

tain with forest; (2) by promoting the growth or causing the removal of peat-mosses; (3) by heedlessly uncovering sand-dunes, and thereby setting in motion a process of destruction which may convert hundreds of acres of fertile land into waste sand, or by prudently planting the dunes with sand-loving herbage or pines, and thus arresting their landward progress; (4) by so guiding the course of rivers as to make them aid him in reclaiming waste land and bringing it under cultivation; (5) by piers and bulwarks, whereby the ravages of the sea are stayed, or by the thoughtless removal from the beach of stones which the waves had themselves thrown up, and which would have served for a time to protect the land; (6) by forming new deposits either designedly or incidentally. The roads, bridges, canals, railways, tunnels, villages, and towns with which man has covered the surface of the land will in many cases form a permanent record of his presence. Under his hand, the whole surface of civilized countries is very slowly covered by a stratum, either formed wholly by him, or due in great measure to his operations, and containing many relics of his presence. The soil of old cities has been increased to a depth of many feet by the rubbish of his buildings: the level of the streets of modern Rome stands high above that of the pavement of the Cæsars, and this again above the roadways of the early Republic. Over cultivated fields potsherds are turned up in abundance by the plow. The loam has risen within the walls of our graveyards, as generation after generation has mouldered there into dust.

4. On the Distribution of Life.—It is under this head perhaps that the most subtle of human influences come. Some of man's doings in this dominion are indeed plain enough, such as the extirpation of wild animals, the