

The Farming World

A PAPER FOR
Farmers and Stockmen



Ideal Farm Homes

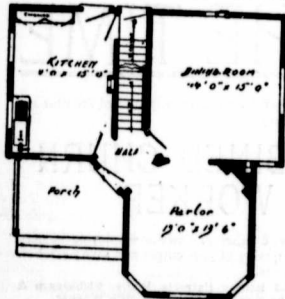
In naming these articles "Ideal Farm Homes," or rather in calling the designs we present "Ideal Farm Homes," we take into consideration that different people have different ideas in regard to what is really a satisfactory building for themselves. An ideal would not be an ideal if it did

not emanate from some particular brain, and what would be one man's ideal might be far from that of another. In presenting the different designs we feel sure that some of them will strike the fancy of almost any of our readers. What would suit one of course would not suit another.

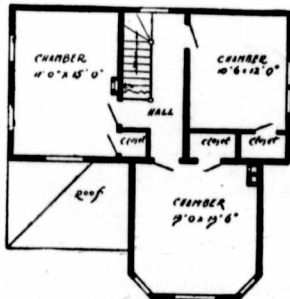
There is a mistaken idea among many of the farmers that they must not build a house until they can build one that is complete in their estimation. That is to say the house must be all that they will ever want, and in the meantime they are living in an old shack, with a barn, perhaps, having far more conveniences than the house. The house we present with this article, our No. 21, has only six rooms, but all the room in the house is thoroughly utilized, and it can be built for very little money. The cost will not exceed \$1,000.

The width of this house is 30 feet and the length 30 feet. 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. The price of these blue prints, together with a complete set of type-written specifications, is \$3.00, and they can be had at the office of The Farming World.



First Floor Plan.

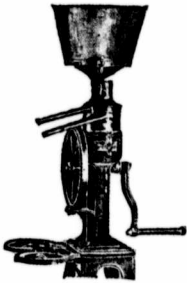


Second Floor Plan.

Address

The Farming World

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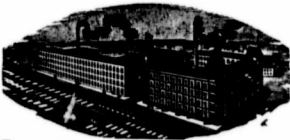
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[Copy.] Clover Farm, De Kalb, Ill., March 9, 1901.
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Respectfully yours, H. B. GURLER.
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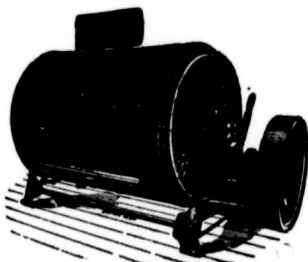
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COWANSVILLE, QUE.

The Farming World

For Farmers and Stockmen

VOL. XIX.

JULY 9th, 1901

No. 2

Canada in Britain

CANADA is being kept well before the people of Great Britain these days. Since the arrival of the Hon. Sydney Fisher and Prof. Robertson a few weeks ago, the people of the Old Land have had the many-sided and important features of Canadian Agriculture presented to them in a most striking manner. These two representatives of the Canadian farmer are seemingly leaving no opportunity neglected of placing before the English consumer the capabilities of the Dominion in the production of large quantities of the finest quality of food products. We hear of them in London, in Liverpool, in Glasgow, and in other large centres of trade in the United Kingdom, addressing meetings of provision dealers and merchants and being interviewed by representatives of the large dairies and by men in official positions as to the possibilities of Canadian Agriculture.

Truly these are great days for Canada. The seed that is being sown is evidently finding a lodgment in the business centres of the Old Land and many are turning their attention Dominionward in their endeavor to secure food products of the finest quality. The British consumer has had a taste of our cheese, our butter, our bacon, our fruit, our eggs and our poultry, and it has been so satisfying that he is asking for more. The duty then of the producer is quite clear. He must aim to supply the articles we have enumerated, with the exception perhaps of the first named, in increasing quantities. But the quality must not be neglected. It has been due to the fine quality of the products already sent forward that this taste has been acquired, and every effort should be put forth not only to keep up to the standard of other years, but to so improve, that the quality of food products from Canada shall be superior to that of any others imported by the Mother Land. This can be done by constant, persistent and definite effort along educational and practical lines.

But our exports of food products are increasing at a most satisfactory rate, and if the present rate of progress keeps up, in a few years Canada can lay claim to a goodly share of Great Britain's imports of food products. In addressing a meeting of the Scottish Provision Trade Association at Glasgow, on June 19th, Mr. Fisher stated that some five

years ago Canada sent to Great Britain seven per cent. of the staple food products which she imported. In 1900 Canada sent sixteen per cent. and he had no hesitation in saying that in the next five years we could again more than double that percentage, providing the goods were wanted.

Speaking at the same gathering, Prof. Robertson gave some interesting figures, showing the increase in Canadian trade with Great Britain during the past ten years. Our cheese exports have doubled in this time, and instead of supplying 40 per cent. of the cheese consumed in Britain, we are now supplying 70 per cent. Our butter trade has grown fifteen fold, and our bacon trade twenty fold. Ten years ago Canada exported 162 shiploads of produce to Britain; last year we exported 480 shiploads. Our export of wheat last year was thirty times greater than it was ten years ago, while our flour exports have grown five fold.

The average producer in this country can hardly comprehend the significance of these figures. While he has been plodding along seemingly not increasing his annual output to any great extent, the total volume of trade has been enlarging at a very rapid rate. And yet it is each one's little addition to the whole that counts in the end and causes trade to expand. If each producer, while endeavoring to increase his annual output would further improve the quality, there is hardly any limit to the amount of expansion our trade with Great Britain will stand. But there must be advancement in regard to both quantity and quality, or no permanent advancement can be made.

Fruit Inspection.

On the first day of July, 1901, the act to provide for the marking and inspection of all packages containing fruit for sale passed at the last session of the House of Commons, came into force, and from this time there should be a decided check to the fraudulent packing and marketing of fruit that has disgraced this country during recent years. Of course no law of this kind is of the greatest advantage in preventing fraud without some effective means are taken to enforce it. But we have every assurance that the law will be enforced where necessity demands it. The fact that there is such a law will no doubt act as a deterrent and prevent many who might be afraid of being detected from

perpetrating the frauds of recent years. It will also renew confidence in the Canadian fruit trade on the part of the English consumer.

In The Farming World of April 23rd last we published the leading clauses of the bill to which we would direct our readers. It will pay all fruit growers and packers to make themselves thoroughly familiar with the provisions of the bill which will be known as The Fruit Marks Act, 1901. Copies of the bill are now being distributed from Ottawa.

Feeding the Beef Calf

In rearing animals for beef production a great deal depends upon the method of feeding adopted with the calf. And it is just here where too many of our farmers fail. They neglect the calf and leave it to shift largely for itself till the time approaches for fitting it for market when they begin to feed in earnest. The very best animal, no matter how good the breeding, cannot be produced in this way. From the time the calf is dropped till it is ready for the block it should be so cared for and fed that it will continue to grow every moment of the time. Every beef producer should begin fitting for market as soon as the calf is born.

In rearing the beef calf the following from the pen of a practical American breeder and feeder is to the point: "Work is always to be done in accordance with the end and purpose in view. There is a distinct difference between a dairy cow and a cow intended to rear calves. In the former the intention is to develop a large digestive apparatus, with a full development of bone and muscle, but with no tendency to make fat. All the fat produced by the feed of a dairy cow is intended to go into the milk. Consequently the feeding is so arranged as to produce a good development of bone and digestive organs, a large stomach, and no waste of flesh. Everything is to be turned into development of the milk product and while in some breeds the milk-giving proclivity goes with that for making flesh and fat, yet this is not desired beyond the needs of the calf until it is able to eat and digest solid food. Three months' milk is enough for this and thus the calf is trained so that its digestive organs may turn rich food into flesh and fat, not so much nevertheless as it used to be the case. The calf thus gets the whole milk of the dam, and this is done with the least labor by permitting the calf to suck the cow. And the common and

advisable practice is to let the calf feed three times a day. This not only aids in the digestion of the food, but it has the tendency to develop a quick action of the digestive organs, and to avoid a large development of the bulk of them. Thus it is immediately seen that there is a distinct difference between the feeding of a heifer calf and a male calf, and to some extent between the beef breeding heifer and the dairy one. The former is not called upon for a large quantity of milk, but what it gives must be rich; while the latter is expected to give a large quantity in preference to a smaller quantity, although it may be less rich in fat. The whole feeding of the beef calf is directed to encourage a strong appetite, a strong digestion, and a large growth of flesh on small, fine but strong, solid bone.

"Consequently the beef calf is permitted to suck the dam, or if the dam has not milk enough a nurse cow is employed, the intention being from the first to develop a large appetite, and an active digestion; but at the same time to restrict the growth to those parts of the frame where the best meat is made. This is secured of course by the right breeding first, because like produced like, but the feeding is to be studied from this point of view and with this intent. But care is to be taken that the digestion is gradually stimulated so that the most nutriment may be turned to growth and yet the digestive organs are not overtaxed. The feeding is therefore begun moderately and very carefully and cautiously increased up to the ultimate ability of the calf to digest its food.

"A sucking calf should gain three pounds a day for the first month, two and a half a day for the second and two pounds a day for the third, and continuously until the growth demands suitable increase. This might seem to require a large quantity of milk to supply materials for this growth, but it is the fact that milk is not very much different in composition from flesh, for while it has eighty-six or seven per cent, of water in it yet flesh has seventy-seven per cent. of water in it, and the whole calf—solid bones included—has sixty per cent. of water. But food is not all used up in making flesh. As has been shown, a large proportion of it goes to make heat and support every action of the body not only motions of the limbs, but every pulsation of the heart and expansion of the lungs, and it is only reasonable that for each pound of gain of a young calf eight or nine pounds of the new milk of the cow is to be supplied. But it must be considered that there is a large evaporation from the skin of an animal, and there must be a sufficient supply of liquid to wash—as may be said—the system and consequently the young calf should be supplied with water as freely as it will take it, but the water should be pure and fresh, and not over cold in the winter, and as the calf grows it will be a help to add to the water a safe quantity of oil meal jelly, made by pouring boiling water onto linseed oil meal, and mixing a safe quantity of it to the milk. This may be used with good results in the

rearing of calves under all circumstances as a substitute for milk, of which the supply is short.

"Weaning a calf is to be done with caution lest a check, which may easily be severe, may be given to the young animal. The beef calf is to be crowded. It is the cheapest way of making the animal. Every pound at the beginning is worth two further on, for an animal will grow, as money will at compound interest, and the larger the early addition may be the greater the future ones will be that the increase in the food is to be small and steady intervals, so that the digestive organs will gradually become used to the ration and will also become strengthened by this safe use.

"As soon as the calf will eat it some flaxseed meal will be found the best and safest food. It is easily digested and its effect on the bowels is somewhat laxative, but only healthfully so. Cotton seed meal is not a desirable food for young animals. The gluten and starch feeds, fed in due, safe moderation, beginning with half-pound feeds come next to the linseed meals, whether full seed ground or the oil meals, of which the old process is preferable.

"This is most preferable at the first feeding when the proportion of protein in the food is much larger than at any other time in the life of an animal. For instance, an animal at two months weighing 150 lbs. will need as heavy rations in proportion to its live weight as a full-grown animal. Seven pounds of grain food daily is not overmuch for an animal of three hundred pounds, and twelve pounds is needed for one of five hundred pounds, and sixteen pounds is needed for a day's ration for one of seven hundred pounds. These are the minimum rations for growth only.

