sudden shocks or slow disruption, were produced with such irresistible force as to preserve their linear character and parallelism through rocks of the most diverse nature, and even across old dislocations having a throw of many thousand feet. Yet so steadily and equably did the fissuring proceed over this enormous area, that comparatively seldom was there any vertical displacement of the sides. We rarely meet with a fissure which has been made a true fault with an upthrow and downthrow side.

The next feature is the rise of molten basalt up these thousand of fissures. The most voluminous streams of lava that have issued from any modern volcanic cone appear but as a minor manifestation of volcanic activity when compared with the filling of those countless rents over so wide a region. Mining operations in the Scottish coal-fields have shown that dykes do not always reach the surface. In all parts of the country, too, examples may be observed of breaks in the continuity of dykes. The same dyke vanishes for an interval and reappears on the same line, but is doubtless continuous underneath. What proportion of the dykes ever communicated with the surface at the time of their extravasation is a question that may perhaps never be answered. It is difficult to believe that a considerable number of them did not overflow above ground even far to the east of the main and existing out-But so extensive has been the subsequent denudaflows. tion that all trace of such superficial emission has been removed. The general surface of the country has been lowered by subaërial waste several hundred feet at least, and the dykes now protrude as hard ribs of rock across the hills.

Traced westwards the dykes increase in abundance, till at last they reach the great basaltic plateaux. MacCulloch

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