

The Farming World

A PAPER FOR
Farmers and Stockmen

34th Annual Exhibition

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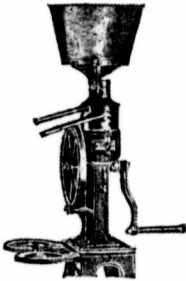
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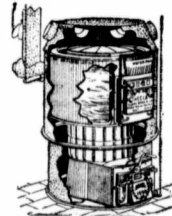


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The Farming World

For Farmers and Stockmen

VOL. XIX.

JULY 2nd, 1901

No. 1

Look After the Milk.

DURING July and August patrons of cheese factories and creameries should redouble their efforts in connection with the care of milk for cheese or butter making. From now till the end of August is the very worst time of the year for making fine cheese. The flavors that will develop in milk during this period if not properly cared for are almost innumerable, and capable of all kinds of odors, combinations, and conditions. If, however, the patron watches his cows carefully, giving them an abundance of good water and wholesome, succulent food, and looks after the milk in a way that will preserve it from contamination with bad flavors, etc., he can, without any great difficulty, provide for its deliverance at the factory in good condition

To do this, however, requires some application, and the time of some one individual whose duty it should be to look after the milk. Cleanliness is most important in connection with the milking utensils, the milking and the keeping of it over night. The air surrounding milk that is being kept over night should be pure and free from any odor that would contaminate the milk. The aeration of the milk is also important, and should not be neglected. It should be done in every case as soon as the milk is taken from the cow, and before it is cooled. While some authorities may not agree with us, we believe it would be a good plan, during these months, at least, to cool the milk down to a low temperature before setting away for the night. This can easily be done by setting the cans in cold or ice water, and if a windmill is at hand, and a running stream can be had so much the better. A box large enough to hold the cans, and with an intake and outlet pipes, serves the purpose admirably where running water is obtainable. The morning's milk should not be emptied into the night's milk till the milk-wagon arrives, and it would be better to have two cans and not mix them at all.

Whatever method is adopted, the patron should redouble his efforts to supply his maker with good milk. Because of its being the busy haying and harvesting season many may not care to give the time to this necessary work. But it will pay to do so, and with cheese and butter selling at present prices, there is more money in giving attention to the milk than

in devoting the whole of one's time to harvesting a hay or grain crop.

The Cheese Trade.

Not Enough Difference in Price as Between Good and Medium Factories.

The recent criticisms of Canadian dairy products made by the High Commissioner for Canada, as noted in these columns two weeks ago, have aroused considerable interest in the country. It was shown, and we think fairly, that it is the average factory that is doing the most harm to the Canadian cheese trade. The very bad factory can be left severely alone if need be, and in this way an improvement brought about, or the concern compelled to give up business. The very good factory, with up-to-date buildings and equipment, and where every effort is put forth to turn out the finest quality of product, will take care of itself. But the medium type of factory, with nothing very good and nothing very bad about the buildings and equipment is the hardest to do anything with. At the local markets their cheese brings the same price, or nearly so, as that made in the very best factories, and consequently it is hard to impress upon the managers, owners, or patrons the need for better buildings, better curing facilities, and better methods of caring for the milk.

And is their reasoning not sound? If the local buyers will pay as much for their cheese in the open market as for the cheese from the best equipped and up-to-date factories, why should the former be compelled to expend a thousand or two dollars in better equipment and facilities for making? That is the way many of these average factories reason out the matter, and till the methods of buying are changed they will feel like clinging to their old ways. We have been at the local markets frequently, when all the cheese offered from good, bad and medium factories were bought up by dealers at the same figure, an exception only being in the case of some of the very poorest ones; no difference being made as between the medium and good factories. Under these conditions of buying and selling the trade has no one to blame but themselves if little progress is being made.

Of course, all cheese is sold subject to inspection. But as the goods are shipped before the cheese are fully matured, the inspector is not able to detect flavors that develop at later stages in the life of the cheese. If the buyer would take the facilities for

making, sanitation, etc., of a factory into account when bidding, and would make allowance for the probability or possibility of latent flavors developing when the goods arrive in the Old Land, and gauge his price accordingly, there would be more variation in the values obtained by different factories than there is at the present time. In other words, if the exporter would put a premium on good buildings, good curing facilities, and other equipment necessary for the proper handling of milk and making cheese by paying a higher price for the cheese made under such conditions, it would do more than anything else towards bringing about an improvement. During the past few years quite a number of factories have gone to the expense of putting in sub-earth ducts and properly insulating their curing-rooms so that the temperature can be kept under control, and it would be most interesting to know if the buyer appreciates such efforts by paying a higher price for the product, or a little less for cheese cured under old conditions.

Then it will be found that the medium factory will have as a rule lukewarm or medium patrons, who are satisfied to go along just as they have been doing so long as their milk is taken in over the weighing porch and their cheese goes off at about the same price as the neighboring factory where everything is in ship-shape. There is nothing that will bring about improvement so quickly and so effectively as touching a man's pocket, and paying him according to the real value of his product, whether it is good or bad.

While our dairy education propaganda, as conducted by the Dairy Associations, Dairy Schools, etc., is along the right line and should be pushed forward energetically, we are inclined to the view that if a little more variation in the prices paid on this side for the cheese from good, medium and bad factories were made, an improvement could be brought about more quickly and effectively. Let, say for one season, the same variation in price be made to the different factories as is made with the cheese from these same factories by the dealer in Great Britain, and a revolution in the way of better buildings and equipment would be worked in a very short while. The trouble is we have both average factories and average buyers who buy on the average plan, trusting to the fine quality of the cheese from the very best factories to help sell that from the medium factory in the English market.

The County or Travelling Library.

A movement that is extending in many parts of the United States is that of travelling libraries. These are specially adapted for rural sections and enable farmers in isolated portions of the country to obtain good reading at comparatively little cost. The travelling library, the outcome of a movement scarcely a decade old, is now found in forty-two States of the Union. Nothing definite has yet been done towards extending the movement among the farmers of Canada. There is, however, no good reason why the travelling library should not find a useful field in this country, as well as in the United States. A scheme of this kind was instituted last spring in connection with supplying literature to the mining and lumbering camps in the Northern portion of the province. But why not extend it to the rural sections?

An interesting review of the working of a county or travelling library appeared in a recent issue of the *Literary Digest*. At the beginning of this year through private bequests, a county library, the first in America, was opened to the people of Van Wert County, Ohio, known as the Brumback Library after the donor. The working of this venture cannot be better described than in the writer's own words, which are as follows:

"The admirable feature of the Brumback Library is the fact that it is a county library, its privileges being extended to the people of the country and of the town and city alike. If we look into the history of the philanthropies of our nation, we shall find that they have almost exclusively benefited the people of the town and city. Who has done anything to make life happier, better and sweeter on the farm? The reports of our recent decennial census inform us that during the past decade thousands of people have migrated from the country to the town and city. What has been the result? Unhappily it has been that many of the best farm districts to be found anywhere in the country have to-day fewer people than they had ten years ago, although our nation has made, during the past decade, a gain of over ten millions.

"The method adopted by the Brumback Library to bring its books to all parts of Van Wert County is easily explained. The library itself—which represents a value of \$50,000—receives an annual income of fully \$6,500, and has a stack-room capacity when all available room shall be used, of 100,000 volumes,—is located in the city of Van Wert, the county seat of Van Wert County. Fortunately, this city is located in the center of the county, which contains in round numbers 275,000 acres and has a population of nearly 35,000. Besides the central library there are ten branch libraries, which are so situated that every resident of the county is within easy access of the library itself or of one of its branches. The ten branches have a

unique feature in the form of what may be called a travelling library system, and are also in direct communication with the central library. The ten branch libraries are placed in the more important stores or offices of the villages of the county, where they are excellently well managed, by virtue of the fact that those having charge of them are given nominal salaries.

"To start the traveling-library system, the library trustees purchased 1,000 books, most of them entirely new, which were sent to the ten branch libraries, 100 to each branch. After keeping its 100 books two months, each branch sends them to one of the other nine branches, and receives a second 100 from one of its neighbors to take their place. So the books pass from branch to branch until each branch has had the thousand books, when they are returned to the central library, and catalogued. In the mean time, another 1,000 books have been purchased and put in readiness to repeat the experience of the first thousand.

"I have already said that the branch libraries are in direct communication with the central library. By this I mean that all persons securing books from the central library through any of the branches are subject to no other rules than those imposed by the central library. Cards can be had from the central library only; but persons holding cards may secure books anywhere in the county. The more important papers of the county have published lists of all the books contained in the library, and continue to publish the titles of new books as soon as they have been catalogued.

"During the few months since the Brumback Library opened its doors to the people of Van Wert County it has been conclusively proved to be a very gratifying success. Unusual interest is manifested, and books go every day to readers in even the most remote townships."

Seed Grain Selection

Crop Conditions in Western Ontario—Ravages of the Hessian Fly.

Mr. G. H. Clark, who has special charge of the Macdonald Seed Grain Competition, gave *The Farming World* a pleasant call last week while on his way to Ottawa after visiting the competitors in Western Ontario. There are from six to twelve competitors in each county in the west—all young boys and men under twenty years of age. Each one is operating a quarter of an acre plot of wheat or oats from which they select each year a sufficient number of large heads from the most thrifty plants to produce enough good seed to sow a one-quarter acre plot the following year.

The ideas which they get from performing this work serve as excellent object-lessons both to the competitors and to the people living in the vicinity where the plot is located. A great many farmers, in some instances as many as ten or twelve, have examined the growing grain

from the selected seed and the system of selecting from plants as well as from seed is being freely discarded. Most of the parties on whose farms these seed grain plots are being operated, acknowledge that the general appearance of the crop on the seed grain plot is superior and more vigorous than that of their general farm crop.

The principles which apply in the grading up of plants are much the same as those which apply in the grading up of live stock. Take, for example, the grading up of poultry. The poultry-keeper, raising birds for market, first selects the best birds for egg-producers, and secondly the best and most uniform eggs from these birds. On the same principle, the first step in the grading up of grain should be taken with the plants themselves, and secondly with the grain from these plants.

The competition runs for three consecutive years, and will close in 1902. Those who are competing will have to select seed for 1903 before they will be awarded prizes. In districts where the Hessian fly is very bad, many of the fall wheat competitors had become somewhat discouraged, and a few had decided to withdraw from the competition. When they considered, however, that the greater part of the wheat grown in Western Ontario is affected by the fly, and that all, or nearly all, of those taking part in the competition are experiencing the same trouble, they have all consented to continue with the work.

Mr. Clark reports the crops in some of the districts in Western Ontario, where they have heavy, clay, flat soils, still showing some of the effects of the early spring rains. In districts where the Hessian fly is prevalent, fully one-half of the fall wheat crop is being cut for hay, pastured, or plowed down. In a section about a mile and a half north of Lake Erie there is little trace of the fly, and the crop will be a heavy one. On the lighter and loamy soils spring crops are excellent, and the hay crop promises from 2 to 3 tons per acre. Rain is badly needed in the Northwestern counties, including Huron, Bruce, Grey and Simcoe.

Root crops and corn are generally looking well. In many sections of the country where farmers obtain their seeds from small local and unreliable dealers, the germination has not been good. In some cases the loss will equal from one-third to one-half because of the sowing of this old seed. In purchasing seeds, therefore, of any kind, and especially the small packages, farmers should make sure that they are getting fresh stock. In some instances seed two or three years old has been palmed off on buyers.

Cheese and Butter for the Pan-American.

We learn that a large number of entries have been received by Mr. Geo. Hatley, Secretary of the Western Ontario Dairymen's Association, for exhibits of cheese and butter to be made at the Pan-American in July. The total entries received are: White

cheese, 44; colored cheese, 50; and butter, 28. As previously announced, the exhibits will be sent to Toronto, where a committee of experts will examine the different lots, and select those that should be sent forward. This examination will probably take place this week.

The Poultry Trade.

The following, from the annual report of the Department of Trade and Commerce at Ottawa, is of value to parties interested in the development of the export trade in Canadian poultry. The extracts are from the department's representative in Great Britain:

"The trade in Canadian poultry is evidently making gratifying progress. There have been letters from several large dealers stating their desire to take up the sale of Canadian turkeys, fowls, etc., and asking to be placed in communication with Canadian shippers. The mild weather experienced at Christmas time and the delay in transit of some Canadian requirements were unfortunate incidents, entailing, it is to be feared, heavy losses, but the trade is evidently obtaining a solid foothold. The Department of Agriculture has made a special study of the requirements of this market, but I reproduce the following suggestions made by a large London importer of Russian and other poultry for the benefit of Canadian shippers.

POINTERS FOR CANADIAN EXPORTERS

1. The best fowls to breed and to kill for the table are Plymouth Rocks.
2. Surrey fed fowls make the best prices.
3. All poultry should be kept twelve to fourteen hours without food or water before killing, so as the food in their crops is digested and their crops empty.
4. All feathers taken off whilst the birds are warm, directly after killing, excepting the feathers on their heads, which must be left on.
5. All poultry should be allowed to get quite cold before packing in boxes to freeze them.
6. The best packages are flat boxes to contain 12 or 20 birds.
7. The trade is good for fowls averaging 4 to 6 lbs. each, and also good for fowls or chickens averaging 2½ to 3 lbs.
8. All poultry should be hard frozen when put on steamers, and poultry to be placed in steamer refrigerators.
9. The trade for frozen poultry is good from December right up to the end of July.
10. All cases should be marked with the initials of the exporter, and the net weight to be marked on each box, each box to be numbered in running numbers, for instance, commence at No. 1 and follow on.
11. The trade in turkeys is only good from December 15 to the end of February."

When a man feels that he is losing his memory he can usually reassure himself by attending a minstrel show.

Correspondence.

Racy Letter from Nova Scotia.

Crop Prospects—Maritime Fat Stock Show—Special Attractions 'at Fairs.