"At the early ages the proportion of the protein, or flesh forming elements of the food, are most wanted for the development of the vital organs, which are growing in a young animal, but have made their growth in one full grown, and future progress in growth depends to a very large extent on the ability of the vital organs to breathe, and to sustain the activity of the body. The large heart and lungs and the full development of the digestive apparatus of course must be necessary to the full growth of an animal.

"As the young animal grows it becomes a question of what kind and condition the feed should be. On the whole there is nothing better than grass in the summer, and corn, with corn stover, in the winter. And the results of many tests have shown that cornmeal and shredded corn fodder, have made the cheapest 2-year-old meat. At the Kansas Experiment station it was shown that 1,334 lbs of cornmeal and 350 lbs of stover made 100 lbs of gain, while 1,418 lbs of ear corn and 472 lbs of stover were required to make the same gain. On a second trial 971 lbs of grain and 200 lbs of stover made the same weight as 771 lbs of cornmeal and 200 lbs of stover. As a rule every saving of muscular and nervous action in feeding and digestion of food counts to the increase in weight of flesh. Thus, ground food and shredded fodder are more

economical feed than whole food, and shredded fodder is more economical feed than whole food, which requires the most muscular exercise to prepare it for digestion."

The New Peach Pest.

Prof. Lochhead, after investigating the new peach pest on the farm of Mr. Gordon Ball, reports as follows:

"The cause of the injuries to the peaches at Mr. Ball's is the Rose-beetle or Rose-chaffer (macrodactylus subspinosus), a yellowish beetle about half an inch in length, with long, slender legs of a pale red color. Fully one-third of the peaches in one of Mr. Ball's orchards are destroyed. Large, open wounds are made on the sides of the undeveloped peaches, which soon fall or begin to rot. Ten of these rose-chaffers were counted on a single peach. Fortunately these pests are local, and so far as can be ascertained are confined to one or two orchards. Their usual food plants are roses and grapes, but occasionally they overrun orchards and destroy most of the crop before action can be taken. When observed in time they can be prevented from doing serious injury by jarring them into funnel-shaped cans or sheets in early morning, while they are drowsy, or by the timely use of Paris green. Trees which have been whitewashed often escape. The eggs are laid in July, an inch below the surface of the ground, and the larvae or grubs feed on the roots of plants, chiefly grasses, until cold weather sets in. In spring the pupa is formed, and the adult emerges in June."

An Experience in Lamb Feeding

Prof. W. J. Kennedy, of the Illinois Agricultural College, gives the following account of an experiment in lamb feeding:

Two senior students of the Illinois Agricultural College desired to carry on a feeding experiment in connection with the experiment station for their graduating thesis. It was decided that they should conduct a lamb feeding experiment to determine the relative value of the various feeds for fattening purposes, as to the relative gains made from each, and also the quality of flesh produced. About the first of February we received from Chicago 16 high grade Shropshire lambs, a very uniform lot. They were divided into lots of four each. The lots were uniform in regard to quality and the weight of the lambs, averaging 252 lbs. per lot. They were fed on trial rations for about ten days until all the lambs were perfectly contented in their new quarters and taking their food nicely. Lot one was fed on corn meal and clover hay. Lot two was fed on shelled corn and gluten meal (2 parts corn and 1 part gluten meal) and clover hay. Lot three was fed on corn and oats, equal parts, and clover hay. Lot 4 was fed on oats and clover hay. The students did all the work themselves. Fed the animals, weighed them and looked after

every detail, thus they had a combination of "science with practice," a motto that we aim to carry out with all our students. The lambs were on feed seventy-seven days and made an average gain of twenty-four pounds each during that time.

Feed consumed by different lots.

Lot.	No.	Hay e't'n.	Grain e't'n.
1	4 lambs	207 lbs.	450 lbs.
2	4 lambs	166 lbs.	459 lbs.
3	4 lambs	135 lbs.	497 lbs.
4	4 lambs	125 lbs.	470 lbs.

Report from Nelson Morris & Co., who killed the lambs:

Lot.	No. Lambs.	Live wt. lbs.	Dressed wt. lbs.	Percent Dressing.
1	4	350	194	55.4
2	4	360	191	53.1
3	4	350	170	48.6
4	4	330	155	47.0

Nelson Morris & Co graded the lots according to quality as follows:

Lot No. 2, fed on gluten meal, shelled corn and clover hay, stood first. "Quality extra good."

Lot No. 3, fed on shelled corn, oats and clover hay, stood second. "Quality good, but the lambs did not have the requisite amount of fat to make them dress out as well as 1 and 2."

Lot No. 1, fed on corn and clover hay, stood third. "This lot contained one poor lamb, otherwise it would have graded No. 1 in quality instead of No. 3."

Lot No. 4, fed on oats and clover hay, stood fourth. "Quality only fair."

Feed eaten for 100 pounds gain:

Lot.	No.	Hay.	Grain.
1	4 lambs	211 lbs.	459 lbs.
2	4 lambs	153 lbs.	425 lbs.
3	4 lambs	137 lbs.	507 lbs.
4	4 lambs	160 lbs.	602 lbs.

Cost of gain per 200 pounds of the various lots was as follows:

Clover hay value	\$10.00 per ton
Gluten meal	22.00 per ton
Corn35 per bu.
Oats23 per bu.

Lot.	No.	Cost per 100 lbs. gain
1	4 lambs	\$3.92
2	4 lambs	4.09
3	4 lambs	4.17
4	4 lambs	6.35

The lambs sold at the extreme top of the market, selling for \$5.25 per cwt. The experiment shows that corn and clover hay is more economical for fattening lambs than any of the other combinations fed. While lot No. 1 did not make the highest average gains they made the most economical gains. In quality they graded only third, due to the fact that there was one poor lamb in that lot. The remaining three lambs of that lot would easily have graded No. 1.

There was very little difference in feeding gluten meal and corn and oats. The former made the greatest gains and killed out the best quality of meats, while the latter made the most economical gains. Lot No. 4, fed on oats and clover hay, made the poorest gains, most expensive

gains, and killed out the poorest quality of meat. This lot killed out a large percentage of tallow on the kidneys. It might be interesting to note that lot No. 1, fed on corn and clover hay, ate 40 pounds more of hay than any of the other lots.

The Prosperity of Canada.

Under the above heading the St. James' Gazette publishes a rather lengthy interview with the Hon. Sydney Fisher, Minister of Agriculture, who is now in England interesting the British people in Canadian farm products, and endeavoring to enlarge the market for them. As an introduction to the interview, the Gazette says:

"For the last few years Canada has been making phenomenal advances in material prosperity, as anyone may learn by a glance at the statistics of her export trade. As it is known that the Dominion Government by no means adopts a policy of strict *laissez faire*, but gives considerable assistance in various forms to farmers and traders, it is an interesting point to determine how far the gratifying condition of Canadian commerce is due to this action of the central authority."

The Farm Separator

Mr. George Morgan, a large dairyman of Kansas, in addressing the Borad of Agriculture of that state on the value of the cream separator on the farm, says: The value of the farm separator to the private dairyman has already passed the experimental stage. The evidence of our experimental stations and the testimony of all who have made a careful, intelligent comparison between the gravity system and the modern cream separator, is practically a unit in favor of the latter for the private dairyman. The question as to its advantages in localities where creameries are established is one upon which there is much difference of opinion. The most serious problem confronting creameries at this time is that of operating expenses. This applies alike both to creamery and patron, whether under co-operative or proprietary management, it makes but little difference. All are vitally interested in the expense account. If the eastern creamery enjoys a patronage of from 10,000 to 30,000 pounds of milk per day, while many of our creameries are running along at from 3,000 to 5,000 pounds, then we have lost much of the advantages we possess on account of our cheaper dairy foods in the increased cost of operating. Evidently, as long as present conditions exist, some system of centralization is inevitable.

The farm separator, we think, will assist greatly in solving this problem. It means a minimum of labor with a maximum of profit. The product is carried in condensed form from the patron to the creamery. In our state, dairying is incidental to beef and pork production. The conditions at

times are peculiar and perplexing. The farmer has a way of putting the creamery on half rations of milk.

When times and crops are good, it is no uncommon thing to find him at milking time quietly sitting on the fence with a complacent smile on his countenance as he watches the calf do the milking, but when reverses come, the cow and the creamery are counted amongst his best friends and assets. Where large investments are made in skimming stations and these spells strike the patrons, it often proves very disastrous to the management, as they feel compelled to keep running though the patronage has gone below any chance of profit. We feel safe in saying that fully one-third of the skimming stations in this state from October to May do not pay running expenses. It is in these localities where the farm separator will prove of the greatest benefit. If the patronage is light, then the expense is correspondingly light. We place the average cost of a skimming station at \$1,000, and the average cost of operating at \$600 per annum. This, of course, will include interest, taxes, insurance, breakage, wear and tear, labor and fuel. Many stations now running in Kansas do not average over 1,500 pounds of milk every other day during the fall and winter. Forty cows at 20 pounds of milk per day per cow, will produce 1,600 pounds of milk in two days. Here is an investment, then, of \$1,000 with \$50 per month expense to handle the milk of 40 cows.

At points where the patronage is liberal, any radical change would not be advisable. It will to a great extent, work its own way. But at these weaker, non-paying stations much good can be accomplished by the use of the farm separator, especially in territory where the distance is too great to haul milk. True, to carry out this plan, the farmer must make an investment for which he is amply compensated in the increased value of the skim milk and the convenience of having it on the farm morning and evening to be fed while warm, sweet and fresh and in the best possible condition to be fed to the young animal. The milk patron often suffers a severe loss on account of his Sunday's milk during the heated term. He also loses again by feeding new milk to the calf for six or eight weeks on account of the danger incurred in feeding the creamery milk. Where milk is fed from the farm separator, by careful management and the use of Kaffir corn-meal, the calf can be put upon the skimmed milk at 15 days old. It has been our experience that the patrons with from 10 to 15 cows save enough in one year to pay for a \$100 machine.

Tramp — Kind lady, can you oblige me with a bite?

Kind Lady — No, but perhaps my dog can.

Muggins — I understand the typical new woman takes a cocktail before breakfast.

Buggins — Makes her feel like a new man, I suppose.

THE FARMING WORLD

Studies in Nature

A Review of Insect and Bird Life on the Farm

Edited by C. W. Nash.

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

BIRDS OF THE ROADSIDE.

At other times, particularly in late summer and autumn, when food is more plentiful they will perch upon a fence or stump and there sit patient and watchful until some unsuspecting mouse or grasshopper shall come within easy striking distance, when it will be immediately captured.

Their nests are usually in cavities in old trees, a deserted woodpecker's hole being often selected, in them they deposit four or five eggs very variable in color, usually of a buffy white heavily blotched with dark reddish brown. These birds are not shy for hawks, and if not disturbed will return year after year to the same nesting place and often become so tame as to hunt in the same field where men are working.

Although the sparrow-hawk is small and its talons comparatively weak for a bird of prey, yet it has a brave heart in its little body and will not hesitate to attack much larger and more powerful birds than itself if they venture to approach its nesting place. They have been seen following and dashing at the bald-headed eagle and they readily attack any of the larger slow-flying hawks that trespass upon their hunting ground whilst they have young. On one occasion I saw one strike viciously at a crow, knocking it down into the road just in front of my horse; the hawk alighted on the fence above his unhappy victim and sat there, whilst the poor crow cowered close to the ground with its wings and tail spread out and mouth wide open looking the picture of terror. I had pulled up to watch the outcome of the encounter, but unfortunately my horse moved and attracted the attention of the parties to the duel and they both flew off in opposite directions, the crow no doubt considering that it had had a lucky escape. On another occasion I saw a party of these hawks and a single sharp-shin enjoying a regular romp around a deserted house on the prairie. They chased and dodged each other round and round the building settling when tired on the roof and chimneys. The sharp-shin took its turn with the rest in chasing and being chased, the whole game apparently being carried on in the most friendly spirit by all parties. I watched them for over half an hour and left them still at it.

