

CHAPTER VIII.

ON VOLCANOES—CENTRAL VOLCANOES, AND LINEAR VOLCANOES, OR VOLCANIC CHAINS
—GEOGRAPHICAL DISTRIBUTION OF VOLCANOES—VOLCANIC PHENOMENA.

LEOPOLD VON BUCH has divided all the volcanoes on the surface of the globe into two classes: Central Volcanoes, and Linear Volcanoes, or Volcanic Chains.

A Central Volcano is one which stands alone and isolated; a Volcanic Chain is a number of volcanoes, succeeding one another in a longitudinal series and in the same direction, whose craters are so many shafts or vents communicating with one and the same great fissure of the globe.

Volcanoes are also divided into *active* and *extinct*. When a vertical fissure has been established in the earth's crust, through which gases, vapours, smoke, and molten matter are ejected—either at intervals or continually, either separately or in combination—it is called an *active* volcano, and its mouth a *crater*. But when the fissure has been closed up, through some physical change or convulsion, or the operation of natural causes, it is known as an *extinct* volcano. The area to which active volcanoes are confined may be traced on the surface of the earth with the utmost exactitude, and is, happily, somewhat limited; but there is scarcely a country in the world which does not contain an *extinct* volcano, or exhibit unmistakable traces of past volcanic action.

We propose in the present chapter to describe, in the first place, the principal central volcanoes, and some of their more remarkable eruptions; then to trace the great volcanic chains, and the general geographical distribution of volcanoes; and, finally, to bring together the recognized volcanic phenomena, with an explanation of their causes.