

situations where it would be detrimental, are at the same time of the greatest service, in converting it to purposes of utility, by creating on the surface a series of Springs along the line of Fault, which often give notice of the Fracture that has taken place beneath. This important effect of Faults on the *hydraulic* machinery of the globe extends through stratified rocks of every formation. (See Pl. 69. Fig. 2.) It is also probable that most of the Springs, that issue from unstratified rocks, are kept in action through the instrumentality of the Faults by which they are intersected.

A similar interruption of continuity in the masses of Primary rocks, and in the rocks of intermediate age between these and the Coal formation, is found to occur extensively in the working of metallic veins. A vein is often cut off suddenly by a Fault, or fracture, crossing it trans-

castle, on the wet side of the 90 fathom Dyke, and was so inundated with water that it was soon found necessary to abandon it. Another shaft was then begun on the dry side of the dyke, only a few yards from the former, and in this they descended *nearly* 200 fathoms without any impediment from water.

Artificial dams are sometimes made in coal mines to perform the office of the natural barriers which Dykes and Faults supply. A dam of this kind was lately made near Manchester, by Mr. Hulton, to cut off water that descended from the upper regions of porous strata, which dipped towards his excavations in a lower region of the same strata, the continuity of which was thus artificially interrupted.