

the streams which traverse the "Great American Desert." For the most vivid descriptions of the geology of this forsaken region we are indebted to Dr. Newberry, the geologist of Ives's Colorado Expedition under the general government. The surface formations are mostly of later Carboniferous and Mesozoic age, interrupted at intervals by mountain-like outbursts of volcanic origin. The region is a vast plateau stretching for hundreds of miles in either direction (Fig. 96). The floor of the plateau is a mass of horizontal strata. Far in the hazy horizon may be seen the bold wall, which rises to a more elevated table-land composed of overlying strata. These higher strata were once continuous over the surface of the lower plateau, but have been swept off by denudation. Still farther in the horizon looms up another gigantic terrace, rising to the upper plateau of the desert. The traveler journeying across this apparently monotonous and desert plain finds himself suddenly standing on the brink of a precipice. It is the wall of a deep gorge. Down into this gloomy chasm he endeavors to cast a look. It is like a vertical rent through the strata to the appalling depth of more than a mile. Far down at the bottom winds the sky-lighted stream which has executed this tremendous piece of engineering, quiet now as a lamb, but in spring-time roaring and destructive as a lion. This is the Colorado. Its immediate banks are fringed at intervals by a narrow border of grass, and these meagre grass-plots down in the rocky cleft are the occasional abode of the desert Indian. The great Black Cañon of the Colorado is a gorge with perpendicular walls of rock three hundred miles long, and from three thousand to six thousand feet high! The lateral streams have cut similar gorges, and these almost impassable chasms constitute formidable difficulties in traversing the country (Fig. 97). The Colorado has cut through the entire series