

and Wisconsin, with such fury that the brick chimney of a factory was carried to a distance of three-quarters of a mile, an entire house was lifted into the air and blown to pieces, and an oak two feet in diameter was dashed through a house. When such a storm passes over forest-ground in temperate latitudes, the surface-drainage may be so obstructed by the fallen stems, that marsh-plants spring up, and eventually the site of a forest may be occupied by a peat-moss (see Book III. Part II. Sect. iii. § 3).

2. Reproductive action.—Growth of Dust. The fine dust and sand resulting from the general superficial disintegration of rocks would, if left undisturbed, accumulate *in situ* as a layer that would serve to protect the still undecayed portions underneath. Such a layer, indeed, partially remains, but, being liable to continual attack and removal, may be taken to represent, where it occurs, the excess of disintegration over removal. In the vast majority of cases, however, the superficial coating of loose material is not due merely to the direct action of the sun's rays and of the air, but in far greater degree to the work of rain, aided by the co-operation of plants and animals. To the layer thus variously produced, the name of Soil is given. Its formation is described at p. 597.

That wind plays an effective part in the redistribution of superficial detritus is demonstrated by every cloud of dust blown from desiccated ground. We only need to take into account the multiplying power of time, to realize how extensively the soil of a district may be lowered, or, in other cases, may be replenished and heightened by the dust-storms of centuries. Dust and sand, intercepted by the leaves of plants, gradually descend into the soil, whither they are washed down by rain, so that even a permanently