other departments are well supplied with accommodation and the three named will be up to the standard of recent years.

Co-operative Egg Selling

How the System is Managed in Denmark

The more we look into the matter the firmer is our conviction that the egg-producing industry of this country will never be on the most profitable basis till some comprehensive scheme is evolved for collecting and marketing eggs in a fresh condition. Where there is no co-operation and the individual sells his eggs fresh or stale as it may be convenient, there can be no guarantee of quality to the consumer, and because of this farmers cannot hope to obtain the highest prices for their eggs. Besides, the export trade in eggs could be greatly increased by a more systematic gathering and marketing of eggs in a fresh condition.

Denmark, during the past five years, has furnished a most striking example of what can be accomplished by co-operation in egg selling. In 1900 Great Britain bought from foreign producers no fewer than 2,025,820,560 eggs valued at five and a half million pounds sterling. Of this amount Denmark alone supplied eggs to the value of £923,551, standing third on the list, Russia and Germany only preceding her in the quantity supplied. France formerly held first place as a supplier of eggs to Great Britain. Of late years, however, she has fallen back, chiefly because her farmers tried the plan of holding back their eggs in the hope of higher prices. But they kept them back too long, and so brought their enterprise into bad odour with English consumers. Not so with Denmark. She started in the business in the right way, and applying that intelligent co-operation and a high standard of production to the egg trade which she has practiced for so many years in the production of butter is likely to out-distance all her competitors.

In 1895, when there was scarcely an egg-producer in Denmark, was founded the first Danish co-operative society for the export of eggs. The same system which has succeeded with butter was now applied to eggs. The country was divided into districts; each district had in some railway station a collecting depôt, and all members of the society were bound to deliver three times a week at the depôt. The depôt agent refused, or had the right to refuse, all eggs more than four days old, and every producer of each district had a distinctive number branded on the eggs. Thus, in the event of an egg proving bad, the depôt which shipped it would be able to detect the producer, on whom the loss would finally fall. By thus guaranteeing absolute freshness and making good any oc-

casual loss, the Danes established a high standard, and so created a continuous demand. And what has been the result? In 1895—the first year of the experiment—there were established six local egg societies, with an aggregate of 2,000 members. In 1900 there were actually no fewer than 837 separate co-operative societies, with a total membership of 130,000 producers.

Is it any wonder, then, that little Denmark, a country a little more than one-quarter the size of England, and with a population of about one-third that of Canada, has forged ahead in the manner she has done in the exportation of eggs. This is the kind of competition Canadian egg-producers will have to cope with in the British market, and the only way to cope with it successfully is by adopting similar methods of collecting and marketing the product. We have referred to this question of co-operative egg-selling a number of times recently, as we believe it one that should engage the attention of farmers and poultry-raisers a good deal more than it does. We believe the time for some definite move in this direction has arrived. The matter might well come up for discussion at Farmers' Institutes. The number of eggs imported by Great Britain last year, supposing each egg averaged 2 1-2 inches in length, and were placed end to end, would reach three times round the world and a bit more—that bit left over would reach twice across the Atlantic. Is not a market of this magnitude worth catering to.

Ontario Agricultural College

The results of the examinations on the work of the past year at the Ontario Agricultural College were announced last week. Forty students were successful in passing the first year examination; thirty-three the second, and ten the third. A change was made in the course last year by which students are now required to spend two years, instead of one, after getting their associate diploma before writing on the university examinations for B.S.A. This necessitates the examination of third year students under the direction of the college, while the candidates for the degree will be examined at the end of their fourth year by the University of Toronto. This change in the length of time required in preparation leaves no candidates for the degree this year, excepting one student, who did a part of this work the previous term, and wrote for a degree this year. Owing to lack of space we are not able to give the list of successful candidates in this issue.

A glance over the list reveals the fact that the College is more than ever an Ontario institution. While there is a good sprinkling of names from the other provinces of the Dominion, and a few from foreign countries, over ninety per cent. of the students of the past year were from Ontario, and from nearly every county in the province at that. This must be very gratifying to the management. It is not so many years since the Ontario students at the college were only a small minority of those who attended. But all this has changed. The college to-day is essentially an Ontario institution existing for the special benefit of Ontario farmers. And our farmers are appreciating this fact as they never did before by sending their sons there in larger numbers to be educated. Many would doubtless, send their daughters there also for

the same purpose if the opportunity were given. Let provision then be made for educating the girls as well as the boys of the farm at this popular agricultural institution.

CORRESPONDENCE.

Dehorning Cattle. Feeders Scarce. Crop Conditions

Editor THE FARMING WORLD:

I received an enquiry from you some time ago asking my opinion re dehorning cattle. I can't say very much on the subject, as I have not put it in practice. Cattle that are raised together on the homestead are not, as a rule, unruly if properly cared for and supplied with plenty of food. The cattle we buy in are the worst, as they are generally one year older than our own home-bred cattle, and with horns out of proportion to the body. Most certainly it would be a benefit and an improvement to the appearance of these to have the horns off. Several farmers in this locality dehorn all their cattle, and any bad effects are but a very small portion.

I had four dehorned steers last summer. They were quite a study, a happy family. They were always eating closely together on the grass, and in winter, when let out to water, would all drink at once, no fear or jealousy seemed to exist. I think that is one of the benefits of dehorning. Often a boss steer, with dangerous horns, will drink himself and stand there, none of the weaker cattle daring to go near the trough. Being out but for a short time and unless properly looked after, the weaker ones are apt to be returned to the stable as dry as when they left it. The only fault I had with them was that they were bad for slipping their chains over their heads, but when loose they were harmless. I could not say if they gained any more than the others in weight, but they did well. I sold them and other two horned ones in February for export, they averaged 1,466 lbs. each. Most certainly I would give the preference for the dehorned cattle for feeding, other points being equal.

At the present time we can't get the cattle we require for feeding purposes, and grass is getting plentiful. I think it is too bad that so many of our young cattle are shipped to Buffalo. We have plenty of feed in this country to fatten to maturity all the cattle we can raise. Our soil is not inexhaustible, and it requires all the barnyard manure we can make. If properly managed, however, the fertility of our soil can be maintained without those expensive artificial manures which act only at stimulants.

These fine rains are making the hay crop very promising. Spring grain looks well. Very little fall wheat is sown in this neighborhood. I can't see that the frost did much damage, though the points of the barley whitened a little.

Red currant blossoms seem to be damaged, but I don't think other fruits were damaged, the trees not being in blossom. Some say the clover was injured, but I have seen nothing the matter with it in this locality. The mangolds, carrots, etc., are getting a fine start, which is worth a great deal. We are busy just now preparing ground for turnips, rape, etc. It is in fine condition, not being baked with heavy rains, as is often the case.

James Green.

Fergus, Ont., May 22, 1901.

Our Quarantine System and the Tuberculin Test

Breeders Still Dissatisfied ; Sanitary Arrangements Bad

Though the new arrangements for tuberculin testing cattle, both in Canada and in the Old Land, will, in all probability remain as they are for some time to come, yet it is evident that breeders are not thoroughly satisfied that they are the best that could be adopted. In all probability breeders will never be completely satisfied until the tuberculin testing of cattle, and especially as applied to breeding stock, imported or exported, is officially dispensed with. Whether they are right or not in taking this stand, there will, no doubt, be a difference of opinion. It would seem, however, that in one or two particulars they have strong grounds for their contention. That so much attention should be paid to the testing of imported stock, while the common herds of the country are allowed to go scot free, is a pretty strong argument in support of their view.

Not only the quarantine regulations, but also the location of the quarantine station and its buildings and surroundings come in for considerable criticism as shown below. One would expect that at a quarantine station where animals are detained for ninety days that the sanitary conditions would be above reproach. But from the statements of breeders and importers it would appear that they are not, and that very much might be done by those in authority to improve matters in this direction. The argument that the station be located further inland, say at Montreal, has considerable weight. It is quite true that the greater portion of the importations come to Western Ontario, and, therefore, this question of location might well be taken into their consideration by the Government.

In going about among the breeders of this country one finds a pretty strong feeling still existing against the powers that be on this whole question of testing and the system of quarantine. Our travelling representative while visiting some of the Ontario herds recently, met with considerable complaint on this score. One prominent Short-horn breeder and importer was very strong in his condemnation of the whole system of quarantine and its management, as well as the application of the test. We give the following summary of his objections and views as submitted by our representative, rather because they represent largely the attitude of many breeders toward this whole question than that they coincide exactly with our views :

In the first place he claims that the test is utterly unreliable. He is so positive that it is injurious to cattle that he would give one-third more for cattle untested. And breeders in the United States are of the same opinion, as he states he could get one-third more from United States breeders if

he would undertake to get the cattle over the border without the additional test to which they are subjected by their Government regulations. One American dealer is satisfied that on one load of cattle he lost \$500 owing to the after effects of the test.

If all cattle in the country were compelled to be tested there would be some consistency in the matter. For it is admitted that there is more or less tuberculosis in all parts of Canada, and, according to his idea, equally as much as in England.

Breeders will not go to the expense of importing high-priced animals unless they are reasonably sure that they are free from disease. It therefore stands to reason that the cattle imported are much healthier than those in this country.

He maintains that it is quite evident that the heads of the department have been badly advised, and that our test of imported cattle should be done away with at once, as being of no practical use. Even if it were of use, the present method of application works directly against the man who takes the risk of importing cattle, and benefiting his neighbors by bringing in good stock, and lets the breeder of ordinary stock go free to spread the disease at his own sweet will.

He also has a word to say about the quarantine. In the first place it is situated so as to bear heavily upon the breeders from the west, as fully 75 per cent. of the stock imported goes to Western Ontario. The quarantine station should be located at Montreal. Being so much nearer the stock centre of Canada it would be much less expensive for the importer to go to see his animals while in quarantine. And then feed is \$4 or \$5 higher per ton in Quebec than further west.

Owing to the fact that most of the importers are English-speaking, and that business men and attendants at Quebec are French, it is harder to deal with them. Besides, if the feed is not up to the standard it is impossible to make them understand it.

Then there is the added expense and danger in driving valuable stock up an almost perpendicular path, and also the expense of having feed carted up.

The building used as a quarantine station is not large enough, and consequently is often too crowded. It is also badly drained. The stables and yards are frequently so damp and full of mud that it is a positive danger to have stock in them at all; also owing to small space there is no chance to get stock out on grass or for exercise.

The present buildings are also badly situated to prevent contagious disease spreading. All stock must pass through the same lane—those which may be diseased and those which have been

declared free from all taint. Cattle frequently come up from the boat on the same day that others are going away, and it is not unlikely that they frequently get together. Besides, the partitions and yards are not strong enough, as they are frequently broken down, allowing different lots to get together. In the end, he thinks, it would be a good thing if the stables were burned down, as cattle which have been in quarantine are always affected with a skin disease which takes a long time to completely eradicate. Again, the period of 90 days is unnecessarily long, and puts breeders to a great deal of useless expense. Thirty days, he claims, is quite long enough, as there is no disease of a contagious nature but what would show itself in that time.

To Test Cattle in Great Britain

We have received the following official communication from Ottawa, in regard to testing cattle in England:—

"The Minister of Agriculture has appointed Mr. John G. Rutherford Canadian Veterinary Quarantine Officer in the United Kingdom for the purpose of testing with tuberculin all cattle for shipment to Canada. Mr. Rutherford's address is care of the Canadian Government Agency, 52 St. Enoch Square, Glasgow, or care of the High Commissioner for Canada, 17 Victoria Street, London, S.W.

"The Bureau of Animal Industry at Washington has also appointed an official veterinarian in the United Kingdom for the purpose of testing cattle for export to the United States, and arrangements have been made between Canada and the United States whereby certificates issued by either the Canadian or American official veterinarian will be accepted by either Government.

