

feet, contain representatives of the older Tertiary or Nummulitic series, followed by younger Tertiary deposits which are classed together in what has been termed the Siwalik group. This group is of fresh-water origin, for its included organisms are entirely land or fresh-water forms. Its component clays, sandstones, and conglomerates have been deposited by great rivers, which appear to have flowed from the Himalayan chain by the same outlets as their modern representatives. These deposits vary according to their position relatively to the great rivers. They have been involved in the last colossal movements whereby the Himalayas have been upheaved, yet their structure shows that

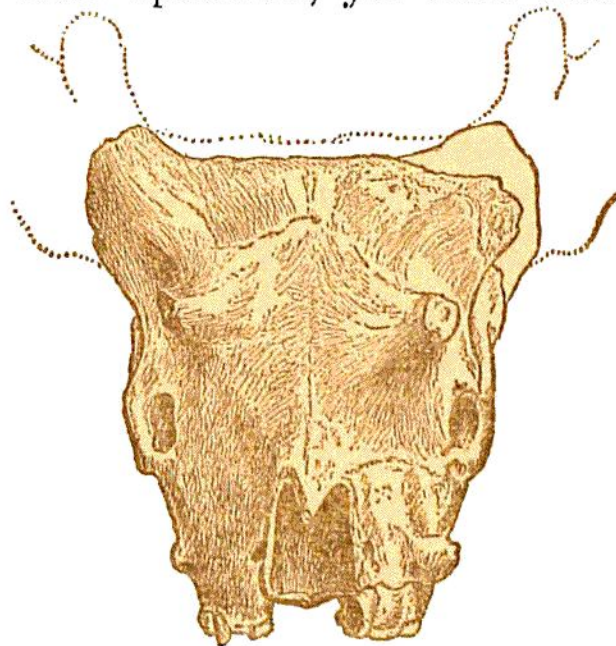


Fig. 453.—*Sivatherium giganteum*, Falc, reduced.

A gigantic form of antelope having two pairs of horns, found in the Siwalik beds of India.

the same distribution of the water-courses has been maintained as existed before the disturbance. In this instance, as in that of the Green River through the Uinta range in western America, the inference seems to be legitimate that the elevation of the mountains must have proceeded so slowly that the erosion by the rivers kept pace with it, and the positions of the valleys were therefore not sensibly changed (see Book VII.).

The Siwalik fauna consists partly of a few land or fresh-water mollusks, some, if not all, of which are identical with living species; but chiefly of mammalia; and the following list comprises the vertebrate fauna so far as at present known:¹¹⁶

¹¹⁶ Falconer and Cautley, "Fauna Antiqua Sivalensis," 1845-49. Medlicott and Blanford, "Geology of India," p. 577. Blanford, Brit. Assoc. 1880, p. 577;