Editor THE FARMING WORLD:

This is leafy June, and very cool, but for freshness and beauty it has not been equalled for years. The past winter beats all the records of the oldest inhabitants. The snow came on early in December, before there was any frost on the ground, and it kept on coming, and came to stay! and when our last winter snowstorm had spent its fury, we found ourselves floundering in about 4½ feet of the beautiful. When the warm days of March came, it began to slowly disappear, and by the first of April the fields began to show green.

Down here we consider a winter like the past of great value to the farmer, as it is almost a guarantee of a good hay crop. If you could see our fields to-day you could not help coming to the conclusion that the snow bank is the poor man's manure pile. The grass in the country is at the very least two weeks earlier than usual, and grain is looking well. The frequent showers have somewhat retarded seeding operations, but I have no fear but that there will be a larger area sown. The prospects for the tiller of the soil never were brighter than at the present time.

There is a movement among the stockmen to establish a fat stock show somewhere in the Lower Provinces, patterned, no doubt, after the one held in Guelph. I welcome all these new ideas for the advancement of agriculture and wish this new move well, but these shows and exhibitions will have to be carefully watched if their influences are to be of lasting good.

The breasts of our legislators and exhibition commissioners are filled with tender solicitude for the welfare of the farmer, but I question very seriously whether the exhibitions, as at present conducted, are calculated to uplift and ennoble the farmer and his family. The stock, agricultural, horticultural, and industrial departments are fine, and the exhibitors in those departments deserve well of the sight-seer. But what about the sports, the side-shows, and the fakers' tents? Is it in the interest of the agriculturist to allow on the show ground exhibitions of the vilest character? It is bad enough to be asked to pay to see a foolhardy wretch dive from a platform into a tank of water, and another walk a tight rope with a woman astride his neck, but do you think any mother's daughter is helped and uplifted by seeing one of her sex dressed in tights swinging like monkeys on a trapeze? Will she be more womanly? Do you think the young man fresh from the farm should be tempted to spend his dimes to attend a side-show that I would no more dare attempt to describe on paper than I would take hold of a live electric wire.

And yet the commissioners will tell you that it is in the interest of agriculture, and it has to be done to attract

the crowd. Do they pretend to tell me that the people of this country won't attend an agricultural show unless such things are allowed on the ground? I say it is a libel on the fair name of its citizens. I believe that an agricultural exhibition can be run on a paying basis without any of the questionable helps that are employed.

If the commissioners and those in charge are willing to do a fair day's work for a fair day's pay, but if there has to be special pulls for special people, and it comes to be the custom, you scratch my back and I will scratch yours, then the people have to be called upon for an extra allowance to make the accounts balance. I was on the Toronto Fair grounds the day that that distinguished Chinaman, Li Hung Chang visited the Exhibition, and I was amazed as I saw the people rush for the race track and the grand stand. I was told by one who had been in the Charmed Circle, that in addition to the diving, jumping, running and swinging, that there were special dancers there from New York. I was a stranger and comparatively alone, but I did happen to know some of the people, and I saw some knocking for admission to those gates that do not attend races when at home. I stood on the rising ground near the building where the dog and cat show is held and saw (shall I say ladies) in all probability they would be called that at home, but the manner in which they were scaling the high board fence in the rear of the grand stand was anything but dignified. What a vast amount of instruction and help in the line of agriculture these people would get by witnessing such a performance.

Take care, farmers of Canada, how you aid and abet such things. The professional gambler and the saloon are at the bottom of all this; the more people they can induce to rush to such things, the more victims they have. The management of an agricultural fair, or any other fair for that matter, should not tolerate anything on the grounds but what any child could look upon without let or hindrance. The welfare of the country depends to a very large extent upon the social purity of our homes, and anything that distracts and disorganizes the home is not in the interest of agriculture, and the fair that can't be run without the faker, the side-show, the horse race and the saloon had better go, for the tendencies of these things are evil, and only evil, and that continually.

B. W. RALSTON.

Amherst, N.S., June 15, 1901.

"Did anybody ever try to start a newspaper here?" asked the intellectual man with glasses.

"Yes," answered Broncho Bob. "But it failed. The editor wouldn't tend to business."

"Was he a dissipated man?"

"No. But he insisted on sitting at his desk with his back to the door, when he ought to have been standing with a six-shooter in his hand and his eye at a knot-hole."—Washington Star.



Ideal Farm Homes

In this department of our paper, which is comparatively new, we have presented, even in the short time we have been running it, quite a number of architectural designs of houses that have been considered not only handsome, but conveniently arranged to make comfortable homes. The house we present with this article is our No. 25, which would cost to build about \$1,800.

We could say a word in regard to the building of a house and for ourselves at the same time, or if not for ourselves for the architect who draws these plans and gets his prices the best he can without having a contractor to figure on them. Of course there is some variation in prices in the different sections of the country, and

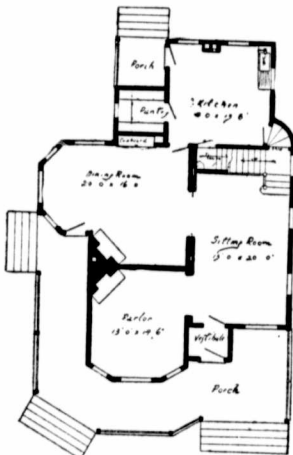
strange to say, we have had as many people write us that the houses could be built cheaper than we have said, as we have thought that they would cost more. These differences arise from the different conditions in the several sections of the country in which these plans are taken up. There is no house that can be built exactly according to the architect's plans except the house that is planned all the way through for a particular section of the country.

The outside of a house would look the same in Canada or in Florida, but the building of it is vastly different, just the same as a house would look from the outside whether built in a large city or in the country. The city man may not have any more money than his country brother, but his associations have led him to think that he must finish his house with expensive woods and decorate it with beautiful frescoes. The farmer builds apparently the same house, but uses good, substantial woods, that while they are as handsome, are in a little more common use, and, therefore, are not as expensive. One is as durable as the other. Sometimes we find that the extremes go the other way, and the farmer who has lived all his life in a cheaply built farm house decides that he wants the best there is in the shape of a residence. It is true that the farmers are building better houses than they ever did before. This is an indication of more prosperous times and of the education that the younger generation has received in the line of art, beauty and comfort.

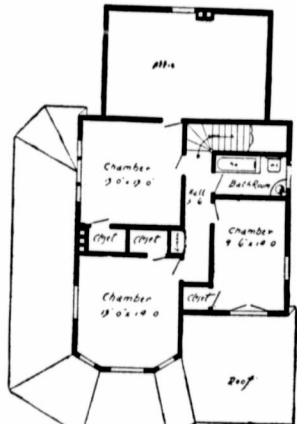
It has often been remarked that it is well we do not all think alike. If we did, then one house plan would do for everybody, the architect

would be of no use, and the contractor would have nothing to puzzle his brain about. As it is, we must continually get up new plans and new ideas.

The design we present with this article has probably taken the fancy of as many builders as any one that we have so far presented. In size the house is 35 feet in width by 46 feet in length, exclusive of porches. The blue prints consist of cellar and foundation plan; first and second floor plans; front, rear and two side-elevations; wall sections and all necessary interior details. This house can be built for \$1,800, exclusive of plumbing. The blue prints, together with a complete set of typewritten specifications, can be had of The Farming World for the small sum of \$5.00.



First Floor Plan.



Second Floor Plan.

Farming in Eastern Canada

Rotation of Crops—Cost of Production—Growing Potatoes

By J. A. Macdonald, Hermanville, P.E.I.

The most common rotation practiced in late years in Eastern Canada, that is, in the more advanced agricultural portions of Nova Scotia, New Brunswick, and very largely in Prince Edward Island, is the following:

First year, sod broken for oats.

Second year, roots, potatoes, rich with manure.

Third year, wheat, seeded to clover and timothy.

Fourth and fifth years, clover and timothy, hay or pasture.

In the first year the sod is broken in the previous fall; the plowing in the fall is important, not too early in the fall either should the plowing be done, because if plowed early in the fall too much grass and weeds are liable to grow, and this works against putting the land in proper tilth for the oats at seeding time. Manure, as a fertilizer, is seldom applied to the oat crop. Early in spring, just as soon as the ground is dry enough for horses to walk on, this ground is disk-harrowed twice. This dries out the land, much quicker than if it had not been disked at all. In three days, if weather is dry, the oats are sown, three bushels per acre, mostly of the black variety, with one of the numerous broadcast seeders now in use. Oats are seldom drilled. After sowing, the land is again disked once or twice, followed by a spring tooth harrow and then rolled or dragged. I prefer a plank-drag for early seeding. Some do not roll till the grain is several inches high. The matter of using the roller is as yet a problematical one, therefore for early sowing a plank-drag is to be preferred. Nothing more remains to be done to the oat crop till harvest time.

After harvest this oat ground is plowed and harrowed right away. Some sort of cover crop, as rape, rye, barley, and peas, or vetches, should be harrowed in. This makes a fine fall growth which may be pastured some through fall and winter, but the majority sow no crop but keep cultivating the ground once in a while during the fall to keep the land open and suppress weed growth. In the following spring it was a common thing to cross-plow this ground again before applying the manure. Now, however, with the advent of so many improved harrows and cultivators, few cross-plow in the spring; but (1) spread the manure in the land in winter or early spring, and disk harrow thoroughly before planting; or (2) harrow and cultivate thoroughly in early spring and then spread on the manure. If there be much long straw in the manure it does not answer very well to harrow in, but must be plowed under. In spreading the manure on in winter or early spring, it is difficult to cultivate unless the material used for bedding litter has been run

through a cutter. By either of these methods the land is brought into good tilth and the manure—10 to 20 tons per acre—for the potato crop, which by far is the principal root crop in Eastern Canada, is not plowed under before planting, but is plowed under as the potatoes are planted. Early seeding of the potato crop is becoming more essential each year.

As to varieties, the blue potato, called the Chimango, on the Boston market is the variety in more general use. In Prince Edward Island, where large quantities of potatoes are grown, neither the people nor the soil and the climate takes kindly to the Rose and Hebron varieties; neither do the animals. Pigs often refuse to eat the white, smooth, early potatoes, while the Blue, or Chimango, is eaten greedily. Then the Chimango is one of the best eating potatoes grown. In Prince Edward Island the people would not eat a Rose or Hebron, or any similar variety after October or November. The Chimango is a big, mealy, rough potato, and a very heavy cropper. Its habitat, apparently, is Prince Edward Island, and it is impossible for anyone to try to introduce any other variety there, for the reason that none, thus far, have ever equalled it as an all-round, good, ground potato.

The potato sets are always large, with two strong eyes, and are planted in the third furrow, two boys or girls following the team and dropping the sets about a foot apart, calling for about 12 bushels sets per acre. In plowing in the sets it is aimed not to plow to a greater depth than four inches. A land of 15 to 20 yards is taken, plowing on each side till the whole land is completed. As the plow goes down on one side the droppers follow on coming to the end of the furrow, the droppers wait till the team comes round again, and as they go up the other side the droppers follow, the potatoes being dropped in every third furrow.

After planting the land is harrowed, and the harrowing, cultivating and bug exterminating is continued periodically.

Fertilizers are seldom used on the potato crop, but in the part of the field reserved for turnips or mangels, fertilizer is generally used. The mangels need to be sown soon after the potatoes, while turnips are not generally sown till June 1 to 15 and even to 25. More manure is required for mangels and turnips than for potatoes, but when fertilizer is used at 500 cwt. per acre, the requirements of manure for potatoes answers for the roots.

After plowing manure under the land for mangels is thoroughly harrowed and cultivated and in most cases drilled up lightly and sown with second crop of some good fertilizer. They need a lot of

hand work to keep the crop clean and to single out the plants. For turnips the ground generally gets several plowings and perhaps a second application of manure. When ready to seed, the ground is drilled or they are sown in the flat. From 2 to 5 cwt. superphosphate is strewn in the drill, the seed sown—2 lbs. per acre—with the seed drill, and well rolled. This crop needs lots of attention, but as the farmer does not take kindly to corn the area of the crop is increasing, *pari passu*, with the growth of the dairy and hog industry.

In the fall, when the root crops, potatoes, mangels and turnips, are harvested, the land is plowed somewhat deeply. It is important that the land be plowed in the fall, so that the succeeding wheat crop can be sown sufficiently early. A good many still do not plow their root stubble till the following spring, but these are unable to get their wheat sown till after May 20, which is very late. Plowed in the late fall the heavy coat of manure and fertilizer given the potato crop in the spring some months previous, is partly turned up to the surface for the wheat crop. Little fertility is lost as the land is soon frozen solid and covered with its mantle of snow; the fertilizing ingredients are safely locked till spring. When spring opens, say May 1, this ground is gone over with a disk harrow once or twice, and a few days later the wheat is sown, like the oats, mostly by a broadcast machine, 2 bushels per acre. The variety, by all odds the best for Eastern Canada, is the White Russian. This variety is rust-proof, is a big yielder, but is not the best milling wheat. For this latter reason a few enterprising farmers are mixing White Russian and Red Fife—the best milling wheat in existence—half and half, and sowing thus: A spring-tooth harrow covers the seed by one or more passings. Then the clover and timothy are sown and covered with a single passing of some light harrow. As to the quality of clover and timothy sown, there is generally an over-abundance of timothy seed and scarcity of clover seed. Clover is not a very certain crop and, therefore, the cost of the seed being high also, only a few pounds per acre is sown, while a peck or more of timothy is sown.

In harvesting the wheat, if the clover has made a good growth, the binder is set high so as to leave a good stubble to protect the young clover. The success of the following clover and timothy crop depends largely on whether the young growth is pastured or not. With the dearth of pasture on dairy farms there is a strong temptation to pasture the young growth of clover, which ruins the success of next year's crop.