"All expenses in connection with the testing of cattle for export from the United Kingdom will be borne by the Department of Agriculture.

"Application should be made to the Department of Agriculture, Ottawa, for any further information on this subject."

Jersey Breeders' Meeting.

The annual meeting of the Canadian Jersey Breeders' Association will be held at Dentonia Park Farm, East Toronto, Saturday, June 15 at 10 a.m. Dentonia Park Farm is situated a few miles east of Toronto, and within easy reach by the electric cars. A visit to Mr. Massey's well equipped farm at this season of the year, affords an outing and an education that every farmer as well as a Jersey breeder should be desirous of taking advantage of.

Studies in Nature

A Monthly Review of Insect and Bird Life on the Farm

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.

Migration for this season is now over; the last land birds that arrive are the Connecticut, Mourning and Blackpoll Warblers, and they generally reach us by the twentieth of May. None of these species are common; last year, however, they occurred in greater numbers than usual, but this spring they are scarce. There is something very peculiar about the movements of the Warblers; each season is marked by the unusual abundance of one or two forms which are generally considered rare and the scarcity of others that are usually common. This year the Cape May Warbler, one of the rarest and most beautiful of the family, is the one that has been exceptionally numerous near Toronto; Mr. J. H. Samuel informs me that he has taken several and has seen a great many in this vicinity. On the other hand, the Myrtle Warbler, one of the earliest to arrive and perhaps, generally, the commonest of them all, has been comparatively scarce. Last year birds of all kinds were more abundant than usual, this year (with the exception of Bluebirds) they are less so.

The Sandpipers and Plover are now in full flight for the north, some of them still stop to rest and feed at their old favorite places along the shore of Lake Ontario, but their numbers are few, when compared with the hosts that could be seen at these spots twenty five years ago. On the 25th May, I saw many Dunlins (Black-heart) and Black-breasted Plover, and several Knot. In a few days the Turnstones (Redshanks) will be here, and then the flight of shore birds will be over. Some of the birds of this class that pass through a part of Ontario in the spring, do not return by the same route, among these are the Turnstone and the Knot. The Turnstone is generally very abundant during the spring migration, and the Knot is common, but in the autumn these two species are very seldom seen. The Golden Plover, Pectoral Sandpiper, Baird's Sandpiper, and some others follow an opposite course, and are usually common in the autumn and do not occur at all in the spring.

As the forest is cleared off and the land brought under cultivation, many of our familiar birds are extending their range northward and are becoming common, where but a few years ago they were unknown. The Balti-

more Oriole was first noted by Mr. Kay at Port Sydney, Muskoka, in 1887, and it made its first appearance at Pembroke in 1899, where it has since become established. The Bobolink, Meadowlark, Bluebird and some others have also followed the settlements, and I shall be very glad if some of my correspondents in northern Ontario will let me know when they first noticed the occurrence of any of these birds in their neighborhood.

The early nesting birds have already produced their first brood. Many nests of Song Sparrows contain young birds, and I have already seen young Robins out of the nest and able to fly well.

probably prove very injurious should it ever become abundant, as it belongs to a family of exceedingly voracious and active creatures. I shall feel very much obliged to any of my correspondents who will give any information as to the appearance of these beetles in their neighborhood.

The blossoms are off the apple and plum trees and they should now be thoroughly sprayed to prevent injury by the codling moth and the plum curculio. The ordinary solution of Paris green, 1 pound to one hundred and sixty gallons of water to which add one pound of unslaked lime will answer for apple trees. For plum trees use more lime to one pound of



White-throated Sparrow.

INSECTS.

A blister beetle has made its appearance in some parts of Ontario which has done some injury to plum blossoms, how far it has extended I have not yet ascertained. In length this insect varies from five-eighths of an inch to a little over an inch, its color above and below is a rich bronze green, legs orange with black joints, feet black. So far as I have yet learned the beetles appear on the trees whilst they are in full blossom so that the usual arsenical poisons cannot be used. The only remedy possible under these circumstances is jarring them off the trees in the chilly part of the day on to sheets and then destroying them. This insect is known as Say's blister beetle, it is not of common occurrence but will

Paris green and mix with two hundred and fifty gallons of water. It is absolutely necessary to apply the solution to apple trees as soon as the blossom falls off and before the calyx closes, otherwise the poison cannot be placed in the blossom end of the apple where it will be eaten by the grub of the codling moth when it attempts to enter the fruit. If the grub once enters the fruit, the most careful spraying in the world will be ineffectual so far as that apple is concerned. Universal spraying as soon as the blossoms have fallen and the use of bands on the trunks of the trees, would soon rid us of this terrible pest of the apple orchard.

This is the season of the cut-worm's greatest activity, and in some places they are very abundant. The best

way of destroying them is to mix one pound of Paris green with about forty pounds of bran, slightly moisten this just so that it will hold together, with a little molasses and water, drop a tablespoonful of the mixture along the rows of plants every few yards and the cut-worms will eat it. They seem to prefer the sweetened bran to growing vegetables and it soon kills them, though as they usually die underground the effect is not seen.

In a few days the white cabbage butterfly will appear and visit the gardens for the purpose of depositing its eggs on its favorite food plants. A little care at this time would prevent much loss later on. Every gardener should carry in his pocket a small bellows made for the purpose of distributing insect powders, etc. This should be filled with a mixture made up of ten cent's worth of Pyrethrum and a twenty-five cent package of Spooner's phenyle powder. These two powders combined form an excellent insecticide. Whenever a few caterpillars are noticed on a cabbage or other small plant puff a little of this powder over it and the caterpillars will be killed.

Poultry keepers also should use the above mixture in the nests and about the roosting places, there is nothing like it for exterminating chicken lice. If the houses and birds are badly infested go into the roosting place at night and puff the powder all about above the birds so that it will settle down upon them and upon the perches. Two or three applications will get rid of the vermin and if the process is repeated once every two months or so afterwards there will never be any more trouble with them.

CORRESPONDENCE.

Mrs. W.R. (Pembroke) : 1. Can you tell me the name of the little bird whose song is so very pronounced, the notes of which I send you?

ANS. — The bird is the white-throated sparrow. As so many correspondents have asked me to identify this bird from its song, which is very noticeable, I have made a drawing of it for this issue, so that it may be hereafter recognized when seen.

2. There is a bird here called the song martin, which builds in sparrow houses, etc. Its song is very melodious. What is it?

ANS. — All the martins and swallows are songsters, but as your bird builds in sparrow houses, etc., it must be either the purple martin or the white-breasted swallow. They are, I think, sufficiently described by their names, though the purple martin is really of a dark, steely blue color. It is much larger than any other of our swallows.

J.W. : I have mailed you some of the beetles that are destroying our plum trees. What are they?

ANS. — They are Say's blister beetle. See under "Insects," this issue.

Burlington Fruit Station.

Our representative recently had a pleasant call at the Burlington Experimental Fruit Station, which is under the able management of Mr. A. W. Peart, B. A.

Among its most promising varieties for commercial purposes the following list was kindly given for the benefit of our readers:

In red currants the Wilder is a favorite, large, red, and of good quality. Mr. Peart thinks that this variety has a great future before it. Among others the cherry and Fay's Prolific still keep their popularity.

In the black variety there is nothing ahead of the old Naples. Cullen's Prolific also promised well.

In black, Bemis Kittaney is most popular, while a new variety, the Ganor, appears well. The Snider and Western Triumph are also good.

In raspberries the old reliable Cuthbert still holds first rank. The Marlborough follows a good second, while of the newer varieties the Lowden and Miller offer the best.

In black raspberries Kansas, Smith, Giant and Hilburn are in the lead.

In yellow the Golden Queen is ahead of any other variety. In purple there are the Shaffer and Columbian, the latter leading.

In grapes the best all-round variety is the Warden. It is reliable and hardier than the old Concord.

In red grapes the Delaware is one of the best.

In white Moore's Diamond has given good satisfaction. It is quite hardy and could be planted when the Niagara would be winter killed.

In plums Mr. Peart considers the old Lombard as the best paying all-round variety. Other varieties would be the Reine Claude, German Prune, Imperial Gage, Purple Egg.

Mr. Peart has great faith in the future of the Japan plums, as they are handsome, very prolific and less subject to the curculio and rot. The best varieties are the Agan, Abundance, Burbanks and Wixen.

Here we might say that Mr. Peart's opinion is that, in a large commercial orchard such as his that the curculio will do little harm, it will merely thin out the fruit, at least that has been his experience so far.

In pears the Bartlett, Duchess and Anjou are the favorites. At the present time the Kiefer will bring the most money, but he has no faith in it, and does not think it can keep up its present popularity. The Duchess should be bought grafted on quince roots, which will give much better satisfaction than standards. They should be planted so that the union of quince and stem is five or six inches below the surface of the ground in order to prevent their blowing out with the wind.

In apples he considers the Baldwin and Greening the best paying sorts, and claims that more money will be made out of these in ten years than out of any other varieties. He would advise the Ben Davis for light soil, but

on a clay it has a tendency to grow small.

It is a great mistake, and one which has been frequently made, to have trees planted too closely. They should not be planted nearer than 35 feet, and 40 would be better. Another mistake frequently made is to plant too shallow, with the result that they are blown out.

In a large orchard he claims that the thinning of fruit by hand is impractical; better to thin by pruning, which should be done in March.

Of artificial fertilizers he uses wood ashes very largely. They are very valuable on account of the potash and phosphoric acid which they contain. Apply 25 bushels per acre per annum. Also nitrate of soda, especially for raspberry and blackberry plantations; 200 pounds per annum will promote wood growth. In the absence of wood ashes, muriate of potash, 150 pounds per acre, applied after plowing and harrowed in, is good. Also salt should be applied light to apples and mangoes; 200 pounds per acre will unlock mineral matter and promote moisture. Also stable manure. The above artificial fertilizers should be used as a supplement to stable manure, and not as a substitute for it.

We were much interested in the description of a co-operative company of about a dozen fruit-growers, who combine, appoint one of their number selling agent, and all the fruit is shipped direct to the market without giving a share of profit to the middle man. The apples grown by this company all go in boxes which cost, cut up and printed, about eleven or twelve cents apiece when they are nailed together by the growers. Mr. Peart thinks that all good fruit will pay to ship in this form.

We were struck by the absence of fruit houses, and were told that practically all the apples are shipped out before frost. This practice might frequently necessitate, through lack of space on boats or other causes, much delay, and thus cause the fruit, which is frequently put up hastily in the orchard, to get decidedly out of form before reaching the consumer. While in the sections where it is the custom to put all winter fruit in the store-house, repack through the winter and ship immediately, the fruit arrives on the British market in much better shape, and will tend to keep up the reputation of Canadian apples.

TO APPEAR EVERY WEEK.

During the summer months at least our "Studies in Nature" department will appear every week. This department has awakened considerable interest among farmers and others in insect pests and the methods for their destruction. A mass of correspondence on this subject has accumulated, which cannot be very well held over for a month. We have therefore decided to devote a column or two each week to this branch, believing that it will prove of general interest to all our readers.

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.

We have no more need to import sugar than to import wheat.

The fertile plots on the farm are the most suitable soil for the beet crop.

Aside from good land, prudence, good sense, a level head, are essentials to proper beet cultivation.

The beet sugar industry promises to be the greatest addition to American agriculture in the twentieth century.

Beet growing teaches us more about the value of clover crops, green manuring and the adding of fertility to the soil than other crops.

Sugar beet culture should bring more thoroughness, more careful methods, more intelligent and more rational and balanced system of farming.

