

A. 10. represents a dyke and protruded mass of Granite, intersecting and overlying stratified rocks of the Primary and Transition series. A. 11. represents the rare case of Granite intersecting Red Sandstone, Oolite, and Chalk.*

Sienite, Porphyry, Serpentine, Greenstone.

Closely allied to Granitic Veins, is a second series of irregularly injected rocks, composed of Sienite, Porphyry, Serpentine, and Green Stone (b. c. d. e.) which traverse the Primary and Transition formations, and the lower regions of the Secondary strata; not only intersecting them in various directions, but often forming also overlying masses, in places where these veins have terminated by overflowing at the surface, b'. c'. d'. e'.) The crystalline rocks of this series, present so many modifications of their ingredients, that numerous varieties of Sienite, Porphyry, and Greenstone occur frequently in the products of Eruptions from a single vent.

The scale of our Section admits not of an accurate representation of the relations between many of these intruded rocks, and the strata they intersect; they are all placed, as

the representation of the injections of Basaltic and Volcanic matter which that portion of the section is intended to illustrate.

* An example of the rare Phenomenon of Granite intruded into the Chalk formation, in the hill of St. Martin, near Pont de la Fou in the Pyrenees, is described by M. Dufrenoy in the Bulletin de la Société Géologique de France, Tom. 2. page 73.

At Weinböhla, near Meissen in Saxony, Prof. Weiss has ascertained the presence of Sienite above strata of Chalk; and Prof. Nauman states, that, near Oberau, Cretaceous rocks are covered by Granite, and that near Zscheila and Neiderfehre, the Cretaceous rocks rest horizontally on Granite; at both these places the Limestone and Granite are entangled in each other, and irregular portions and veins of hard Limestone, with green grains and cretaceous fossils, are here and there imbedded in the Granite.