

Mendip hills offer a similar example of veins which depend on an axis of movement, though no igneous rocks appear on the line.

Again, in several smaller instances, the relation of lead and copper veins to axes of dislocation is obvious; witness the lead veins which *cross* the anticlinals of Greenhow Hill, Bolton Bridge, Bolland, &c. (see Illustrations of the Geology of Yorkshire), in none of which situations is there the smallest indication of igneous rocks near the surface.

Now, as in all these cases the subterranean movement has opened a passage to the interior regions of the earth, we see that M. Necker's propositions are not negatived, provided we suppose these communications to have been traversed by the sublimations to which he ascribes the origin of the substances in veins. Whether the particular mode of igneous action (sublimation from heated rocks), proposed by Mr. Necker for investigation, be the true method of nature or not, it is clear that his researches, followed out, justify a confident belief that proximity to, or communication with, masses of igneous rock, is a condition remarkably and generally influential on the production of metalliferous veins in the stratified rocks.

Taking, then, the element of heat as of great importance in explaining the leading facts connected with mineral veins, we are prepared at once with answers to the obvious question, Why are the metalliferous veins, beyond all comparison, most plentiful in primary and early secondary (transition rocks of Buckland) strata? — Because these rocks, as being nearer to the ignigenous masses below, must have experienced, more than those of later origin, the general influence of heat. We are also enabled to account for the exceptions to this rule in the Pyrenees, where, according to M. Dufrenoy's interesting examination (*Mémoires sur les Mines de Fer des Pyrénées*, 1834), ores of iron accompany the ramifications of granite even in the cretaceous formation. There