Every well cultivated field of sugar beets stands as an object lesson in good farming, and is an emphatic protest against superficial and slovenly methods.

Beet sugar is the absolutely pure white granulated sugar, and a large percentage of all the sugar manufactured in the world is made from sugar beets.

The farmer can live without the beet sugar factory; not quite so well, perhaps, not earning so much money, but he can live. The beet sugar factory, on the other hand, cannot live without the farmer.

While sugar beets require extensive culture, yet, when properly managed, they are a profitable crop to all concerned, for at \$4 to \$5 per ton there is no staple crop that can compare with the sugar beet.

The stock farmer in Ontario is the one who can most profitably raise a plot of sugar beets, as he has the fertile soil and can advantageously feed the crop if he is not in a position to have it converted into sugar.

It is said that the Americans are the greatest eaters of sugar in the world. The English consume a greater quantity—over 83 pounds per capita—but much of it goes into fine marmalades, jellies, and so on for exportation purposes.

Not only the grower is benefitted by this profitable industry, but the grocer, clothier, and shoeman, so on through the whole list of business men, each through the various channels of trade receive his share of this general prosperity.

We know that the cultivation of beets prepares the land in ideal condition for subsequent crops, that beets clean the land, and that every acre of good land on which beets have been

grown the past season is much the better for any other crops.

The sugar beet crop is an interesting one to cultivate; it is a profitable business, but if not followed closely is expensive. Cattle and sugar beet go well together, as you require plenty of manure. The dairying business will not suffer by the growing of sugar beets.

The beet pulp and roots fed directly to cattle, sheep or swine, should result in higher excellence and greater economy of production. And beet pulp, when dried and combined with by-products of cereal mills and glucose factories, makes nearly a balanced ration for beef and dairy cattle.

Sugar beet growing necessitates an intensive system of agriculture, and this system applied to Canada means better crops, better live stock, better farm products, better homes, a better farm life in every way and a better suit and a fatter pocket-book for the

Sugar Beet Plants.

The sugar beet plant was found growing wild in Egypt and along the shores of the Mediterranean, and was cultivated long before the Christian era. Many varieties were known to the ancients, vastly differing in color and quality. It was used as an article of food. It seems to have been the dark red beet, used to-day as a table beet. The supposition is that this



Fig. 1.—Kleinwanzlebener.



Fig. 2.—Vilmorin (Le Plus Riche.)

man who intelligently introduces this industry in his farming operations. The introduction of beet culture would be of incalculable value to the live stock industry, independent of its other advantages.

Cane sugar and beet sugar are exactly the same in composition, in appearance, and in taste, but the struggle between the growers of these two great sources of production has not yet seen its conclusion. A comparatively few years ago beet sugar was almost unknown; the world's sweets came entirely from the cane, and the semi-tropical countries where cane grew most luxuriantly earned all the profits of the industry. To-day more than half of the world's sugar is made from beets.

beet was introduced into Germany by the Romans.

There are some forty varieties of beets known in this country, which may be divided into three classes, viz., those used for human food, those used for stock feeding, and those used for sugar-making purposes, the white Kleinwanzlebener, Vilmorin, and the Mangold being the sugar beet. The Kleinwanzleben (Fig. 1) is the one most known in this country, and is being used by the Government in all their experiments. It has a conical root, straight and even, quite large at the head and rapidly tapering, and is distinguished from the Vilmorin by the brighter color and brighter leaves. The Vilmorin (Fig. 2) is of a more slender shape. It is claimed that it

holds its sugar contents better than any other variety.

There is no variety of sugar beets which might be said to be suited to all conditions of soil, climate, etc. Nor is it safe to take the experience of any one locality as applicable to all and any localities. The only sure and practical way is to ascertain by actual experience which varieties are best suited for the particular soil.

Fig. 3 shows an improperly raised beet, worthless for sugar-making purposes, showing that unless proper soil and cultivation are given to the beet it will be an entire failure, and the farmer will not only have wasted his time and money, but will be forever dissatisfied with the raising of sugar beets for profit.

Canadian Factories.

It is expected that the work of erecting the beet sugar factory at Wallaceburg will commence about July 1. The plant will be a duplicate of one now being erected at Saginaw, Mich., and will have a capacity of 700 tons of beets per day.

The Warton Beet Sugar Company are hard at work soliciting subscriptions to stock for the erection of a factory at Warton. Mr. B. B. Freeman, one of the directors, reports that so far they have about \$175,000 subscribed, and they will build a 500 ton plant for next season's operations.

Gets Canadian Beets.

Despite the efforts made by the Peninsular Sugar Refining Company to contract with the farmers of Tuscola County for an adequate supply of sugar beets with which to enlarge the output of sugar for the campaign of 1901, the company has been unable so far to secure acreage enough, and has been prevailed upon by some Canadian promoters to get the balance of its supply from territory in Ontario, where it is contemplated to erect a plant in the near future, and where farmers are desirous of learning the commercial value of the crop.

Beets From London.

Messrs. Moody & Co., of London, report that they have contracted for nearly 400 acres of beets for shipment to the United States at \$3 per ton, in the vicinity of London and St. Thomas.

Thinning Beets

In the issue of April 26 of the *Michigan Sugar Beet*, Silas Myers, of Sunfield, Eaton county, asked for the best method of securing help in the beet field in weeding and thinning time, and the best way to pay for it, by row or day. I hoped some of his brother growers who have been in the same position but who now know by experience would have answered this, but the issue of May 3 did not. Why is it farmers are so careful, should we

say careless, about advising each other through the medium of pen and paper?

The best help for thinning beets are the women and girls as a rule, even for blocking; they often learn to do it correctly, and are good hands. It is not so hard to get a few of them to try it as it is sometimes thought, and more will follow when they find the work is not hard and the pay is so much more than they have a chance



Fig. 3.—Improperly Grown Beet.

to earn in ordinary ways. It's no wonder the hired girls go from the house with its long hours of labor and perhaps two or thereabouts dollars a week to the beet fields, where they can get a dollar a day of ten hours, and in some cases their board also. It is a good plan to engage this help as early as practicable. In this vicinity experience has demonstrated that after a year or two both parties are as well satisfied to have the work done by the piece. By this time all parties understand how to do it and how much they can do, and the common prices this

year in this vicinity (Alma) will be eight to ten cents, sometimes with board and sometimes without for rows of 40 rods long or at the rate of one cent for five rods of row, after the blocking is done. In some cases a piece of hood iron or thin, narrow steel will be bent in shape and ends fastened to a handle about eight inches long, giving a cutting edge nearly as wide or long as the space to be left between beets. A skilful hand with this will take the row without blocking and do all for ten to twelve cents per forty rods.

We think the fairest way to begin with good hands is by the day. It gives the grower a better chance to teach the worker the new work, and he is better satisfied and more likely to stay, also more likely not to become discouraged. The careful grower must not try to be too saving on the start in this respect; if he does his more liberal neighbor will get the best reputation and the best hands, ever after. Encourage your thinners in every reasonable way. The more acres you raise the more you will want them at some future time, and they will remember you for good or bad. With two years' experience in this vicinity we have hands who can do the thinning after the blocking at the rate of three days to the acre, and we heard of a case of two days to the acre. Such hands can make good wages in any field, and they always work for the best grower. Many common hands cannot make \$1.50 per day. Again, very much depends on the way the blocking is done. If it is done carelessly, leaving from two to three inches of beets, no thinner wants to finish it by the row, and they would just as soon work for your neighbor who has his done carefully, leaving only about one inch of beets for the thinner. Beet grower, which would you work for if you were the one doing the thinning? It wouldn't take long to decide after you had tried both. Careful management, careful hands with the hoe and careful hands at the thinning, with careful work all through, will abundantly pay in cash return in satisfaction of yourself and hands and a good crop bringing satisfactory returns and only good remarks from all concerned. And next year the man won't have to look up his help early and bind them with an ironclad agreement. The help will be making engagements with him and only go to work for the other grower when there's nowhere else to go. Which will you be?—*Thissell*.

Seeding Finished.

The seeding of all acreage in the western part of the province is completed, and, in some cases, the plants are up and well under way, though the weather for the past ten days has been very backward. Present reports show that with a normal crop, at least, 50,000 tons of beets will be shipped to Michigan from Ontario this fall.

Cultivating and Thinning.

Cultivating.—Three things must be kept in view in cultivation: First, the beets must be kept absolutely free from weeds and grasses, so that the beneficial effects of the sun and air may be fully realized; second, the ground must be kept loose for the same purpose; third, in case of hot weather the soil should be kept thoroughly stirred to make a fine dust mulch to retain moisture, which is far preferable to the too frequent use of water. Ground may be kept moist by thorough cultivation.

Cultivation is mostly performed with one-horse cultivators, which work two or four rows at a time. If after sowing a crust should form on the field from rain or other moisture it is absolutely necessary to break it. This may be done on the lighter and more sandy soils by means of a light harrow, but for the heavier soils a roller is preferable, or if desperate chances must be taken water may be turned on and the ground kept quite moist. This latter, however, is a last resort, for there is much danger of killing the seed germ. The harrow or roller is recommended only in case the seed has not germinated, as otherwise it would be better to run the cultivator over the field, following the rows, which can be done easily before the seed is up, as the marks of the press wheels can be plainly distinguished. This work, however, can be better done by hand hoes (11 inches wide; see hoeing). As soon as the beets break through the ground and the rows can be followed the cultivation must begin, the earlier the better, not only to destroy the weeds but to loosen the soil, which permits the air to penetrate, thus forcing the growth of the beet and improving its quality. It is very important to kill the weeds before they get above the ground, or, at least, before they become well rooted. This can be easily accomplished by cultivating the field with the flat shovels every eight or ten days, care being taken to set the knives as close as possible to the rows, and never over two inches from the rows, as long as the beets are small. As the beets grow older, however, the shovels should be run gradually further away from the beets, and also deeper until the leaves meet in the centre of the rows, by which time the cultivation should have reached a depth of six inches, and should then cease, as the beets are ready to lay by. Besides destroying the weeds this repeated cultivation prevents evaporation from the deeper soil and secures a good and healthy growth. Never hill your beets, as level land keeps the moisture best.

Thinning Out.—Care should be exercised in doing this part of the work, as it is the most important of all the cultivation and care of the crop. It is very necessary that this should be done just at the right time, and the sooner it is done the better for the growth and yield of the crop. As soon as the beets have four leaves they should be thinned, and must not remain longer than one

week without thinning, as the roots will entwine around each other if left longer and make the thinning detrimental to the plant that is left. To perform this work the beets should be bunched (directly after a horse cultivation) with an ordinary six inch hoe, cutting out six inches of beets and leaving a two-inch bunch containing from three to six beets. After the beets are bunched the healthiest plant in each bunch is selected by the thinner to be left standing, the others to be pulled out by hand, together with all the weeds near by. This operation will leave one plant every nine or ten inches. The ground should be pushed up well around each, but not packed.

Hoeing.—The first hoeing, which is very important for the growth of the small plants, must be given with an ordinary eleven inch hoe between the rows of one and one-half to two inches deep, and as soon as the beets break through the ground, or if crust is formed, as soon as this occurs, following the press wheel marks. As the ground will have become packed during the bunching and thinning, thus preventing proper circulation of air, and the young plants, moreover, will have become weakened by their disturbance; and for the further reason that it is cheaper to do it then. The second hoeing should be given with a seven-inch hoe the day after the beets are thinned, and never later than a few days after, care being taken to kill the weeds out close to the plant, but in such a manner as not to loosen or injure the beets. As the cultivator only loosens and clears the ground between the rows, the hoe must perform this work between the different plants. This hoeing should be three inches deep. A similar hoeing may be necessary twice after this, the last depending upon the freedom from weeds, also upon whether the ground is loose enough to enable the roots to grow. Both of the last hoeing should be as deep as it is possible to make them without injuring or loosening the plant. Under ordinary circumstances no work should be necessary in the field after 80 days from the time of planting except the final and deepest horse cultivation.

