

mineral impregnation, pyritous, or serpentinous admixture, appears, which distinguishes the so-called "*walls*" of a vein. But this term is apt to mislead a geologist into the notion that some definite parallel band always insulates the vein from the inclosing rock; which is, in general, not the fact. In Cornwall generally, it is thought by Mr. Fox that the rocks diminish in hardness near a vein; and similar facts are mentioned by Werner.

A curious circumstance is noticed by Mr. Fox and others, regarding the arrangement of the quartz in the cross courses of Cornwall. This mineral does not in such cases appear in its usual pyramidal or prismatic crystallisation, but is of a fibrous structure, the axes of the fibres lying across the vein, exactly as we may see in hundreds of examples in thin quartz veins which divide argillaceous slate, and other rocks. There are in some cases several parallel plates of this fibrous quartz, marking successive small rents.

In the cross courses of Cornwall, which contain quartz, clay, and other substances, these are very commonly arranged in alternate layers parallel to the walls. (Mr. Fox.) The same thing obtains very generally, though not universally, in veins of all ages and contents; as the small specimens commonly sold in Derbyshire very prettily illustrate. It is generally to be observed in such cases, that the crystallisations are so arranged that the terminal faces point inwards each way from the walls of the vein, and that those bands of crystallisation which are nearest to the walls, have themselves served as surfaces of attachment for the next layer, which is usually moulded on the other as if that had been deposited first. This appearance has suggested successive irruptions of melted matter, successive secretions from solution, successive accumulations from sublimation, and successive depositions by electrical currents, to persons whose views led them thus diversely; but a *succession of operations* is commonly (not universally) admitted to explain these appearances.