BIRD NOTES.

All our birds now, with the exception of the wild canary and the cedar waxwings have produced at least one

brood of young and the most of them have got them out of the nest, some of them when this happens disappear and are seldom seen again until they pass through early in September on their way to the south. The Baltimore oriole affords a curious instance of this habit; up to the time the young leave the nest the male Baltimore may be seen and heard continually about the orchards and shade trees near their nesting places, but as soon as the young have flown we lose sight of them entirely for about five or six weeks and during this interval the most careful search will fail to reveal their whereabouts. I have occasionally found an odd one in the woods but very rarely. Where they go is a mystery. During the period of their concealment they moult and when they are next seen on their autumn migration they have lost all their brilliant coloring and though not quite mute they never indulge in their flute-like song which is so noticeable in early summer, their call is however sufficiently characteristic to be recognizable.

By the middle of July the first of the shore birds will visit us on their return from their northern breeding grounds. As a great number of them linger here on their spring migration until the beginning of June, it seems difficult to believe that many of these birds can have gone to the shores of the Arctic Ocean, have raised a brood of young and returned, yet so it undoubtedly is unless perhaps the first to return are those which have lost their young before they reached maturity, for the first to reach us are always old birds and generally single ones, the young in flocks seldom appearing before August.

INSECTS.

Owing probably to the cold, rainy weather which prevailed early in the summer there is a noticeable scarcity of butterflies and moths just now. So far I have seen but one cabbage butterfly, very few Danains, Camberwell beauties, or clouded yellows. The cabbage butterflies we can well dispense with, and if they are scarce this season, it is to be hoped our market gardeners and others will make a strong effort to keep them so. Tent caterpillars were very scarce in this neighborhood and last night the first and only one of the moths that produce them came into my house, though usually as I am surrounded by wild cherry trees, these moths are so abundant as to be a nuisance at night. Cut-worms and underground larvae of all kinds were abundant early in the year and we shall probably find a sufficiency of the mature insects produced from them later on. The Rose chafer has appeared in some places and done damage to fruit. This is a difficult beetle to deal with as all its earlier stages are passed under-

ground. The ordinary Paris green solution where it can be used will kill the adults, but jarring them off the trees and destroying is the best method of dealing with them on a small scale.

Tussock Moth (*orgyia leucostigma*).

Moth.—The male is winged, antennae feathery. The general color is ashy gray, the forewings crossed by undulating bands of darker shade, with black marks on the outer edge near the tip, and a conspicuous white spot near the anal angle, about one and a quarter inches across expanded wings.

Female.—Wingless; pale gray; antennae not feathered; resembles a hairy grub more than a moth.

Larvae.—Head and two spots on the body, bright red. A velvety black dorsal stripe down the back, bordered on each side with yellow stripes, and another yellow band on each side below the spiracles. Four brush-like tufts of cream-colored hair are borne in a row on the back and on each side of the head a pencil of long black hairs extends forwards, and a similar single one extends back from the posterior of the body. Length, rather over one inch.

The cocoons are generally made in the crevices of the bark of the trees on which the larvae have been feeding and are greyish white in color. The chrysalids are brown, that of the female being much larger than the male and having no wing sheaths.

The young caterpillars are hatched about the end of May, and at once spread over the trees, feeding for about six weeks, when they reach full development; they then form their cocoon, usually upon the trunk or branches of the tree upon which they fed; these cocoons are very conspicuous. In about ten days the moths issue from the chrysalis, the female simply crawling on to the outside of the old cocoon, upon which she deposits her eggs, about 400 in number. The eggs are held together in a snow-white, frothy mass, which hardens upon them, and thus they remain until the following spring.

The larvae feed on nearly all our forest and orchard trees, but seem to be particularly partial to apple and horse chestnut.

REMEDIES.

Gathering the cocoons in autumn and winter and destroying them, if generally done, would soon relieve the country of this pest. In case any cocoons are overlooked and the larvae are found on the trees, spraying with any solution containing arsenites will quickly destroy them. (See spraying. Formulas Nos. 1 and 4; either will be effective.)

New Clerk — Who is that old duffer that has so much to say?

Old Clerk — Oh, he's the firm's silent partner.

The Sugar Beet World

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

Edited by JAMES FOWLER

ONTARIO BEET SUGAR ASSOCIATION. OFFICERS FOR 1901.

President, John Parry, Dunnville; First Vice-President, J. M. Shuttleworth, Brantford; Second Vice-President, B. B. Freeman, Warton; Third Vice-President, T. A. Smith, Chatham; Fourth Vice-President, W. S. Caron, Aylmer; Secretary-Treasurer, D. H. Price, Aylmer; Solicitor, N. B. Gash, Toronto.

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A Good Crop Assured.

This is ideal weather for "Sugar Beets," if it was made to order it could not be improved upon, and the farmers are assured of a good crop if it is properly cultivated. The success or failure now depends upon the training and weeding, and the farmer has only himself to blame if his crop is not satisfactory. The success this year will give the industry a great boom and will be of untold value to the agricultural community.

with flattering success in his work, and that there will be no difficulty in securing all the capital required.

The Walkerton Sugar Mfg. Co., are very successful in writing up acreage contracts for a factory in their town, over 2,000 acres being already secured. The farmers are taking stock in the factory as well as signing contracts for beets, and are enthusiastic over the prospects.

A New Enterprise.

A use has been found for the refuse molasses from the sugar beet, and the largest plant in the world is to be erected in Bay City, Mich., for the manufacturing of potash from what has been considered practically worthless and a bill of expense to get rid of. The work of construction is now under way, and the entire plant will be completed in 90 days or by the time the sugar factories are ready to start, contracts have been made for the waste from 5 factories, and it will be used as fast as it comes from the beets. The potash will be shipped to Pittsburgh, Pa., and used in the manufacture of glass.

Another Promising Enterprise.

Experiments have been made in this country recently with refuse molasses and pulp from the sugar beet, with a view to extracting and refining alcohol and acetic acid also acetate of lime and other by-products, the experiments so far have been highly satisfactory, and will be continued on a larger scale as soon as the beet sugar factories in the United States are in operation and a supply of beet pulp and molasses can be obtained. It is the intention of the parties to erect a plant for the purpose of utilizing the waste in connection with a sugar factory in Ontario.

A Pulp Dryer.

The Alma Michigan Sugar Company have just closed a contract with the American Construction company, of New York, for the erection at their

plant during the present summer of a Buttner & Meyer pulp dryer with a guaranteed capacity sufficient to care for the pulp from 700 tons of beets daily.

There are now over 200 of these plants in operation in Europe, and Dr. Meyer, the European inventor, is personally to install the plant. He will bring with him from Germany a foreman who has been operating one of these European plants.

This will make the pulp of more value and enable the company to ship their product to Germany or other countries when there is a profitable market for their entire output.

Sugar from Corn.

Capitalists claim they are perfecting plans to erect at Battle Creek, Mich., a factory to make refined table sugar from maize. This is something never yet accomplished in a large way, although experiments have been conducted for many years. "A company at St. Louis," said C. W. Post, in a newspaper report, "has been for a year quietly making sugar from corn, and refining, under patented process, a very high grade sugar."

Beet Pulp Feeding.

R. M. Allen, the general manager of the Standard Cattle Company, of Ames, Nebraska, has been experimenting with feeding Sugar Beet pulp to cattle. Mr. Allen writes: "A number of cattle were fed beet pulp, corn silage and hay alone for four months, making the cheapest ration we ever fed. Other cattle were fed on a hundred pounds of pulp and six pounds of mixed cornmeal and ground oil cake; other cattle on fifty pounds of pulp and ten of meal, all cattle getting hay."

The only things that were decided by the experiment were:

"First, That the cattle would eat as much as a hundred pounds of pulp a day;

"Second, That they eat pulp with evident satisfaction and great relish;

"Third, That they consume very little or no water at all while eating pulp.

"Other points as to which I feel satisfied in my own mind, but which perhaps I cannot clearly demonstrate are, that the use of pulp will effect a valuable saving of other food, both hay and grain, and that in the feeding of cattle for beef, by the use of pulp we can probably effect an economy of twenty to thirty per cent of the total cost of food. In years of drouth when food stuffs are very high, the saving will be a very valuable one indeed. Pulp is very bulky and costly to transport and expensive to handle. These charges, however, cut no figure with farmers delivering beets to a factory, who can as well as not take

Personal.

Mr. Clarence A. Granger, representing E. H. Dyer & Co., of Cleveland, Ohio, made us a brief visit last week. This is Mr. Granger's first visit to this part of Canada, and he is very much pleased with the outlook for the "Sugar Business" in Ontario. The firm of Messrs. E. H. Dyer & Co., are out for business and by following it up in the manner they are doing will surely succeed in securing one or more contracts.

Mr. Hugh Blain, of Messrs. Eby, Blain & Co., Wholesale Grocers of this city gave a dinner at the National Club last week at which the "Beet Sugar" industry was thoroughly discussed. It was decided that a portion of those present should immediately organize a very strong company for the manufacture of sugar from beets and the organization is now under way. It is expected that all plans will be completed in a few days and we will be able to give our readers full details in our next issue.

The Kilby Mfg. Co., of Cleveland, Ohio, whose advertisement for the first time appears in our columns this week, is the only firm in the United States who manufacture all their own machinery for Beet Sugar Plants. Messrs. Kilby Mfg. Co., are building more plants this year than all the other firms put together, and will build the factory of Wallaceburg, Ontario, for next season's work.

Mr. Hunter who is soliciting stock subscriptions for the Warton Sugar Mfg. Co., reports that he is meeting

back a load of pulp to their farm. Pulp can be kept very easily indeed, as it becomes extremely compact and sours or ferments slightly. A large pile can even be left out doors in very cold weather, and while a crust eight or ten inches will freeze on the outside the inside will remain in good condition.

"Some of these cattle, after being fed for four months, were sold in Chicago. Spayed heifers dressed out 60 per cent, and steers \$2.2 per cent, favorably reported on by Swift & Co.

Seed Per Acre.

Why companies Specify the Amount to be Planted.

We are frequently asked why a small amount of seed is not sufficient instead of the fifteen pounds per acre, as is now insisted upon, for planting. There are several reasons, and as the first we would state that in those countries abroad where the beet sugar industry has been established and studied for years, the growers use seed far more lavishly than is generally done here. They have found by long experience that the additional cost for seed is a small matter as compared with the value of a "good stand" and that the amount of seed planted has much to do with the stand of the crop. In some localities where salts of various kinds abound in the soil, there is frequently some difficulty met because of the tendency of the land to crust over the surface, if this occurs after the seed is planted there is danger that the small plants may not be able to break through the crust above them. There are difficulties also with clods, beet pests, and sometimes with diseases, all of which tend to injure the stand, and in any of these cases an abundance of seed is a decided advantage.

There are 43,560 square feet per acre of land and estimating at the rate of one pound beet to each square foot would give a yield of 2 1/2 tons per acre. This is a light weight for a fairly developed sugar beet, but even on this basis it is readily seen that anything that affects the stand is all important to the grower. There is an advantage at thinning time also when the plants stand regularly and close in the rows as the spacing can be done more rapidly than when they stand at regular intervals, and must be closely watched when spacing. We trust that none of the new growers

will fall into the error of planting too lightly with seed, for the season of 1901, for it has been too well demonstrated in the past to justify light planting in the future.—Michigan Sugar Beet.