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 plants 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 move-

ment 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 plant becomes disturbed in the thinning. The beets send out their little feeders or lateral roots very readily, 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. Oftentimes 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 labor which will give the best results, and for this we find that boys and girls from eleven to fifteen 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 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 expense.—*Sugar Gazette.*

OXNARD CONSTRUCTION CO.

NASSAU STREET,
NEW YORK CITY.

**Build and Remodel Beet
and Cane Sugar Factories.**

**Adaptability of Location
Investigated.**

**Furnish Agricultural and
Technical Advice.**

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

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', \$.
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 5,000 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.

Who 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. P. WESTERVELT, Secretary,
Parliament Buildings, Toronto, Ont.

FARM HELP EXCHANGE

The Farm Help Exchange has been started with the object of bringing together employers of farm and domestic labor and the employees. Any person wishing to obtain a position on a farm or dairy, or any person wishing to employ help for farm or dairy, is requested to forward his or her name and full particulars to A. P. Westervelt, Secretary, Live Stock Associations. In the case of persons wishing to employ help, the following should be given: 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.

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

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

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

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

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

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

Man required to work at mixed farming on a ranch in British Columbia. Wages, from July the 1st to November 1st, \$30 a month with board. Next six months \$20 per month. No. 816. b

Situations Wanted.

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

Position wanted as farm manager or a stockman in a Shorthorn herd, by married man who is thoroughly experienced in the management of stock, also understands sheep thoroughly. No. 933. b

Position wanted by young man 22 years of age, who has worked on a farm all his life and understands all kinds of farm work. Would hire for six or eight months at \$18 a month and board. No. 934. b

Wanted, good farm hand, accustomed to horses and cattle. House provided for married man and yearly engagement to suitable man. Wages liberal. No. 817. b

Domestic Help Wanted.

Good woman to work on a farm in New York State. Farm is very pleasantly situated on Creek Road, between two small villages. No. 814. b

Servant girl wanted for farm house. Must be capable, willing, tidy, and of good character. Wages \$10 per month to satisfactory person. No. 815. b

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

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.

Farmers' Institute Fruit Meeting.

The farmers of Halton County did not allow the cloudy weather of the Queen's Birthday to prevent their attending the orchard meeting of their Institute at Burlington. Mr. A. W. Peart, the director of the fruit station, spared no pains to make the meeting as instructive as possible. The men were on hand and gave instruction in spraying, grating, budding and pruning. Lunch was served from 12 to 2 o'clock, after which the entire party of 200 visited the orchard. Different varieties of small fruits and all orchard fruits were pointed out; the manner of packing and shipping was explained, and the mode of cultivation and care of an orchard was informally discussed as the meeting progressed from plot to plot.

At three o'clock all assembled in the large frame barn, where addresses were delivered by Superintendent Creelman, Mr. George Fisher, Provincial Inspector of the San Jose scale, Dr. Robertson, of Milton, and Prof. H. L. Hutt, of the Ontario Agricultural College. The Burlington Orchestra was in attendance, and the meeting broke up in time to catch the excursion train to Milton, Georgetown, and more distant parts of the county.

Annual Meetings at Cheese Factories.

Following up the idea of making our annual meetings more practical, we have this year, in the fruit sections, arranged to hold our meetings at the Fruit Experiment Stations, or in the orchards of some of our members. There are some places, however, such as certain counties along the St. Lawrence, where dairying is the principal industry, and by way of making our meetings there more practical, we have arranged for the institute to meet at the cheese factories and receive instruction along dairy lines.

At the annual meeting of the Eastern Dairymen's Association, held at Smith's Falls, in January, a lively discussion took place between the members as to

the advisability of the instructors devoting more time to the education of the patrons, and less time to the testing of milk. Keeping this in mind it has been arranged by the Cornwall Institute to hold their annual meeting at the South Branch Cheese Factory on Friday, June 7th, while Stormont Institute will hold their annual meeting in the cheese factory at Newington, on the following day, Saturday, June 8th. At each of these meetings Instructor A. P. Purvis, of Maxville, will give a practical talk to the patrons and other farmers present, on the care and handling of milk from the cow to the factory. Next year we would like to see every institute make arrangements to hold their June meetings in a similar manner, in a cheese factory or creamery.

Farmers' Institute Excursions to the Ontario Agricultural College, June, 1901.

Tuesday, June 11th, North and Centre Grey (C.P.R.)

Wednesday, June 12th, East and Centre Simcoe (G.T.R.)

Thursday June 13th, N. & S. Waterloo and N. Middlesex (G.T.R.)

Friday June 14th, E. Middlesex (G.T.R.); W. Kent (C.P.R.)

Saturday, June 15th, W. Huron (G.T.R.); Halton (G.F.R. & C.P.R.)

Monday, June 17th, Peel (G.T.R.); Drayton Agricultural Society (or W. Wellington) (G.T.R.)

Tuesday, June 18th, S. Ontario and S. Simcoe (G.T.R.)

Wednesday, June 19th, S. Oxford and Haldimand (G.T.R.); N. Oxford (C.P.R.)

Thursday, June 20th, E. and W. Lambton and E. Huron (G.T.R.)

Friday, June 21st, N. and W. Bruce (G.T.R.); Dufferin (C.P.R.)

Saturday, June 22nd, N. and S. Norfolk (G.T.R.)

Monday, June 24th, N. Ontario and Peel (G.T.R.)

Tuesday, June 25th, South Perth (G.T.R.)

Wednesday, June 26th, S. Grey and Parry Sound (G.T.R.)

Thursday, June 27th, S. Bruce (G.T.R.)

Friday, June 28th, W. Simcoe (G.T.R.)

The Farmer and the Agricultural College.

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

A PERSONAL ACQUAINTANCE.

By a personal visit in this way the individual farmers become better ac-

quainted with the College Professors, and they in turn are able to help him in many ways.

The Importance of Good House-keeping.

By Miss A. Hollingworth, Beatrice, Ont.

We often hear women lamenting that their spheres are too narrow; they want something more, they can hardly define exactly what, but they want it very badly. Generally they blame the country, the farming profession, or perhaps the farmer for what is lacking. It is a good sign when women are becoming restless, for that is the forerunner of a change, but let us watch that the change is for the better. It will be well for everybody when all women have become disgusted with the old, haphazard, makeshift style of house-keeping, still followed by many, and when they adopt intelligent, labor-saving methods. But do not, I beg of you, ever entertain that foolish notion that house work is beneath the dignity of a well-bred woman. I claim that it is the highest and noblest work for women if we but dignify it with our best efforts.

If every girl, instead of graduating in languages and fine arts, was obliged to pass an examination on the science of preparing food fit for human consumption, and of keeping a house in proper sanitary condition, it would be better for all concerned. Let the girls have all the education and accomplishments they can get, but let us have the practical side equally developed.

Have you ever thought what a wonderful change it would make in the world if all homes were well kept? This is venturing on dangerous ground, but we cannot get away from the fact that there is a sad dearth of good cooks. And not only this, but we require more discretion in selecting the kinds of food best adapted to the peculiarities of constitution which we all possess, for "what is one man's meat is another man's poison."

Tea and coffee in moderation are good for healthy people, but nervous people are made more so by the use of tea, while those of a bilious temperament find that coffee increases their malady. I often see solid food fed to little babies, yet it is every mother's business to know that starch in food cannot be digested without the aid of saliva, and the salivary glands do not develop until the child cuts its teeth. Many a child's digestive organs are injured for life, and many have died, simply because the mother did not understand the composition of food. Every mother should know that lime enters largely into the formation of bone, and is required in much greater quantities in early life, while the bones are undergoing development, than in later life, especially during the period of teething. Delayed and prolonged teething generally arises from lack of lime. Sulphur, iron, soda and potash are all necessary

in the various tissues of the body, and deficiency in any one of them for any length of time will result in disease. Milk contains all the ingredients needed for nourishment, and it is a strange thing to me that farmers who have plenty of milk do not teach their children to drink it instead of tea. I have often seen whole families of children who might have milk swallowing tea, even the baby drinking it from the mother's saucer—cheap green tea at that. Verily the ignorance as well as the sins of the parents are visited upon the children—poor, unfortunate little mortals. If women will only give attention to their every-day duties, they will find before them a field broad enough and interesting enough to occupy the brightest intellect.

Years ago when we lived in the pioneer log cabins we had no occasion to trouble ourselves about ventilation—there was plenty of it. But now our conditions are improving. We are building large, air-tight houses and it is a matter of vital importance that we should pay close attention to the sanitary conditions. Sanitation means the preservation of health and comes from the Latin word *sanitas*, "health." Sanitation is a high sounding word to apply to the state of dish cloths, sinks and swill pails, but that is where it has its strongest application, for when these things are neglected they prove a source of diphtheria and fevers. To be able to play the piano is very nice and very desirable, but to know how to keep a house free from bad odors is vastly more important. I have been in houses that were kept clean in most respects, but the dishes were washed with a foul-smelling bacteria-laden cloth. This may be easily avoided by washing it in clean, soapy water after using, and also on wash days boil with the towels. Sinks and drain pipes may be kept clean ordinarily with hot water and soda. I have found coppers dissolved in water an excellent thing to remove bad odors and purify drains. Speaking of sinks I might say that they are not found in farm houses nearly as often as they ought to be. The very common practice of throwing the slop water out at the back door is a very bad one. The soil becoming saturated with the foul matter proves to be a perfect breeding ground for disease germs. Clean, pure soil around the house is necessary to health.

When the Eastern Dairymen's Association met at Smith's Falls in January a speaker stated that when he took charge of a cheese factory in Manitoba, with everything new and clean, he had received milk five days old which he kept for two days longer, still sweet and untaunted. But now the soil, once pure, has become foul with ten years' factory dirt, and he cannot keep milk without taint for two days. This is, no doubt, a reason why there is so little sickness in a new country. Fresh earth is a perfect disinfectant. There are people who get in a fearful panic if they hear of any contagious disease in the neighborhood, yet they are not afraid to live over unventilated, badly-

drained cellars, containing decayed vegetables and mouldy rubbish—the very fountain head of disease. Many a family owes its ill-health to the cellar. Cellars should be well aired, swept out frequently, and whitewashed once a year. It is equally important to have fresh air in the bedrooms. Windows should be made to open at the top so that the room may be ventilated during the night without a draught striking the bed. In breathing we take in oxygen and give out carbonic acid gas. Carbonic acid is good food for plants, as they use the carbon to build up their solid structure, at the same time liberating oxygen. Therefore, the more plants we have in the house the better. But carbonic acid is poison to all animal life and when we sleep in a closed room the air becomes charged with the poisonous gas for which we have left no escape, and we are forced to re-inhale it. The effect of this was strongly illustrated in that memorable event, the "Black Hole of Calcutta." During one of the Indian risings 146 Englishmen were confined in a room eighteen feet square, with only two small windows on one side for ventilation. Ten hours after their imprisonment only twenty-three were alive, one hundred and twenty-three having been suffocated by carbonic acid gas.

