

the plications are subsequently fractured, so that the fault may appear to be alternately a downthrow on opposite sides, according to the position of the arches and troughs which it crosses. This structure may be illustrated by a plan and sections of a dislocated anticline and syncline, which will also show clearly how the apparently lateral displacement of outcrop produced by dip-faults is due to vertical movement. Fig. 270 represents a plan of strata thrown into an anticlinal fold AA and a synclinal fold SS, and traversed

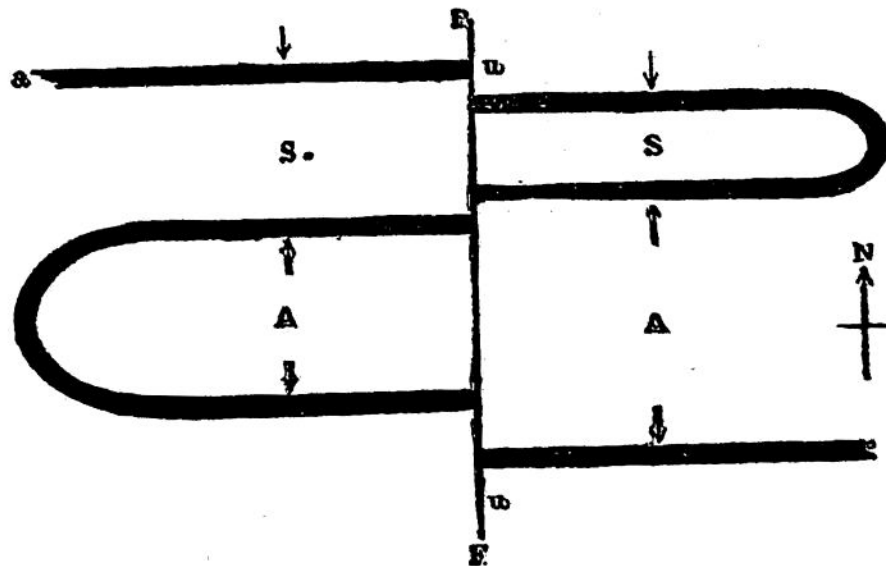


Fig. 270.—Plan of Anticline (A) and Syncline (S), dislocated by a Fault (F F).

by a fault FF, having an upthrow (u u) to the east. A dip-fault shifts the outcrop toward the dip on the upthrow side, and this will be observed to be the case here. On the west side of the fault, the black bed *a*, dipping toward the south, is truncated by the fault at *u*, and the portion on the upthrow side is shifted forward or southward. Crossing the syncline we meet with the same bed rising with a contrary dip, and as the upthrow of the fault still continues on the same side, the portion of the bed on the west side of the fault must be sought further south. The effect of the fault on the syncline is to widen the distance between the two