

the form of Dykes, filled with materials similar to those which form the masses that have overflowed in the Vicinity of each Dyke.*

*Changes effected by the Igneous Rocks, on the Strata
in contact with them.*

The peculiar condition of the rocks that form the side walls of Granitic Veins and Basaltic Dykes, affords another argument in favour of their igneous origin; thus wherever the early Slate rocks are intersected by Granitic Veins (a. 8.) they are usually altered to a state approximating to that of fine-grained Mica-Slate, Hornblende-Slate.

The Secondary and Tertiary rocks also, when they are intersected by basaltic Dykes, have frequently undergone some change; beds of Shale and Sandstone are indurated, and reduced to Jasper; compact Limestone and Chalk are converted to crystalline Marble, and Chalk-flints altered to a state like that resulting from heat in an artificial furnace.†

In all these cases, the Phenomena appear to be throughout consistent with the theory of igneous Injection, and to be incapable of explanation on any other Hypothesis that has been proposed. A summary statement of the probable relations of the Granitic and Trappean Rocks to the other materials of the Globe, and to one another, may be found in De la Beche's Geological Researches, 1st Edit. Pag. 374, et seq.

* In many dykes the materials have been variously modified, by their mode of cooling, and differ from the masses which overflowed the surface.

† Examples of this kind occur on the sides of Basaltic Dykes intersecting Chalk in the County of Antrim, and in the Island of Rathlin. See Geol. Trans. London, O. S. vol. iii. p. 210. pl. 10.