Along with fresh air should be all the sunshine that we can get into our houses. It is a great mistake to furnish a room in colors that will not stand the light, and then keep the blinds down to save the carpet and furniture. A room that is not flooded daily with sunshine is not fit to live in. Disease germs flourish in dark rooms, but die in the sunlight. Most of all, a woman needs the sunshine for her own health and spirits. Housewives who seldom go away from home, and who keep their minds like their hands, always at the same routine of labor, are specially subject to melancholia, which is the first stage of insanity, and this is certainly aggravated by darkened rooms. I often notice when driving through the country how many houses have the blinds in the front rooms drawn down. I always take it as an indication that the people think their best rooms better than themselves; too good for common people, so they live in the kitchen. I believe in living all over the house. That is the only way to make it a home; something more than a mere stopping place. I do not agree with the women who think they have an ideal home when it is furnished throughout with the best furniture in the latest style, and that furniture half buried under a profusion of lace, silk and ribbons which are only meant to be looked at, and never used. How many boys would choose this as their ideal home? We are trying to devise means by which the boys can be kept at home, but this is just the kind of thing to drive them away, for they know that they cannot even sit down without getting into trouble. If we must have a fine parlor for company, let us have at least

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one pleasant living room that the boys may enter in their working clothes and be comfortable. Have washable covers on cushions, so that they may use them without incurring a scolding, and have one lounge where they can stretch themselves out and rest without getting all tangled up in drapes and tidies. Don't imagine that I am condemning fancy needlework wholesale. I like to see it in moderation. It gives an air of refinement and comfort, but the tendency of the time is to use altogether too much of it. It is a form of work, if not recreation, that we all enjoy, but if our leisure hours are so limited that we cannot make a lace d'oylie for every dish on the table and every chair in the parlor, without sacrificing our chance of mental improvement by perusing good literature, why let us show that we have moral courage enough to do without these things, even if they are fashionable and all our neighbors have them. The fashion will be gone before they are half worn out, but a well-stored mind is never out of date, and knowledge is pleasure as well as power. Besides, it is our duty to society to be well read, and able to talk intelligently on subjects outside of personal affairs, when we are surrounded with the means of doing so.

There is probably no error more common among women than that of assuming that it does not matter what they wear or how they look when they are doing their housework. I mean the married women, the girls have a better eye to business. Not one of them ever takes the least blame to herself because her husband does not show the same tender regard for her after marriage that he did before, when he always found her neat and clean. I have seen some shockingly untidy wives who were not at all short of clothes. The farmer's wife who helps with the outdoor work finds it more difficult to keep her clothes clean than the woman whose work is confined to the house. For milking, gardening and all rough work it is well to have a large apron of some coarse material that will wash easily and not require ironing. If a pair of gingham sleeves are worn at the same time, the dress sleeves will be protected. It is also worth while to wear a dust cap while sweeping and dusting. By taking a little care in matters like these, we can be presentable at any hour of

the day, and not under the necessity of running to our rooms for a hasty change, if we hear the front gate creak.

There is a great outcry now, and with some reason, against the women who by thousands have crowded into positions formerly held by men alone, and they have lowered wages to such an extent that many men are either thrown out of employment entirely, or are obliged to work for so little that they cannot afford to marry. Yet those who employ domestic servants are finding it more difficult every year to obtain efficient female help. So we see that while women are turning to occupations where they are not wanted, the work of housekeeping, for which they are specially adapted, is neglected because it is not considered genteel. If a girl decides to accept domestic service as her calling, she must be content to accept her position at the very bottom of the social scale. Or if she is ambitious, and works her way into a better position, she is liable at any time to be sneered at because of her former occupation, and she will realize all too keenly, "once a servant always a servant." Her employers may treat her well, but we cannot shut our eyes to the fact that the servant girl has no position in society except the bottom, because housework is not popular. Therefore, we would say to the men—when you meet a servant girl, raise your hat to her just as respectfully as you would to her mistress, and she will be less likely to compete with you for the position you may be striving to obtain. There is something else you can do to remove this obstacle from your path; lend your influence toward establishing Domestic Science Schools. Send your daughters to those already established; try to have domestic science taught to the girls in the public schools. Help the few brave leaders who are trying to popularize housework by improving its methods. If girls are sent to a special training school to learn their work, they will have more respect for it, and probably come to think it is better than men's work.

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For list of Institute members received during May, see page 1045.

The Farm Home

Keeping At It.

There's many a boy with many an aim,
And many a boyish yearning,
That wonders about the path of fame
And the royal road to learning,
But whether he fails or wins the day,
He seldom finds time for sighing,
For, deaf to the things the idlers say,
He never will give up trying.

Oh, whither away does the long road climb,
And where does it wind and wander?
And say, is it far to the heights sublime,
Or just to the hilltops yonder?
But whether the way is short or long,
There's not any use denying,
There's aught that's so good as a laugh and song,
And a will to keep on trying.

Oh, never-give-up's the hero's way,
And the only way of sharing
The conqueror's spoils, as day by day,
Comes the call for nobler daring.
Oh, never-give-up's the path that's sure,
While the busy days are flying,
And the boy that's certain to endure,
Is the boy that keeps on trying.
—Frank Walcott Hutt.

Economy in the Home

Many people associate the term economy with stinginess in anything that requires the expenditure of money.

Economy is opposed to wastefulness, whether of time, labor, strength or money.

As the majority of farm houses are constructed it is impossible to get the best value for time, labor and strength expended; these are the equivalent of money.

Farm houses must be big, for as a rule farmers like lots of room, and the kitchens must also be big, and must contain the regulation number of windows and doors, which necessitates having the stove in a certain place, the cupboard in some other particular spot, and the table in the only other place left. Until one has experienced both methods of working one can not realize the amount of time and energy wasted while getting meals and doing ordinary cooking in a day, to say nothing of a month or a year, in simply travelling to and fro in the roomy kitchen.

We often take at least six steps where we need not take one if we had the many articles used within reach of our work table. Right here some one will say, "Women need exercise." Let her find the exercise out doors instead.

Let us stop to consider a while. Might we not even with our roomy kitchen get all our utensils and ingredients so that we can get them by simply stretching out a hand?

From the wall in front and to one side we can get all the necessary tins, egg beaters, graters, etc., from shelves still within easy reach our tins of spices, soda, baking powder, sugar, etc. We might have a spout connected with the upstairs flour bin or an easily reached bin beneath the bak-

ing table, and all as close to the stove as the temperature of the room will make comfortable.

The same idea may be carried out in the laundry. Have the machines, tubs, soap, bluing, etc., just where they are always used. Do not put them out of sight in order to make the room tidy. They are our machinery and are quite respectable if they be kept clean.

We all think we know how to economize in money matters in our purchases and sales. But do we? I have seen women who thought it no extravagance to buy fruit, spices and other foreign products and to eat them, also candies and other not strictly wholesome food, but who thought milk was a luxury at five cents a quart, cream to be only dreamed of at twenty-five cents a quart, and butter to be eaten with a microscope when twenty cents a pound, while eggs and cheese were luxuries, not necessities.

One should not consider the use of pure, wholesome, nourishing food as being extravagant. It is economy to use only what one knows will tend to keep the strength of the family at its best.

M. E. GRAHAM.

Hints by May Manton.

Womens' Waist with Bolero. No. 3835.

To be made with or without the fitted lining.

Boleros and bolero effects continue to hold their place in popular regard and promise to extend their vogue



3835 Waist with Bolero.
32 to 40 in. bust.

for an indefinite time. The smart and dainty waist illustrated exemplifies one of the best and newest designs and is peculiarly well adapted to the combinations of lace and delicate materials for which the season is remarkable, although many other fabrics are suitable and might easily be substituted.

Crepe de Chine with lace is charming. Any soft plain silk with bolero of warp-printed louisine or brocade, the trimming only of lace, would be admirable, and similar changes can be devised by the score; but the original combines mull with guipure, and is unlined.

The waist is laid in groups of tucks that run to yoke depth and provide soft folds below and closes under the centre group, the fact being concealed by the fullness. Between the tucks are applied pointed bands of lace beneath which the material may be cut away if so desired. The bolero is shaped in most becoming lines, and is deeper at the back, while it becomes scarcely more than a point at the front, where it is held by a tiny jewelled frog. The sleeves are novel and effective, tight fitting at the lower portion, where they are made of inserted tucking, but slightly flaring above the elbows, while a soft full frill falls between.

To make this waist for a woman of medium size, 3 yards 2 inches wide, 2 yards 32 inches wide, or 1 3/4 yards 44 inches wide, with 1 1/4 yards of all-over lace for bolero, 1 yard of inserted tucking for lower portion of sleeves, 1 3/4 yards of insertion will be required.

The pattern 3835 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure.

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

Latest Styles in Summer Wear.

The dominant note of the new fashions in respect to light summer dresses is that the waists are very simple and the skirts elaborate beyond words.

Nearly all the new summer waists are shaped slightly at the left side, and the skirts are covered with tucks, insertions, plaitings, ruffles, stitched bands, and many flounces.

As for the new skirts, they are trimmed with strapped bands, naturally. Is there any place where a strap might with any sort of sense of propriety be made to go that it is not put there days? The bands are put on the skirt at regular intervals and extend from the waist to the knee. Here at the end of every pointed strap fall plaits, so that the effect is that of a deep shaped ruffle plated at intervals. This is a charming model for any sort of summer dress.

Separate lace waists were never more popular than they are this season. The newest seem to be entirely of guipure, with the whole pattern overlaid with cretonne flowers outlined with a tiny gold thread.

Bolero jackets are quite as popular as at any time in their long and triumphant existence, if not more so

A jaunty model in a lovely foulard is fitted tightly in the back like the waist of a dress. In the centre, slipped into a band, is a large steel buckle, put on over two tabs each four inches long.

Louis XVI. fichus are as much in evidence as ever, and it goes without saying that lace fichus, baby bows, tiny knots of velvet, and so on, belong to summer things. The latter are noticed particularly onlinons.—*Miss de Forest's Paris Letter, in The Ladies' Home Journal for June.*

How to Remove Stains.

All stains should be removed before the articles are put in the washtub. The sooner a stain is treated the more readily it will yield to the treatment. Pour boiling water through fruit stains; when obstinate soak in a solution of oxalic acid. Wash vaseline stains in alcohol; paint, in turpentine or alcohol; varnish, in alcohol; grass or other green vegetable stains, in alcohol, kerosene or molasses; for stains from blood, meat juice, use white of egg in cold water. In the case of milk, cream, sugar or syrup stains soak in cold water. Tar, wheel grease or machine oil stains should be rubbed with lard and allowed to stand a few minutes, then they should be washed with soap and cold water. Tea, coffee or cocoa stains should be removed with boiling water; if obstinate, with a weak solution of oxalic acid.—*Maria Parloa, in The Ladies' Home Journal for June.*

Preserving Eggs.

In the publication of Prof. Shutt's article in last week's issue on lime water for preserving eggs, we were forced in making up the pages to cut out the last paragraph. This referred to Water-glass, and was as follows: "Water-glass (sodium silicate) has been extensively experimented with, using solutions varying from 2 to 10 per cent. Although in the main the results have been fairly satisfactory, we are of the opinion that lime water is fully its equal, if not its superior, as a preservative, and that this latter preservative is both cheaper and pleasanter to use there can be no doubt."

A Spraying Hand-Book.

One of the most valuable and neatest little hand-books that have come to our notice recently is one published by the Spramotor Company, of London, Ont. This little book contains a fund of practical information on spraying and the destruction of insect pests that cannot but be of very great value to farmers. In addition the different lines of spraying apparatus made by this firm is explained in detail and fully illustrated. As many of our readers well know, their spramotor is one of the best machines of its kind on the market to-day. It has been tried in every way a sprayer could be tried and has never been found wanting. It is indeed a powerful weapon for the protection of orchards. The book is entitled "A Gold Mine on your Farm," and farmers should send for a copy.



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7 Ideal Cooker, cooks for 5 to 9 persons... \$5.00

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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 the produce the best Butter or Cheese nothing but the purest salt should be used. The number of prizes obtained by users of

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

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

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

Advertising Rates on application.

