

the manure will effect the requisite amendment. Or if it is a light sandy loam, then a few loads of clay will make it just what you want. And the cost in either case will hardly be worth naming. If instead of being a loam, a little too stiff or rather too light, it is a sandy soil, then clay in addition to manure is all you want to make it just what you would have it. The more sandy the more clay will be required. Or if your soil is the stiffest clay, sand enough with manure will make it as good a loam as you can desire. Where clay is used as an amendment, it should always be exposed to the frosts of winter before ploughing in, and should be thoroughly incorporated with the soil: and even when sand is used the soil should be ploughed more than once, harrowed many times, and the new ingredient evenly mixed. And where sand or clay, as one or the other may be required, can not be obtained within a reasonable distance, swamp mud, long out and well warmed in the sun, and washed with rains, will go far towards producing the same amendments—will readily produce, only less permanently, both the effect of clay on sand, and of sand on clay, rendering a compact soil lighter, and a light soil more compact. The difference is that this application would need to be repeated every few years, whereas the amendment of a soil by applying its opposite, is a permanent amendment.

The above is all on the supposition that the subsoil is porous, such that water passes downward freely, neither floods the surface, nor stops and becomes stagnant one, two, nor even three feet below. If there is any doubt about this, dig holes, like post holes, one, two, three, and three and a half feet deep, and if water stands more than a very few minutes in them after even the hardest shower, that ground requires draining, in order to be fit for a garden. You then have to preface your other amendments, whatever may be required, by underdraining. Of course, you would not have an open drain in your garden or anywhere near your house. A tidy farmer will hardly have them anywhere. Go to work then, and lay down the under-drains. For a garden where you expect to do a good deal of work, and would deem it had economy to render your labour less satisfactory by any defect in the soil, the drains should be near each other. In some cases one very deep drain running through the centre, and side drains falling in from opposite directions, not quite as deep, and near to each other, would be advisable. But we all know that "water runs down hill," and the owner can decide where to lay his drains better than somebody a thousand miles off.

We will only add, that the autumn is the best time to prepare the ground for a garden. Winter even need not be lost, in case of large amounts of heavy earth to be drawn from a distance. How we wish that thousands of our farms, now showing only a little, stingy, miserable apology for a garden, not the most beautiful nor always the most productive spots on these farms, could show next spring, as the snow leaves them, grounds already prepared for gardens beautiful enough and fruitful enough to tempt the angels to come down and walk in them in the cool of the morning and evening.

TREE GUARDS.—In reply to an inquiry whether the rubbing of sheep is injurious to ornamental trees, I have observed that it has been injurious. I have a guard, which I adopted after trying many several years ago, and subsequent experience has confirmed its advantages. It is formed as follows:—Take stakes, such as are used for hurdles for sheep folds, drill holes through each, three or four inches from the top and bottom: then saw another stake across into two-inch lengths, and drill each in the direction of the growth thread the stakes and the short pieces alternately, as many as may be necessary to surround the stem of the tree, an a copper wire at each end, and close it round the stem and fasten the wire. This forms a secure cradle, very much resembling that put over a horse's neck to prevent his reaching to bite a blistered leg. Space must be left to admit of the growth of the stem for three or four years. The cradle lies loose around the tree, on the surface of the ground and never damages it; and it effectually prevents barking, for which some animals have a most inconvenient propensity. Three feet stakes are sufficient for sheep, and five feet for cattle.—*Gardener's Chronicle*.

PRESERVING GRAIN.—Grain to keep well should be perfectly ripe, and then be placed in a situation where it can remain cool and dry. It has been recommended when you have small quantities only to keep, a few barrels for instance, to put in dry bricks in different parts of the mass. These would absorb and retain any moisture that would be in their immediate neighbourhood, not being liable to any action such as heating by any decomposition, and hence have a tendency to preserve the good condition of the grain in which they are placed. We have never seen the experiment tried, but the theory looks plausible.
—*Exchange*.