

best young men but most of us are able to go about our business in security, with a prospect of having all the food, shelter and clothing we require so we have no right to grumble.

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The cold nights are beginning to remind us that winter is approaching once more. Last night there were traces of hoarfrost on the long grass in low places but I have not heard of any frost that did damage. Somehow it seems as if we had not had a real summer this year. I do not remember more than half a dozen really hot days. Already the fall work is in progress and before we realize it the cold weather will probably be on us again. This year we are making arrangements to take proper care of our apples, celery, potatoes, cabbage and other vegetables. We are building a cement root house in a little hillside, where everything can be kept safe from frost. The waste we have had in pits during the past few years would more than pay for the root-house, and besides there will be the comfort of having things in good condition where they will be easy to get at. When I was a boy there was a roothouse made of logs covered with earth on the spot where we are building the new one and I have vivid recollections of the prime apples that used to be brought out of it during the winter. My mouth waters for them as it does for the roast corn, but I know that I can have apples that are as good as the old ones or even better. But I think that roast corn is a myth. If it is not there must be some way of roasting it that I do not know about and I should be glad to get the recipe.

The Effect of the School Grounds.

If a child is ever to acquire a taste for those things that tend to neatness or beauty it is during that impressionistic period known as school-days. Heredity plays an important role in the development and outcome of the growing child, but that is a difficult factor to discuss intelligently, and a still more difficult factor to control. The influence of environment is plainly marked in families, in communities and in nations, to mold the intellect of youth is possible to a large extent, through the surroundings which are as parents or school trustees will that they should be.

There is no better index to the sentiment or thought of a school section than is to be found in the school house and school grounds. A tidy, industrious and prosperous people will not tolerate a dilapidated, tumble-down, out-of-date, old, building and grounds to match. We are beginning to realize that children are not taught so much by what they are told as by the associations that accompany the remarks into the inner recesses of the child's brain. What use is a lecture on the relation of pure atmosphere to health when the child is breathing the expired and almost undiluted air from the lungs of many other children. If the tutored one survives the advice is considered overdrawn, if he or she perishes it is simply one more added to the long list of murdered ones who tell no tales. Children are taught to avoid disease by not coming in contact with it, but at the same time they are forced to share the common drinking cup with as many as twenty or thirty other members of the school; they are taught the beauties of nature which lie in the trees, in flowers and in the fields, and from the windows they see a wood pile and perhaps a treeless country beyond. This is the school in "sleepy hollow," but, thanks to an enlightened public opinion, all schools are not thus. One will find those that are lighted and ventilated, cleaned and heated, and surrounded with well-kept grounds, flowers and trees. In them the beauty of a flower is shown to the children, not read out of a book; the child comprehends how nature, in her unalterable plan, provides for reproduction of the plant as well as its protection, and what place it occupies in the great economic system of life. To imbibe knowledge in this way is to retain it, and later on apply it to the routine of daily duties that are met in a hundred different spheres of labor.

The interest of the entire community should center in the school, for it is a common ground. Parents may differ as to creeds, politics and opinions as regards the Government of the nation, but as to little seat of learning situated in their midst where their children spend the greater part of their time, where intellect is being awakened, ideas being received and characters being molded that will influence the career of many a young life, as to this institution minds should work in harmony for the greatest good. If the surroundings are not such as will inculcate neatness, beauty and thrift, the influence of the school is for evil. One of the most potent forces that will assist in character building will be used in the wrong direction, and the blame rests upon the shoulders of a negligent community.

Compare the environments of the little school-house illustrated in these columns with many throughout the country. Around it are trees and beds of flowers. In almost every window a box

is full of flowering plants, and the grounds are neat and cleanly mown. This condition is not uncommon during months of school in many sections, but when the teacher leaves and the children go on their vacation "everybody's business is nobody's business" and the gardens go wild. While the school year lasts the pupils should attend to the gardens and grounds under the direction of the teacher, but during July and August it is the parents' duty to evidence enough interest in their children's work to oversee and encourage. It is easy, of course, to employ a teacher for so much per month, but to allow her work in the interest of another's child to altogether cease when she is away on a brief vacation is poor encouragement indeed. Trustees ought to be obliged to provide labor and over-



A School that is Different.