Letters should be addressed:

THE FARMING WORLD,
CONFEDERATION LIFE BUILDING
TORONTO

Business Notes

Stock advertisements page 1,045 and 1,046.

Important auction sale of Shorthorn cattle will be held at Queenston, June 19. Send for catalogue containing particulars to Hudson Ship, Queenston, Ont.

On front cover will be found the Atlantic Refining Co.'s announcement. The poet deserves credit and should be appreciated by all who intend to use E.astic Carbon Paint.

Fleming's lump jaw cure, advertisement on front cover, is very highly recommended by those who have used it. An order came through this office from Cambria, California.

The Walkerton Binder Twine Co.'s announcement on page 1,028 contains full information regarding twine. Readers will do well to communicate with Mr. Jas. Tolton in reference to same.

The wonder of the age is the Tolton Pea Harvester with patent buncher at work, as shown in their advertisement on page 1028. Send for full particulars.

Every farmer who has any chopping to do should communicate at once with S. Vessot & Co., 108 Front street east, Toronto, and take advantage of their offer of a two weeks' trial of their Champion Joliette Chopper. It is a very complete little machine.

Horse dealers will find Giles' Iodide Ammonia an invaluable and necessary liniment to keep in stables. See Lyman Bros. announcement on front cover.

QUESTIONS AND ANSWERS

Care of Young Apple Tree.

A Subscriber writes: "Will you kindly, through your columns, give me a few general instructions with regard to the care of a thrifty young apple tree—Fameuse—growing in a lawn where plowing would not be feasible. The soil is sandy but not

too poor. This tree is the survivor of several put in a few years ago."

Answered by H. L. Hutt, B.S.A., Professor of Horticulture, Ontario Agricultural College, Guelph, Ont.

"With reference to your subscriber's request for instructions in the treatment of his apple tree, I would suggest that where his lot is too small for plowing, that the ground be thoroughly dug around the roots of the tree as far out as the branches extend. It could then be kept loose and open with hoe or rake. If this is not feasible, it would be best to apply a heavy mulch of strawy manure, which should be thick enough to keep down grass and weeds. It would be well also to give the ground a dressing of wood ashes every two or three years, spreading them evenly over the ground as far out as the roots extend. The tree should be pruned regularly every spring, thinning out the top where it is too thick, and cutting out branches which tend to cross or rub one another. The trunk of the tree should be washed the latter part of May, or beginning of June with a wash of soft soap and carbolic acid, which will prevent Borers depositing their eggs; and the tree should be sprayed with Paris Green and Bordeaux mixture to destroy leaf eating insects and to keep the foliage free from scab, to which the Fameuse tree is particularly liable. The first application should be made before the buds open in spring, the second one before the blossoms open, the third after the blossoms had fallen, and the fourth and fifth sprayings could be given at intervals of two weeks so as to keep the foliage covered with the mixture."

Live Stock at the Pan-American.

The live stock premium list at the Pan-American has just been issued. It includes the classifications for horses, cattle, sheep, swine, poultry, pet stock and dogs. The dates for exhibition of the different classes are as follows: Swine, Aug. 26 to Sept. 7; cattle, Sept. 9 to Sept. 21; sheep, Sept. 23 to Oct. 5; horses, Oct. 7 to Oct. 19; poultry, Oct. 21 to Oct. 31; pet stock, Oct. 21 to Oct. 31; and dogs, Aug. 27 to Aug. 30.

Though the prizes offered are not extra large, they are comprehensive, and cover the various sections pretty fully. We would have expected in some of the sections for horses and cattle to have seen much larger awards. \$80 is the largest prize in the regular classes, and that is for a herd of cattle, while \$50 is the highest for a single animal. \$50 is the highest prize in the horse classes, which seems very low. Of course there are a number of specials, which will help things out considerably.

Prize lists and full particulars may be obtained from Frank A. Converse, Superintendent of Live Stock, Pan American Exposition, Buffalo, N.Y.

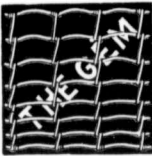
The following is a summary of the



"What we have we'll hold"
As every man who has perused Page Fencing knows he has the best Fence on the market.

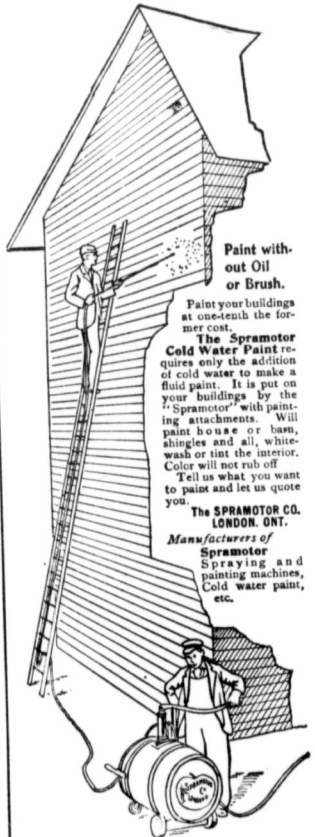
"What we have we're after"
and if you are in the market for fencing we would like to have you consider the merits of the "Page" Fence. Coiled Wire, or our own Wire Mesh, woven by ourselves. Shipped ready to put up.

THE PAGE WIRE FENCE CO. (LTD.)
WALKERVILLE, ONT.



The GEM 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.



Paint without Oil or Brush.

Paint your buildings at one-tenth the former cost.

The Spramator Cold Water Paint requires only the addition of cold water to make a fluid paint. It is put on your buildings by the "Spramator" with painting attachments. Will paint house or barn, shingles and all, white-wash or tint the interior. Color will not rub off. Tell us what you want to paint and let us quote you.

THE SPRAMATOR CO. LONDON, ONT.

Manufacturers of Spramator spraying and painting machines, Cold water paint, etc.

first week of the dairy test at the Pan-American, ending May 7 :

	Milk.	Butter, 80% fat (Guaranteed).	Butter Value.	Cost of Fed.	Profit.
Guernseys	1295 6	65.52	\$16.30	\$5.52	\$10.87
Holsteins	1646 6	62.86	15.70	5.32	10.38
Ayrshires	1534 10	64.98	16.24	6.70	9.54
Red Polls	1283 7	58.37	14.58	5.90	8.59
Jerseys	1328 11	61.05	12.77	4.97	7.80
Shorthorns	1389 8	66.90	14.18	6.44	7.74
Brown Swiss	1368 4	52.15	13.02	6.02	7.00
French Can's	972 10	41.53	10.46	4.25	6.21
Polled Jerseys	621 4	33.28	8.31	3.25	4.63
Dutch Belted	163 11	17.14	4.81	3.99	1.75

In the above the Jersey herd had only four milking cows, one dry; the Polled Jerseys only four milking cows, one of which has been milking since last October, the fifth being dry. The Dutch Belted has as yet only three representatives. For the second week, taking the question of profit only, the standing of the herds changed as follows :

	PROFIT.
Guernseys	\$11.06
Ayrshires	10.72
Jerseys	10.21
Holsteins	8.86
Red Polls	8.29
Brown Swiss	7.85
Shorthorns	7.84
French Canadians	6.36
Polled Jerseys	4.95
Dutch Belted	1.93

Special Prizes at the Ottawa Fair.

Mr. E. McMahon, secretary of the Central Canada Fair, has just completed a list of special prizes offered by the numerous patrons of the 1901 Fair. The list comprises 27 gold medals, 8 money prizes, and 2 silver medals. This is the largest list of specials ever offered at Ottawa before. There is a medal for every class in the live stock department. We have not space to enumerate all of them, but give the following :

Gold medal by L. N. Bate, Esq., Ottawa, for the best thoroughbred stallion, 2 years and over.

Money prize and cup or medal, by His Excellency the Governor General, to encourage the best class of riding horse. For three year old colts or fillies, by an approved thoroughbred stallion. Stallions to be approved by the judges, height 15 to 16 hands. Competitors to be undocked. Name and pedigree of sire to be given with entry, also affidavit that the colts or fillies to be exhibited are the gets of the stallion named, also description and pedigree of dam as far as obtainable. All competitors to be examined before entering the ring and certificates of soundness to be handed the judges. Special attention to be paid to action, bone, configuration of feet, and wind.

\$75 by Dr. W. Steward Webb, of Shelburne, Vt., and the Central Canada Exhibition Association, for Hackney stallion, with three of his get, the gets to be from unregistered mares, the get to count 50 per cent., and to be judged as animals most promising for

carriage and harness purposes. 1st, \$50; 2nd, \$25.

Gold medal, by W. West, Esq., Shelburne Farms, Shelburne, Vt., to the person showing the most skill in exhibiting horses "in hand" and with the "lead rein" in the judging ring at this year's exhibition (heavy horses not included.) Competitors to not only show their own, but each other's horses. Persons not exhibitors may compete. Entries to this contest may be made with the judges on the spot.

Gold medal by Mr. Frank Bate, of Messrs. H. N. Bate & Sons, Ottawa, for the best herd of Shorthorn cattle over one year.

\$30 by the Dominion S. H. B. Association, for the best herd of Shorthorn cattle, 1 bull and 4 females, under 2 years, owned by the exhibitor, and recorded in the Dominion S. H. B. Book, 1st \$20; 2nd, \$10.

\$10 by the same association for the best Shorthorn bull, any age.

\$10 by the same association for the best female, any age.

\$50 by the same association for the best herd of four calves under 1 year old, bred and owned by exhibitor.

Gold medal by Edward Kidd, Esq., M.P., County of Carleton, for the best three factory cheese exhibited.

Gold medal by Mr. F. X. St. Jacques, proprietor "The Russell," Ottawa, and "Hotel Victoria," Aylmer, P.Q., for the best lot of creamery butter exhibited.

Gold medal by Messrs. J. L. Orme and Son, Ottawa, for the best lot of dairy butter exhibited. Twenty lb. and 10 lb. lots.

\$5 to the poultry department by the Central Canada Exhibition Association, for the best exhibit of turkeys, geese and ducks.

Gold medal by W. C. Edwards, Esq., M.P., County of Russell, to the ladies' department, "for the exhibitor from the County of Russell winning the largest number of first prizes in Section 61, Ladies Work, Useful."

In addition, medals are given for the best breeds of Galloway, Hereford, Polled Angus, Holstein, Jersey, Ayrshire, and French-Canadian cattle. There are also a number of medals for the different classes of horses other than those we have mentioned.

Canadian Butter in Cuba.

Cuba offers a profitable market for Canadian dairy products, and on this account the following incident is worthy of notice: Some time ago Pierre de Beaucourt, of the Central Creamery, Scott Junction, Quebec, shipped some samples of butter to Havana. The collector at that port refused to accept the samples, on the ground that they contained oleomargarine, and justified himself by producing a chemist's certificate alleging that there was not less than 35 per cent. of this matter in the butter. The British Consul however, obtained a sealed tin containing butter which had been condemned, and forwarded it to the Secretary of State at Ottawa. The

Horse Owners Should Use GOMBAULT'S

Caustic Balsam

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 blenish. The safest best Blister ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blisters from Horses or Cattle.

As a HUMAN REMEDY for Rheumatism, Sprains, Sore Throat, Etc., it is invaluable. **WE GUARANTEE CAUSTIC BALSAM** will produce more actual results than a whole bottle of any liniment or ointment cure mixture ever made.

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 circular, testimonials, etc. Address **THE LAWRENCE-WILLIAMS CO., Toronto, Ont.**

ONTARIO VETERINARY COLLEGE, Limited

Temperance St., Toronto, Can.