During the fourth year an average

of a ton of clover and timothy is probably as much as can be reasonably expected, unless more manure is applied. The practice with some of top-dressing the young clover and timothy after wheat harvest, is a good one, and if two or more tons per acre is expected the fall top-dressing is essential.

The fifth year the land is, mostly in late years, pastured with cows, and this completes the rotation.

Now, we will look into the matter of profit and loss, receipts and expenditure, in working five acres of land, that is, one acre under each crop, under this system of rotation.

First year, one acre oats :

Dr.	
Plowing	\$1.50
Seed, 3 bushels.....	1.00
Sowing	15
Harrowing and rolling.....	75
Cutting and harvesting.....	1.34
Threshing, etc.	1.50
	\$6.24

Same year—one acre roots, potatoes

Plowing	\$1.00
Harrowing & cultivating ..	50
Manure, 40 one-horse loads, at 50c.....	
50 per cent. used by crop.....	10.00
Cultivating in spring.....	50
Seed, 12 bushels.....	3.00
Cutting seed	75
Planting	1.50
Harrowing, 3 times.....	50
Cultivating, 4 times.....	2.00
Killing bugs	1.00
Digging, picking, and sorting in cellar.....	6.00
	\$26.25

Third year—one acre wheat,

Plowing	\$1.00
Harrowing, 3 times.....	50
Seeding and rolling.....	30
Seed, 2 bushels.....	3.00
Cutting and binding.....	80
Stacking and gathering.....	60
Threshing, etc.	1.50
25 per cent. manure used by crop	5.00
	\$12.70

Fourth year—one acre clover and timothy

Mowing crop	50
Gathering, curing and stacking	75
15 per cent. manure used by crop	3.00
	\$4.25

Fifth year—one acre pasture

10 per cent. manure used by crop	\$2.00
	\$2.00

Total

\$51.44

Cr.

First year—one acre oats	
35 bushels oats at 30c.....	\$10.50
Straw	5.00
	\$15.50

Second year—one acre roots, potatoes

200 bushels, at 20c.....	\$40.00
25 as culls at 12c.....	3.00
	\$43.00

Third year—one acre wheat

20 bushels wheat.....	\$20.00
Straw	3.00
	\$23.00

Fourth year—one acre clover and timothy

1½ tons hay, at \$10.....\$12.50

\$12.50

Fifth year—one acre pasture

Equivalent 1 ton hay.....\$10.00

\$10.00

Total.....\$104.00

Balance in 5 years in favor of the farm.....\$52.56

Net annual profit per acre

\$10.51

This means an annual profit of \$10.51, and considering that \$4 per acre is charged for the manure, it is a very good showing. On a farm of 100 acres, the results, which are only common, would mean \$1,051. This amount, after allowing for interest on land at, say, 5 per cent. would still leave a very respectable showing, all of which goes to show that farming in Eastern Canada is a profitable business. With regard to the root

crop—turnips and mangels—the result would be about the same as with the potato crop. About 500 cwt. of fertilizer, costing \$7, would be required for the mangels and turnips, besides an additional expenditure for hand weeding and singling of the plants, amounting to \$5 more, or a total of \$12. This, in addition to the \$26.25, the cost of growing the potato crop makes the cost of the root crop \$38.25. The greater yield of the root crop however, more than makes up for the extra expenditure, as 600 to 800 bushels is a good average crop. Take 700 bushels, as what might reasonably be expected under such tillage and fertilization, at 8c per bushel, and we have \$56 as the value of the root crop. By an extra top-dressing of the young clover, at a cost of \$12 per acre, an additional ton of hay would be expected, and a better value in the pasture the fifth year. Under this rotation the land slightly increases in fertility.

Studies in Nature

Edited by C. W. Nash

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

BIRDS OF THE ROADSIDE

We do not now very often see any of the larger birds of prey in Southern Ontario during the breeding season. The general destruction of our forests is, of course, responsible for this, as these birds usually nest only in large timber standing in secluded places. Two years ago, however, Miss Thompson informed me that a pair of goshawks nested that season near the Village of Queensboro, in the County of Hastings, and that the old birds had liberally helped themselves to the poultry of the neighborhood. In the heavily timbered districts of Muskoka and Parry Sound these marauders still breed regularly, and sometimes become a nuisance by destroying the farmers' fowls. But as a rule during the summer months, the only hawks we are likely to see about the cultivated parts of the country are the sparrow hawks, and an occasional broad-winged or sharp-shinned hawk. During my walk I only saw one sparrow-hawk in a district where only ten years ago I should probably have seen three or four pairs in travelling the same distance I did then. The only reason I can assign for their disappearance is that they have been shot off; certainly it is not want of food that has driven them away, for the field mice and grasshoppers are upon which they subsist are now more plentiful than ever, and there are still a sufficient number of old trees with holes in them to provide a reasonable number of nesting places.

This little hawk can fairly be rec-

oned amongst the farmer's best friends. They feed in the early part of the season almost entirely on field mice, occasionally varying their diet by taking a small bird, a snake, or some insect. In the autumn, when grasshoppers are large and no doubt well-flavored, they eat enormous quantities of them, making them their staple article of food. I have never seen nor heard of a sparrow hawk having destroyed or injured any domestic fowl, but I have on two occasions shot specimens of this hawk in May that had their stomachs filled with cut-worms, while the beaks and claws of both birds were covered with earth, which led me to believe that the hawks had obtained the grubs from beneath the surface of the ground.

The sparrow hawk can easily be distinguished from our other small hawks by its chestnut-red color on the back; in the male this may be broken by a few black spots; in the female the red of the back and tail is crossed by many black bars. The quill feathers of the wings in both sexes are blackish, marked by many white bars on the inner webs; beneath creamy white, the breast of the male marked with black spots; that of the female with dark streaks.

Quite early in April (if the snow has gone) these hawks arrive in Ontario, and soon resort to their accustomed nesting quarters, where they may be seen working about the open fields for their prey, sometimes slowly flying over their beat, then suddenly stopping, they hover for a few moments over something that has attracted their attention; if this should prove to be a mouse or other desirable article of food, they close their wings and drop on it like a stone; after killing their prey, they usually carry it to the nearest fence rail or stump to devour it.

The Sugar Beet World

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

EDITED BY JAMES FOWLER.

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At Warton.

Mr. Geo. I. Overholt, agriculturist for the Warton Beet Sugar Mfg. Co., writes as follows, in regard to the sugar interests in his section: One of the greatest needs at the present time amongst the farmers and others is a further knowledge of the cultivation of Sugar Beets; also, something to arouse interest and enthusiasm among all classes respecting the sugar beet question in its various phases; and I am fully convinced that the best method for imparting, instructing and arousing interest in Ontario at present is a good, live journal devoted to this branch of agriculture. I have made a careful and special study for the past two years of the sugar beet question, and am fully convinced that when the farmers are thoroughly educated, that the sugar beet industry will take precedence in many parts of Canada, and that in a few years we will see many factories in operation in Ontario. The farmers in this section are much interested now, and a large number of them have been growing beets for the past four or five years. The farmer boys, give us a market for our beets and we will grow them in sufficient quantities, and the right quality. The majority of patches in this section are booking 24 per cent. and we feel very much encouraged. I wish your paper every success.

The Farming World is the only journal in this country having a sugar beet department.

In Michigan

According to the report of the manager of the Alma beet sugar factory in Michigan, the length of the campaign last fall was 71 days, during which 7,000,000 pounds of sugar were manufactured. The acreage of beets contracted for last season was 3,265, divided among 644 farmers, which is an average of 5.1 acres for each. The average yield was slightly over 10 tons per acre, with an average sugar content of 14.5. The average price paid by the company for beets delivered was \$5.42 per ton, or a total of \$174,566. The amount paid out for wages and salaries was \$53,923, and for freights \$31,996. The importance of this industry can be seen in the large amounts paid out for beets on such a small acreage, besides the sum paid in wages. This season we understand the company has secured an acreage of 7,500 acres, or more than double that of last.

Cultivating, Thinning, Harvesting and Marketing Beets.

Cultivation should begin before the beets are up by running a weeder over them, with one tooth out for the row, to break the crust and kill the weeds,

Sugar Beetlets.

Proper cultivation consists in hand hoeing or working with a fine-toothed cultivator.

Beets should not be permitted to dry out after being dug, as there is a loss of sugar.

If barnyard manure is used to fertilize the soil, the beets can advantageously follow a crop of corn.

The trimmings of the beets make good fodder for cattle. The fresh tops, however, are apt to have a laxative effect.

The plants should be thinned when they have four leaves, leaving but one plant in a place. The distance between plants should be eight to ten inches.

Transplanted beets are usually ill-shaped. The yield may be good, percentage of sugar and purity high, but the method would not be a financial success.

Good crops have been raised by planting small quantities, three to five pounds of seed to the acre, but it is advisable to sow eighteen or twenty pounds to the acre.

The tops increase but little in weight during the last six weeks of the growing season. The beets, on the other hand, gained 61 per cent. of their weight at the beginning of this period.

The dry matter in the beet pulp is of rather more value, pound for pound, than the dry matter from the fresh beet. The pulp as obtained from the silo contains 90 to 92 per cent. of water. Slight fermentation is said to improve it.

The cultivation of the crop must be varied according to the character of the soil. Any instrument, the plow, the cultivator, or special beet cultivating implement, which will put the soil in good condition without covering or otherwise injuring the plant, may be used.

The common cause of failure among

beginners is a lack of thorough preparation of the soil. The plowing should be done in the fall, subsoiling to fifteen or eighteen inches. If this is done, a thorough harrowing just before planting will be all that is needed.

Thinning may be begun as soon as the plants have gotten big enough, when they have four leaves and may be extended over a period of two weeks. As the plants get larger, more care must be exercised on the part of the persons thinning, to avoid injury to the remaining plants.

The beet is a vigorous feeder. A crop of 14 tons of beet would remove 300 pounds of mineral matter, about one half of which, or 150 pounds, is potash, and 25 pounds is phosphoric acid. If the tops are taken off the field there will be a still larger quantity of these substances removed. The fertility of the soil may be maintained by the application of well rotted manure, and by a judicious rotation of crops.

In Nebraska women and children work with the men in the fields. Where a large acreage is in beets, the thinning, weeding, hoeing, pulling, and topping is done by contract. Laborers receive from fifteen to twenty dollars per month, the usual wages by the day being one dollar and board. On contract work the rate is from fifty cents to one dollar for boys; one dollar for men and women without board. For a man and team, two dollars and fifty cents per day; for man and horse, one dollar and seventy-five cents. Land rent from three dollars and fifty cents to six dollars per acre.

The beet can thrive in the hot and dry weather of mid-summer because of its root distribution in porous soils, the tap root passing down into the subsoil and drawing its supply of water and plant food from these deep recesses. If the plant is nourished by the surface soil till it can tap the subsoil it may thrive in weather that would burn up the surface feeding plants.

and go over them again as soon as you can see the rows with the same tool.

If the land is heavy, not too sandy and loose, the weeder should cross the rows where the beets have four leaves, but on light soil this is too severe.

THINNING.

If you use the weeder to cross the rows it will be well to wait until the second day before thinning, then get the proper tools to thin with, namely, knee-pads and some half worn out garden hoes, cut off the handle, leaving about three inches of wood on the hoe. This hoe should be at least five or six inches wide and thin, but not a plaything, as some of the novelty companies send out who never saw a sugar beet grow. You need no long-handled hoes for thinning or blocking out, for this is all done by the thinner who uses his hoe in one hand and thins with the other. Thin them from six to ten inches, and don't thin a whole bunch when there is a single one within an inch or two of the right distance. Cultivate as soon as they are thinned with a spike-tooth cultivator or a four-row cultivator, and as the season advances use larger teeth until the beet leaves cover the row; then use a weeder to keep a dust mulch, but it will have to be used in the afternoons, as the leaves are too brittle in the morning and would be broken off.

HARVESTING THE CROP.

As soon as the crop is matured start the lifter, and if you have many to harvest start a good-sized crew, as it pays to get the crop taken care of before cold wet weather sets in. Let each man pull two rows across the field and throw eight rows in a widow, tops all one way, and eight more rows, with the widows about five feet apart and roots toward each other. Now start at the right end each man at a widow. Every beet will lay just right to pick up and top; throw in piles 16 feet apart, and not in baskets, as this takes too much time and the fork will handle them off the ground. Never throw in piles before they are topped, as it takes twice the time to top out of piles as out of widows. Cover with leaves as soon as topped, and pit at your leisure.

MARKETING.

There are only two ways to market, viz., car or wagon, and I should al-

ways ship unless the beets are grown within two or three miles of the factory, or when it is nearly as far to track as to factory. It is hard work on team and man to haul beets on wagons, but the job is soon finished when they are carried.

—F. C. Horn, in Michigan Farmer.

Is the Sugar Beet an Exhausting Crop.

Before the farmer will make a radical change in his crop rotation, by bringing in the sugar beet, he will naturally ask what the influence of the new crop on the fertility of his farm will be. When the entire crop is removed from the field it is unquestionably exhausting, carrying off a large amount of fertilizing material, especially potash and phosphates. The leaves and crown contain a relatively larger amount of fertilizing materials than does the same weight of roots. To prevent unnecessary depletion, it is said that in certain districts the manufacturers require the farmers not to remove the leaves from the field, unless they are used as fodder and their fertilizing ingredients thus returned to the soil as manure. If this is done, and the beet pulp or residue after extracting the sugar is used as food for cattle, and in this way returned to the soil, there is absolutely no loss of fertilizing materials, and no farm crop so little exhausts the crop as sugar beets. Where there is nothing sold off the farm but the sugar, the crop removes no fertilizing material whatever. While sugar is valuable as food, it contains no element of fertility, no potash, lime, phosphate, nitrogen, or other manurial material. It consists of carbon, oxygen and hydrogen, the elements taken up by the plant from the air, directly or indirectly; in selling the sugar, therefore, the farmer is selling wind and water only. In France the raising of sugar beets for the factory, where everything but the sugar was kept on the farm, has resulted in increasing the fertility of the soil, and has promoted the agricultural prosperity of the district. The beet pulp as it comes from the factory is found to be a most valuable food for dairy and fattening stock.

