

the manner in which the Granite and Slate near Redruth are intersected by metalliferous Veins, terminated abruptly at the surface, and descending to an unknown depth; these Veins are usually most productive near the junction of the Granite with the Slate, and where one Vein intersects another. The mean direction of the greatest number of them is nearly from E. N. E. to W. S. W. They are intersected nearly at right angles by other and less numerous Veins called Cross Courses, the contents of which usually differ from those of the E. and W. veins, and are seldom metalliferous.

The Granite and Killas and other rocks which intersect them, e. g. Dykes and intruded masses of more recent Granite, and of various kinds of porphyritic rocks called Elvans (see Pl. 1, *a 9. b. c.*) are considered to have occupied their present relative positions, before the origin of the fissures, which form the metalliferous Veins, that intersect them all. (See V. I. p. 550.)\*

\* In Vol. I. p. 552, Note, a reference is made to some important observations by Mr. R. W. Fox on the Electro-magnetic actions which are now going on in the mines of Cornwall, as being likely to throw important light on the manner in which the ores have been introduced to metallic veins.

The following observations by the same gentleman in a recent communication to the Geological Society of London, (April, 1836,) appear to contain the rudiments of a Theory, which, when maturely developed, promises to offer a solution of this difficult and complex Problem.

“If it be admitted that fissures may have been produced by changes in the temperature of the earth, there can be little difficulty in also admitting that electricity may have powerfully influenced the existing arrangement of the contents of mineral veins. How are we otherwise to account for the relative position of veins of different kinds with respect to each other, and likewise of their contents in reference to the rocks which they traverse, and many other phenomena ob-