

England, a notion exists that the greater number of veins are at right angles to the planes of stratification: this idea is put as a general assertion by Williams (*Mineral Kingdom*, vol. i. p. 317.), a writer whose extensive experience in mining renders even a dogma of this nature worth recording. His words are, "rake veins have a greater or lesser hade or slope in proportion to the declivity of the strata, as the mineral fissure, or vein, is a transverse section cut at right angles to the lay or bed of the strata;" — "whatever be the slope of the strata one way, the hade or slope of the vein is as much from the perpendicular the other way." And he then confines this remark to veins which range with the bearing of the strata; distinguishing them from others which "cut right across the strata," and a third group cutting them diagonally, which he rightly terms "oblique veins." The reader who compares this description of the ordinary relation of the deviations and dip of veins, with Mr. Murchison's notices of the prevalent character of the joint planes in the silurian rocks, will not fail to perceive the conformity of two independent sets of observations, and gather in consequence a useful notion of the affinity of vein fissures, and the divisional planes which constitute a part of the structure of all stratified rocks. It is much to be wished that the triple co-ordination recommended above, as necessary to a just view of the origin of vein fissures, should be carefully executed on many of the complicated phenomena of the Cornish mines. The cleavage planes of the slaty rocks, which inclose mineral veins, should also be included in the survey.

Some veins, like rock dykes, occupy one "clean" fissure of the rocks; others branch off into strings, or become divided into forks, which continue for a longer or shorter space till they are lost in clefts of the rocks, or turn to re-unite themselves with the main trunk. Such "strings," or "feeders," as they are called in Cornwall, appear under very various circumstances, both on the horizontal and vertical sections. Occasionally a poor