At Grand Island, Neb., fine herds of fattening steers have been fed nothing but beet pulp and prairie hay and laid on flesh at a rapid rate. The quality of meat was said to be superior. The pulp retains enough sugar to make it a very palatable food for stock.—Michigan Agricultural College Bulletin.

Seed per Acre.

Writing to the Michigan Farmer, P. G. Tower says: "Replying to the article of L. L. Wilson, of Tuscola County, Michigan, in which he says he believes that two pounds of beet seed per acre is better than twenty pounds, I wish to state that I have had several different parties count the number of seeds in a pound, and find that the average is 18,000 seeds. At 15 pounds to the acre there would be 270,000 seeds per acre. In rows 18 inches apart, there

would be 348,480 lineal inches, which would bring the seeds over 1 1/4 inches apart, and no one can consistently say that this is too much seed to insure a good stand.

Now, if friend Wilson puts on two pounds, the seeds will be an average distance of about 10 inches apart, and if every seed grew he could not possibly get a perfect stand. Again, he says that he sowed 3 1/2 pounds seed per acre, thus saving in seed \$1.75 per acre, which was more than enough to pay all of the hand labor in weeding and thinning the beets. If Mr. Wilson can weed and thin beets as cheaply as that, and is a responsible party, he can have a contract of weeding 1,500 acres in the vicinity of Lansing at double that price.

He also states that he raised 164 tons at a cost, including seed and all labor, of 56 cents per ton, and I fail to see where he has any reason to complain when it costs 56 cents per ton to raise beets and he receives over \$5 per ton from the company."

Favors Light Seeding.

F. D. Fineout writes to the Michigan Farmer as follows:—Being a regular reader of your valuable paper, and reading the different ideas people have in regard to sowing sugar beets, and the amounts of seed that some of our farmers are sowing per acre, I thought I would tell them about how I have sowed mine. I have a hand drill which I purchased that sows three pounds per acre of best seed in hills in the row, 8 10, and 13 inches apart in the row. I sowed my crop 13 inches in the row by 20 inches the other way, my land being sandy, two weeks ago, and our patch begins to look nice to see them all apart in the row which will need no spacing.

Now is the Time.

Companies organized for 1892 should secure acreage at this time of the year.

The formation of new companies for the campaign of 1892-'93 is still going on in Michigan, proving beyond a doubt that capitalists are turning their attention to this new industry. While the organization of new companies is important yet the securing of acreage is more important, in fact

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is the important point to be considered. Capital can be enlisted on short notice, and the organization of a company can be completed in an hour, but to secure from 5,000 to 6,000 acres of land on which to grow the beets to make the investment profitable, cannot be done in a day, in a few days or in a few weeks. Few capitalists realize this. They feel that the location of a factory in a locality is sufficient to arouse the patriotism of the farmers, and that the acreage ought to be brought in on gilt-edged cards.

One of the worst mistakes that can be made by a new company is delay in getting their acreage contracts. They plan ahead for the building of the factory; they plan ahead for the disposition of the product, but they don't plan far enough ahead for the raw material.

Any company now organized for 1902 should lose no time in getting agents at work securing, or at least soliciting, acreage for the campaign. Now is the time. Send none but practical men out among the farmers, men who can talk intelligently of the crop, and who can, if necessary, help the farmer in choosing suitable land for the crop. By going out now among the farmers it gives him an opportunity to make his plans and give his land the needed fall preparation. He can begin to think and read about the crop—he can prepare himself to make a success of beet growing the first year, and the factory will be sure of a good supply of proper beets ready for an early campaign. It costs no more to secure the acreage at this time of year, and perhaps less, than during the winter season, besides giving the factory a better working up crop.

Time spent with the farmer now is money well spent.

Go ahead with your organization; go ahead with your building plans, etc., but don't neglect the most important part of the business, the end that means your success or failure, and get good men out among the farmers soliciting acreage.—Michigan Sugar Beet.

Oldest Beet Sugar Factory.

California has the distinction not only of having the largest beet sugar factory in the world, but the oldest factory in the United States manufacturing sugar from beets. The oldest beet sugar factory in the country is located at Alvarado, Alameda County, California, and the property of, and is operated by, the Alameda Sugar Company, of which John L. Howard is president and James Coffin, secretary. The company mentioned was organized in the year 1899, and it purchased the plant of the Pacific Coast Sugar Company, which, under a different name, had been founded by E. H. Dyer, several years before. That plant was the Alvarado factory. When the new stockholders assumed control, the capacity of the refinery was only 90 tons of beets per day. An expenditure of 100,000 brought the daily capacity up to 200 tons, since which time it has been further extended, reaching at the present time something over 900 tons of beets per day. The capitalization of the Alameda Sugar Company is \$700,000 paid in.

Crop Reports

The weather the past week has been ideal for sugar beets, and the improvement and growth has been such as to make the heart of the farmer rejoice. Mr. Geo. A. Putnam, speaking of the Walkerton District, says:

"A majority of the plots visited are much better than one would expect to find, and with proper care from this date will produce large crops with a large percentage of sugar. There is no doubt about the latter result, if the thinning is properly done and the cultivation throughout the season is thorough.

"I am sorry to have to state that in a few cases there was evidence of neglect and carelessness. There were many excuses for neglect—lack of time, wet weather, uncertainty as to what to do, etc. These excuses held

good in many cases, but I notice that the farmers with the largest amount of land and with comparatively little help were the most enthusiastic, and took the best care of their plots.

"It is most desirable that those who have undertaken to conduct experiments should make their best efforts, in order that the average percentage will be high. If one or two of the experimenters are careless and neglect to take proper care of their plots, it will have the result of lowering the general average."

Mr. W. P. Gamble, of the Eastern District, says, in regard to Whitty and Lindsay:

"I think the crop will come out all right, with the exception of a few cases. A fly, similar to that which has attacked turnips, has attacked the sugar beets as well. This fly is found in all three sections which I inspected. What I found, however, was that where beets were growing rapidly they were either not suffering at all from the fly, or else were suffering very little. The moral seems to be that to succeed with beets and mangels, as well as turnips, every precaution should be taken to provide for a thrifty and vigorous growth."

Speaking of the crop outlook, generally, Mr. Gamble said that the prospect was very good, with the exception of that on patches of low land. "On the whole," said he, "the crops of the Province, as far as I have seen, have a very healthy appearance."

The conditions of climate best suited to growing the sugar beet differ from that of many other crops, and the weather that would seriously impair the production in other crop, may be well suited to the crop of beets with a large content of sugar. In Germany, it has been found that a certain average temperature for the several months from May to November, and a certain average rainfall during these several months are best adapted to the growing of this crop.

BEET SUGAR MACHINERY

ESTIMATES AND INFORMATION

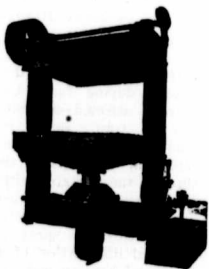
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The Agricultural Gazette

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

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

Annual Membership Fees—Cattle Breeders', \$1; Sheep Breeders', \$1; Swine Breeders', \$2.

BENEFITS OF MEMBERSHIP.

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

A member of the Swine Breeders' Association is allowed to register pigs at 50c. per head; non-members are charged \$1.00 per head.

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

The name and address of each member, and the stock he has for sale are published once a month. Over 10,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and profitable buyers resident in Canada, the United States and elsewhere.

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

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

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

Live Stock Fees Discontinued.

By an order in Council recently passed by the Government at Ottawa, the imposition of fees on cattle, sheep and horses shipped to Europe is to be discontinued after July 1st. The fees were 1½c per head on cattle, ½c on sheep, and 5 cents on horses, and since they have been in force have amounted to about \$5,000 a season. This removal consequently will mean a considerable saving to large exporters.

FARM HELP EXCHANGE.

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

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

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

Help Wanted.

Wanted a good man or boy at once, able to do general farm work near Orangeville. Will pay \$22 per month for five months for a good man, or \$18 to \$20 for a good boy. Might afterwards hire for a longer term.

No. 832 b.

Good, reliable farm hand wanted at once. Must be able to milk. Good wages. The farm is situated in the Township of Scarboro. Apply to A. W. Jonson, Wexford, Ont. a.

Good single man to work on a dairy farm by the year, to assist in general farm work in summer, and care for stock in winter.

No. 833 a.

Situations Wanted.

Wanted, in a small family preferably, where there are no children, by

a thoroughly respectable woman, a situation as housekeeper. Advertiser understands her work, and wants a permanent situation. No. 937 a.

Domestic Help Wanted.

Position wanted as housekeeper by married woman, 30 years of age. Husband has partial paralysis, though able to help himself, and could probably take care of poultry and do light chores. No. 936 b.

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

Farm Wanted.

A gentleman in Scotland writes asking the address of parties having fruit farms for sale in the Hamilton District. Price not to exceed \$4,000. Replies addressed to Superintendent of Farmers' Institutes, Parliament Buildings, Toronto, will be promptly forwarded to Scotland.

Farmers' Institutes.

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

G. C. CREELMAN,
Superintendent Farmers' Institutes.

Women's Institute Notes.

By the Superintendent.

ANNUAL MEETINGS.

During June the Women's Institutes of Ontario held their annual meetings. Besides the local officers, Miss Laura Rose, Guelph, and Miss Blanche Maddock, Guelph, attended several of the meetings, and gave talks on "Bread and Butter Making," "Ventilation of Farm Homes," and "Bacteria, as They Affect the Home, the Soil and the Dairy."

DUFFERIN.

There were between three and four hundred people present at the annual meeting of the Dufferin Women's Institute. Miss Rose delivered an address on "Bread and Butter Making," and the officers report that this was one of the best talks ever given before their Institute.

UNION.

The retiring secretary of Union Institute, Miss Mary Watson, writes as follows:

"The first annual meeting was held on June 5th at Clifford, with an attendance of about 25. The following officers were elected: President, Mrs. W. S. Smith; vice-president, Mrs. Robt. McIntosh; secretary, Miss Munro. The president was in the chair, and was kindly assisted by Miss Rose. It was decided to hold a meeting the third Thursday in August. The Farmers' and Women's Institutes then held a joint meeting, at which Miss Rose gave a splendid address on "Bread and Butter Making," bringing out many helpful suggestions. The members will be glad to hear Miss Rose at any time."

A GOOD SECRETARY.

As in other organizations of a similar nature, the success of Women's Institutes depends very largely upon the zeal of the officers. It is a common saying in Farmers' Institute work that "a good secretary makes a good institute," and although the Women's Institutes are comparatively new, the most successful ones are those which have been careful to select their officers from among the most willing and progressive in the community.

WOMEN HELP THE FARMERS' INSTITUTE.

One of the objects of the Women's Institutes is to assist the members of the Farmers' Institutes by bringing out to the meetings indifferent husbands and brothers. As an evidence that this is being accomplished, we note that at many annual meetings this year, the combined attendance of both ladies and gentlemen has amounted in some cases to three or four hundred, whereas it was formerly difficult to get a quorum.

ORCHARD MEETINGS.

Meetings in the form of a basket picnic have been a popular thing with both Farmers' and Women's Institutes during June. Usually an orchard is selected—as centrally located in the riding as possible—and they hold their separate business meetings early in the day; then a walk through the orchard, with some prominent fruit-grower present to point out the best varieties of fruit; the proper time to spray and prune, a practical illustration of grafting, and when and how to bud. Questions are freely asked on subjects relating to fruit culture, after which they all return to the lawn or meadow, and the members of the Women's Institutes furnish lunch.

EAST NORTHUMBERLAND.

In East Northumberland a basket picnic was held at the Fruit Experiment Station of W. H. Dempsey, near Trenton. To this gathering men and women drove twenty miles. The Superintendent of Farmers' Institutes was present, and a Women's Institute was organized. Mrs. W. H. Dempsey was elected president, and Mrs. J. Wellington Crews, secretary. Thirty-eight ladies enrolled their names as members.

SOUTH ONTARIO.

The members of the South Ontario Institute were delightfully entertained recently at the home of Mrs. S. L. Brown, Whitby. The beautiful home and grounds were thrown wide open, and the ladies from Port Perry, Kinsale, Columbus, Myrtle, and Brooklin branches speak in the highest terms of their hospitable reception and pleasant entertainment by their charming hostess.

BURFORD.

Mrs. J. Brethour, President of the South Brant Institute, writes that the meeting at which Miss Maddock, of Guelph, and Mrs. Melson, President of the South Wentworth Institute, were present, was probably the best meeting of the year. Brant County has supplied some of our greatest Canadian statesmen as well as some of our best and safest business men in this province. We would expect the wives and daughters of these men to be progressive also, and probably no Institute has made greater growth along advanced lines than the one whose headquarters is at Burford.

PEEL.

Mrs. J. Hoodless, President of the Domestic Science School, Hamilton, was entertained by the ladies of Peel at Brampton on June 4th. There was a goodly attendance, and Mrs. Hoodless, as usual, greatly pleased her audience.

FARMERS' WIVES AND DAUGHTERS VISIT GUELPH.

During this month hundreds of ladies from the different parts of Ontario have taken advantage of the Institute excursions and visited the Agricultural College at Guelph. Here they spent the entire day visiting the different departments of the college, but most of them seemed to be particularly taken with the practical instruction given in butter making and poultry raising. On Saturday, the 15th, we had the pleasure of visiting the college while the Institutes of South Huron and Halton were there. Mrs. Colin Campbell, of Goderich, Secretary of the West Huron Institute, and Mrs. Dr. Robertson, President of the Women's Institute of Halton County, were both there gathering ideas for future meetings.

WEST NORTHUMBERLAND.

