

EARTHQUAKE AT RIOBAMBA, 1797.

[Riobamba was situated in the district of Quito, in South America, and in the very shadow, so to speak, of the great volcanic mountain of Tunguragua.*

It is probable that this volcano was the centre of the convulsion which occurred on the 4th of February 1797, and which extended its fatal influence over a tract of country not less than 120 miles in length (from north to south), and 60 miles in breadth (from east to west). Within this area every town and village were shattered into ruins ; but the shocks, though in a less violent form, were felt over a far wider region ; the northern boundary being Popayan, in New Grenada, while, southward, the earth-wave opened as far as the River Pura, in the north-western angle of Peru. Eastward, the limit was the River Napo, in Ecuador ; westward, the sea.

Early in the year 1797, strange subterranean noises proceeded from the volcano

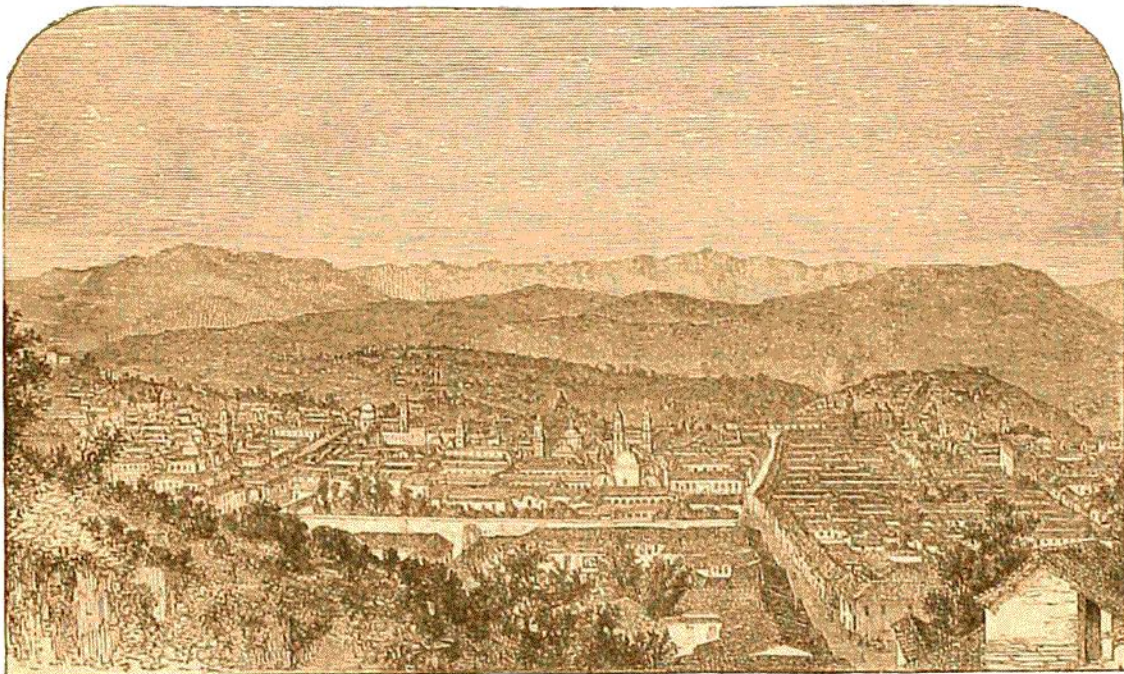


FIG. 135.—QUITO.

of Tunguragua, and these were of such a character that Antonio Pineda, the naturalist, predicted the imminence of some great calamity.

They had wholly ceased for some weeks, however, before the first great shock occurred on the morning of the 4th of February ; but about a quarter of an hour *after* this shock, were renewed, with appalling intensity, at Quito, about 200 miles to the north of Riobamba, and Ibana, some miles further north. Yet none were heard at Hambato and Tacunga, about midway between Quito and Riobamba, though at both these places the effect of the earthquake was terribly destructive.

It has been remarked that the special feature of this great catastrophe was the subterranean commotion of the Tunguragua volcano. A check seemed to have been imposed on its usual operations ; the igneous forces were evidently diverted in other

* [Humboldt, "Kosmos : " Mallet, "Report to British Association ;" Sir Charles Lyell, "Principles of Geology," 10th edit. (London, 1867).]