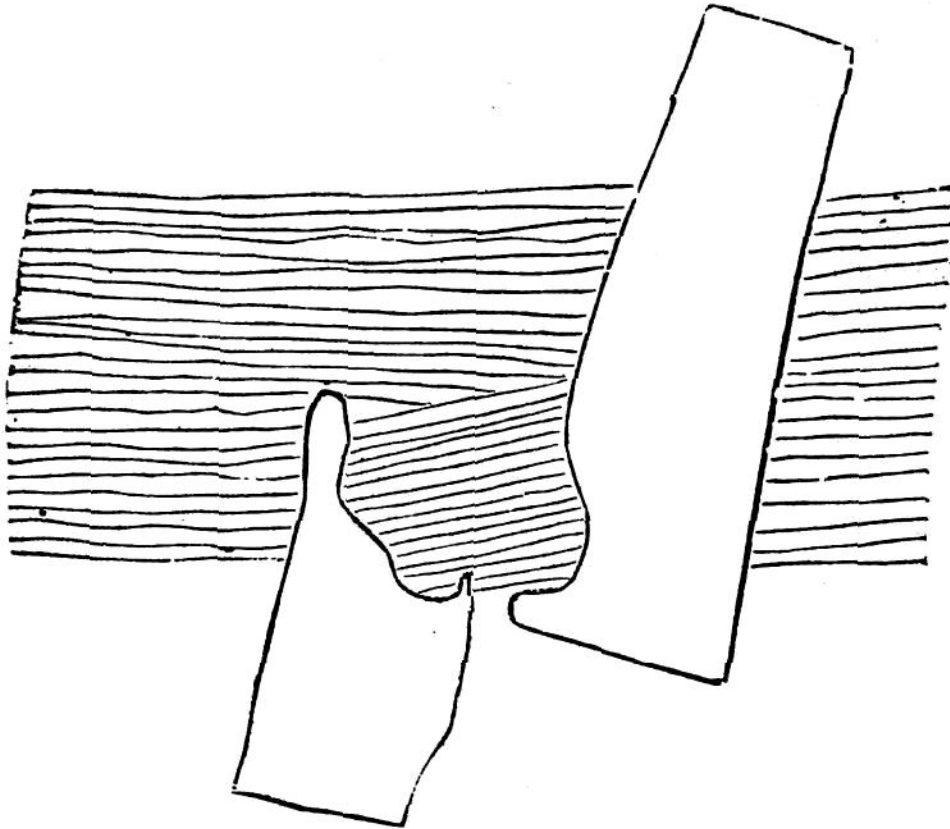


Fig. 142.



of a cross fracture along which the broken dyke might have slid. Whatever lateral movement there was—and there must have been one—the materials were in such a state as to fill up the fissures entirely with crystalline rock. But this must have been subsequent to the consolidation of the rock, for it must have been more or less solid in order that a fissure should be formed in it for the introduction of the trap.

5. Some conglomerates, with a paste of talcose schist as a cement, and therefore highly metamorphic, have had their pebbles elongated and flattened since their original consolidation. This is the most decisive of all the proofs of the proposition under consideration, and as it has never been adduced, to our knowledge, we must dwell a little upon it.

We have found two very decided localities, and widely separated, to which we can appeal for examples. One is near Newport in Rhode Island, only a little over two miles east of the town, but within the limits of Middletown. Perhaps the phenomena are most strikingly exhibited at the place called Purgatory. But the range of remarkable conglomerate commencing there extends four or five miles northerly, retaining essentially the same character. In looking at the rock one is struck with three peculiarities.