

is specially observable round eruptive masses of granite and diabase.<sup>4</sup>

**Expulsion of Water.**—One effect of the intrusion of molten matter among the ordinary cool rocks of the earth's crust has doubtless often been temporarily to expel their interstitial water. The heat may even have been occasionally sufficient to drive off water of crystallization or of chemical combination. Mr. Sorby mentions that it has been able to dispel the water present in the minute fluid cavities of quartz in a sandstone invaded by diabase.<sup>5</sup>

**Prismatic Structure.**—Contact with eruptive rocks has frequently produced a prismatic structure in the contiguous

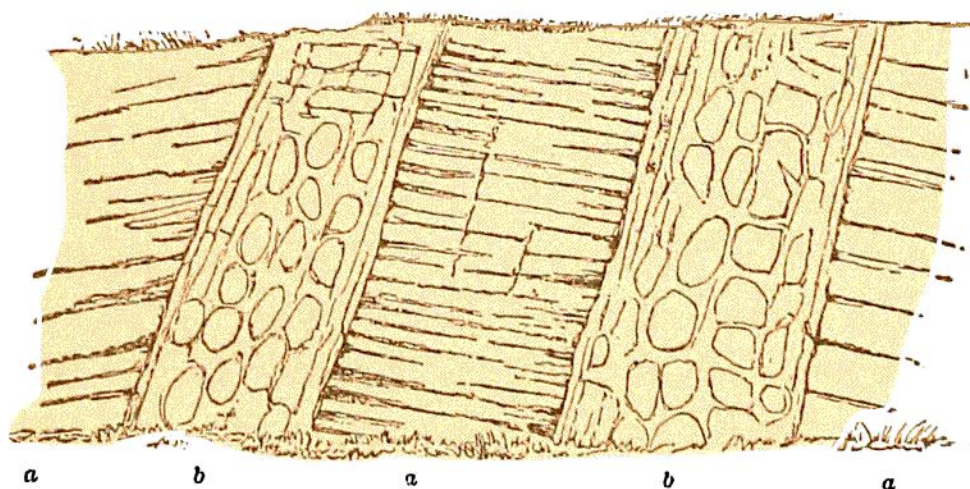


Fig. 208.—Sandstone (a a) rendered prismatic by Dolerite (b b); Bishopbriggs, Glasgow.

masses. Conspicuous illustrations of this change are displayed in sandstones through which dikes have risen (Fig. 308). Independently of the lines of stratification, polygonal prisms, six inches or more in diameter, and several feet in length, starting from the face of the dike, have been developed in the sandstone.<sup>6</sup>

<sup>4</sup> Kayser, on contact-metamorphism around the diabase of the Harz, Z. Deutsch. Geol. Ges. xxii. 103, where analyses showing the high percentage of silica are given. Hawes, Amer. Journ. Sci. January, 1881. The phenomena of metamorphism round granite are further described below, p. 1003 *et seq.*

<sup>5</sup> Q. J. Geol. Soc. 1880. Ante, p. 954.

<sup>6</sup> Sandstone altered by basalt, melaphyre, or allied rock, Wildenstein, near