The Seed Question.

Mr. L. L. Wilson, of Tuscola County, Michigan, who has been growing beets for some years, using only 2 to 4 pounds of seed per acre, gives the following figures from his experience.

Plowing, 2 days.....	\$ 4.00
Rolling and dragging.....	1.25
Combing off corn stubble, 1 1-3 day, 1 horse.....	2.00
Cultivating with 1 horse, 8 days at \$1.50.....	12.00
Fifty-six lbs. seed at 15c.....	8.40
Seeding, 1 horse, 2 days.....	3.00
Cultivating, 1 horse, 3 days.....	4.50
Thinning and weeding.....	27.65
Cultivating, 1 horse, 6 days.....	9.00
Weeding.....	10.75
Cultivating, 6 days.....	9.00

Total up to time of harvesting \$91.55
Yield.....164 1/2 tons

These figures of 56 cents per ton of beets raised are most remarkable and are the subject of considerable discussion amongst beet growers. They are well worth investigating. Mr. Wilson's method of preparing soil, seeding and culture is as follows: The seed bed should be prepared with a view to its fitness, not only for the growth of beets, but to the implements to be used in cultivating the crop. The principal implements I use for this purpose is a cultivator having straight knives that cut squarely against the soil—the edge set at a right angle with the line of draft—such knives would clog if corn stubble of fibrous matter was in the ground near the surface. For this reason if I put beets on land that had corn or potatoes the year before I do not plow it, but, after loosening the stubble with a cultivator, comb the surface with an implement something like the original horse rake. The little litter that is left, while not really desirable, is not much hindrance.

The first implement used in preparation, when the land is not to be plowed, is usually a pulverizer or spring-tooth cultivator, according to the condition of the soil, followed by plank smoother. The straight knife cultivator is used before seeding, as it is sure death to weeds and leaves the land in fine condition for the seed. Just here I want to use emphasis—it is much easier to weed beets before you sow them than afterward.

I use a six-row one-horse seeder, and space as well as the present condition of the science permits. Using good seed, with a seeder of reasonable accuracy, on a seed bed properly prepared, and with weather conditions satisfactory, I do not doubt that 2 lbs. of seed will give a good stand on beets. But these conditions are not always present. This year weather conditions have been very unsatisfactory, and instead of sowing 2 1/2 lbs, as I intended, I have used about 4 lbs. per acre.

The cultivation is done with one horse, three rows at a time, using the straight knives. These leave the surface soil very loose and smooth. In the later cultivation the ground is thrown around the beets and slightly raised in the rows by using a three-row implement having nine spring teeth, three in each row or space; they are set in V form. The center tooth in each row fills the furrows left by the two in front and leaves the space in ideal form and condition.

The weeding and thinning is reduced to a minimum by thorough cultivation and lighter seeding. The work was done by boys, who were shown what to do and how to do it. They were supplied with knives made from old scythes; the blades were about 4 inches long and curved backward, the back being removed. We found these knives very handy and in every way satisfactory. The boys were paid by the day. Once thinning and weeding and a later weeding, which was very rapid work, kept them very clean. The expense was given in the itemized account last week.

Harvesting.

When the leaves cover the ground and the crop has taken possession of the field, cultivation should stop and the plants be given an opportunity to fully ripen and develop saccharine matter. If the cultivation be prolonged and the vegetable growth thereby too much stimulated, the sugar content will be diminished. When the outside leaves begin to turn yellow, the beets are ripe and should be harvested. The period when the great bulk of the sugar is stored in the beets is usually between mid-August and October first. Rains thereafter are liable to start a new growth of leaves and lessen the richness in sugar. Harvesting can best be accomplished by a tool made expressly for the purpose, which lifts the beets slightly, thus breaking the tap roots and making the work of removing them from the ground and throwing them in rows comparatively easy. Where this tool is used four rows of beets may be thrown into one row, the tops pointing in the same direction. A person then seizes each beet with the left hand and severs the top from the

E. H. DYER & CO.
Builders of
SUGAR MACHINERY
Cleveland, Ohio

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

OXNARD CONSTRUCTION CO.
NASSAU STREET, NEW YORK CITY.

Build and Remodel Beet and Cane Sugar Factories.
Adaptability of Location Investigated.
Furnish Agricultural and Technical Advice.
Beet Seeds and all Necessary Supplies

root by one blow of a heavy knife. Care is used to separate the top from the root at the point where the portion of the beet exposed to the sunlight joins the part of the root entirely covered by the soil while growing. When the beets go to the factory the part of the beet which grew above ground is considered worthless for sugar purposes, and is therefore removed with the leaves.

There the regular "beet lifter" is not used a plow may be run along the side of each row, leaving the roots standing at the side of the furrow. This will greatly lessen the labor of pulling.

The topped beets are either hauled directly to the factory or are stored in pits for future delivery. If, by the terms of the contract, the grower may deliver the major part of his beets before freezing weather finally sets in, a covering of leaves or a light covering of dirt will be sufficient to protect the pile of beets from sunlight and frost. Where, however, the beets must be kept until late in the winter, the pile must be covered to prevent freezing.

Sugar a Stronger Stimulant than Wine.

"If," says Dr. Gustav Jaeger in a Stuttgart magazine, "you want to spur a horse to extra exertion, give him sugar. It is exactly so with men."

The value of sugar as a stimulant is not generally known, and these words of the German savant bring to mind interesting facts on the subject. When Queen Victoria gave each of her hardy soldiers in South Africa a cake of sweet chocolate for a Christmas present the world was inclined to smile. She well knew, however, the nutritive and strengthening qualities of saccharine matter and understood that for a simple gift the best thing she could offer was sugar.

The Greek soldiers and many other of the fighting men of Europe carry chocolate and sugar with them as their principal ration. The Swiss mountain climbers sustain themselves on little else than chocolate and bread. The burly, vigorous men who spend their lives as lumbermen in the intense cold of the Canadian forests have for their chief diet plenty of sorghum molasses, which they pour in plentiful quantity upon their fried bacon and bread, which completes their daily menu.

One of the first lessons which our government learned was that our fighting soldiers in the tropics, in Cuba and in the Philippines, needed sweets to sustain them, and a regular shipment of candy has been going to those troops. As much as forty tons of candy has been ordered at one time for our men in the tropics.

In Cuba the workers in the cane fields have little else to sustain them than the juice of the cane itself. They can work all day without other food.

Experiments have shown that a

few ounces of sugar will stimulate as rapidly and as surely as a drink of whisky. The result is felt in less than thirty minutes, but the full effect of sugar as a food and stimulant is not had under two hours' time.—Atlanta (Ga.) News.

The Factory

To secure to the farmer the benefits of this sugar beet industry, a factory is required, to work up the beets and extract the sugar. This is the most serious problem of the whole matter. It involves an outlay of capital that, to the farmer seems excessive and useless. The manufacturer, to succeed, must have the best machinery that the world can produce, the most labor saving, the least expensive to operate, and the one that will extract the largest amount of sugar of best commercial quality from the beets. He is in competition with the best machinery, and highest skill of the race. No old and discarded apparatus, however useful in former years, will serve his turn. A first-class, up-to-date sugar plant cannot be secured for less than \$300,000, add to that \$100,000 for buildings and working capital, and you have the lowest price for which a successful plant can be established. It is worse than folly to talk about putting up a cheap plant and making sugar in a small way.

In the second place the factory requires a good supply of rich sugar beets. This supply must be certain year after year. It is estimated that a crop of 3,500 acres of beets will be required each year to properly stock a sugar factory.

The other requirements of a factory, plenty of good water (2,000,000 gallons a day), cheap fuel, plenty of limestone in the immediate vicinity of the factory and finally good railroad facilities, will be looked after by the manufacturers themselves.

The Northwest Magazine says that a beet sugar factory might be started in Manitoba, as the soil of that province is well adapted to the raising of root crops. An experimental farm at Brandon tested six varieties of sugar beets in 1899. The best of these yielded 34 tons and 1,630 pounds per acre and the poorest 25 tons and 1,810 pounds per acre—a fact which might promise an average of 25 tons from ordinary treatment.

Jokelets.

May—I met Mr. Brown to-day and told him of your wedding last month. He was an old flame I believe?

Maude—Yes. Did he seem to mind it much?

May—Well, he seemed very much surprised.

Maude—Did he ask how it came off and all that?

May—No; he merely asked how it happened.—Catholic Standard.

A little boy, hearing some one remark that nothing was quicker than thought, said he knew better than that; whistling was quicker than thought.

Being asked to explain, he said: "In school the other day I whistled before I thought and got a licking for it."—Evangelist.

Beggar—Please give a poor old blind man a dime.

Citizen—Why, you can see out of one eye.

Beggar—Well, then, give me a nickel.—Chicago News.

"Oh, where are the friends of my youth?"

In a moment reflective I cried; Through the door peeped a head, and the office boy said:

"There's a gent wants to see you outside."

"Twas one of the friends of my youth!"

With emotion he grasped my hand tight,

"You will pardon these tears, I've not seen you for years—

Could you lend me a V till tonight?"

Smart Set.

"Your neighbor has just given me an old coat," said the tramp, "can you donate something?"

"Yes," responded the clergyman

"I will go through the collection box and find some buttons to match the coat."

Joakley — Here's a conundrum for you: What's the difference between a man and his wife?

Henpeck — It's invariably a difference of opinion.—Catholic Standard.

The grip has never been cured by taking advice.

The Kilby Manufacturing Co.

Founders and Machinists

Corner Lake and
Kirland Streets,

CLEVELAND, OHIO

New York Office:
220 Broadway.

Builders of Complete Machinery for Beet, Cane and Glucose
Sugar Houses and Refineries.

The Agricultural Gazette

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

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

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

BENEFITS OF MEMBERSHIP.

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

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

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

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

A member of an Association will only be allowed to advertise stock corresponding to the Association to which he belongs; that is, to advertise cattle he must be a member of the Dominion Cattle Breeders' Association, to advertise sheep he must be a member of the Dominion Sheep Breeders' Association, and to advertise swine he must be a member of the Dominion Swine Breeders' Association. Members having stock for sale, in order that they may be published in the third issue of each month, the undersigned by letter on or before the 9th of each month, are required to notify the animals, should a member fail to do this his name will not appear in that issue. The data will be published in the most condensed form.

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

FARM HELP EXCHANGE.

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

Farm hand wanted on a farm in Ontario County, for 5 months. Good wages paid for good man. No. 834. a

Young man wanted capable of doing all kinds of farm work. Must have good habits. Will pay good wages. Employment for 5 or 6 months. No. 835. a

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

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. b

Situations Wanted.

Position as stock feeder wanted by young man. Recommendations furnished as to good success as feeder, and also as to good character. No. 938. a

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. b

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

Farmers' Institutes.

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

G. C. CREELMAN,
Superintendent Farmers' Institutes.

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.

South Ontario Women's Institute.

The South Ontario Women's Institute has now reached the second anniversary since its organization. It is with much satisfaction that we report a year of successful work. The meetings have been well attended, and have not only been interesting, but profitable and instructive. The object of the Institute has been kept in view, it being well understood that the meetings are not intended for amusement or entertainment, but that we may be helpful to one another in all matters pertaining to woman's work in the home.

