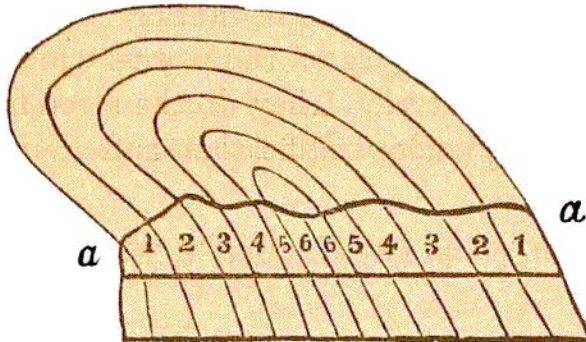


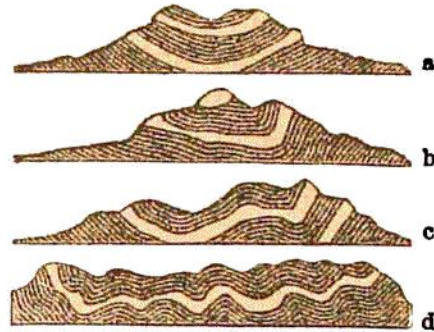
have been denuded, so that the present surface is *a, a*. The oldest strata are now found to be 6, 6; and they correspond outward on each side of these; as, 5, 5; 4, 4; etc. Such an example as this has been called a *folded axis*, or an *inverted anticlinal*.

Fig. 7.



*Folded Axis.*

Fig. 8.



When the strata dip toward each other they constitute a *synclinal axis*. In Fig. 8, *a* is a *shallow synclinal*, *b* a *sharp synclinal*, *c* and *d* *complex synclinals*.

When the strata dip from any point in all directions outward, (a) around the crater of a volcano,) the dip is said to be *quaquaversal*.

*Metamorphic Stratified Rocks.*—According to the views of the ablest geologists at the present time, we ought perhaps to limit both the terms stratification and lamination to rocks whose mechanical texture proves them to have been deposited from water. But there is a large class of rocks that have been powerfully metamorphosed, so as to become crystalline, yet are divided by parallel planes very analogous to stratification and lamination; and it is usual to regard the former structure, that is, stratification, as extending through them all, and to have resulted from original deposition in water. But the subdivisions of the strata, viz.: *cleavage, foliation, and joints*, which often cross the strata, appear to have been for the most part *superinduced*: that is, they were produced after the original deposition of the strata by other agencies than water alone; although some of them, as foliation and cleavage, in some instances seem to be mere modifications of original lamination.

*Joints.*—Both the stratified and unstratified rocks are traversed by divisional planes, called *joints*; which divide the mass into determinate shapes, which are different from beds and their subdivisions.