

Andes, is another continuous line of volcanic action, which commences, on the north, with the Aleutian Isles in Russian America, and extends, first in a westerly direction for nearly 200 geographical miles, and then southwards, without interruption, throughout a space of between sixty and seventy degrees of latitude to the Moluccas, where it sends off a branch to the south-east, while the principal train continues westerly through Sumbawa and Java to Sumatra, and then in a north-westerly direction to the Bay of Bengal.* This volcanic line, observes Von Buch, may be said to follow throughout its course the external border of the continent of Asia; while the branch which has been alluded to as striking south-east from the Moluccas, passes from New Guinea to New Zealand, conforming, though somewhat rudely, to the outline of Australia.†

The connexion, however, of the New Guinea volcanos with the line in Java (as laid down in Von Buch's map) is obscure, and not clearly made out. By consulting Darwin's map of coral reefs and active volcanos ‡, the reader will see that we might almost with equal propriety include the Mariana and Bonin volcanos in a band with New Guinea. Or if we allow so much latitude in framing zones of volcanic action, we may suppose the New Hebrides, Salomon Isles, and New Ireland to constitute one line, and then another parallel one to be formed by the north coast of New Guinea, the west end of New Britain, and (with a considerable interval of sea) New Zealand.

The northern extremity of the volcanic region of Asia, as described by Von Buch, is on the borders of Cook's Inlet, north-east of the Peninsula of Alaska, where one volcano, in about the sixtieth degree of latitude, is said to be 14,000 feet high. In Alaska itself are cones of vast height, which have been seen in eruption, and which are covered for two thirds of their height downwards with perpetual snow. The summit of the loftiest peak is truncated, and is said to have fallen in during an eruption in 1786. From Alaska the line is continued through the Aleutian or Fox Islands to Kamtschatka. In the Aleutian Archipelago eruptions are frequent, and about thirty miles to the north of Unalaska, near the Isle of Umnack, a new island was formed in 1796. It was first observed after a storm, at a point in the sea from which a column of smoke had been seen to rise. Flames then issued from the new islet which illuminated the country for ten miles round; a frightful earthquake shook the new-formed cone, and showers of stones were thrown as far as Umnack. The eruption continued for several months, and eight years afterwards, in 1804, when it was explored by some hunters, the soil was so hot in some places that they could not walk on it. According to Langsdorf and others, this new island, which is now several thousand feet high, and two or three miles in circumference, has been continually found to have increased in size when successively visited by different travellers; but we have no accurate means of determining how much

* See map of volcanic lines, reduced, with one or two corrections, from Von Buch's works on the Canaries.

† Von Buch, *ibid.* p. 409.

‡ Structure and Distrib. of Coral Reefs, &c., London, 1842.