We have now a paid-up membership of eighty—a slight increase over last

year. During the year six regular meetings have been held, one at each of the following places: Whitby, Brooklin, Kinsale, Myrtle, Ashburn and Columbus. The following are the titles of some of the papers given by our members: "A Talk With Our Girls," by Mrs. W. Purvis; "Age and Diet," by Miss Pearce; "Child Study," by Mrs. R. R. Mowbray; "Butter Making," by Mrs. Pherrill; "The Days and the Ways of our Grandmothers," by Mrs. J. L. Smith; "New Year's Greeting," by our President, Mrs. S. L. Brown; "Hygiene in the Home," by Mrs. W. Anderson; "Home Influence Over the Young," by Mrs. R. Rogers.

BRANCHES HAVE BEEN ORGANIZED.

In addition to the regular meetings already mentioned, the branches of the Institute organized at Whitby, Columbus and Kinsale have been doing good work.

KINSALE BRANCH.

This branch, which is in charge of Mrs. R. Rogers, has held its meetings regularly at the homes of its members. Some excellent papers have been prepared for these meetings. Since the last annual meeting Kinsale has held twelve monthly meetings, and the following are some of the subjects discussed and papers read:

"A Successful Housekeeper."
"Turkey Raising."
"Pin Money."
"When Is College Life Harmful To a Girl?"
"A Model Housekeeper."
"Care and Culture of House Plants."
"Canning Fruits and Vegetables."
"Cake Making."
"Making of Puddings."
"Different Kinds of Summer Drinks."
"An Afternoon With Longfellow."
A demonstrated lecture and address on "Nature Study," by Dr. Waugh, Inspector of Public Schools.

COLUMBUS BRANCH

The Columbus branch in charge of Mrs. William Purvis, is also deserving of special mention. The meetings there are well attended and much interest has been manifested, it being the wish of some of the Columbus members that the meetings be continued throughout the summer months. Since its organization in November last, six meetings have been held, and the following subjects discussed:

"Washing and Ironing."
"Menu of a Dinner."
"Practical Talk on the Use of an Incubator."
"Gardening."

"Modes and Methods of House-cleaning."

Mrs. Purvis and Mrs. Rogers are to be congratulated on the success that has attended the work in this place. It is hoped that in the near future branches will be organized at Myrtle and Brooklin.

WHITBY BRANCH.

Whitby Branch has not been so successful as the others; perhaps on account of so many other meetings and different engagements we have in town. However, we have held three meetings, and the following is a list of papers and subjects discussed:

"Practical Demonstration of Cooking."

"Is Office Work Detrimental to the Coming Housekeeper?"

"My Neighbor's Children."

"The Home Maker."

"Neatness Versus Happiness."

"Unconscious Influence."

"Talk on Flowers."

ENTERTAINED AT WHITBY COLLEGE.

We had a particularly interesting meeting in October, when the members of the Institute were kindly invited by Dr. and Mrs. Hare of the Ontario Ladies' College to attend one of Mrs. Joy's lectures in the Domestic Science Room of the College. The invitation was gladly accepted. Mrs. Joy gave a demonstration lecture in cooking, assisted by the young ladies of the Domestic Science class. A very pleasant afternoon was spent.

At our regular meeting in November, held at Columbus, we were pleased to have with us Miss Rose, of the O. A. C., Guelph, who gave a most interesting and practical address on "Bread and Butter Making." We are always delighted to hear Miss Rose.

It is with much regret we record the loss by death of one of our members. We refer to Mrs. W. Brent, of Raglan, whose death occurred in October. An expression of our sympathy has been sent to the bereaved husband and family.

We have now reached the close of our second year's work, and it seems only fitting that mention should be made of the harmony and kindly feelings that have prevailed among the members ever since the organization of the Institute. At our regular meetings members from a distance have always been most cordially received and entertained. Apart from the helpfulness of the papers and addresses, we find that the Institute has been the means of promoting sociability and a friendly spirit among the members.

A pleasing event in this year's work took place on Thursday, May 30th, when the President, Mrs. S. L. Brown, was at home to all the members of the Institute. The branches were well represented, and a very pleasant afternoon was spent.

The success of our second year of Institute work is very encouraging, and we are looking hopefully to greater achievements in the future.

REPORT OF ANNUAL MEETING.

The second annual meeting of the South Ontario Women's Institute

was held in the school house at Myrtle, on Tuesday, June 4th, 1901. There was a fair representation of members from distant parts of the riding.

The President was in the chair, and after the opening exercises, gave a synopsis of the year's work. The financial standing is exceptionally good. Our infant library has been selected with great care and deliberation and placed in the hands of an efficient librarian, Mrs. T. J. Holliday, whose position is central. Suggestions for the coming year comprise a desire for wider, higher and deeper work, and the thought is to uplift and ennoble our own and others' lives. Domestic Science is an ever widening subject, as the laws that govern and the forces that control are better understood. This is equally true of the many occupations and pursuits that fill the lives of the busy housewives and mothers from day to day.

The above thoughts were discussed by Mrs. Rogers, Kinsale, and Mrs. Wm. Purvis, after which reports from secretary-treasurer and auditors were received and adopted. The reports from Kinsale, Whitby and Columbus branches were of a practical and profitable nature.

Words of sympathetic appreciation and regret were the unanimous expression in regard to our late secretary, Mrs. W. Anderson, who resigned her position on account of ill health. It was moved and seconded that our President and Mrs. T. J. Holliday be a committee to write out an address to be presented to Mrs. Anderson at a picnic to be held in her honor, at Mrs. J. L. Smith's, some time in July.

MEETINGS NEXT YEAR.

It was decided that at least six regular meetings should be held during the coming year, one at each of the following places: Brougham, Columbus, Kinsale (Ashburn and Myrtle join), Brooklin and Whitby, with two supplementary meetings to be held at Pickering and Greenbank.

Mrs. R. Rogers was then appointed to take the chair during the election of officers, which resulted as follows: Hon. President, Mrs. J. L. Smith; President, Mrs. S. L. Brown; 1st Vice, Mrs. Wm. Purvis; 2nd Vice, Mrs. R. R. Mowbray; 3rd Vice, Mrs. T. J. Holliday; Recording Secretary, Mrs. J. B. Mitchell; Corresponding Secretary, Mrs. W. A. Holliday; Treasurer, Miss M. Harte; Auditors, Mesdames C. Rogers and H. J. Langford.

At the close of the business meeting the Women's and Farmers' Institute met in the hall where lunch was served by the ladies of Myrtle, who left nothing undone that would add to the enjoyment of their guests.

Mention should be made of the kindness of the school trustees who dismissed the scholars and left the school at our disposal.

BOOKS IN LIBRARY OF SOUTH ONTARIO WOMEN'S INSTITUTE.

"Food and its Functions."

"Home Sanitation."

"Primer of Hygiene."

"Vegetable Gardening."
"Flowers, and How to Grow Them."

"Story of Plant Life."

"Chemistry of Cooking and Cleaning."

"The House Comfortable."

"Early Training of Children."

"Dust and its Dangers."

"Drinking Water and Ice Supply, and Their Relation to Health and Disease."

"Practical Sanitary and Economic Cooking."

"Canadian Women."

"American Kitchen Magazine" (yearly subscription).

"Canadian Housekeeper" (yearly subscription).

A Few Notes.

Suggested by a Hurried Trip Through England, Ireland and Scotland, in July and August, 1900.

By Pres. Mills, O. A. C. Guelph.

GENERAL APPEARANCE OF THE COUNTRY.

For the most part, the country districts of Great Britain and Ireland have an orderly, finished look, due, no doubt, in large measure to the lack of stumps, stones and wooden fences. The fields, generally small in Ireland, and rather large in England and Scotland, are separated from one another and from the highways, usually by green hedges, but not infrequently by neatly built dikes, or stone fences. A Canadian who has taken note of this feature of the old country landscape cannot but feel ashamed of the unsightly, crooked, tumble-down fences to be seen in so many parts of this Province, and it is to be hoped that the coming generation of farmers in this country will make an effort to improve the appearance and increase the value of their farms by straightening and improving their fences and removing all stones from cultivated fields, especially the piles which have been ploughed around, harrowed around, mowed around, and reaped around for thirty or forty years. Let the owners haul them away in winter, or some other slack time, and put them together in a neat pile in the woods or some other out-of-the-way place.

CULTIVATION OF THE SOIL.

As a rule, the land in these old countries is well tilled, and there are not nearly so many weeds as in most parts of this country. There are, of course, evidences of neglect to be observed here and there, but not luxuriant crops of wild mustard and other pests, such as are to be seen near our college and elsewhere in well-known sections of Ontario. No doubt, the rapid spread of weeds in this and other provinces of the Dominion is due, not only to poor cultivation and carelessness in the selection of seed, but to the fact that so many devote their attention almost wholly to grain growing, with but little stock raising, and only occasional seeding with clover. It is now generally admitted that stock feeding and frequent seeding with red clover

are essential, not only to keep land in good heart and enable it to withstand drought, but to keep it clean, as well.

PASTURE.

One thing above all others, which strikes a visitor from this country, is the rich green color and luxuriant growth of the grass of the British Isles—pastures and meadows such as one rarely sees in this comparatively dry climate. In the south of Scotland especially I saw much of the finest permanent pasture, consisting of mixtures of the best varieties of grass and clovers, living and growing from year to year. In the north of Scotland, however, in Aberdeenshire, for instance, where Duthie, Marr, and other noted breeders of Shorthorn cattle live, they have to depend on temporary pastures such as may be seen on some of the best Canadian farms, excepting the fact that the frequent rains of the north, as well as of the south, cause a much more abundant and continuous growth than we have in this country.

In pastures for sheep, cattle and horses we never can compete with the British Isles, but in the matter of fodder corn we have a great advantage over English, Irish and Scotch breeders and feeders. More cattle per acre can be raised and fed by growing Indian corn than by any other crop known to stockmen, and we have the summer heat and other conditions necessary to produce large crops of this very useful plant, but, so far, they have not grown it successfully in Great Britain or Ireland.

SPECIAL LINES.

Great Britain and Ireland, especially England and Scotland, are beginning to devote more attention to special lines than to grain growing, that is, to branches or departments of agriculture in which they can successfully compete with foreign importations. This is especially true of dairying, which they carry on with the most satisfactory results on account of their splendid pastures, rich and luxuriant during the greater part of the year. Poultry-raising may also be mentioned as one of the specialties which has received a considerable amount of attention during the last few years.

SPECIAL FOODS

Stockmen in Great Britain generally use more special, concentrated foods, such as linseed cake and cotton seed meal, than we use in this country. They also feed large quantities of imported Indian corn, but they are debarred from the use of corn ensilage, their climate being unfavorable to the production of that excellent food. It is, of course, to be borne in mind that, having open winters and such a luxuriant growth of grass and clover, they are not so much in need of succulent food like ensilage as we are, with our long, snowbound winters, and a superabundance of straw, chaff and hay to dispose of.

AGRICULTURAL SCHOOLS AND COLLEGES.

In Great Britain and Ireland there are a number of schools and colleges for instruction in agriculture, some covering the whole field, but most of them confining their attention to special branches or departments of work. The best equipped agricultural colleges which I saw during my visit were at Glasnevin, in the western suburb of Dublin, Cirencester, in Gloucestershire, England, and Grignon, near Versailles, France. There is more or less land for practical instruction and experimental work in connection with each of these institutions, and the courses of study are much the same as in United States and Canadian agricultural colleges, but the charges for board and tuition are high and the practical instruction (outside of the laboratory) is very meagre.

There is a small agricultural college, with a farm attached, and a fair representation of stock, at Downton, near Salisbury, in the south of England, and a similar one, without farm or live stock, at Aspatria, near Carlisle, in the north of England. The latter school depends on neighboring farmers for experimental work and permission to inspect their herds and flocks from week to week throughout the session. Both these are private schools.

