

of the Atlantic and Pacific have risen within the recent period. A multitude of facts in the structure of the Cordillera, on this view, receive a simple explanation.

The rivers which flow in these valleys ought rather to be called mountain-torrents. Their inclination is very great, and their water the color of mud. The roar which the Maypu made, as it rushed over the great rounded fragments, was like that of the sea. Amid the din of rushing waters, the noise from the stones, as they rattled one over another, was most distinctly audible even from a distance. This rattling noise, night and day, may be heard along the whole course of the torrent. The sound spoke eloquently to the geologist; the thousands and thousands of stones, which, striking against each other, made the one dull uniform sound, were all hurrying in one direction. It was like thinking on time, where the minute that now glides past is irrecoverable. So was it with these stones; the ocean is their eternity, and each note of that wild music told of one more step toward their destiny.

It is not possible for the mind to comprehend, except by a slow process, any effect which is produced by a cause repeated so often that the multiplier itself conveys an idea not more definite than the savage implies when he points to the hairs of his head. As often as I have seen beds of mud, sand, and shingle, accumulated to the thickness of many thousand feet, I have felt inclined to exclaim that causes, such as the present rivers and the present beaches, could never have ground down and produced such masses. But, on the other hand, when listening to the rattling noise of these torrents, and calling to mind that whole races of animals have passed away from the face of the earth, and that during this whole period, night and day, these stones have gone rattling onward in their course, I have thought to myself, can any mountains, any continent, withstand such waste?

In this part of the valley, the mountains on each side were from 3,000 to 6,000 or 8,000 feet high, with rounded outlines and steep bare flanks. The general color of the