Affiliated with the University of Toronto. Patrons: Governor General of Canada and Lieutenant-Governor of Ontario. The most successful Veterinary Institution in America. Experienced Teachers. Fees, \$65 per session.

PRINCIPAL, PROF. SMITH, F.R.C.V.S., TORONTO, CANADA

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 : : : : \$1 and from 6 to 8

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

RIPPLEY'S COOKERS.
Sells from \$10.00 to \$40.00. Made of boiler steel. No flues to rust or leak. Can't blow up. Guaranteed to cook 20 lb. feed in 2 hours, and to heat water in stock tanks 300 feet away. Will heat dairy rooms. Call and see prices mailed free. **RIPPLEY HARDWARE CO., Box 218 (U.S. Post 7, Gravel, Ill.) London, Ont.**

CANADIAN PACIFIC RY.

Upper Lake Service

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

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

butter was analyzed by Prof. Shutt, analyst at the Central Experimental Farm, when the following constituents were recorded: Fat, 83.13 per cent.; water, 10.70; salt, 4.02; curd by difference, 2.13. This shows that the butter was pure and entirely free from any foreign ingredient. It should be stated that the Havana collector has recommended the amendment of the existing law, so that all butter certified to by the official chemist of the country of exportation might be accepted. Such a regulation is scarcely necessary in Canada, where the use of oleomargarine for purposes of adulteration is prohibited. It might, however, be applied to the United States, where the mixture of the substance with butter is permitted.—*Toronto Globe.*

List of Institute Members.

List of Institute members received during the month of May, making a total of 19,496 members:

Algoma, E.....	6
Algoma, C.....	2
Bruce, W.....	1
Bruce, N.....	2
Brant, S.....	2
Cornwall.....	2
Dufferin.....	1
Elgin, E.....	3
Grey, S.....	5
Grey, N.....	2
Hastings, E.....	5
Hastings, W.....	1
Halton.....	18
Haldimand.....	12
Huron, W.....	13
Leeds.....	2
Lambton, W.....	23
Lambton, E.....	2
Lennox.....	1
Middlesex, E.....	5
Muskoka, C.....	8
Norfolk, S.....	3
Ontario, N.....	2
Ontario, S.....	7
Oxford, S.....	2
Oxford, N.....	22
Perth, S.....	7
Prince Edward.....	5
Peterboro, E.....	1
Peterboro, W.....	1
Parry Sound, E.....	1
St. Joseph's Island.....	2
Simcoe, E.....	8
Union.....	7
Wellington, C.....	4
Wellington, S.....	7
Wellington, W.....	6
Wentworth, N.....	31
Welland.....	2
York, E.....	4

WOMEN'S INSTITUTES

Brant, S.....	8
Bruce, W.....	3
Bruce, S.....	25
Durham, W.....	11
Durham, E.....	33
Hastings, W.....	19
Hastings, E.....	39
Halton.....	11
Ontario, N.....	15
Ontario, S.....	12
Lincoln.....	8
Peterboro, W.....	3
Welland.....	13

Stock

J. A. RICHARDSON, South Marsh, Ont., Breeder of Holsteins, Dorset-Horned Sheep, Tamworth Swine.

E. PANNAECKER, Fairview Farm, Hespeler, Ont., breeder of reg. Holsteins. Stock for sale.

DAVID McCRAE, Janeville, Guelph, Canada, Importer and Breeder of Galloway Cattle, Clydesdale Horses, and Cotswold Sheep. Choice animals for sale.

T. Douglas & Sons, Strathroy, Ont.

Breeders of

SCOTCH SHORTHORNS

(100 head to select from)

Offer for sale 14 young bulls, and cows and heifers of all ages, of the most approved breeding, bred to (imp.) Diamond Jubilee—28861—, at head of herd. Farm one mile north of town.

SHORTHORN BULLS

Two choice bulls about a year old

FOR SALE

JOHN McNAB,

Rockwood, Ont

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 Durham

RETTIE BROS.

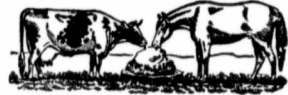
HOLSTEIN-FRIESIAN BREEDERS

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

GLEN CRESCENT SHORTHORNS AND OXFORDS.

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

J. W. WIDDIFIELD, Uxbridge, Ont.



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

Important Auction Sale
SHORTHORN CATTLE

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

Send for Catalogue containing particulars to

HUDSON USHER,

Queenston, Ont.

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

CHAMPIONS OVER ALL.

BLOOD WILL TELL.

MAPLEWOOD HACKNEY STUD

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

Again Furnished **BOTH CHAMPIONS** at the **NATIONAL HORSE SHOW**

STALLIONS IN SERVICE FOR THE COMING SEASON ARE

Langton Performer, Clifton 2d, Fandango,

ALL CHAMPIONS.

Magnificent young stallions and mares sired by the above stallions and out of mares equally famous always on hand for sale. Beautiful, high acting carriage horses, bred, raised and trained at Maplewood, now ready for sale. Here you can purchase four-in-hands, pairs, tandems, single drivers, ladies' pairs and children's ponies. For further particulars address,

E. T. GAY, Manager, - - **Attica, N.Y.**

OAK LODGE YORKSHIRES



are acknowledged to be the best type of bacon hog to produce the ideal carcass for the best English trade. **CHAMPIONSHIP HERD AT TORONTO INDUSTRIAL EXHIBITION FOR NINE YEARS** also sweptstakes 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.

One of our staff recently had the pleasure of a very pleasant call at Hickey Grove Farm, the property of Messrs. I. Devitt & Sons, Freeman, Ont., Burlington Station, where they are breeding Clydesdales, Short-horns and Holsteins.

At the head of the stud is Grandeur II., a magnificent horse got by Grandeur, Sorby's celebrated prize-winner. His dam was Belle, also imported by Sorby. This mare was never beaten in this country; she won twice in succession at Toronto.

Grandeur II. is of great size, standing 17.3 hands high and weighing 2,200 lbs. He is well proportioned, has plenty of good, clean, flat bone, great depth of chest and with strong, well-rounded shoulders. He has a good strong back and well-turned hind quarters.

Another choice animal is a two-year-old stallion got by Douglas McPherson, imported. His dam was Lady, got by imported Grandeur. This is a wonderfully good all-round horse, with feet and underpinning as near perfect as you could get. A full brother of his, a year younger, is in good growing condition. He will make a larger horse, more of the stamp of Grandeur II., and will be heard from later on. There are two other stallions of the same age by Grandeur II., both good, growby colts, which promise to make large and smooth horses. These colts do not carry much flesh, but have great development of bone and muscle, in good condition for a man to take hold of and build a horse for himself.

The oldest mare on the place is Elsa, by Boydston Boy. Her dam was Belle, imported. She resembles her sire greatly, and is in foal to Sorby's Prince Charming. Another good mare is Lady Grandeur, by Grandeur imp., dam Elsa. This mare is only seven years old. She has raised three colts and is in foal again, which is a good record for a mare of that age. One of the best looking mares on the place and also a great favorite with the owner is Bess. Her feet and pasterns are good enough to please a Scotchman. She was sired by Douglas McPherson, dam by McClary, great-dam by Boydston Boy. They also have a number of young fillets, which are all in good, thrifty condition.

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'. 2c. and 50c.

They are very particular to give plenty of exercise. The young stock and breeding mares not at work are turned out every day. In this way they develop their bone and muscle.

Their feed through the winter consists of crushed oats and bran, the mares get about a half-gallon three times per day and about the same amount of bran night and morning. At noon they all get a feed of crushed oats, cut straw and cut ensilage. Eight pounds of corn ensilage, thirty of oats, about as much cut straw as ensilage, salt freely and dan pened, mixed five or six hours ahead, is fed to twenty-one head for noon. They like ensilage very well; have had the best results when ensilage has been fed all winter.

Cattle.

M. Richardson & Sons report that their herd has come through the winter in good shape, and the sales have been frequent as the demand is brisk and the prices good. They report a good demand for the Holsteins in the East, he having shipped several to Quebec and Prince Edward Island.

They have just been officially testing a few of their cows. We were given the following: Juka Mercedes De Kal, a three-year-old, 398 lbs. milk and 17½ lbs. butter in seven days; another three-year-old is Daisy Mechthilda, 451 lbs. milk, 15½ lbs. butter in seven days. A two-year-old, Flora Wayne of Riverside, gave 28½ lbs. of milk, making 11.7 lbs. butter in seven days.

Mr. W. D. Flatt, Hamilton, Ont., purchased recently at a sale of Short-horns held by Mr. C. S. Gerlaugh, of Osborn, Ohio, the imported Missie heifer, Missie 165, for \$2,200. She is a two-year-old and a notable show heifer. This was the top figure of the sale which averaged \$463.30.

Mr. Flatt in conjunction with H. Cargill & Son, W. C. Edwards & Co. and Hon. M. H. Cochrane will offer for sale at Chicago on Wednesday of this week sixty head of Short-horns, all imported and Canadian bred.

FITS Lebig'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 unconditionally recommended to the afflicted. If you suffer from

EPILEPSY, FITS, ST. VITUS' DANCE,
or have inhibition or relatives that do so, or know a friend that is afflicted, then send for a free trial bottle and try it. It will be sent by mail prepaid. It has cured where every thing else has failed.
When writing mention this paper, and give full address to
THE LIEBIG CO., 179 King street west, Toronto.

CURED

ALVA FARM GUERNSEYS



THE
TYPICAL
DAIRY
BREED.

Good Animals of both Sexes for Sale.

Sydney Fisher,
KNOWLTON, QUE.

AYRSHIRES AND YORKSHIRES FOR SALE.

SIX PURE-BRED AYRSHIRE BULLS coming 1 year old, fit for service, and one coming 2 years old next August. All sired by "White Prince" (Imp.) except the one coming 2-years-old. As I am about renting my farm these bulls will be sold cheap if taken at once. Also a number of fine pure-bred Yorkshire Sows from one to four years old.

JOHN H. DOUGLAS,
WARKWORTH, Ont.

Sheep

OXFORD DOWN SHEEP



Durham Cattle, "Milk-
ing Strains", York-
shire Pigs; Plymouth
Rock Poultry.
John Cousins & Sons,
Harrison, Ont.

SHAWANOO HILL FLOCK of Cotswolds

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

JOHN RAWLINGS,
Forest, G.T.R. RAVENSWOOD P.O.
ONT

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

SMITH EVANS, GOUROCK, ONT.

Breeder and Importer
of registered Oxford
Down Sheep. Selections
from some of the
best flocks in England.
Stock for sale at
reasonable prices. In-
spection invited.



SMITH EVANS : GOUROCK, ONT.

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

U S U S U S U S U

THERE IS NO BETTER INVESTMENT

FOR THE DAIRY THAN THE

Its substantial one-piece frame and enclosed gears, running in oil, insures the user a long lived machine and few repair bills. Its three-separators-in-one bowl makes it the greatest cream producer on the market, as has been proved many times in competition with other makes. If interested, write for illustrated catalogues.

VERMONT FARM MACHINE CO.
BELLOWS FALLS, VT., U.S.A.

IMPROVED U.S. CREAM SEPARATOR

221

U S U S U S U S U

Market Review and Forecast

Office of THE FARMING WORLD,
Confederation Life Building,
Toronto, June 3, 1901.

Though the wet weather is interfering with trade somewhat, the volume of business doing has been well up to the average. The outlook for future trade is good, and wholesale men are very hopeful. The farmers' position financially is better than for some time back, which gives a solidity to business that it would otherwise not have. There is a little stiffening in the money market, and it is difficult to obtain money on call at under 5 per cent. Discounts are steady at 6 to 7 per cent., as to name and nature of account.

Wheat.

