

CHAP. XIX.

On Mineral Veins.

IN a practical view, this is one of the most important subjects in geology, yet, though long studied by miners and geologists both, nothing is less understood. No general practical rules have been established, as to the districts or rocks in which they should occur, the courses they may hold, the forms and accidents they may display, or the substances they may contain. And as little have we been able to form any theory respecting their origin and the mode of their production.

Mineral veins may exist without metallic substances, and many minerals are occasionally found in repositories which cannot be called veins. Metallic minerals thus occur in the compound rocks, so as to form parts of their composition. Thus oxydulous iron is found in granite, gneiss, sandstone, and trap, molybdena in gneiss, and iron pyrites in micaceous schist, slate, shale, and limestone. They sometimes also occur independently; neither forming part of the composition of rocks, nor included in distinct repositories. In this way, pyrites is found in many situations, copper in the trap rocks, and oxydulous iron in volcanic ones. Some of these, also, are occasionally accumulated in such quantities in particular spots as to be wrought for use; and thus Cobalt and Copper occur in sandstone. Iron, in the form of iron stone and bog ore, forms beds; the first among the coal strata, and the latter in alluvial soils. Thus also, tin and gold are found among these, and the latter in great abundance; but, in the two last cases, the origin