Mrs. James Davidson, of Camborne, was elected secretary-treasurer of West Northumberland Institute, in place of Mrs. Thos. Spears, of Co-

bourg. The next meeting of this Institute is advertised to take place in Cobourg on July 13th. The subject of "Bread and Butter Making" will be discussed.

THREE INSTITUTES IN HASTINGS.

Three good Institutes are now holding monthly meetings in Hastings County. At Plainfield, on June 9th, an outdoor meeting was held, at which Miss Maddock, of Guelph, was the principal speaker.

NORTH GREY.

Mrs. C. L. Gardiner, of the Owen Sound District, writes that they have now good branch Institutes in different parts of their riding. Miss Rose was with them for a couple of days recently, and they are arranging for a full series of meetings next winter, same time and place as the supplementary meetings of the Farmers' Institute.

WEST DURHAM.

Miss E. E. Haycraft, of Bowmanville, Secretary of the West Durham Institute, sends in a list of thirty-one members, and reports a good annual meeting.

EAST YORK.

In East York the ladies joined with the gentlemen, and held an orchard meeting and basket picnic at Agincourt. Miss Lulu Reynolds, Scarborough Junction, as secretary, writes to report a large meeting and a good time.

ON THE ISLAND.

At Amherst Island alternate meetings are held at Emerald and Stella. Mrs. R. D. McDonald, the energetic President, writes that there were 40 ladies present at their last meeting. They have a paid-up membership of 63. Mrs. W. Allen read a paper on "Little Conveniences in Housekeeping." This Institute has authorized their secretary to order a badge for each member, in the form of a bangle pin of maple leaf design.

THE OLDEST OF ALL.

The oldest Institute in the Province is what was formerly called the "Saltfleet Women's Institute," but having extended its territory, it is now known as the "Women's Institute of South Wentworth." The members of this Institute decided to join the Farmers' Institute in their outing through the fruit district. This plan was carried out, and a most delightful day was spent at the principal orchards between Hamilton and Grimsby. Mrs. E. D. Smith, of Winona, a past president of the Institute, entertained all at dinner, after which the entire party went by street car to Grimsby, where they inspected the orchard and gardens of Mr. Linus Wolverton, Secretary of the Ontario Fruit Growers' Association. Short addresses were delivered by Prof. H. L. Hutt and Prof. Wm. Lochhead, of the Ontario Agricultural College. The was served on the beautiful lawn in front of Mr. Wolverton's house, after which the two Institutes returned home over the electric railroad.

Farmers' Institute Notes.

By C. S. Creelman, Superintendent.

ANNUAL MEETINGS.

Notice to Secretaries. A number of our secretaries have already reported their annual meetings, and have sent in Forms B, C, D, and Financial Statement. There are always a number, however, who have to be notified two or three times after the 1st July, and I would be glad if these would make an extra effort this year to get the report in on time. It is just as easy to make up your report immediately after the meeting as it is a month later, and it often puts us very much behind in our office work when a few secretaries neglect this report.

SOUTH OXFORD—ANNUAL REPORT.

The executive officers of the South Oxford Farmers' Institute take great pleasure in presenting for your consideration the following, as the thirteenth Annual Report.

In compliance with your suggestions made at the last annual meeting, the two regular meetings were held at Norwich and Mount Elgin. The delegates sent up were Messrs. D. Drummond, Myrtle, and J. E. Orr, Fruitland, who were certainly much above the average in ability, Mr. Drummond's address on the "Dairy Cow" being pronounced by Mr. E. D. Tilson to be the best he had ever heard on the subject. We were also assisted by Messrs. W. J. Whaley, Dereham Centre, S. R. Wallace, Burgessville, T. R. Mayberry, Ingersoll, and at the Norwich evening meeting our M.P.P., Dr. McKay, gave us an admirable address on "Canada, Our Country." The approximate attendance at Norwich was 275 in the afternoon and 125 at night, and at Mt. Elgin 55 in the afternoon and 240 at night.

Four supplementary meetings were again held this past year at Oxford Centre, Beachville, Springfield, and Brownsville. The approximate attendance at

Oxford Centre,	25	afternoon,	31	night
Beachville,	90	"	125	"
Springfield,	50	"	80	"
Brownsville,	40	"	110	"

Owing to extreme cold and stormy weather, and other causes, the attendance at some of the meetings was not nearly so good as formerly.

The Central Department sent Mr. A. Elliott, of Galt, and Mr. W. N. Hutt, of Southend; both first-class men in their respective lines. Messrs. John Clarkson, Woodstock, Angus Rose, Woodstock, and S. A. Freeman, Caledon, also rendered us very valuable assistance at the supplementary meetings.

At the Brownsville meeting Mr. Brown introduced the matter of the unjust discrimination to which the Ontario farmer is subjected in the matter of freight rates, and a strongly worded resolution was unanimously passed requesting the Dominion Government to appoint a commission with full power to deal with the matter. At the Norwich meeting there were seven addresses; at Mount Elgin

six; at Oxford Centre five; at Beachville six; and at Brownsville seven.

That there is no abatement of interest by the farmer in Institute work, is manifested by the fact that to-day our membership is the greatest in the history of our Institute. The figures for the past four years are as follows:

1898.....	176 members.
1899.....	211 members.
1900.....	267 members.
1901.....	303 members.

This is certainly very gratifying, but we feel that a little active work on the part of the directors would certainly result in greatly increased membership; as well as greatly benefiting the farmers who join, as the reports and bulletins to which he is entitled contain much valuable information.

The excursion to Guelph under our auspices on the 22nd of last June proved fairly successful; the sum of \$176 being received from the G.T.R., which, after deducting expenses (for printing and advertising left us \$153. As the sum was not sufficient to enable us to present each member of our Institute with a free copy of Mr. Rennie's book, "Successful Farming," we sent notices to all members stating that on the payment of 25c to the secretary-treasurer, a copy would be sent them. The result was that 135 members took advantage of the offer and secured the book. We have another excursion arranged for the 19th of June, which we trust will be equally successful, and would suggest, as a suitable book for distribution among our members, the one recently issued by F. S. Peer, "Soiling, Barn, Stable, and Silo Construction."

We affiliated last winter with the Ontario Provincial Winter Fair, thus securing for all our members free admission to the great exhibition. We would strongly advise the same course being pursued this coming winter, as the Exhibition, as now conducted at Guelph, is becoming the greatest agricultural educator in the country, and we would strongly counsel the members of our Institute to pay a visit to the next Show.

The plan of granting a commission of 25 per cent. on memberships obtained by the directors was continued in force, but was not taken advantage of to any extent, with the exception of Mr. J. H. Forden, of Beachville, who secured sixty-one memberships.

We desire to acknowledge with thanks the generous support given us by the county press in helping to advertise our meetings, and trust that the work of the Institute will be carried on with still greater success in the future by the new executive.

All of which is respectfully submitted.

JOHN MCKEE,

Sec.-Treas.

OUT-DOOR MEETINGS BECOME A PERMANENT FEATURE IN SOUTH BRUCE.

Mr. James A. Lamb, the energetic secretary of South Bruce, writes us:

"At our annual meeting, held on June 18th, Walkerton, the new Board

of Directors met. Among other business disposed of it was unanimously agreed that our next annual meeting be held at the home of Mr. Thomas Malcolm, Kinlough, second or third week in June, 1902. Mr. Malcolm keeps about 40 cows of his own, and runs a private dairy. I think this is a good idea for this section."

"Our annual meeting was a great success, the ladies met the same time, and had Miss Maddock, of Guelph, to address them. They also came provided with lunch, which was a very acceptable surprise to the gentlemen. I think these summer meetings are just what we want. They are pleasant, practicable, and within the reach of all. Mr. Thos. Malcolm, of Kinlough, made the remark to Prof. Hutt that he had come twenty miles that day to get a few pointers on spraying, as he had been spraying for three or four years with poor results."

The Care of Manure and How to Apply It.

By Alexander Gardiner, Leadbury.

This is a wide subject, someone may say; there is nothing in that but to load on the sleigh or wagon, as the case may be. But stop for a moment and consider the subject with me. Is there any necessity for care of the ordinary farm manure? I say, Yes. In travelling through the country I see a good many noxious weeds growing and instead of getting less each year, they are getting more plentiful. Now there must be a cause, for there cannot be an effect without a cause. Now, I say that from personal experience that to keep a farm clean, you will have to care for your manure. Someone will say, "You are off your subject"; but not so fast, because if you do not have your manure heap in such a way that it will heat sufficiently to kill all foul seeds that may be in the same, you will have lots of those bad weeds I mentioned in the earlier part of this paper. My method is to save as much time as I can, for time is money, and I have to pay for most of my help. I take the way that suits my circumstances best. I pile up in the yard so as to rot some but not to waste if I can prevent it, or draw to the field, if the field is far away (as some of mine are), and I find this method wasteful if drawn in the early winter unless there is plenty water near the pile, because if you allow your pile to fire fang it will become almost valueless. The following is the method employed by some people, viz., They have a straw house or other building to store the manure in, and then draw it to the fields in winter. This I think a great waste, as I have tried almost every method, and know whereof I speak.

Now for my method of applying the manure, which will differ according to the crop I am applying the manure to. If for mangels, I would apply in the fall of the year and not plow too deep, as in my farm the soil is a little stiff. If plowed deep, the ground will be invariably wet and cloggy in spring. If on land for planting in spring, I would draw as near as possible when I could have the same plowed under, as I have found in my

experience that the quicker the manure is plowed under after spreading, the better. I have tried, as I said before, all other ways. I tried a field in 1898, spreading half in winter and half in spring. I applied twenty loads per acre in winter and fifteen in the spring, and had the best results from the spring application, notwithstanding the winter application was on the better part of the field, and that was a very dry year, which was all the worse for spring manure. I had the field sown with oats and peas, followed by fall wheat and then by corn. I have had as much as three tons to the acre of hay on the five crops weighed in March by my method of plowing down in the spring. So, by my observation and experience, I have come to the conclusion that for my farm and for my circumstances, it will pay me to pay for the hauling in the spring. This, however, means considerable, as I have at least four hundred loads to handle per year. You may say, "Oh, you need not mind losing some, as you have plenty." In reply to this I would say, that as I was not born with a silver spoon in my mouth, I have to make the best possible use of all that I have.

Canada's Fruit Exhibit at the Pan-American.

Canada Contributes a Most Interesting and Instructive Exhibit From Ontario.

It is to be hoped that Americans who see this exhibit will carry away with them a more correct idea of the land of the maple leaf and beaver than most of us now possess. The average American deludes himself with the idea that Canada is a land of snow, forests, rocks, and rapids, with no particular products except pale ale, toboggans, and canoes.

Let them go to the Ontario exhibit at the Pan-American and be undeceived. Here they will find luscious strawberries, and wine made from the delicious grapes grown in St. Catharines. In the season, from this one station alone (St. Catharines) are shipped daily from ten to thirteen carloads of grapes and peaches. Apples of thirty varieties, "Northern Spy," "King," "Spitzenberg," and "Yellow Cranberry" included, are shown in profusion; while the exhibit of canned fruit and berries, "done up" by the Canadian farmers' wives, from their own cultivation, is an enlightenment as to Canadian production.

Great bunches of crimson clover ornament the stands, and this growth is an object of much curiosity to the city-bred visitor. As one of the very obliging gentlemen in charge of the exhibit very kindly explained to me, it is used as a "cover crop" in the orchards and vineyards in the fall, and in the spring is plowed under as a fertilizer. The section of the Horticultural Building, in which stands the Ontario exhibit is artistically draped with ropes of the maple leaf—Canada's emblem.

If the attention it deserves is given to this exhibit, there will be less excuse for mistaken ideas with regard to "Our Lady of the Snows."—Ex.

The Farm Home

How Does it Seem to You?

It seems to me I'd like to go
Where bells don't ring, nor whistles
blow,
Nor clocks don't strike, nor gongs
don't sound.
And I'd have stillness all around.
Not really stillness, but just the trees'
Low whisperings, or the hum of bees,
Or brooks' faint babbling over stones
In strangely, softly tangled tones.
Or maybe a cricket or katydid,
Or the songs of birds in the hedges
hid.
Or just some such sweet sounds as
these
To fill a tired heart with ease.
If 'tweren't for sight and sound and
smell,
I'd like a city pretty well,
But when it comes to getting rest
I like the country lots the best.

banging at the door and rattling at
the window completely arouses him
and causes the rest of the family to
start from their pillows to hear only
the same word, "Hello!" and the re-
ply, "Special east, 2.45." This
time Jim says "All right." Though
the call boy had been nearly an hour
away it had not added greatly to
Jim's rest, while now he must hurry.
He rushes into his clothes, then
down stairs, hurriedly eats the
lunch which had been put on the
table the previous evening. His
mother appears in time to put the
finishing touches to his lunch pail,
wondering if he will escape a reprim-
and by being on time. She
again lies down to sleep, but to her
tired body and aching eyes it seems
but a minute when — "Whiz-whir-
ting-a-ling-ling, etc.," goes the
alarm clock. Jennie, who dreams it

clears away the dirty dishes and
begins anew.

She calls the girls, Mary, who
must be down to the dressmaker's
shop by eight o'clock, and Jennie, to
her office work, by nine. While they
are dressing she prepares more toast
and steak, makes some dainty sand-
wiches and fills some tarts for their
lunch boxes, prepares tea for their
bottles, and while they are eating
she mends a hole in Mary's glove.
Then, while Jennie is preparing to
wash the dishes, the mother takes a
few sips of tea, but is interrupted by
the milk man's knock. Then, as she
prepares another breakfast, her hus-
band, who has a situation as night-
watchman, enters by the kitchen
door, while Tom is heard coming
down stairs. All three sit down to-
gether. But the butcher's knock
brings the mother again to her feet,



Officers and Members of the East York Women's Institute assembled for their Annual Meeting, June 4th, 1901.

