

winter, and then they will be fit for the butcher, and will pay for the food they have consumed; and they must be disposed of, so as to give place for the increase. No sheep should be sold from the farm till they have come to full maturity.—The selling of lambs to the butchers, is ruinous to a flock—or letting butchers go in and take the best of the flock. Old sheep, as well as lambs, should have some grain or roots every day while at the barn. Sheep will pay much better for the grain they eat than the man you sell to will.—No animal kept on the farm pays better than the sheep—for their rapid increase, with their fleece and meat, give a better return for what they consume than any stock kept on a grain farm.

Land Drainage.

At the recent annual meeting of the East Zorra Agricultural Society, John Dunlop, Esq., of Woodstock, read a useful and practical Essay on Drainage, which we insert, slightly abridged, as follows:

In twenty years practical experience of agriculture and drainage operations, I am convinced that all the low, damp land of this township, at present growing aquatic or other plants utterly worthless to the husbandman, and considered by many, as not worth cultivating, will after undergoing the operation of under-drainage, deep ploughing, and good cultivation, prove to be the most valuable lands in the township, as they at present contain an immense amount of vegetable matter that only waits to be assimilated into the bulk of cereal and root crops by draining the soil thoroughly.

Before under-draining came into operation, the most primitive mode, I believe, was to form the land into ridges and furrows, the width of these varying from 10 to 30 feet, but the general average being about 16 feet; these ridges being well raised up in the centre, thus forming a deep track on each side to carry off the surface water. When the land was in crop, the yield at the furrows was very small, owing to the dampness of the soil at that spot; under-draining was then tried as an experiment, and found to succeed admirably.

Before the introduction of tiles, I used to a considerable extent broken stones for draining—the main or receiving drains having a hand-built conductor formed of the dry material, with the addition of a few inches of small stones placed above the conductor. The lateral drains were filled to the height of about twelve inches, with stones (broken small,) a little straw, or perhaps the sod, was placed above to prevent the fine soil from getting among the stones, preparatory to filling up the drain. These drains were generally cut to the depth of 20 to 24 inches,

and the distance between each drain varied from 16 to 24 feet, according to circumstances.

These drains acted very well for several years; but in many cases the fine soil got down among the stones, and filled up the drain, especially in fine light soil.

I have also tried to drain with the small branches of trees, cut into lengths of about 12 inches, and made up into small bundles, tied together with tared twine. These faggots were placed in the drain in a sloping direction, pressed well together, and covered over with the sod before filling in the earth. These faggots, if made of durable wood, will last several years, and are very cheaply manufactured. I saw one of these drains opened after having kept clear for 12 years, it was quite good, but too shallow. The material used for faggots was the white hawthorn.

About 15 years ago I tried lumber boards nailed together, so as to form a conductor for the water. This was on a small enclosure of about five acres, the soil a black loam and very wet. The drains acted well and are still in good working order, but the high price of lumber in Scotland made this sort of draining too expensive.

On strong clay and pre ty free from stones, I have drained a good deal; and used the sod or turf, got from the upper surface of the drain track. These drains were opened to the depth of 3 feet and cut in the form of a wedge. The sod was cut by a tool made for the purpose, and was rammed down quite firm, before being covered up. This is a very cheap mode of draining, when the soil is suitable, as they will work well for ten or twelve years if properly built. I used to pay for such drains about 7 to 9 cents per rod. Where neither stones or tiles are to be had, I would recommend a trial being made of the faggot or turf wedge drain.

The tile manufactured of burnt clay, commonly called "the Horse shoe tile," has latterly been adopted in Britain to a great extent. The expense of carriage is moderate, and they form a durable material that will last for many years. Soles or flats of the same material, are used, on which to place the tile on the bottom of the drain. Some use wood or slate instead, and many put in the tiles without soles of any sort; but this altogether depends on the nature of the soil. If wet or soft, soles are absolutely necessary; but if a hard or gravelly bottom, the soles may be dispensed with. I have tried both ways, but the soles make the best drain.

Within the last few years the Horse-shoe tile has been in a great measure superseded by the pipe tile. These are made of various patterns, the oval and circular ones being the favourite—the oval shape similar to an egg placed on end, is considered by many the most preferable, the run of the water being so concentrated that it acts as a scour to the sediment in the pipe, and