There is a good practical school of horticulture at Swanley, Kent, and schools or colleges of agriculture in Reading, Leeds, Newcastle, and two or three other places. In these the sciences relating to agriculture are taught, and courses of lectures are given on soils, soil cultivation, live stock, dairying, etc. There are no farms in connection with these schools. Instead of providing farms of their own, they have arranged with farmers near by to conduct some experiments and allow students to inspect their farms and stock at stated intervals, say once a week, or once in two weeks; and the Reading College has the additional advantage of having access to the very extensive, beautifully kept and most instructive test or experimental grounds of the well-known seedsmen, Sutton & Sons, at Reading.

Several dairy schools have been opened within the past few years. There is a good one at Kilmarnock, in Scotland, another good one in connection with the College of Agriculture at Reading, and several under the control and direction of County Councils, such as the school at Holmes Chapel, in Cheshire, and the Midland Dairy Institute, at Kingston Fields, Nottinghamshire.

In this connection we should not overlook the Lady Warwick Hostel at Reading. This is a school founded and looked after by Lady Warwick, to give girls a thorough course of instruction and training in domestic science and art, horticulture and poultry raising. The school is doing good work, and will, no doubt, be a great benefit to those who may avail themselves of the advantages which it offers. I saw several groups of intelligent, fine-looking girls, some sewing, some cutting out dresses,

some hoeing tomatoes, and others feeding hens.

There is a lectureship in agriculture in Oxford University; a Department of Agriculture, with a farm, has recently been established in connection with Cambridge University; there is a chair of agriculture in Edinburgh University, and a similar one, with some land with experimental work, in connection with Aberdeen University.

The West of Scotland Agricultural College has recently been established in Glasgow. It is giving a good course of instruction at the college, and is conducting experiments at several points in the south of Scotland.

Outside of the schools and colleges, a considerable amount of experimental work is done, scientific investigations carried on, and results published from year to year by the two well known agricultural societies of Great Britain, the Royal Agricultural Society of England and the Royal Highland and Agricultural Society of Scotland.

Ontario Fruit at the Pan-American.

Mr. Woolverton, who is preparing the work on the fruits of Ontario for the Department of Agriculture, reports upon two visits to the Pan-American during this month. Among cold storage apples, Missouri and Illinois are showing fine samples of Ben-Davis, Willow Twig and Gano, varieties which are especially adapted to those. New York State is showing a great number of varieties of fine apples, but no state or country is showing a finer exhibit of last year's apples than Ontario. Mr. Bunting says he still has 100 cases in reserve, enough to keep up the display until new apples come in. Mr. Van Deman, the judge of Horticulture, compliments Ontario very highly upon the excellent strawberry exhibit now on exhibition, and regards it as a result of appointing fruit men to office.

Mr. Bunting is putting up samples of strawberries in formalin in order to preserve them for the rest of the season. Horticultural societies or individuals wishing to make fruit exhibits under their own names, and secure a medal and diploma should at once correspond with Mr. W. H. Bunting, Canadian Fruit Court, Horticultural Building, Buffalo, N. Y.

A New Use for a Bicycle Pump

A correspondent, whom we rather feel constrained to think is fond of a practical joke, sends us the following particulars of "facts" which we give as stated.—A friend of mine had five pigs, which were enclosed in his yard, and, by some misfortune, fell into a tank, but four were none the worse. The other appeared to be dead, and my friend let it alone for a time, giving it up for dead. His wife and son rubbed it, however, and the latter got a pump—yes, a cycle one—and inflated the pig till he heard it grunt, having been revived by this process. Was it not funny? I send this as an agricola juvenis, hoping someone may be able to explain.—Farmer and Stockbreeder.

The Farm Home

Brilliant.

We can best minister to Him by helping them
Who dare not touch His hallowed garment's hem;
Their lives are even as ours, one piece, one plan.
Him know we not, Him shall we never know,
Till we behold Him in the least of these
Who suffer and who sin.

—Lucy Larcom.

I play not here marches for victors only—I play great marches for conquered and slain persons.
Have you heard that it was good to gain the day?
I also say it is good to fall — battles are lost in the same spirit in which they are won.
I beat triumphal drums for the dead.
Vivas to those who have failed!

—Whitman.

I do not know
Where falls the seed that I have tried to sow

With greatest care,
But I shall know

The meaning of each waiting hour below,

Sometime, somewhere!

—F. C. Browning.

Commendation.

When a person has done a brave deed all the world unites to praise him, but there are many things done and said that should be commended, things which we take as our right, forgetting to say, "thank you," efforts which we know to be good and of which we never say, "I approve." We are too selfish, we never think that someone may be discouraged because, though their work is done and well done, it apparently is not appreciated. Let's not do so any more, let's praise when we can honestly do so.

In order to practise what I preach I want to say to Miss Hollingworth about her ideas on good housekeeping (page 1039) "Good girl, go up head." There may be some points on which we do not agree, but for genuine sound sense that article is head and shoulders above anything I have read (or written) for a long time, and if there is any woman or girl (yes, or man) who has failed to read every word of it, then she should at once turn back and read it. There is another part of *The Farming World* that should be of great value to all farmers, viz. the illustrations and descriptions of Farm Houses.

Those who are intending to build, see plans here that are models of convenience and beauty, and they will be saved days of time visiting other houses for something suitable. Others who are living in houses that were arranged with all the inconveniences possible, may get ideas that will in-

duce them to have parts of their houses remodelled.

A WINDOW SEAT.

In connection with the convenient house it will not be amiss to point out how some conveniences may be added. Frequently we find rooms in which there is no clothes closet. In such a case a box seat or lounge may be built. I would advise having it made six feet long, two feet and a half wide and about a foot deep. This will be found a comfortable resting place and may contain a good supply of wearing apparel. The lid should not be hinged, as are so many trunk and box lids, necessitating a space of some inches between the box and wall in order that the lid will have room to open. A strip, set two inches wide should be nailed securely along the top back edge of the box, and the lid then fastened with hinges to this strip. In this way the box couch will fit to the wall. Harmonizing colors should be chosen for coverings, and plenty of fluffy cushions not too good for daily use added, and the complete lounge will add to the attractiveness of the room and will keep free from dust your Sunday hats and other articles too numerous to mention, and will coax you to lie down to rest when you might not like to rumple the bed. But in building new houses too much emphasis cannot be given to the great help to the housekeeper that is gained by having plenty of closet and pantry space.

M. E. GRAHAM.

Hints by May Manton

Woman's Box Coat. No. 3857.

The box coat makes a most desirable, serviceable and stylish jacket for all



3857 Box Coat,
32 to 40 in. bust

round general wear. The model shown includes the latest features and

is made from the tan-colored broadcloth, but covert cloth chevrot, melton and both blue and black broadcloth are appropriate. The regulation box fronts extend well under the arms to meet the seamless back in shapely curved seams that are left open a few inches from the lower edge. The sleeves are two-seamed in regular coat style, and are stitched to give a cuff effect. At the neck is a roll-over collar of velvet that meets the fronts in pointed revers.

To cut this coat for a woman of medium size, $1\frac{3}{4}$ yards of material 50 inches wide will be required, with $\frac{1}{4}$ yard of velvet for collar.

The pattern 3857 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure.

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

At the Pan-American.

"A thing of beauty is a joy forever," and I shall always be happier for having seen the beauty and grandeur of the Pan-American. It is because I found such pleasure in it that I write this to urge all who possibly can to go. Apart from the exhibits, which are of the highest merit, it is worth going any distance to see the magnificent architecture, the artistic arrangement of streets, flowers, fountains and statuary, and above all to stand at the grand approach, opposite that wonderful electric tower as the twilight deepens and see the court of fountains suddenly flooded with the light of one hundred thousand electric lamps, while "Nearer my God to thee" floats out in sweet soft strains from the band, is to feel transported to another world. "A perfect fairyland" the people around us exclaimed; we thought the portrayers of fairyland might enlarge their scope of imagination by a visit to the Pan-American. One cannot but marvel at the foresight which has provided so well for the comfort and enjoyment of visitors.

I am satisfied that intoxicants are excluded from the grounds else there would not be such excellent order among the people. Among the many thousands with whom we mingled I did not witness any boisterous or discourteous conduct or hear an offensive word. Nor have I ever seen a crowd of people in which so large a majority were clothed in neat sensible garments.

It seems scarcely fair to speak of some of the exhibits and not speak of all, for all alike are so extremely fine and interesting; and none among them better than our own Canadian products. The mines building is a paradise for the geologist the only drawback being the numerous policemen who make private collecting impossible. We found the most crowding in the fisheries building and well might they linger long before those creatures strange and beautiful from

lake and sea. In the Agricultural exhibits the various grains, especially wheat, oats and corn are used in ornamental designs with a grace and ingenuity that is surprising. Canada is well represented in the Forestry building, as indeed, in everything else. But it is impossible to speak of all the attractions—go and see them.

Alice Hollingworth.

Domestic Science.

Miss Minnie A. Stoner has been appointed professor of domestic science in the Ohio State University. She succeeds Miss Bowman who has recently withdrawn from the work. This department of the University fills an important place in the curriculum of the State University. It is time some definite movement of this kind were made in connection with some of Canada's leading educational institutions.

Boiling Cabbage.

Wash and soak the cabbage in salted water for twenty minutes. This will draw out any insect or worm that may be confined in the leaves. Have plenty of boiling water with a good deal of salt and a pinch of carbonate of soda in it. Trim off the cabbage and, if firm or large, cut the stalks across to the depth of one inch so as to allow the heart to be more easily reached by the boiling water. Put the cabbage in with the head down and let it come to a boil; then remove the lid and boil rapidly until done; lift on a cullender and drain dry; put neatly into a vegetable dish and serve hot. Cauliflower is cooked in exactly the same way.

Hints to Housekeepers

To wash your table silver without scratching, spread a cup towel in the bottom of the dishpan, before placing the silver in it. But few pieces should be washed at one time. A little milk added to the water is excellent to keep the silver bright.

A delicious paste for sandwiches may be made by creaming together half a cupful of grated cheese, a tablespoonful of butter, one-half salt-spoonful of paprika and a teaspoonful of anchovy paste.

Chopped beef loaf is an excellent substitute for veal loaf for people who do not like veal. Have one pound of the best round chopped fine at the butcher's. Soften it with a little hot water and melted butter. Make a dressing similar to that for stuffed flank steak, add the meat and bake in a loaf-shaped tin.

Fresh, green vegetables should be cooked as soon after they are gathered as possible; those containing sugar, as corn and peas, lose some of their sweetness by standing. Wash thoroughly in cold water, but unless wilted, do not soak. It is better not to prepare fresh, green vegetables until they are needed, but if they must be prepared some time before cooking cover with cold water. Most vegetables should be put into fresh, rap-

idly boiling, salted water, and if cooked in uncovered vessels, they will retain a better color, as high heat destroys their color. In no instance permit them to steep in the warm water, as this toughens them, and in many cases destroys both color and flavor. The salt in the water hardens it, and it also sets the color in the vegetable.

To Cook Salt Codfish.

