

**Effects on Contiguous Rocks.**—The contact-metamorphism around bosses of diorite and other rocks includes alteration of the texture and even the mineralogical composition of the rocks through which intrusive material has been erupted. The amount and nature of the change produced vary with the character and bulk of the eruptive mass, as well as with the susceptibility of the surrounding materials to alteration. Diorite, diabase, melaphyre, basalt, felsite, and other eruptive rocks are not

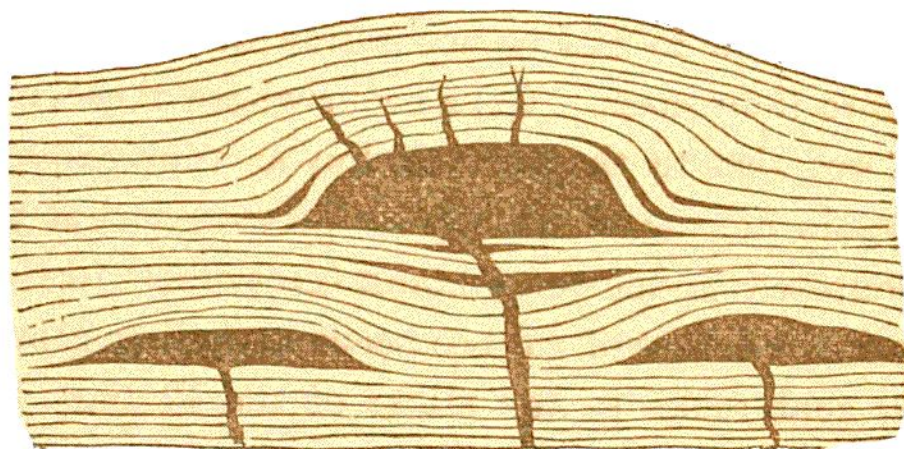


Fig. 283.—Ideal section of three "Laccolites," after Gilbert.

infrequently accompanied by considerable metamorphism of the adjacent strata, though the change seldom approaches the intensity of that around large areas of granite. These phenomena are manifested also by intrusive sheets, dikes, veins, and necks. They belong to the series of changes embraced under the head of contact-metamorphism, and are grouped together for description in Part VIII.

**Effects on the Eruptive Mass.**—Allusion has been made above to the displacement of rocks by eruptive bosses as if the original material that filled the present area

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laren, "Geol. of Fife and Lothians," 1839, pp. 100, 101. The gabbros of Skye have been injected in this way into the sheets of the great basalt-plateau. Trans. Roy. Soc. Edin. xxxv. 1888, p. 122. See also J. D. Dana, Amer. Journ. Sci. xlii. 1891, p. 79.