

Inexpensive Draining.

In one of my autumn rambles through the western part of Canada, I was much struck by the attention to the absolute necessity of draining this wet season has called forth from farmers. I passed through several townships where the land, naturally wet and low, was this year much injured by cattle poaching with their feet. I saw many farms where young clover was all trodden into the holes left by cattle grazing, and on remarking the injury to the owner of one of the farms, he said that he had formerly found the same difficulty, but had great belief that the next season would, like previous ones, remedy the evil to a great extent. He pointed out to my notice the young clover plant green and vigorous at the bottom of the cattle tread. I noticed also, in many places that were quite under water after rain, the young clover plant did not appear to suffer so much as one would expect from such moist treatment. It is quite entertaining to call on our brother farmers and "talk farm" with them, and quite instructive also; and one great evil Canadian farmers suffer from is that they seldom visit each other's homesteads, and hence one great benefit derived from fairs and exhibitions. The women visit enough and to spare, but the men lose much by not doing so. I do not advocate a farmer going to see a neighbour when he is very busy, and it becomes a trial to leave off what he is doing to entertain his visitor, but I do most strongly advocate that interchange of inspection and experience that gives such a zest to our labours. As I said before, there is no lack of women visiting. One house, of rather less than second best quality, at which I chanced to call, was honoured by the presence of no less than seven women, and each had her baby, one having two with her. Now I say that was rather too much of a good thing, and so the owner of the house thought, and so he told me when we walked out to look at the farm. He showed me his draining attempts, and complained much of the insufficient size of two inch tiles on level flat lands. In fact, as he said, the mischief in wet weather was often done to grain crops before the size of the small tile would allow of the escape of the water, unless the drainage was more thorough than merely through the low wet places; yet to do this was as much outlay as he felt justified in making just then. He was then using board drains with much satisfaction; but the land was clay, a kind of soil in which wooden drains were not likely to rot. I can easily see that if wood were used in sandy soil the decay would be rapid and the benefit precarious; but it is quite another case where the land lies flat and wet, and where the wood that composes the drains is never dry. I saw the fact most thoroughly proved in our own garden. Where the soil is quite sandy, the bottom and sides of the drain, that were always wet, were, and still are, quite sound

and likely to remain so, although now laid down five years; but the cover, as it is a square drain, has long since shown signs of decay and dry rot. Many persons who have used boards for drains on clay land, where the air is for the most part excluded, and the boards are always wet, will affirm that the boards will never decay, and I have often noticed city drains that were laid down twenty-five years since, and casually uncovered and exposed, were always sound and good as ever, that is, where the land was of such a nature as to keep them always wet. In the flat western part of Canada, the small tile will not answer, and the large one costs too much, and from the nature of the subsoil, the sole of the drain, when letter A shaped drain is used, made of wood, can be laid down of double the capacity of a tile drain, and at less cost. C.

Potato Digger.

A correspondent from Chelms, Province of Quebec, sends us an account of a potato digger which he imported from Scotland during the past year, and found to work satisfactorily. The price is high for most Canadian farmers. The account may, nevertheless, be of interest, although the time for such implements, and indeed for nearly all farm implements, is now past. The writer states that this potato digger will dig four acres of potatoes per day, with one man and a span of horses. It was imported from Scotland this season, and proved itself efficient beyond expectation.

The body of the machine is a square frame of wood set on an axle-tree furnished with two driving wheels about four and a half feet in diameter. On the middle of the axle-tree there is a bevel pinion geared with another, driving a small shaft that runs over the end of the framing. On the end of this shaft there is a centre keyed on, from which arms radiate, with small forks at their extremities, long enough to reach to the bottom of the drill. A share is fastened to the side of the frame, bent so as to pass under the potatoes in the drill, and can be lowered to any depth. The revolving arms are also regulated so as to pass over the share without touching it. A movable draught hook in front regulates the depth of work.

In operation the share moves along in the drill under the potatoes; the revolving arms clear all off, leaving none behind, and pitch them against a screen of twine netting suspended opposite, about two feet away from the side of the machine. The potatoes are laid along in a row, and there are none either crushed or cut in any way, and none are left in the ground.

Those who raise a few acres of potatoes will, the writer thinks, find this machine as useful as the reaper or mower. It was imported from Messrs. L. & Co., Shuttlesworth, Glasgow, and cost there £14 stg.

Experiments with varieties of Potato.

A correspondent from the neighbourhood of Brampton sends the following memoranda of his experience during the past year, with different varieties of potato. Such careful records of experiments and results are always acceptable, and often furnish important data as a guide to the cultivator. In the subjoined report the mode of cultivation is first given, and, in a tabular form, very convenient for comparison, the results in respect to each variety are noted. In many respects the record is in accordance with accounts from other quarters. Being definite, it is especially valuable:—

Soil rather light loam. Ploughed from soil in spring of 1868 and sowed with peas. Cross-ploughed after peas taken off and ploughed again in the fall. Manured last spring, about fifteen loads to the acre, and ploughed and harrowed. Furrows for seed run with the plough 27 inches apart, and from four to five inches deep. Seed cut into pieces with two or three eyes in each (Early Rose only one eye in a piece). Planted from 20th to 28th May, about a foot apart in the furrows, and covered with the hoe. Ground harrowed down smooth immediately after planting, cross-harrowed about two weeks afterwards, and harrowed again lengthwise after the potatoes were up. Horse-hoe run through twice afterwards. No hand-hoeing or earthing up.

Some of the varieties rotted very badly, and none could be said to be entirely free from the rot.

In the subjoined table the first column gives the names of the several varieties grown, the second the rate of yield of sound potatoes per acre in bushels, ascertained by actual measurement of ground and crop, and the third the amount per acre in bushels of potatoes injured and decayed by rot, according to careful estimation:—

Cuzco	415	8
Harrison	411	11
Gleason	397	4
Early Goodrich	385	12
Calico	302	23
Early Rose	301	43
Garnet Chili	257	45
Peachblow	235	78
Buckeye	197	71
Mercer	133	15
Mixed lot, chiefly cups	126	140
Myatti Ash-leaved Prolific	98	5
Kidney	91	130
Early Handsworth	84	6

Since the above was received, another somewhat similar record has reached us from Orillia. This communication is as follows:

I planted fourteen kinds on sandy loam, once ploughed, without manure, previous crop oats.

I tried their qualities for the table in May, before planting, and in October after taking them up, and also weighed an equal number