Throughout the summer holidays the grounds and flowers about this schoolhouse in Huron County have been cared for.

sight for school grounds during the summer months, and the labor should be voluntary on the part of the parents. The school house featured in these columns is located in Huron County, Ont. A married lady who lives nearby is the teacher, and these circumstances render it easier to maintain the surroundings in good condition. However, the little extra effort required on the part of taxpayers in any community should not prevent them taking an interest in their country school.



A Stook of Bred-up Beet Seed.

Growing Beet Seed in Ontario.

The Seed Commissioner at Ottawa estimates that Canada will be short approximately three-quarters of a million pounds of root and vegetable seed in consequence of the struggle in Europe. This will tell heavily upon those who grow a large acreage of mangels or other roots for feeding purposes and upon growers of beets for the sugar factory. The Dominion Sugar Company at Berlin has not been caught napping with regard to their seed supply. They have been experimenting for a few years and are gradually working up to a position where all their patrons can be supplied with seed "grown in Canada" from individually tested "mother beets," with a high sugar content.

The European war has demonstrated how much we depend upon seed for our crops of roots and vegetables and not only has it revealed the fact that a large part of our supply has been coming from across the water but through this revelation we are learning that the importance we have attached to the quality of our seed has been, in no way commensurate with the significance of that feature of the supply. Each year growers desire more and more to know the ability of their seed to germinate, what the ancestry was and if the mother stock contained those characters that are looked for in the crop to be grown. Breeders of horses, cattle, sheep or swine trace back the lineage of their stock and in the case of dairy cattle they test the dams for production; the same is being done with sugar beets by Henry

Stokes, Agricultural Superintendent of the Sugar Company at Berlin. One day, late in August, the writer was shown over the breeding station and fields by Mr. Stokes and A. McMeans, a special representative of the Seed Branch at Ottawa. Space will not allow the technicalities and deeper principles connected with the operations in vogue there to be recorded but the practice in a general way is important for it has a direct bearing upon an industry which is yet in its infancy in Canada but promises to have a wonderful influence on future agricultural production.

The breeding plots are located near the factory in order that personal supervision is possible and a more thorough study can be made of individual tests. Unlike live-stock breeding the operator does not have everything under his control. Nature sometimes steps in and crosses different varieties thus frustrating many well-planned and thought-out schemes. In order to overcome this difficulty the different plots must be isolated at least 300 yards but Mr. Stokes believes that the separation of one mile is a greater security and where possible that distance is allowed. The writer has seen two different varieties of mangels growing side by side this season. It is a mistake, of course, but there are many things that can best be learned by practical experience and this is one of them. Even strains of the same variety must be located far apart that pure seed from the mother root may be obtained.

In one plot on the grounds 1,100 mother beets were producing seed professed to be the best the grower had ever seen anywhere. They had all been tested individually for sugar content and were known to be good. This test is made by taking a plug diagonally from one side of the beet through to the other and making a chemical analysis of the same. The plug resembles in appearance that taken by a judge when judging butter and it is representative of the entire beet. If the analysis reveals a good percentage of sugar the hole in the beet is plugged with clay and the specimen is planted to produce stock seed. This beet would be known as a "mother beet." In another plot all the mother beets tested from 18.1 to 19 per cent. sugar, averaging approximately 18.6 per cent. for the entire plot. In 1747, Margaff, a Prussian chemist, was only able to get about 5 per cent. of sugar from beets but since that time the most vigorous scientific selection has been practiced and in some cases as much as 20 per cent. of sugar has been obtained. However, from 16 to 17 per cent. is considered a good test for field-grown beets and conditions must be satisfactory to accomplish even that. Bearing this in mind the significance of producing seed from mother beets possessing 19 per cent. of sugar will be, at once, apparent. What has been done with sugar beets in the last century and a half is an exceeding financial advantage to-day, but the end is not yet.

When the seed is procured in this way from the breeding plots it is stored and used to produce stocklings the following year. Twelve pounds of seed per acre are used to produce factory beets and the plants are thinned but when stocklings are required 10 pounds of beet seed per acre are used and no thinning is done. The plants are cultivated and allowed to grow until fall but since they are thick in the row they do not attain the size of the ordinary sugar beet; in fact they are much smaller for a desirable stockling will only measure from an inch and a half to two inches across. This crop is harvested in the fall and siloed, the practice being to put them in pits in the fields and cover with earth and straw. All the stock-

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