

stroying the continuity of their particles, and accumulating them in heaps, or distributing them over districts. But it will be necessary to inquire, what is the ultimate destination of this detritus? is it suffered to remain upon the spots in which it is formed, or is it carried from these to some distant regions to form new compounds, and again to assist in the composition of mineral masses?

Water is the principal agent in the decomposition of the superficial earthy materials, and it has also the most important influence in the recomposition of the parts which are removed. Atmospheric causes, acting upon elevated districts and mountain chains, separate from rocks a portion of their mass in large fragments, and in minute decomposed particles; but all these must remain upon the spots where they are produced, if they were not subject to the action of moving water. By the melting of snow and the fall of rain a considerable body of water is provided, and streams of larger or smaller extent rush down the sides of mountains, occasionally uniting together and forming torrents which have a tremendous momentum. The loose and detached fragments are consequently carried down the mountains into the valleys, or rather into the rivers of which the mountain streams are the source. But the quantity is constantly increasing; for not only does every auxiliary stream add something to the amount, but the water is everywhere acting upon the banks of the course it has made for itself, and extending its influence over the land. Rivers frequently form for themselves new beds, gradually cutting their way through districts in which the water they contain can be equably distributed. We must, therefore, look for this detritus in the beds of rivers, and in the basins to which they flow. Lakes which receive the waters of rivers are nearly all becoming less and less deep, in consequence of the earthy matter carried into them; and, if the ocean be examined, immense banks of clay and sand will be discovered in it. Should any volcanic force, similar in intensity to those which have been, elevate these deposits, they would in a few years present an appearance in every way resembling some of those which now constitute the dry land. But, admitting that no such agent can ever act upon the crust of the earth, the gradual accumulation of these deposits must ultimately affect the distribution of land and water, by causing the ocean to advance upon districts once dis-