

neering work is the "stitch in time" of greater economy than in works of this class. Every sea-wall should be walked over once a week by the marsh bailiff. Should there be any indication of breaching, instant protective measures must be taken. An apparently trifling weakness in a bank, if neglected so that a breach occurs, may result in the loss of thousands of pounds and the deterioration of the land in rear for agricultural purposes for at least fourteen or fifteen years.

Statements of costs are so local that they are of little service. In the Essex district the normal covering of a clay bank with chalk and ragstone, including the dressing of the bank to receive these, costs about 7s. per yard super.

Turning to the question of the accretion on the river side of an embankment, such accretion is usually called the "warp". The construction of a series of groynes approximately at right angles to a river bank was an expedient formerly much in vogue. The argument applied in its favour was that the system resembles the groyning of a seashore, but such contention is fallacious. A river foreshore differs from a sea foreshore by reason of the fact that the accretion which it is desired to capture in the former case is the alluvium borne by the river to the sea. The material in suspension brought in by the sea is mostly of a sandy character and is quickly precipitated, whereas the condition on a seashore is that of the oscillation of the foreshore materials (shingle or sand) alternately up and down the coast-line under the action of the wind waves. Moreover, the division of a river bank into compartments by means of projecting spurs is in the main itself productive of scour. This action was well exemplified on the frontage to the River Roach in the Island of Foulness. At this spot a horseshoe embankment had been constructed, as the main bank was threatened. A short length of the main bank then gave way, and the result was that the alternate filling and emptying of the basin between the original embankment and the horseshoe embankment so denuded the new line of foreshore that it had to be protected with heavy stone pitching. In a lesser degree the same kind of action takes place between groynes run out across a river foreshore. This is thus broken up into a series of compart-