Sometimes it seems to me I must
Just quit the city's din and dust,
And get out where the sky is blue,
And say, now, how does it seem to
you?

—Eugene Field.

One Day in a City Home, or Stay on the Farm

Rat, tat, tat! Bump, bump, bang,
on the side door, are the sounds
made by the railway call boy.

The clock strikes one, a sleepy
voice calls "Hello!" but Jim is again
asleep before is called the answer —
"Special east, two-forty-five." The
semi-aroused inmates turn wearily
over and continue their sleep, for
they have become accustomed to
such sounds; but Jim has scarcely
finished his dream when a fresh

is the telephone in the office down
town, says "Hello!" Of course there
is no answering "Hello!" but the
mother again dresses, finds her way
to the kitchen and proceeds to light
her coal fire, wishing that she did
not have to economize, or that the
gas rates were lower so that she
might have a gas range on which to
prepare meals during the summer.
Soon she has the porridge steaming
and the coffee boiling, then she goes
quietly to Jack's room, saying,
"John! John! it's nearly six o'clock
and you will have to hurry to get
your breakfast and get to the foundry
by seven." While he eats his
porridge she cooks some steak and
toast. He eats in silence, knowing
there is no time for conversation.
His lunch pail is filled and he hur-
ries off. Then the busy housewife

Jennie says, "I won't have time to
finish the dishes. Good-bye." Tom
takes his books and runs to catch
the car. Father smokes, looks over
the morning paper, then goes to
bed. Now all must be quiet, though
the sounds from the street are
many. The busy woman longs for
time to rest, or for her old life on
the farm, singing softly the words of
the old song:

"The farm is the best and the safest
And certainly surest to pay;
You're free as the air of the moun-
tain

And "monarch of all you survey."
Then stay on the farm a while
longer,
Though profits come in rather
slow,
Remember you've nothing to risk,
"boys,"

Don't be in a hurry to go.
Stay on the farm, stay on the farm,
Though profits come in rather slow,
Stay on the farm, stay on the farm,
Don't be in a hurry to go.

While she gets the remainder of the dishes washed.

She has just got started at the upstairs work, when the front door bell rings.

On opening it she finds a well-dressed man carrying a bag. He steps inside and immediately says:—"I have here a life of Queen Victoria, which I wish to show. It is the best and most complete work ever published or ever likely to be published." She listens patiently until he pauses for breath, then she says:—"I have no time to waste looking at it and no money to spend in buying it. I'll take the rest for granted. Good-morning." Wearily she re-ascends the stairs wondering how many times she will have to meet agents during the day. She is just at the last room when again the bell rings and again she goes to the door. She is greeted with, "I have something here that every housekeeper must have. In fact she can not do without it, it is—" she interrupts with "I can do without it, Good-day," and closes the door without waiting to see or hear what he really wished to show. She is just descending the stairs with one of Mary's old dresses which she hopes to get time to alter for herself, when she is called to the kitchen door to take in the groceries that Jennie ordered. Then she prepares a light meal for herself and Tom, cooking some of the new laid eggs. She has wanted a fresh egg, but alas! it proved to be a cold storage egg that had not been properly preserved and her appetite is gone without tasting food. When the table is again cleared she arms herself with brush and duster, enters the parlor to collect the city dust from furniture and bric-a-brac, but this time the baker's knock is heard at the back door and the next minute, the postman's ring at the front door, she again hurries through the house.

Poor busy mother, trying to live within her means, but has so many expenses and bills to meet; house-rent, society dues, gas rates, water rates, coal, clothing, groceries, meat. She dare not keep one of the girls at home to help her, she is only too glad they have situations, even if their wages are not high.

After many interruptions she is dressed for the afternoon and has again got to the kitchen, to prepare a substantial dinner for father, before he departs for his night work, but before she has the roast in the oven the door-bell rings again, this time she opens to afternoon callers. Women whom she would enjoy had she more leisure, but now as she tries to entertain them she thinks of potatoes to peel and salads to make and is shocked at the relief she feels when they depart.

At half past four she calls her husband, and while he prepares for work, his dinner is served, then his lunch basket is filled, and after he goes

there is yet no time for rest as the others may be expected to take dinner at seven. She hopes they will all be here together. Tom has gone upstairs with his books.

At six, Jennie, all excitement hurries in, saying, "Mother, I won't have time to make the dessert tonight. Fred Brown is going to take me for a buggy ride. It's the first time we have been out this year." Her mother is pleased to think that she is having this enjoyment and sighs as she recalls when Old Dan and the buggy were every day in demand.

Jennie washes away the office dust, rearranges more elaborately her hair, dons her most becoming dress, admires her new hat, which just suits her complexion, sighing when she remembers that it represents a week's wages. She returns to the kitchen for her mother's approval, anticipates the pleasant drive, and confesses that the livery team will likely cost Fred more than a day's pay. As she departs, Jack returns and Tom is called. When dinner is over the boys go out, and while the mother places the food to keep warm, and removes the dirty dishes, the old song, which has been in her thoughts all day, again comes to her lips:

"The city has many attractions,
But think of its vices and sins
When once in the vortex of fashion
How soon our destruction begins."

About eight o'clock she again hears the door bell and goes to meet some young people. She tells them the girls will soon be home, and helps to entertain them until the drivers arrive; then she slips away again to the kitchen to prepare some cake and lemonade. About half-past nine Mary, tired and cross, gets home. She says, "This is the third time this week we have had to stay after hours. If I could get work in an easier place I would go. Last night it was nearly eleven." She proceeds to help herself to dinner, and then freshens her toilet before going to the parlor; while the mother hopes Jim's train will come while the food is warm. The other boys return, but it is eleven o'clock before good-nights are said. The mother has only slept a few minutes when she hears a knock at the side door, and Jim's voice calling her. He explains that he forgot his latch-key, and while he is eating she hears the clock strike twelve, and again she softly sings, "Stay on the farm, stay on the farm! Don't be in a hurry to go."

—M. E. GRAHAM.

Hints by May Manton.

Woman's Tucked Waist, No. 3842, to be made with or without frilled lining.

All white waists are not alone exceedingly popular, but almost universally becoming as well. The very charming example illustrated combines Crepe de Chine with gauze lace and is made over a fitted lining, but the design is equally well suited to such fabrics as batiste, madras lawn, Swiss muslin, mull and the like, which can be made

without the lining and so become washable in fact as well as name.

The foundation is cut in four pieces and is fitted by means of single bust darts, shoulder and under-arm seams. On it are arranged the portions of the waist proper. The back is laid in three groups of tucks that extend to the waist line, where they are drawn together to give a tapering effect. The fronts include five groups of tucks, two of which fall free, at about midway of their length, to form soft, graceful folds as the waist approaches the belt.

The sleeves are cut after the latest



3842 Tucked Waist,
32 to 40 in. bust.

model with deep cuffs and tucked over portions that form puffs at the lower edge.

To cut this waist for a woman of medium size, 4 yards of material 21 inches wide, 34 yards 32 inches wide, or 2 yards 41 inches wide, will be required, with $4\frac{1}{2}$ yards of insertion and one yard of edging to trim as illustrated.

The pattern 3842 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure.

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Editor, - - - J. W. WHEATON, B.A.

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QUESTIONS AND ANSWERS

About Drainage.

A. E. writes: "I intend to drain my farm. Some of it is black soil and some clay. How deep must I put drains in the clay, and how deep in the black soil? How far apart must I put them? I am expecting to use three and one-half and four-inch tile."

Good results will follow in both clay and black soils by putting tile two and one-half feet deep. Many are of the opinion that the deeper tiling does not justify the extra expense incurred in the deeper excavation. The last six inches of a drain three feet deep usually costs double as much for excavation as the first six.

Ordinary clay soils for good service will require a tile drain about every two rods, excepting where the clay is very impervious, when more drains would be needed. In black soils conditions vary so much that good service may be rendered with tile drains one hundred feet apart; while in others a drain might be needed every rod and one-half.

Manitoba Meetings.

The Manitoba Department of Agriculture has completed arrangements for a series of Institute meetings, to be held during July in that province. The speakers from Ontario who are billed for these gatherings are Professors Dean and Harcourt, of the Ontario Agricultural College; Mr. D. Drummond, Myrtle; and Miss Maddock, of Guelph. In addition, several local speakers will be present.

A Maritime Fat Stock Show.

At a meeting of the Executive Committee of the Maritime Stock Breeders' Association at Amherst, a few days ago, it was decided that a Fat Stock, Dairy and Poultry Show should be held by the Association at some central point in the Maritime Provinces on the 18th, 19th and 20th December next. The choice of location will depend largely upon the desire which different towns or cities express. Over 82,000 will be offered in prizes.

After the cattle, sheep and swine have been judged alive, a number of them will be slaughtered and submitted to the block test. Lectures will be given on the breeding, selection and feeding of the different classes of animals, and also as to the desirability or otherwise of the various carcasses.

The Dominion Department of Agriculture is co-operating with the Provincial Departments to make this winter show a great object lesson in meat production. Already a number of beef raisers are preparing to feed some good cattle. Handsome prizes will be given. A practical test of dairy cows will also be made. The different poultry Associations in the three Provinces will be asked to join with this movement and so insure a good poultry display. Dressed poultry and the killing and packing of poultry for export will be shown.

ance. An immediate result of this unsatisfied demand is that the prejudice hitherto existing against the branded horse is being gradually broken down. A few weeks ago a consignment of fully broken, well-mannered range-bred horses was sold in Chicago for prices that reached \$177.50 and the bidding was keen. The endurance and satisfactory bone of the ranger are well known and admired. The mammoth sales of these animals shortly to be held will offer, it would seem, an excellent opportunity for dealers to make money and at the same time do much for the range horse breeding business. No doubt a large number of the horses to be sold at auction in these venues will have size sufficient to enable them to do much valuable work in city streets. The man who will intelligently lay in a stock of the right sorts and then break, manner and condition them for market, can hardly fail to turn a good penny in the operation. It is also practically certain that next spring the demand for horses in the rural districts will be quite as pronounced as it has been this season. Many of the full-aged rangers soon to be sold ought to make acceptable farm workers. In short these coming sales promise to offer some alleviation of the conditions imposed by the wholesale abandonment of breeding operations some seven or eight years ago.—Breeders' Gazette.

Duties on Live Stock Entering the United States.

We are occasionally asked what the duties are on live animals entering the United States from Canada. The following gives all the information necessary on this subject, and will be found of value to prospective shippers to the south of the line:

The duties on foreign live stock under the provision of the Tariff Act, approved July 24, 1897, commonly known as "the Dingley Bill," are as follows: Cattle—If under one year old, classed as calves, \$2.00 per head; all other cattle if valued at not more than \$14.00 per head, \$3.75 per head. This includes yearlings and cattle of all ages that come under the valuation of \$14.00 per head or less; if valued more than \$14.00 per head, 27 1/2

Strong Demand for Range Horses.

From the preparations that are being made by several well-known horse sales-commission firms for the coming season it is plain that many buyers have made up their minds that it is a ranger or nothing if they desire to maintain their operations on the scale on which they have conducted them during the past few years. The acknowledged shortage of horses in the eastern, middle western and western corn-growing states has forced into the harness many range-bred horses that under previous prevailing conditions would assuredly have been put to other uses or allowed to shift for themselves until they became a nuisance.

Spraying Potatoes

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Seems incredible that farmers should use old methods, when they can kill both Potato Blight and Bugs, in one operation. One man with a SPRAMOTOR can spray 20 acres in a day.

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Spraying with the SPRAMOTOR will entirely eradicate Mustard. Full particulars in our book on spraying.



per cent. ad valorem. Hogs—One dollar and fifty cents per head. Sheep—One year old or over, \$1.50 per head. Lambs—Seventy-five cents per head. Horses and Mules—Valued at \$150 or less per head, \$30.00 per head. If valued at over \$150, 25 per cent. ad valorem. All other animals not specially provided for in this act, 20 per cent. ad valorem.

FREE OF DUTY.

Any animal imported specially for breeding purposes shall be admitted free.

Provided, That no such animal shall be admitted free, unless pure bred of a recognized breed and duly registered in the book of record established for that breed.

And further provided, That certificate of such record and of the pedigree of such animal shall be produced and submitted to the customs officer, duly authenticated by the proper custodian of such book of record, together with the affidavit of the owner, agent or importer, that such animal is the identical animal described in said certificate of record and pedigree.

Cows intended for sale for breeding or milking purposes must be accompanied with a veterinary certificate and chart from the officially designated or appointed Canadian veterinary, as provided, proving them free from contagious diseases. If shipped without the necessary veterinary certificate and chart all such cattle intended for breeding or milking purposes are held at the point in the United States, where, consigned for the term of one week, and subject to veterinary examination. All expenses of such examination, care and feed being charged against the owner, and any such cattle failing to pass the veterinary test examination are condemned and sent to the rendering establishment.

Entering Values of Stock.—All stock intended for sale on that market must be entered at its true value on the nearest market to point of shipments, on day of shipment, to avoid being subject to penal duty. This applies as well to sheep and lambs as to cattle. The value of the lambs and sheep as invoiced can make no difference with the duty as it is specific at 75 cents per head for lambs and \$1.50 per head for sheep.

A New Peach Pest.

Mr. H. Gordon Ball, who has a large fruit farm near Niagara-on-the-Lake, reports the discovery of a parasite which attacks and destroys peaches. So far as he can ascertain locally, the insect is new to that district, and he has collected a number which he has forwarded to Ottawa, with a request as to what is best to be done to stop the serious damage they are causing in one of his two fine peach orchards. The insects apparently pay no attention to leaf or stem but attack the fruit itself eating out holes of considerable size, thus quickly killing the fruit. The insects

One Teaspoonful of Pain-Killer in hot water sweetened will cure almost any case of flatulency and indigestion. Avoid substitutes, there is but one Pain-Killer, Perry Davis'. 25c. and 50c.

fly easily, are about $\frac{1}{4}$ of an inch in size, somewhat like a beetle in shape and rather light, between yellow and white, in color. Great clouds of these insects have been hovering around the peach trees in Mr. Ball's orchard recently, but it was only last week that investigation developed the fact that they were destroying the fruit. So far they have not been noticed in any other orchards in the vicinity, and it is hoped that the Ottawa officials may be able to give such instructions as will stamp them out before they make further headway.

