

and Frische Nehrung of the Prussian Baltic, the available sand is continually or intermittently added to one and the same dune range, which thus exhibits an almost unlimited capacity of growth, and reaches a height of 150-180 feet. When in such cases vegetation is absent, or inadequate to bind the supplies of sand, the dunes "wander" and overwhelm the adjacent land surfaces and villages. It is phenomena of this kind exhibited on the grand scale that have compelled attention to methods of artificial dune fixation.

*Where the coast-line is in retreat*, i.e. undergoing erosion at the hands of the sea, the dunes which encumber it will not be left behind. The edge of the dunes, equally with the land platform on which they rest, will undergo erosion, but the sand will be thrown up on the foreshore and blown once more on to the land and reconstituted. The dune fringe consequently accompanies the land in its retreat. Such coasts, which are very common, are distinguished by the presence of a steep cliff face overlooking the sea.

Though we have for convenience distinguished between the dunes of these different types of coast, it will be understood that the phase of a coast-line is continually changing; that which was stationary a few centuries ago may now be advancing seawards, for instance. This circumstance accounts for the existence on certain coasts of dune systems not in harmony with the present phase of movement of the coast-line.

**The Wandering of Dunes.**—Wherever accumulations of sand are laid bare, as by natural or artificial disafforestation, or where rabbits or storms break through the covered surface, causing injuries rapidly extended by the wind, dunes are liable to travel, i.e. to be transported in the direction of the prevalent wind, overwhelming everything they encounter. This state of travel or wandering is normal with dunes on desert areas where the conditions of drought, combined with the mobility of the sand, make the establishment of a vegetation uncertain or impossible.

Such wandering dunes may be quite bare, or they may carry clumps of *Psamma* dotted about, but inadequate to retard materially their progress. Under these circumstances the sand