

great mountain chain. On the southern side of the isthmus three volcanos occur in the province of Pasto, as many in Popayan, and six of surpassing height and grandeur in Quito, viz. Cayambe, Cotopaxi, Pichincha, Antisana, l'Altar, and Tunguragua. The fire comes out from one or other of these giant cones, but, according to Humboldt, they all are parts of a single swollen mass, or immense volcanic wall, covering a surface of 600 square leagues. In Peru one active volcano is known, and there is no other between Quito and Chili, but the whole country is so remarkably subject to earthquakes, that it must be presumed the subterranean connection is continued from Quito to Chili.

In Chili, at least nineteen points of eruption are ranged in the general mountain line of the Andes, here passing southwards : Villarica, one of these, burns continually, but is seldom subject to violent excitement. One point of eruption appears to have been ascertained by captain Hall, in Tierra del Fuego. This extraordinary range of volcanos, which appears to indicate a continuous area of excitement as much as 6000 miles in length, is equally remarkable for the narrowness of its area, and its proximity and uniform parallelism to the boundary of the Pacific. According to Humboldt, all the volcanos of America have burst through older igneous products, such as basalts, trachytes, and porphyries. Granite is the basis of the trachytic masses of Mexico.

If the line of the great Mexican volcanos be prolonged to the eastward, it enters the volcanic portion of the West Indian Islands, on the west it cuts the Revillagigedos. The Gallapagos Islands are volcanic, and the same may be the case with Juan Fernandez.

In a large proportion of the West Indian Islands, volcanic appearances have been recognised ; and in several the igneous action is still important. The large islands exhibit least of this. In Trinidad is a great expanse of asphaltum ; in Jamaica the Black Hill is volcanic : but all the smaller islands are either of volcanic