Will Purchase Poultry.

The Toronto Poultry and Garden Produce Co., Ltd., Davisville, Ont., as appears by their announcement elsewhere in this issue, are purchasers of all kinds of poultry, and give full market price at all times of the year for the same. They have agents in all parts of the country purchasing for them, the majority of whom are farmers giving their leisure to this work.

The company will forward empty crates to any express office in Ontario and pay express charges both ways, and upon arrival of the birds will remit by money or express order.

Any parties in the country desiring to procure birds for them, the company will be pleased to place them on their list of purchasers, when they will be advised each week of the price holding good for the ensuing week. This is an excellent opportunity for parties wishing to engage in work of this kind with a reliable concern.

The Good Roads Train.

It is expected that the good roads train, already described in these columns to make a tour through Eastern Ontario, in the interest of good roads will leave Hamilton about July 15th. It will proceed direct to Gananoque, where the first work will be commenced. Mr. W. J. Devitt, Greenwood, Ont., who is recommended by the Commissioners of Highways, began work last week at Gananoque in building the culverts. It has been arranged to have all the culverts in the stretches of road selected for operation completed before the train arrives. Major Shepherd, representing the Sawyer-Massey Co., and Mr. H. B. Cowan, secretary of the Eastern

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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.

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Durham Cattle. "Milk-
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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.

Ontario Good Roads Association, will go over the proposed route this week and arrange with the local municipalities where stops will be made.

Most of the pieces of roads selected are famous for their bad qualities and therefore if the experiment prove successful the object-lesson to the people in the various localities where the train will stop will be all the greater. The farming community throughout seems to be taking the keenest interest in the enterprise.

The various County Councils en route at their June sessions, selected the pieces of roads to be operated upon, and made grants of from \$100 to \$300 each to the Association towards the work. The following are the details of the trip and the roads to be operated upon

Leeds County.—A stretch of road at Gananoque near the St. Lawrence. The town and township councils are uniting to meet the expense of supplying the stones and teams.

Grenville.—A piece of road leading from the C. P. R. to the village of Kemptville.

Dundas County.—One mile of boundary road between the village of Iroquois and the township of Matilda on the west side of the village commencing north of the railroad tracks.

Stormont.—One mile immediately south of the village of Newington (O. & N.Y. Ry.) in the township of Osnabrock on the Wales road commencing on the west side of the village between the 7th and 8th concession of said township.

Glengarry.—One mile of the military road between the townships of Lochiel and Kenyon, commencing at north boundary of Alexandria village and thence northerly.

Prescott and Russel.—A stretch of good road leading from the C. P. R. tracks to the village of Plantagenet.

Carleton.—Two stretches of roads leading west from the village of Belles Corners and the other into the village of Carp.

Lanark.—A piece of road in the township of Ramsay near the village of Almonte.

Renfrew.—Two pieces; one in Pembroke township, near the town of Pembroke, and the other leading from the Canada Atlantic tracks to the village of Eganville.

Butter Sold by the Yard.

Probably Cambridge, England, is the only place in the world where one would be likely to find butter sold by lineal measure; but here, in accordance with the old custom, it is literally sold by the yard, says an exchange. For generations it has been the practice of Cambridgeshire people to roll their butter in lengths, each length measuring a yard and weighing a pound. Delftly wrapped in strips of clean white cloth the cylindrical rolls are packed into long and narrow baskets made for the purpose and thus conveyed to market.

The butter women who, in white linen aprons and sleeves, preside over the stalls in the mart, have no need of weights or scales for dispensing

their wares; constant practice and an experienced eye enables them with the stroke of a knife to divide a yard of butter into halves or quarters with almost mathematical exactness.

The university people are the chief buyers of this curiously shaped article. In addition to being famed for its purity and sweetness, Cambridge "yard butter" is eminently adapted for serving out to the university students in the daily commons. Cut into conveniently sized pieces, and accompanied by a loaf of the best wheat bread, a stated portion is sent round every morning to the rooms of the undergraduates for use at the daily breakfast and tea.

Manuring the Soil.

A bulletin treating of methods of manuring the soil has just been issued by the Experiment Station at Stillwater, Okla.

The following is a summary of the bulletin:

Without going into detail as to the various considerations that may affect the results of manuring, at the present stage of our agricultural practice, the chief points to be observed are:

1.—To manure the soil. Use all the manure produced, prevent losses by washing away, quit burning straw, haul the manure onto the fields somewhere, sometime, somehow.

2.—Manure the highest and poorest spots, give a good application at one time—from fifteen to twenty two-horse loads—and manure another place next time.

3.—Manure with reference to the time of rainfall, to the next crop which is to be grown, and to the other work which must be done.

Late fall and winter, when other work is not pressing, is a good time. Light top-dressings may be applied to wheat in the fall.

3.—Growing crops for green manuring alone is not the most profitable method. Pasture them and plow under the remainder when about mature. This applies chiefly to cow-peas. If sorgum is to be plowed under, it should be while the stalks are green and juicy, so that they will decay quickly.

"Bessie," said a mother to her four-year-old daughter, "did you peel your apple as I told you to do before eating it?"

"Yes, mamma," replied Bessie.

"And what did you do with the peel?"

"Oh, I ate that afterwards."—*Stray Stories.*

Stock

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

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Young Stock of both sexes for sale.

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

GLEN CRESCENT SHORTHORNS AND OXFORDS.

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

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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.

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AT FARNHAM FARM

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

—PRICE REASONABLE.

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SHORTHORN BULLS

Two choice bulls about a year old

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Bred from sweepstakes herd.
Young stock of both sexes for sale.

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

BRETHOUR & SAUNDERS,
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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.

Cattle.

From June 5-20, 1901, reports of official records of thirty-three Holstein-Friesian cows have been received by the American Association. A full-age cow was reported with three records. Using only one of these in determining the averages, there were nine in this class averaging: Age, 6 years, 3 months, 19 days; tested 42 days after calving; milk, 459.7 lbs.; butter fat, 15.987 lbs.; equivalent butter 80 per cent. fat, 18 lbs. 13.8 ozs.; equivalent 85.7 per cent. fat, 17 lbs. 9.6 ozs. This is a very remarkable showing. The average product of butter fat exceeds that of the last two weeks in May by a pound and a quarter, equivalent to about a pound and a half of butter. The highest record in this class was 24 lbs. 11.7 ozs., equivalent butter 80 per cent. fat, or 23 lbs. 4.1 ozs., 85.7 per cent. fat.

In the four-year-class there were seven cows that averaged: Age, 4 years, 3 months, 15 days; tested 30 days after calving; milk, 423.4 lbs.; butter fat, 13.485 lbs.; equivalent butter 80 per cent. fat, 16 lbs. 13.7 ozs., or 15 lbs. 11.7 ozs., 85.7 per cent. fat. The most remarkable record in this class was a cow 4 years, 1 month, 20 days old that produced 15.223 lbs. butter fat, equivalent to 19 lbs. 0.5 ozs. butter, 80 per cent. fat.

In the three-year-old class the record of only one cow was received. Her product of butter fat was 13.992 lbs., equivalent to 17 lbs. 7.8 ozs., butter 80 per cent. fat, or 16 lbs. 5.2 ozs., 85.7 per cent. fat.

Of the two-year-old class sixteen were received, averaging: Age, 2 years, 4 months, 16 days; tested 53 days after calving; milk, 323.5 lbs.; butter fat, 10.319 lbs.; equivalent butter, 80 per cent. fat, 12 lbs. 14.1 ozs., or 12 lbs. 0.6 ozs., 85.7 per cent. fat. This is also a very remarkable showing. One heifer in this class broke the world's two-year-old record, producing 15.504 lbs. butter fat, equivalent to 19 lbs. 6.1 ozs. butter, 80 per cent. fat, or 18 lbs. 1.4 ozs., 85.7 per cent. fat.

Aberdeen-Angus and Galloway cattle seem to sell well in the Old Land, as the following from the North British Agriculturist shows:—On Saturday Messrs. Harrison disposed of twenty-seven pedigree Galloway and Aberdeen-Angus cattle, the property of a gentleman in the south, together with several local consignments of Galloways. The pedigree cattle were a superior lot, having been selected by the seller from some of the best herds and they commanded keen competition at satisfactory prices. The principal prices were as follows:—Maggie Lauder of Kilquharity, c. 1898, and bull calf, 24 gs., to Mr. Hudson, for the Earl of Lonsdale; Myth 4th of

Penninghame, c. 1898, and bull calf, 2½ gs., to Mr. Green, Kirkland, Lockerbie; Beatrice Connell, c. 1898, and bull calf, 22 gs., to Mr. Butterfield, for Earl Grey; Annie of Annabagish, c. 1898, and heifer calf, 25 gs., to Mr. Butterfield; Cowslip 12th of Drumhughry, c. 1898, 26 gs., to Mr. Brown, Lochrutton, Rosebud, c. 1898, and bull calf, 27 gs., to Mr. Forster, Nook, Penton; Rowenna, c. 1898, and heifer calf, 29½ gs., to Mr. Wilson, Kirkland, Castle-Douglas; Queen May of Lairdlaugh, c. 1898, and bull calf, 30 gs., to Mr. Hudson; Flower of Shirkonnel, c. 1898, and bull calf, 22½ gs., to Mr. Butterfield; Waver, c. 1898, and heifer calf, 30 gs., to Messrs. Wilson, Tundergarth Mains; Queen Stinchar, c. 1898, and heifer calf, 34 gs., to Messrs. Wilson, Borderer 2nd of Tundergarth Mains (bull), c. 1899, 34 gs., to Mr. Brown, Lochrutton, Aberdeen-Angus cattle. Evangeline of Danesfield, c. 1898, 21 gs., to Miss Jardine, Dryfeholm; Pride of Sussex, c. 1897, 21 gs., to Miss Jardine; Danesfield Black Favorite, c. 1898, 20½ gs., to Miss Jardine; and Epopeus (bull), c. 1899, 24 gs., to Mr. Kennedy, Luce.

Sheep

Says the "Farmer and Stockbreeder"—"Patagonia, which has for many years past taken a few sheep at times, would appear to be likely to now become not only a regular customer, but a pretty large one as well. Last season a considerable number of Kent or Romney Marsh rams were despatched to that country, to which the breed, after many years' trial, has been found to be particularly adapted. In addition to the importation of Kent or Romney Marsh sheep, Shropshires were also sent, and we now have information that recently a consignment of no less than thirty-two ram tags have been despatched to that country to the order of Mr. Roig from the noted flock property of Mr. P. L. Mills, of Ruddington Hall, Nottingham. Again, we notice that Mr. R. P. Cooper is just starting a large sheep farm in this country. This is valuable testimony of the likelihood of increased trade in that direction, for once the native learns by practical experience the increased value that can be secured from the pure-bred stock, either kept pure or used for grading up the sheep of the locality, a sure demand is sure to follow. Undoubtedly it is a fortunate circumstance for the Shropshire breed that Mr. Cooper is contemplating the establishment of a sheep farm out there, but from past experience one can be fully assured that no one breed will assure undivided patronage.

Isn't it strange that the new woman is seldom a young one?

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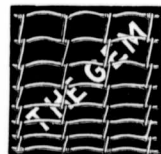
81 Lieport, Que., July 29th 1899.
Dear Sir,—Some time ago I bought a bottle of your Lump Jaw Cure and I succeeded in curing a bull so I thank you very much. One of my friends has a cow that has a swelling on the neck near the ear, and he wishes to have a bottle of your remedy. Yours truly,

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Market Review and Forecast

Office of the Farming World,
Confederation Life Building,
Toronto, July 1st, 1901.

Trade has ruled quiet in wholesale lines during the week, and this feature has been accentuated by the extremely hot weather. The outlook for the fall trade is all that could be desired. For with the prospects of good crops and everything favorable to the farming community there need be no fear as to the future good outcome of the general trade of the country. Money is quiet, but steady, at 5 per cent., and discounts on commercial paper range from 6 to 7 per cent.

Wheat.

While there have been adverse reports regarding the wheat crop of Europe these are much more than offset by the glowing reports from the American crop, some of which is now being harvested. A big yield is expected all over this continent and the new wheat already gathered in shows an excellent sample. The Price Current of last week says: "Crop conditions have been maintained without material changes. Winter wheat harvest and threshing reports are meeting, far exceeding expectations. Quality is exceptionally high."

Locally the wheat situation shows little change, though a steadier feeling is noticeable. Exporters here quote red and white at 62c., north and west, 63c. middle freights, while holders are asking 64c to 65c. Goose is quoted at 61 to 62c., and spring at 67c. east. On Toronto farmers' market red and white bring 68c.; goose, 61½c. and spring five 66c to 67½c per bushel.

Oats and Barley.

While an advance is reported in the English market for oats the market on this side is dull and lower. Here No. 2 white are quoted at 29c. north and west and 29½c to 30c middle freight, and No. 1 white at 31c. east. On the farmers' market here oats bring 35½c to 36½c per bushel.

On the barley market, though steady, there is not much doing. On Toronto farmers' market barley brings 43 to 44½c. per bushel.

Peas and Corn.

The market for peas is firmer owing to stronger cable reports. Quotations here are 69c. middle freights and on the farmers' market 66c. per bushel.

The corn market is quiet and the American crop is reported to be needing rain in some places. There is little American corn coming to Canada just now. Canadian yellow is quoted here at 45c. on track Toronto.

Bran and Shorts.