Divide into flakes one cupful of salt codfish, put into one quart of water, let stand ten minutes, drain. Add another quart of cold water, let stand ten minutes or more, then drain quite dry by pressing gently with the hand. Have ready a pint of milk sauce made by putting one tablespoonful of butter in a saucepan, when melted add one pint of sweet milk; while the milk is heating stir up one rounding tablespoonful of winter wheat flour with a little cold milk making it smooth; as soon as the milk shows signs of boiling stir in the flour paste and let cook slowly for three minutes on the back part of stove, stirring it to keep from burning. Then add the drained codfish, stir well. Cover the saucepan while you are laying your table and dishing up the other things, then remove the cover from the creamed fish and quickly stir in one well beaten egg. Season with pepper and a little salt if necessary. Serve on steamed toasted bread or mashed potatoes.



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

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Brandon's Big Fair.

The management of Western Manitoba's big fair, to be held at Brandon, on July 23rd to 26th, are making every effort to have the first great Canadian fair of the century one of the most notable and successful ever held. No expense and trouble has been spared to have everything up-to-date, and visitors from the East will receive a royal welcome. Railway excursions and special rates have been secured on a very low basis. In addition to the immense number of special prizes given for various exhibits, there are four silver medals offered for competition by farmers and farmers' sons, in showing their skill in judging correctly horses and cattle. This is a new departure and promises to have a most beneficial effect in educating the rising generation in the knowledge of good stock.

The Dominion Government have erected a very handsome building, 40x60 ft. on the fair grounds to serve as a museum of the products raised at the various experimental farms. There will be exhibits from all the Dominion experimental farms, including grains, grasses, fruits, forestry, noxious weeds, etc. The department of forestry will be largely represented with a special exhibit.

For prize lists, entry forms and full particulars, apply to,

F. J. CLARK, Manager,
Brandon, Man.

Buying Road Machinery.

The Township of West Hawkesbury has recently purchased a stone crusher and an engine to furnish power to operate it, from the Sawyer-Massey Company, Hamilton, Ont., through their agent, Mr. L. H. Burns. Mr. Burns did not secure the order without effort, as the representative of other road-making

CANADIAN PRODUCE CO.

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Want Every Chicken in Ontario

AND WANT AGENTS TO BUY THEM.

machinery firms were on the field, trying to secure the order for their firms. The members of the council, however, after listening to the representatives and carefully examining the models of the different machines offered, decided to purchase the best machine in the market, and accordingly gave their order to the Sawyer-Massey people. This firm have, also, quite recently shipped stone crushing outfits to the city of St. John's Nfld., J. W. Munro, Webbwood, Ont., and Edward Dermul, Waterloo, Ont.

Centre Grey Institute Meeting.

Another most successful orchard meeting was held on Tuesday at the Georgian Bay Experimental Fruit Station, located on the farm of Mr. John Mitchel, Clarksburg. Mr. Mitchel, in addition to being a well-known fruit grower, is an all-round progressive farmer and also a Jersey fancier, and butler from his herd commands the highest prices on the market of the city of Toronto.

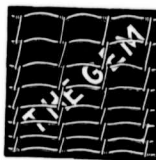
The Beaver Valley section of the Georgian Bay fruit district has long been known for the long keeping qualities of its apples and also for superiority of its plums.

The station at Clarksburg is largely devoted to the testing of different varieties of plums, of which there are now in bearing over one hundred and fifty varieties.

The orchards all showed the effects of painstaking work and care, thus showing the wisdom of the choice of the man to superintend the station. Though the morning opened with a very heavy thunder storm, which prevented a number from a distance from attending, and seriously interfered with the picnic part of the programme, still, when the meeting was called to order by Mr. John Davis, Vice-President of the Institute, at ten o'clock, there was a large attendance of neighboring fruit growers together with a respectable sprinkling of those from a distance.

After the routine work of the annual meeting had been attended to, the first question was the disposal of about \$400 proceeds from the annual excursion to the Agricultural College at Guelph; among the methods proposed was a library, a large spraying equipment, etc., but the one which appeared to be the most popular was to hold a seed grain fair, where each exhibitor should have his sample ticketed with the amount for sale and also the price.

The next item was a demand on the popular secretary of West Simcoe Institute, Mr. Chas. Laurence, to show some reason why Centre Grey should not profit from the well patronized excursion to the Ontario Agricultural



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College over the G. T. R. system. Mr. Laurence in reply, stated that they had paid all expenses of the establishment of the Georgian Bay Fruit Growers' Association, and that they would subscribe liberally to the prize fund of the seed grain exhibition.

Prof. Hutt was then called upon, and introduced the subject of summer cultivation of fruit trees. He told the farmers present one fact, that it is to be hoped would be taken to heart and pondered over. He said that so far as he had been able to see the cultivation of the orchards was sadly neglected, and advised a thorough cultivation not only as a means of increasing the size of an admittedly light crop but also to ensure a crop of strong fruit buds for next year's crop.

This cultivation conserves soil moisture and prevents evaporation, and also tends, and this is especially true where a crop of vegetable matter has been plowed under, to make the plant food in the soil available. The orchard should be plowed early in the spring, cultivated once a week up to about the middle of July, and then a cover crop of some kind sown. Prof. Hutt recommended a rotation of rye, rape, clover, peas, etc. Rye is especially valuable where a catch of clover is doubtful, as it is always sure. Mr. Dempsey, of the Trenton Station is much in favor of rape, while Mr. Mitchell has had good success at his station with common clover, and would recommend its use in their section of the country, as in addition to forming humus it adds to the store of nitrogen in the soil, while the fact that it would not stand the winter was no detriment as it would decay all the sooner and is easier plowed under on this account. Clover seed and wood ashes are the cheapest manures for an orchard.

Under the guidance of Mr. Mitchell, the company proceeded to inspect the orchard. As regards yield the experimental trees are doubtless a fair average, which will go to show that the apple crop will be light, not more than half a crop, while pears are medium and plums a full crop.

In reply to a question, Mr. Mitchell said that he would restrict apple planting for commercial purposes to only three varieties: the Spy, the Ben Davis and the Baldwin.

At this station considerable experimental work has been done with peaches which shows that this section is not outside the zone of profitable peach growing. Two varieties which have always proved themselves perfectly hardy, very free from leaf curl, and also great bearers are the Triumph and Lynnurst.

In plums there are 150 varieties, the majority of which are coming nicely into bearing. Of these Mr. Mitchell would give the following list, which would cover the whole season from the earliest to the latest: Early Red June, Washington, Bradshaw, Burbank, Glass Seedling, Lombard, Reine Claude, Coer, Golden Drop, Arch Duke, Diamond, Pond's Seedling and Grand Duke.

After a general informal discussion on fruit growing in all its forms, the company dispersed to their homes, all feeling that they had passed a pleasant and profitable afternoon.

G. F. M.

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

Towne—He's quite a linguist, I believe.

Browne—Yes, he can converse in 14 different tongues.

Towne—So I understand, but there's one tongue he has never succeeded in mastering.

Brown—What's that? Chinese?

Towne—No, his wife's.—Philadelphia Press.

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Oxford Down Sheep
Bronze Turkeys

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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.

The business of the old firm of John Cousins & Sons, of Harriston, Ont., is still continued as in former days by the younger members of the firm.

The farm is certainly well named, Buena Vista, as from it you have a most beautiful view of the surrounding country. This farm, of four hundred acres, has been most carefully worked in order to retain the original fertility in the soil. Its owners believe thoroughly in the principle of adding humus and nitrogen to the soil by growing clover. In fact to such an extent has this been practised that they have been called the sod farmers of that section. As a pasture plant, perennial rye grass is a great favorite.

This firm was among the pioneer breeders of pure bred stock thirty-five years ago, and no doubt one of the chief aids to success has been their very complete system of book-keeping, from which they can tell at a moment's notice what was received from any one department of the farm for any particular year.

Their Shorthorns are of the milking strain, and are made to pay for their keep out of the milk pail in addition to what is obtained for their produce as breeding stock. The stock bull at present in use is King Cob, bred by Arthur Johnston, Greenwood, and got by King James, imp.

Their Yorkshire hogs came originally of Brethour's breeding, and are of the modern bacon type, so much in demand at the present time. The stock boar is an especially smooth even hog, Oak Lodge Regeant, while Oak Lodge Bowness and Lady Sullivan are two of their favorite sows.

In Oxforde they have a fine flock of about one hundred which were originally obtained from the best importations from the Old Country, since which time no pains have been spared to keep the flock up to the highest point of excellence.

One evidence of their skill and care in breeding is shown by the fact that purchasers who have once bought invariably become regular customers of the firm.

At Mount Forest Mr. W. R. Bowman is breeding Polled Angus cattle and Suffolk sheep. His herd is headed by Elm Park Prince, the winner of the sweepstakes prize at Toronto for the past three years. In the herd there are two choice yearling bulls from dams which were both prize winners at the Industrial, also four nice bull calves. There are also about twenty cows, all a good useful lot and good milkers.

His Suffolks are either imported from the best flocks in England or

else bred from imported stock. They have proven to be very prolific and well adapted to the Canadian climate and soil.

Sheep

Three miles from Teeswater on the C. P. R. and eight miles from Midway is located Silver Creek Stock Farm where Mr. Thos. Arkell is breeding Oxford-Down sheep and Shorthorn cattle. The foundation of his stock was obtained from his father, Mr. Peter Arkell, who is well known as one of the earliest importers of both Shorthorns and Oxforde, and there is no doubt that much of the good stock of early days was due to his perseverance in this line.

Mr. T. Arkell has a choice flock of about forty fine ewes and also a good crop of lambs. He also has a nice herd of Shorthorns headed by the stock bull, Shepherd, bred by Mr. Dickenson and sired by Brown Heir.

Mr. John Tweedy, Earnscliffe, P. E. I., has recently imported a pure bred Cotswold sheep from England. This sheep was bred by Russel Swanwick, of the Royal Agricultural Cottage Farm at Cirencester, and is a very fine specimen of the breed. This importation will add very much to the breeding flock of the Island.

Swine.

Maple Leaf Herd of Yorkshires is conveniently situated on the farm of Mr. Robert Nichol, about two miles from Brussels on the G. T. R. He is one of the pioneer breeders of the county of Huron, having been breeding for the past eighteen years. He has enjoyed an exceedingly good local trade besides a fair share of outside trade, those who have once bought are invariably returning for more. This herd has been very successful at all the local shows, having won the sweepstakes for best Lerd and best sow at Brussels for the past four years in succession.

At present the stock boar is Oak Lodge Conqueror, bred by J. F. Brethour, and got by his famous stock boar Oak Lodge Conqueror and out of Oak Lodge Girl, one 6th of his best sows. This is a hog of good even quality, though very strong and massive, and though only three years old Mr Nichol states will tip the scales at nine hundred pounds. Two choice sows are Oak Lodge Butterfly and Maple Leaf Daisy, both good breeders and have never been beaten at local fairs. King David is a young boar of good shape and fine quality and promises to make a prize winner.

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.

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FITS Liebig's Pitt cure for Epilepsy and kindred affections is the only successful remedy, and is now used by the best physicians and hospitals in Europe and America. It is conclusively recommended to the afflicted. If you suffer from

EPILEPSY, FITS, ST. VITUS' DANCE,

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Market Review and Forecast

Office of the Farming World,
Confederation Life Bldg.
Toronto, July 8, 1901.

Wheat

The wheat situation during the week has, generally speaking, favored buyers though at the end a steadier feeling was reported in Europe. With a good crop in the United States, and on the whole a fair one for Canada, and an average crop for several of the European countries, it is difficult to see where any permanent advance in prices is going to come from. True, conditions may arise between now and harvest, that may seriously injure the crop. But everything just now favors a big yield on this continent, though the yield of fall wheat in this province will be very much lessened because of the ravages of the Hessian fly.

