

of the autumn rains, when the new and the old work can be blended and amalgamated, and also hands are freed from harvest operations.

One matter of moment is, in the reinforcement of the slope of a river wall, to restore the turf and carefully ram this down with iron-shod rammers. When the turfing has been thus relaid it is usual to dress the surface down with silt or slob to fill up the interstices, and this operation is termed "sludging". Where walls are constructed on a clay foreshore, the clay should always be taken from the landward side of the wall, as the material on the sea or river side is usually of a silty and sloppy description, and liable to be washed out by heavy rains. Great care should be exercised to find the best localities for clay. It frequently happens that clay is patchy, running in veins. It is in this respect that the art of the sea-waller comes into play. He has acquired an intuitive appreciation of the spots where the best material can be obtained, and picks them out unhesitatingly. The clay taken in this manner should not be less than 30 feet away from the inner toe of the wall. Where peat has to be employed, such material packs close, but is somewhat light. It is therefore necessary heavily to stone the surface of a sea-wall constructed of peat. The vegetable constituents of a peat bed remain constant for many years, and the transition into black peat is a chemical process requiring hundreds of years for its consummation. In the stone countries concrete is the proper material for sea-walling, as obviously an embankment of stone débris will not resist percolation. Embankments of gravel, if dressed with a water-resisting argillaceous covering, may be quite effective, but rules of height and mass have to be more liberally interpreted when a gravelly material is employed. The most treacherous material is that which, when in a wet state, retains its protective appearance, but under a hot sun or in a strong wind is liable to disintegration. A light silty slob is quite serviceable as a filler of interstices, but almost useless for the purposes of an embankment where the conditions are at all severe.

The rapidity with which vegetation springs up on a new bank is amazing. It is a sound rule, after the seed of the