Ontario bran is quoted at Montreal at \$13 to \$13.50 per ton in car lots, and shorts at \$14.50 to \$15.50. Quite a lot is being sold on American account. City mills here sell bran at

\$13.50 and shorts at \$14.50 in car lots f.o.b. Toronto.

Hay and Straw.

Referring to the hay trade of the week the Trade Bulletin says: "Quite a lot of hay in this vicinity has been cut, and yesterday and to-day the first lots were put into barns in splendid condition. The crop will be very large, one farmer from the Back River stating to-day that "it is simply tremendous." Sales were reported to us to-day at \$10 for No. 2, about 30 cars being purchased yesterday and to-day for next week's delivery at \$10 on track here. Lower grades range from \$7.50 up to \$9. The export demand is good, the total shipments during the past week being 6,278 bales to U.K. ports. Another Government order for 10,000 acres for South Africa has been received. We could fill a few more such orders from the old crop. The English market is steady."

There is a quiet demand here and the heavy offerings are not quickly absorbed. Prices are steady and unchanged, but the market is dull at \$9.50 to \$10 for car lots of No. 1 timothy on track. On Toronto farmers' market hay brings \$10 to \$11.50 and sheaf straw 88 to 88.50 per ton.

Potatoes.

The higher market of the past week or two has brought out more supplies and prices are lower again. Car lots of old potatoes are quoted at Montreal at 50c. per bag in car lots. Car lots are quoted here at 30 to 35c. with a dull market. Car lots of new potatoes which are offering freely are quoted at \$1.10 per bushel on track Toronto. On the farmers' market here old potatoes bring 40 to 50c. per bag and new ones \$1.50 to \$5 per barrel, or \$1.75 to \$2 per bushel.

Eggs and Poultry.

There is no change in the egg situation, the excessive hot weather and the fruit supply having failed to lower values as is usually the case. The hot weather is rather hard on supplies as many of them contain a large percentage of bad ones. The English market continues firm for eggs, and prices on this side rule steady for fresh lots. Montreal quotations are 11½ to 11¾c. for case lots. The market here is steady to firm at 11½ to 12c. for selects, and 10 to 10½c. for seconds in job lots. On Toronto farmers' market eggs bring 12 to 15c. per dozen.

For the week ending July 6, the Canadian Produce Co., Toronto, will pay 11c. per lb. for live chickens.

Fruit

Canadian strawberries are arriving at Montreal in large quantities. Berries from this Province are quoted there at 5c to 6c per box in a wholesale way. The Toronto fruit market has ruled active with moderately

large receipts. There is a steady demand at 5c to 7½c per box.

Cheese.

A decidedly easier feeling has set in in the cheese trade. Old Country dealers seemingly refusing to come up to the advances on this side during the past ten days. Trade at the local country markets during the week was quiet, factorymen who have sold pretty close to the hoops refusing offers of from ¼ to ½c. less than a week ago. The ruling prices at the local markets ranged from 9½ to 9 3-16c, but little business was done. The situation, however, is strong and with a shortage in exports so far from Montreal and New York of 250,000 boxes less than for the same period a year ago, and the English market firm and active, it would not be surprising to see prices take a turn upward on very short notice. Last season the price of finest Westerns at Montreal never went below 9½c, and only remained there a very short time and it seems reasonable to suppose that with such a big shortage to make up, prices will be maintained at a good figure. From 9½ to 10c. are the quotations at Montreal for finest Westerns as compared with 10 to 10½c a week ago.

Butter.

The creamery butter market is not as strong as it was a week ago though the prices have not lowered very much. The English market is firm and there is a good demand at recent advances, finest Canadian full grass creamery selling at 100s. to 102s. per long hundred. English dealers are beginning to store June

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creamery on this side and altogether the market has a healthy tone. Exports so far this season from Montreal shown an increase of over 27,000 packages as compared with the same period of last year. The Trade Bulletin of a last week says:

"Since our last report the market advanced $\frac{1}{4}$ to $\frac{1}{2}$ c. with sales as high as 20 $\frac{1}{2}$ and 21c. for finest creamery, but during the past two or three days there has been a gradual easing off, with sales to-day of about 400 to 450 boxes at 20 $\frac{1}{2}$ and 20 $\frac{1}{2}$ c., both figures being paid by shippers. Sales of between 700 and 800 boxes of seconds were made at 19 $\frac{1}{4}$ to 19 $\frac{3}{4}$. In dairy butter there is no particular change, sales of between 300 and 400 tubs of Western being reported at 16 $\frac{1}{2}$ to 17c. a lot of 60 packages selling at 16c., but it was not selected. A car of Western was sold for Montreal account at 15 $\frac{1}{2}$ c. f.o.b. Western dairy is evidently scarce, as we know of several orders for this class of butter that are unfilled."

Creamery is steady here at 21c. for prints and 19 $\frac{1}{2}$ c. for tubs and boxes. There is a keen demand here for dairy pound rolls, but receipts are not large. The finest are quoted at 16c to 16 $\frac{1}{2}$ c., and medium at 15c to 16c. Tubs, pails and crocks are offering freely at 5c to 16c for the best. On Toronto farmers' market pound rolls being 10c to 18c, and crocks 13c to 15c per lb.

Wool

The wool market continues inactive and dull at last week's quotations, which are 13c for washed and 8c per lb. for unwashed.

Cattle

While cable quotations are lower, there was a slight advance at the leading American cattle markets late in the week for really prime quality. Poor quality is slow of sale and not in active demand. There was not a large run of live stock at the Toronto cattle market on Friday; the offerings were 512 cattle, 1,645 hogs, 728 sheep and 60 calves. There was an improvement in the quality of the shipping cattle over that earlier in the week. The bulk of the offerings, however, were grassers, many of which were of poor quality and not wanted. Trade has fallen off considerably owing to the very hot weather, especially for butchers' cattle. People are not eating so much meat, and more fruit and berries. There were no outside buyers on the market. There were some grassers left unsold, and should there be a large run of this class, drovers would find a very dull market. A few loads of choice shipping cattle sold at \$5.30 or 15c per cwt. higher than on Thursday. Stall-fed butchers' cattle were firm at about the same prices, but meal-fed grasses and straight sold at much lower quotations. There were a few loads of light and heavy feeders, which met with a good demand at quotations. More of these would have found ready sale. There were few stockers offered, and prices for these are easy, though choice lots are in demand. Milch cows and springers sold at from \$25 to \$50 each.

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Export Cattle.—Choice loads of these are worth from \$5.00 to \$5.30 per cwt., and light ones \$4.80 to \$5.00 per cwt. Heavy export bulls sold at \$4.00 to \$4.25, and light ones at \$3.60 to \$3.85 per cwt.

Butchers' Cattle.—Choice picked lots of these, equal in quality to the best exporters', weighing 1,050 to 0,150 lbs. each sold at 12.50 to \$7.75 per cwt., good cattle at \$4.35 to \$4.45, medium at \$3.90 to \$4.35, and inferior to common at \$2.75 to \$3.25 per cwt.

Feeders.—Heavy, well-bred steers, from 1,100 to 1,200 lbs. each, sold at \$4.50 to \$4.75, and other quality at \$4.40 to \$4.50 per cwt. Light 1,150 lbs. each, sold at 32.50 to 24.75 sold at \$3.50 to \$3.75 per cwt.

Stockers.—Yearling steers, 400 to 500 lbs. each, sold at \$3 to \$3.30, off colors, and inferior quality at \$2.50 per cwt.

Calves.—These are in good demand at Buffalo, veals bringing \$5.50 to \$5.85 per cwt. At Toronto market ordinary calves bring \$2 to \$8 each.

Milch cows.—These sold at from \$25 to \$50 each.

Sheep and Lambs

The deliveries of sheep and lambs on Friday were a little larger, and prices were fairly steady for all but export ewes, which are not in good demand. Prices for sheep were \$3.50 to \$3.60 for ewes, and \$2.50 to \$3 per cwt. for bucks. Spring lambs are steady at \$2.50 to \$4 each. At Montreal spring lambs bring \$3 to \$4.50 each; yearling \$5.50 to \$6 per cwt; and sheep \$4.50 to \$5.00 per cwt. The Buffalo market has ruled dull, good to choice spring lambs being \$5.50 to \$5.75.

Hogs

Hogs ruled a shade lower all week; select bacon hogs selling at \$7, and lights and fats at \$6.62 $\frac{1}{2}$ per cwt. Unculled car lots brought about \$6.90 per cwt. An advance in price is expected this week.

For the week ending July 6th the Wm. Davies Co., Toronto, will pay \$7.50 per cwt. for select bacon hogs and \$7.00 for lights and fats.

At Montreal packers have been paying \$7.25 per cwt. for bacon hogs, and the market is firmer. The trade Bulletin's London cable of June 27th, re Canadian bacon reads thus: "Market steady for Canadian bacon, stocks of which are light."

Horses

The horse trade is a little quiet, though quite up to the usual activi-

ty for this season. Montreal quotations are: Carriage horses, \$180 to \$350 each; heavy drafts, \$190 to \$225; light roadsters, drivers and saddles, \$100 to \$225; and remounts, \$110 to \$140 each.

Summer Care of the Flock.

The Michigan Farmer has been conducting a series of prize competitions for practical essays on various farm topics. Some very good material has been obtained in this way, and we give herewith the first prize essay on the summer care of sheep, as it is both timely and suggestive. It is as follows:

"We will suppose this flock to be the ordinary farm flock. That it has been well wintered, and that the lambs have been yeaned in March or April. Then the first thing is to shear. Do not put this off, and do not think of waiting to wash. This barbarism is not profitable, to say nothing of the cruelty. If the lambs have all come, the second week in April is late enough. This means, of course, that they are to be put up nights and kept out of any storms that may come. This should be done anyway, whether they are sheared or not. Ten days after they are sheared dip the lambs. Not all of us are so situated that we can dip our sheep, but anyone can dip the lambs. A half barrel and fifty cents' worth of anyone of the standard sheep dips will clean up the lambs, and there will be few, if any, ticks left on the sheep if this is done soon after shearing. We did not find a tick on our flock at shearing this year, and only the lambs were dipped last year.

There are three essentials for sheep in the summer—feed, water and shade—and no one of them can be dispensed with and have the best results. If we have no natural shade in our sheep pasture we should build some sort of a cheap shed that would furnish protection from the sun and from the flies. The nose fly, which the sheep fear so much, will not follow a sheep into the shade. The flock needs water just as much as the herd, or the horse, and it should have it in plentiful supply and where it is easily obtained. This statement may seem needless, but it is not. There

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are still too many owners of flocks who stick to the idea that the dew is enough for sheep. A sheep can live longer deprived of water than a horse or a cow, but it suffers quite as much as either and it will not thrive.

It is wonderful how short pasture a sheep will do well on if shade and water be furnished, but close pasturing with sheep is the worst possible thing for the pasture. To prevent this a few acres may be sown to rape, which will relieve the pastures very much. Sown any time from the first of May to the first or even the middle of July, if there is sufficient moisture to start it, rape will be ready for feeding in about six weeks, and will furnish a feed the sheep will relish and thrive upon.

The flock should be salted regularly, at least once a week, in such quantities as they will clean up. If this is attended to regularly they will not eat enough to cause scours, as they do frequently when they are compelled to go a long time without. With this salt should be mixed some worm powder. There are several good ones. An ounce of prevention is worth a pound of cure. If the sheep run where they can be got up once in a while and some pine tar rubbed on their noses it is a great help to keep away the fly.

If the lambs are to be forced for an early market a lamb creep, where the little fellows can go and help themselves to grain, will be necessary. If they are to be fed into the winter not much grain is needed after grass gets good. But in either case do not let the lambs run too long with the ewes; it does not help the lambs and it is an injury to the ewes. Lambs born in March or April should be weaned in August, and not later than the middle; then place the lambs where they will have a little extra feed and place the ewes on the shortest pasture you have. If they are of the English breeds they will need milking out once or twice. Attention to this may save a ewe's udder that would be ruined if neglected. And be sure and do not practice that utterly shiftless habit of allowing the ram to run with the flock. A small lot anywhere will hold an orderly sheep; he can run with the colts or the calves, or anywhere but with the flock.

The owner should see his flock often, daily if possible. Should plan his fields, if possible, so as to have an occasional change of pasture, and should remember that the flock needs care and watchfulness in summer as well as in winter.

"Off Flavor" in Cheese.

J. A. Ruddick, Chief of Dairy Division

Description.—This term is frequently applied in a general way to a variety of bad flavours, but it more properly refers only to the well-known characteristic flavor which indicates early deterioration in the cheese. It occurs more frequently during the hot weather, but does not usually become noticeable until the cheese begins to "break down."

Cause.—The so-called "off flavour" is of fermentation origin, and is the

result of the milk being contaminated by filth in some form or other, and the cheese being cured at too high a temperature. It is only in extreme cases that cheese go "off flavour" when they are cured at a temperature not exceeding 65 degrees Fahr. If there has not been sufficient acid in the curd this defect is more liable to appear.

Means of Prevention.—Greater care and attention to cleanliness in the handling of the milk, proper development of acidity in the curd, and control of the temperature in the curing-room so that it will not go above 65 degrees Fahr., are effective means for preventing "off flavoured" cheese.

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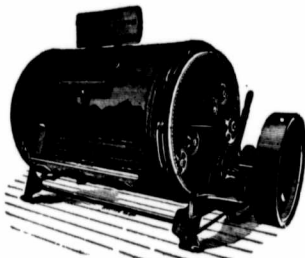
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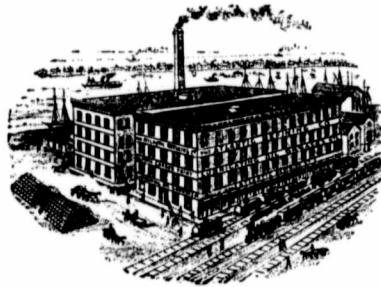
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