

the inferences to be adopted from these data, will be trustworthy in proportion to the variety of sources from which they are gathered, and especially if the seemingly peculiar phenomena of vein fissures can be referred to general laws which extend beyond the mining districts.

Now that this reference to general laws can be effected, will appear evident from the consideration that similar parallelism of structural fissures, passing through various rocks for greater length than mineral veins, to unknown depths, with the same variety of mutual relations, have been found in other than mining countries, by the observation of rock dykes, and the symmetrical structures of rocks called joints, and cleavage. The most prevalent direction of the Cornish veins (east by north), is that of certain characteristic joints in a considerable portion of England, beyond the region whence the results contained in Vol. I. p. 65. were derived; and the lines of the great cross courses of the Penine chain, Flintshire, and Cornwall (north-north-west), are also coincident with a very general divisional structure of the rocks in most parts of Great Britain and several other parts of Europe. Mr. Henwood and Dr. Boase expressly state, that the cross courses and principal veins more or less "coincide with the lines of symmetrical structures by which all the rocks of Cornwall are divided." (Henwood, in *Mining Review*.)

The symmetrical structures of rocks, are, however, different from the fissures now filled by veins and rock dykes; for they are seldom *so continuous*, either in length or depth; they are almost universally unaccompanied by displacement of the side; and they often change their width, frequency, and other characters, according to the nature of the rocks. It is obvious, therefore, that it is not merely by the filling of joints of the rock that veins and dykes were produced; the rocks have been disturbed in position, opened to a greater extent than the original divisional structures, or else these last are only to be regarded as minor effects of