

of the New World, from 1799 to 1804. He remarked<sup>1</sup> the linear distribution of volcanic domes, considering them as vents placed along the edge of vast fissures communicating with reservoirs of igneous matter, and extending across whole continents. He observed, also, the frequent sympathy of volcanic and terremoto action in remote districts of the earth's surface, thus showing how deeply seated must be the cause of these convulsions. These views strongly excited and influenced the speculations of geologists; and since then, phenomena of this kind have been collected into a general view as parts of a natural-historical science. Von Hoff, in the second volume of the work already mentioned, was one of the first who did this; "At least," he himself says,<sup>2</sup> (1824,) "it was not known to him that any one before him had endeavored to combine so large a mass of facts with the general ideas of the natural philosopher, so as to form a whole." Other attempts were, however, soon made. In 1825, M. von Ungern-Sternberg published his book *On the Nature and Origin of Volcanoes*,<sup>3</sup> in which, he says, his object is, to give an empirical representation of these phenomena. In the same year, Mr. Poulett Scrope published a work in which he described the known facts of volcanic action; not, however, confining himself to description; his purpose being, as his title states, to consider "the probable causes of their phenomena, the laws which determine their march, the disposition of their products, and their connexion with the present state and past history of the globe; leading to the establishment of a new theory of the earth." And in 1826, Dr. Daubeny, of Oxford, produced *A Description of Active and Extinct Volcanoes*, including in the latter phrase the volcanic rocks of central France, of the Rhine, of northern and central Italy, and many other countries. Indeed, the near connexion between the volcanic effects now going on, and those by which the basaltic rocks of Auvergne and many other places had been produced, was, by this time, no longer doubted by any; and therefore the line which here separates the study of existing causes from that of past effects may seem to melt away. But yet it is manifest that the assumption of an identity of scale and mechanism between volcanoes now active, and the igneous catastrophes of which the products have sur-

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<sup>1</sup> Humboldt, *Relation Historique*: and his other works.

<sup>2</sup> Vol. ii. Prop. 5.

<sup>3</sup> *Werden und Seyn des Vulkanischen Gebirges*. Carlsruhe, 1825.