cases emitting only showers of ashes and stones.[1] There appears to have been a complete quiescence of volcanic activity during the whole of the Mesozoic ages in Britain. But the subterranean fires were rekindled in older Tertiary time, and gave forth the great basalt sheets of Antrim and the Inner Hebrides.

On the continent of Europe a similar long record of volcanic action is found, with a corresponding Mesozoic quiescence. Cambrian, Silurian, Devonian, Carboniferous, and Permian volcanic rocks have been found in France. The Permian volcanic rocks of Germany have long been well known.[2] In the Tyrol extensive sheets of quartz-porphyry of Triassic or older date with associated tuffs occur.[3]

Interbedded (and also intrusive) sheets have shared in all the subsequent curvature and faulting of the formations among which they lie. This relation is well seen in the "toadstone" or diabase beds associated with the Carboniferous Limestone of Derbyshire (Fig. 304).[4]

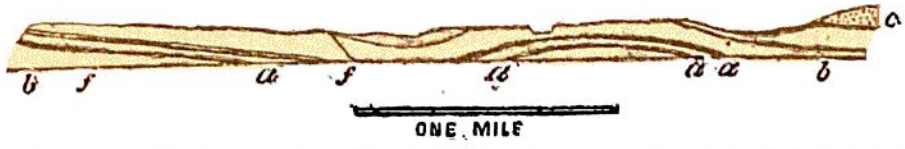

Fig. 304.—Section of intercalated diabase (toadstone) in Carboniferous Limestone, Derbyshire (*B.*). *a a*, Toadstone, in two beds; *b b*, Limestones; *c*, Millstone grit; *f f*, Faults.

2. The second type is displayed in widespread plateaus composed of many successive sheets, frequently with little or no intercalation of tuff. It occurs even among Palæozoic formations, but attains its greatest development among the volcanic eruptions of Tertiary time. Instead of mere local lenticular patches, these sheets lie piled over each other sometimes to a depth of several thousand feet, and frequently cover areas of many thousand square miles.

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[1] Quart. Journ. Geol. Soc. (Anniv. Address), vol. xlviii. p. 147.

[2] References to the intercalated volcanic rocks of former geological periods will be found in the account of the geological systems in Book VI.

[3] E. Mojsisovics, "Die Dolomit-riffe von Südtirol," 1879.

[4] See Section 18, "Hor. Sec. Geol. Surv. Great Britain."