During the past five weeks, the price of wheat has declined 15 cents per bushel at Chicago. One cause of this has been the very large accumulations of flour in the United Kingdom as well as the big harvest in prospect on this continent. Generally the market is quiet. Red and white is quoted at 62c middle freight. Millers are quoting 62½ to 63c low freight. Spring is quoted at 65c east, and goose at 60c, middle freights. At Toronto farmers' market red and white bring 67c, to 68c., goose 61½c to 62c., and spring five 67c. per bushel.

Bran and Shorts.

The market for these is easier, at Montreal where car lots of bran are quoted at \$12.50 to \$13 and shorts at \$14 to \$15. City mills here sell bran at \$12.50, and shorts at \$14.50 in car lots f.o.b., Toronto.

Hay and Straw.

The Trade Bulletin sums up last week's hay trade as follows:

"There is a good export demand for Quebec and Ontario hay for English account, sales having transpired of 250 tons west of Toronto at \$9.50 f. o. b. for No. 1. This lot is being shipped from New London to Glasgow at an ocean freight rate at 15s for July and 17s 6d August. In this market sales have been reported to us of 49 cars of No. 2 at \$9.50, \$9.75 and \$10 delivered here. The English markets are steady at 2s to 2s 6d per ton advance."

Baled hay is rather slow here. Though prices have not dropped any the market is dull. Car lots of No. 1 Timothy are quoted at \$9.50 to \$10 on track, Toronto. On the farmers' market hay brings \$10 to \$11, sheaf straw \$8 to \$9 and loose straw \$5 to \$6 per ton.

Potatoes.

The season for old potatoes is about over. Car lots of old are quoted at Montreal at 45c to 50c on track. Old stock is dull here with little or no demand. New potatoes are in good demand, car lots selling at about \$1.10 per bushel. On Toronto farmers' market old bring 35c to 40c. per bag. New potatoes sell at \$3.25 to \$3.50 per bbl., and \$1.25 to \$1.50 per bushel.

Eggs and Poultry

The egg trade is not so active. The extremely hot weather and the opening of the fruit season have interfered with trade considerably. The local demand in some places is falling off and prices are weaker, excepting for selects which are somewhat scarce owing to the hot weather. Montreal quotations for cases of fresh stock are 10½c to 11c and 11½c to 12c. for candled stocks. Egg supplies are heavy here and the demand is only moderate. Selects are firm at 12c. in case lots, and ordinary fresh stock 11c to 11½c. On Toronto farmers' market eggs bring 12c to 15c. per doz.

On Toronto farmers' market chickens bring 60c to 80c per pair, spring chickens 50c to 90c and spring ducks 65c to \$1.00 per pair, and turkeys 10c to 12c per lb.

For week ending July 11th the Canadian Produce Co., Toronto, will pay 11c per lb., live weight, for spring chickens and 4c per lb. for old hens.

Fruit

Dealers are already beginning to figure on the apple crop, and are looking forward to a pretty good yield, though it is rather early to estimate accurately. Receipts of berries have been heavy at Montreal where prices have ranged all the way from 4c to 7c per box in crates. Canadian cherries are quoted there at 75c to \$1.00 per basket. Strawberries have ruled firm at Toronto fruit market, choice quality bringing 6c to 8c. and lower grades 4c. to 5c. per box. Cherries are quoted at 50c. to \$1.00 per basket.

Cheese.

The decline in cheese is still maintained. Though towards the end of the week there was a firmer feeling resulting in an advance in values. The situations not discouraging, with a large decrease in exports and a small make in prospect, good profitable prices may be looked for. At the local markets during the week prices have ranged from 8½c. to 9½c. being the ruling figure. The Trade Bulletin sums up last week's trade as follows:

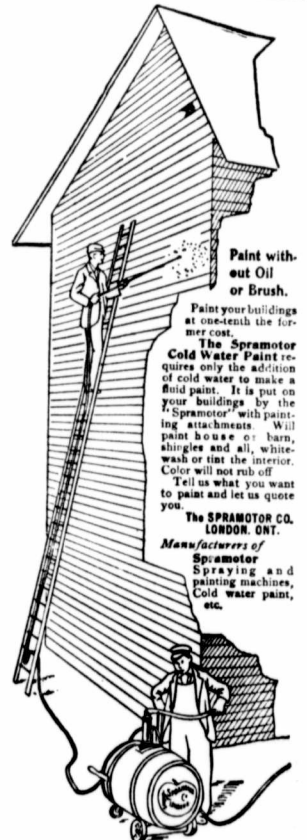
"Notwithstanding the combination of adverse circumstances that has overtaken the cheese trade and referred to in another column, namely, hot weather defects, the cold storage break down, and the sharp depreciation in prices, there are some who have not lost confidence in the future of the trade, and who evidently believe the big drop in values had afforded a favorable opportunity to invest in this great exportable product. Whether or not they are right, time will tell. At any rate, operators who wanted cheese to-day, had to pay ¼c more than they could have bought them for yesterday. Finest Western colored are quoted at 9½c to 9½c. and do. white at 9½c to 9½c. Finest Eastern are held at 8½c to 9c, and undergrades 8c to 8½c.

The exports for the season to date from Montreal and Portland are 377,670 boxes against 552,365 boxes for the same period last year. From New

York the shipments are 104,245 boxes against 201,290 boxes last year, making the total exports from Canada and the United States for the season 181,915 boxes against 753,655 boxes for the corresponding time in 1900, showing a deficit of 271,740 boxes. The market closes firmer and ¼c higher.

Butter.

The butter market has continued to decline during the week causing a drop of 1½c to 1½c within the past two weeks. The decline has been due largely to the extremely hot spell, large receipts and a falling off in the export demand. Considerable butter is reported to be going into cold storage on English account. Cold storage warehouses are pretty well filled, factories being compelled to send in their supplies early, owing to the heat. At the decline, however, there has been considerable buying of creamery dealers evidently being of the opinion that there is money in it at present values. Some sales of choice creamery are reported at Montreal at 19c to 19½c f. o. b. Eastern Township points. Other sales were reported at 19½c to 20c for good quality. The exports to date are 77,905 packages as against 50,



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402 packages for the same period last year. Creamery is active and steady here at 20c to 21c. for prints and 19c to 20c for solids. While receipts of dairy have been large there is a good demand for choice quality at 16c to 16½c. On Toronto farmers' market, pound rolls bring 14c to 18c and crocks 14c to 15c per lb.

Cattle

Cattle have ruled fairly steady at American markets during the week. At Chicago good to prime steers are quoted at \$5.25 to \$6.40 per cwt. The offerings at the Toronto cattle market on Friday were 582 cattle, 1584 hogs, 668 sheep and lambs and about 80 calves. Trade for fat cattle was about the same as it has been for the past two weeks. A couple of choice loads of exporters sold at \$5.20, but the bulk of the best exporters sold at \$4.80 to \$5.12½ per cwt. The better quality of butchers' cattle found ready sale at about the same quotations as have ruled during the week. The best grades are wanted, but the common grass butchers' cattle are not wanted. A few feeders and stockers were offered. Short-keep feeders sold at lower values in sympathy with exporters. Calves of good quality are in good demand, selling as high as \$5.50 per cwt.

Export Cattle.—Choice loads of these are worth from \$5.00 to \$5.12½ per cwt., and light ones \$4.50 to \$4.80 per cwt. Heavy export bulls sold at \$4.00 to \$4.25, and light ones at \$3.60 to \$3.75 per cwt.

Butchers' Cattle.—Choice picked lots of these, equal in quality to the best exporters, weighing 1,050 to 1,150 lbs. each, sold at \$4.50 to \$4.75 per cwt., good cattle at \$4.35 to \$4.60, medium at \$3.75 to \$4.10, 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 \$4.10 to \$4.25, and other quality at \$3.90 to \$4.00 per cwt. Light steers, 900 to 1,000 lbs. each, sold at \$3.50 to \$3.75 per cwt.

Stockers.—Yearling steers, 400 to 800 lbs. each, sold at \$3. to \$3.30, off colors, and inferior quality at \$2.50 per cwt.

Calves.—These are in fair demand at Buffalo, veals bringing \$5.00 to \$5.50 per cwt. At Toronto market ordinary calves bring \$2 to \$10 each.

Sheep and Lambs

There was a large run of sheep and lambs on Friday and prices were easier at \$3.25 to \$3.40 per cwt. for ewes and \$2.50 to \$3 for bucks. Spring lambs sold at \$2.50 to \$4.00

each. Good quality of both sheep and lambs are selling well at Buffalo, but other quality is dull.

Hogs

There is another advance in the price of hogs, and the market was firm at \$7.25 per cwt. for select bacon hogs and \$6.75 for lights and fats. Uncullied car lots sold at \$7 to \$7.10 per cwt.

Last week by a typographical error only the quotations for lights and fats were given in the Wm. Davies Co's figures. They should have been reported as paying \$7.50 for select bacon hogs. For the week ending July 13, this firm will pay \$7.50 per cwt. for select bacon hogs and \$7 for lights and fats.

Horses

There is very little doing in horses at Montreal. The only sale worth mentioning during the week was a fine carriage horse at \$350. Some 1800 re-mounts will leave that port for South Africa during the next two weeks.

This is the off season in horses and business was only fair at Grand's last week. Things are expected to be quiet till about the middle of August. At last week's sales general purpose horses sold at \$80 to \$120 and second hand horses and drivers at \$60 to \$100 each. Another inspection for re-mounts will take place on Wednesday.

Maxwell's "Favorite" Churn.



Patent Foot and Lever Drive.	No.	Holds	LIST:
Patented Steel Roller	0	8 gal.	to 8 gal.
Bearings	1	10 "	10 to 10 "
Improved Steel Frame	2	16 "	2 to 7 "
	3	20 "	3 to 9 "
	4	28 "	4 to 12 "
	5	30 "	5 to 15 "
	6	40 "	8 to 30 "

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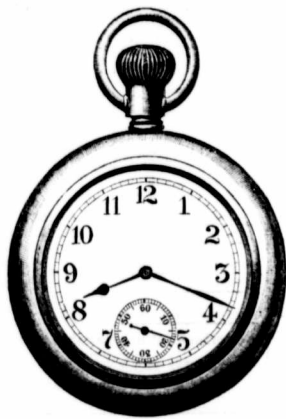
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fore have one of these watches at what it cost us—a little less, postage, etc., considered.

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- \$4.75 for the man's watch, or \$11.50 for the lady's watch. If you are already a subscriber
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- very much prefer, instead of marking up your own date, we will send THE FARMING WORLD
- for one full year to any new subscriber whom you may name. Having sent your subscription
- to the paper yesterday or last week, or last month, won't count on this bargain offer.

We guarantee every watch, and any person not absolutely satisfied may have his money back for the asking.

A BOY'S WATCH—This is a first-class timekeeper, the case open face, nickle-plated, and looks just as well as solid silver. It has a stem wind and stem set. The case will keep its appearance for two or three years. Each watch is guaranteed by us or money refunded.

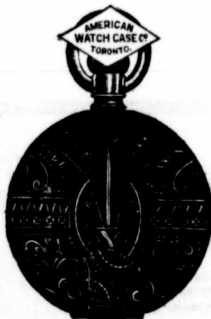
Regular price \$3.00	} Both for \$2.75
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A MAN'S WATCH—This is a genuine sterling silver case, screw back and bezel, open face, American movement, stem wind and set, absolutely guaranteed by us.

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A LADY'S WATCH—Genuine 14-karat gold filled hunting-case, beautifully engraved, guaranteed for 25 years, stem wind and stem set, fitted with Waltham movement. Guaranteed as to material, workmanship and reliability.

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