permanent advance of the beach in the landward direction—for there are no forces available to restore the *status quo.*

These points are well illustrated by the effects of a gale in November, 1913, on the Shoreham Beach, a mile or so west of the harbour entrance. This part of the beach consists of bare shingle; its front is protected by groynes at 100-yard intervals, but there is no sea-wall or breastwork parallel to the shore. It carries a settlement of timber bungalows behind the crest, and in rear of these a line of telephone posts. The accompanying diagram (fig. 22) is a profile showing the general relations of the beach and the structures upon it before (dotted)

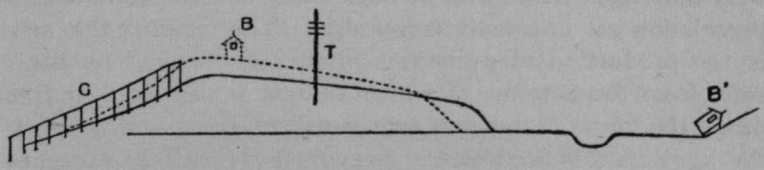

Fig. 22.—Diagram of Profile through Shoreham Beach, showing movement of shingle on the occasion of the gale of November, 1913

The dotted line shows position of shingle before, the continuous line after, the gale. The bungalow (B) has been washed down the lee slope and drifted across the marshes to a resting-place on the bank beyond (B′). T, Telephone post which stood firm. G, Groyne left standing on the face.

and after the gale (continuous lines). The groynes had not the slightest effect in retaining shingle as the gale was on-shore.

The shingle was washed away, layer by layer, and carried as an extension of the lee talus. The bungalow was carried with it, and, drifting over the marshes, was left by the tide at B′. The telephone posts stood firm, because they were planted deeply in the shingle below the zone of mobility. Indeed, the whole row of posts remained in perfect alignment with wires as taut as before the gale, showing that shingle displacement is a surface phenomenon. Had the owners of this and the other displaced bungalows had the inspiration to mount them on piles buried deep in the beach, they would have been spared not a little inconvenience. Parallel results have been noted on the Pevensey and Blakeney Beaches under like conditions. From the point of view of protection, it is thus evident that the