

means assume a similar development in the rough and warlike body of the Conquistadores. Europe owes to another and more peaceful class of travelers, and to a small number of distinguished men among municipal functionaries, ecclesiastics, and physicians, that which it has unquestionably acquired by the discovery of America, in the gradual enrichment of its knowledge regarding the character and composition of the atmosphere, and its action on the human organization; the distribution of climates on the declivities of the Cordilleras; the elevation of the line of perpetual snow in accordance with the different degrees of latitude in both hemispheres; the succession of volcanoes; the limitation of the circles of commotion in earthquakes; the laws of magnetism; the direction of oceanic currents; and the gradations of new animal and vegetable forms. The class of travelers to whom we have alluded, by residing in native Indian cities, some of which were situated twelve or thirteen thousand feet above the level of the sea, were enabled to observe with their own eyes, and, by a continued residence in those regions, to test and to combine the observations of others, to collect natural products, and to describe and transmit them to their European friends. It will suffice here to mention Gomara, Oviedo, Acosta, and Hernandez. Columbus brought home from his first voyage of discovery some natural products, as, for instance, fruits, and the skins of animals. In a letter written from Segovia (August, 1494), Queen Isabella enjoins on the admiral to persevere in his collections; and she especially requires of him that he should bring with him specimens of "all the coast and forest birds peculiar to countries which have a different climate and different seasons." Little attention has hitherto been given to the fact that Martin Behaim's friend Cada-mosto procured for the Infante Henry the Navigator black elephants' hair a palm and a half in length, from the same western coast of Africa whence Hanno, almost two thousand years earlier, had brought the "tanned skins of wild women" (of the large Gorilla apes), in order to suspend them in a temple. Hernandez, the private physician of Philip II., and sent by that monarch to Mexico, in order to have all the vegetable and zoological curiosities of the country depicted in accurate and finished drawings, was able to enlarge his collection by copies of many very carefully executed historical pictures, which had been painted at the command of Nezahualcoyotl, a king of Tezcuco,\* half a century before the arrival of the

\* This king died in the time of the Mexican king Axayacatl, who