There is no material change in the wheat situation. What little there is in the direction of lower values, though Chicago went up a cent on Friday for July options. There is a tendency among speculators to sell July wheat and buy September, believing that the new crop will be of better quality than the old stock, which might lead to overselling of July. The *Price Current* sums up the situation of the week as follows:

"The situation in the wheat market has not changed much during the week, the net change in prices being a slight reduction. Prices for the more deferred deliveries were relatively a little firmer than cash or May delivery. Nevertheless there appears to be a fair cash demand for good wheat. The weather and crop outlook is the predominating influence in the market, which shows considerable nervousness by reason of reports and rumors of damage to the growing crop by insects and dry weather.

"The crop situation is in some respects similar to that prevailing at this time a year ago, when the great crop damage scare began to develop. The spring wheat is in good condition, but there is a cry of dry weather, though no harm is manifest as yet. The crop is better able to withstand a period of dry weather than last year, owing to the presence of more moisture in the subsoil. There are also now many rumors of insect damage in the winter wheat, but positive damage to a serious extent has not yet developed. However, the possibilities of such conditions arising cause a nervous feeling in the wheat market, especially for futures."

Locally the market has ruled quiet, though some export business is reported. Quotations here are 68 to 69c. for red and white, 66 to 67c. for goose, and 70c. for spring, as to place of shipment. On Toronto farmers' market red and white bring 71 to 72c., spring 70½c., and goose 68 to 68½c. per bushel.

Oats and Barley.

Oats have fluctuated during the week, but there is a slightly better feeling in sympathy with the English market. The market is steady here at 33c. for No. 1 white east, and 31½ to 32c. for No. 2 white middle freights. On Toronto farmers' market oats bring 36 to 37c. per bushel.

There is only a fair enquiry for barley. Quotations here are 43 to 50c. as to quality and point of shipment. On the farmers' market barley brings 46½c. per bushel.

Peas and Corn.

The market for peas keeps steady. Quotations here 66c. north and west, 67c. east, and 66 to 66½c. middle freights. On the farmers' market peas bring 71c. per bushel.

There has been intensive feeding of corn in the Western States and not much for shipping. A big area is planted this year and the crop is looking well. Prices here are a shade lower. Canadian yellow is quoted here at 47c., and No. 3 American at 49c. on track, Toronto.

Bran and Shorts.

Though pastures are covered with an abun-

dance of good feed the bran market is firm. Montreal quotations are \$15.25 to \$15.50 for Ontario bran, and \$16 to \$16.75 for shorts, and \$14.75 to \$15 for Manitoba bran in car lots in bags. City mills here sell bran at \$15.50, and shorts at \$16.50 in car lots f.o.b. Toronto.

Eggs and Poultry.

The egg market rules steady and prices are a little firmer. Packers who have waited for lower prices seem to have abandoned all hope of getting them and have been pretty busy filling their vats. Some shipments of pickled stock to England at about 7s. At Montreal round lots are selling at 11 to 11¼c. Offerings here are fairly large, but they are well absorbed owing to the demand for pickled stock. Prices are 10½ to 11c. for round lots. On Toronto farmers' market eggs bring 11 to 14c. per dozen.

On Toronto market chickens bring 75c. to \$1.00, and spring chickens 80c. to \$1.25 per pair, and turkeys 9 to 11c. per lb.

Hay and Straw.

The *Trade Bulletin* has this to say on last week's hay trade:

"This market is very difficult to quote, as some holders here report sales at 50c. to \$1 per ton more than others; for instance, we were given sales to day of several cars of No. 2 at \$11, whilst another party sold a car of No. 2 at \$10.50. One party stated that he sold a car of No. 1 at \$13, and another dealer said that all he could get was \$12. We have, however, been shown documents proving that choice No. 2 was laid down here at \$10.25, the lot consisting from those mentioned in our market report. Cable advices report a weaker market in England with prices at 1s. to 1s. 3d. lower. Here the market is reported easier to buy, with country offerings increasing. Several more ships are reported engaged for the shipments of hay to South Africa."

Prices here are steady at \$9.50 to \$10 for car loads of No. 1 timothy on track Toronto. On the Toronto farmers' market hay brings \$11 to \$13.00, sheaf straw, \$8 and loose straw, \$5 per ton.

Cheese.

The feature in the trade just now is the large decrease in shipments so far this season as compared with a year ago. The combined exports of cheese for the season from Montreal, Portland and New York are as follows, with comparisons:

	1901.	1900.
Montreal, boxes.....	54,583	125,749
New York, boxes.....	44,938	84,046
Portland, boxes.....	20,532	6,944
	120,053	216,739
Decrease.....	96,686	

There is, however, an easier feeling in the markets as compared with the week previous when prices at some of the local boards ran up to 9 to 9½c. The English market rules quiet, though supplies of new Canadian are not large. Colored now command higher prices than white, which was not the case a week or two ago. At Montreal finest Western colored are quoted at 9 to 9¼c., and white at 8¼c., and finest Eastern at 8½c. At the local markets during the week prices have ruled from 8½ to 8¾c., with 8½c. frequent at end of week. Last year, for the corresponding week, prices ranged from 9½ to 9¾ at the local boards.

Butter.

As compared with cheese, the exports of butter so far this season show an increase. The combined exports for the season from Montreal, Portland and New York are as follows with comparisons:

	1901	1900
Montreal.....	14,527	4,965
Portland.....	44
New York.....	6,291	1,117
	20,862	6,082
Increase.....	14,780	

The market has opened up well and good prices have ruled during the past few weeks, though an easier feeling is reported during the week. The increased supplies will have a tendency to lessen values. Sales in the country are reported at 19½ to 19c. Early in the week butter sold at Montreal at 20c., but later dropped to 19½. Exporters state that their cables will not allow them to pay more than 19c. Creamery prints are in good demand here at 17 to 18c. per lb. Choice dairy tubs bring 13 to 14c. per lb. in a jobbing way. On Toronto farmers' market butter brings 14 to 17c. per lb.

Cattle.

The cattle markets seem to be holding their own and especially for shippers. The scarcity of feeders in the west and in Canada is causing a stiffening in prices generally. At Toronto Cattle Market, on Friday, there was a large delivery of stock composed of 1623 cattle, 1500 hogs, 124 sheep and lambs and 14 calves. Though there were several lots of well finished animals in both the butchers' and exporters' classes, yet there were too many unfinished animals being marketed. Trade in nearly all classes was good, excepting for the inferior grades of butchers' cattle. Shipping cattle were firmer than earlier in the week, a few lots selling as high as \$5.40 per cwt. The heavy delivery of butchers' cattle caused an easier feeling and lower prices in this class, especially for the poorer grades.

Export Cattle.—Choice loads of these are worth from \$5.15 to \$5.40 per cwt. and light ones \$4.80 to \$5.00 per cwt. Heavy export bulls sold at \$4.00 to \$4.40, and light ones at \$3.50 to \$3.90 per cwt.

Butchers' Cattle.—Choice picked lots of these, equal in quality to the best exporters', weighing 1,050 to 1,150 lbs. each, sold at \$4.80 to \$5 per cwt., good cattle at \$4.60 to \$4.80, medium \$4.30 to \$4.55, and inferior at common at \$3.25 to \$3.80 per cwt.

Feeders.—Heavy, well-bred steers, from 1,100 to 1,200 lbs. each, sold at \$4.60 to \$4.90, and other quality at \$4.40 to \$4.50 per cwt. Light steers, weighing 900 to 1,000 lbs., sold at \$4.00 to \$4.25 per cwt.

Stockers.—Yearling steers, 500 to 800 lbs. each, sold at \$3.75 to \$4.00, off colors, and inferior quality at \$3.00 to \$3.25 per cwt.

Calves.—These are higher at Buffalo, choice to extra bringing \$6.50 to \$6.65 per cwt. At Toronto market ordinary calves bring \$2 to \$8 each.

Milch Cows.—These sold at from \$27 to \$54 each. Choice cows would bring more money.

Sheep and Lambs.

Good export ewes are scarce and the price is firmer. On Friday sheep sold at \$3.50 to \$4 per cwt. for ewes and \$2.50 to \$3 for bucks. Yearling grain fed lambs sold at \$4.50 to \$5 per cwt. and other quality at \$4 to \$4.50. Trade was dull at the end of the week, at Buffalo, owing to large supplies. Strictly grain fed choice to extra lambs sold at \$5.25 to \$5.40 per cwt., and sheep at \$4.25 to \$4.50.

Hogs.

The high prices of the past few weeks for hogs were well maintained till Friday when, owing to the large supply, they dropped 25c. per cwt. The best select bacon hogs sold at \$7 and light and thick fats at \$6.50 per cwt. Unculled car lots sold at \$6.80 to \$6.90 per cwt.

The Wm. Davies Co., Toronto, will pay \$7.00 this week for select bacon hogs, and \$6.50 for light and \$6.50 for thick fats.

At Montreal bacon hogs have sold at \$7.35 and other grades at \$7 to \$7.20 per cwt. The *Trade Bulletin's* London cable of May 30, re Canadian bacon, reads thus:

"Last week's advance curtailed the consumptive demand, but as supplies were light holders maintained prices. Canadian bacon



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is quoted at 59s. to 62s. Fancy lean sides having brought 1s. to 2s. more money.

Horses.

Only a fair business is reported at Montreal during the past week on local account, although a fairly brisk business is reported on export account for the British army. For local account business has been done at the following range of prices :

Carriage horses	\$180—\$350
Heavy draughts	190— 225
Light roadsters, drivers and saddles	100— 200
Remounts	110— 140

Though the sales at Grand's Repository last week were largely attended, there was more pleasure than business connected with them, largely because of the races. However, about 65 horses were sold during the week, mostly drivers. Fifty were sold by auction and the balance by private sale. Good drivers by public sale brought from \$85 to \$125 each. A specially good pair of carriage horses sold by private sale at \$400 for the pair.

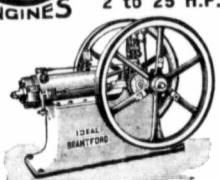
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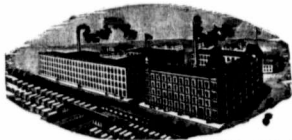
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We have in stock at present and offer for sale rebuilt machines as follows :

	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 Vost	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	50 00	55 00	Bar-lock	40 00	45 00
No. 1 Jewett	75 00	80 00	Hammond Ideal	40 00	45 00
No. 2 and 3 Jewett	75 00	80 00	Latest Oliviers	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.

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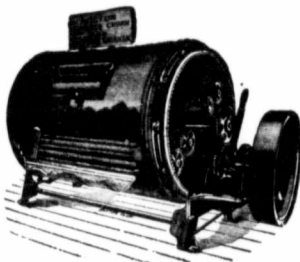
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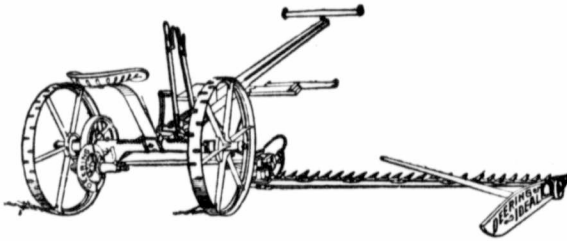
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Patent Foot and Lever	No.	Holds	LIST :
Drive.	0	6 gal.	Churns
•	1	10 "	4 to 8 gal "
Patented Steel Roller	2	15 "	1 to 5 "
•	3	20 "	3 to 7 "
Bearings.	4	25 "	3 to 9 "
•	5	30 "	4 to 12 "
Improved Steel Frame	6	30 "	5 to 14 "
	8	40 "	8 to 20 "

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