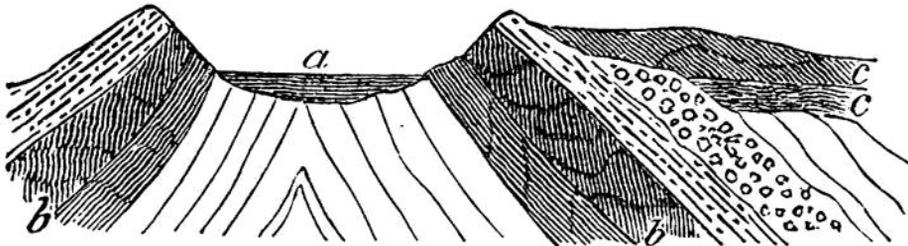


that form which it assumes as long as the force remains, or as long as there is any resistance below sufficient to prevent it from taking its original form. A similar action in all probability caused strata to take this peculiar position. We may imagine them to have been originally formed almost horizontal, and some force acting from beneath to have afterward tilted them up, piling them on their edges.

This kind of stratification is sometimes presented in a still more complex form. At Westbury, in Somersetshire, there is an example of a saddle-shaped stratification which would hardly be recognised as such. The upper portion of the strata is in this instance removed, apparently by the action of water, and a valley has been formed, in which a flat stratum



Section of rocks near Westbury.

of gravel has been deposited. *a* represents a valley covered with gravel; *b, b*, tilted rocks; *c, c*, rocks resting on them in an undisturbed position. But, before we pass on, we may be permitted to draw the attention of the reader to another circumstance peculiarly marked in this section. There are five successive periods distinctly marked in the present condition of the rocks at Westbury. First of all, the formation of the beds, which, if deposited by water, must have been nearly horizontal in the first instance; then their elevation, so as to produce a saddle-shaped stratification; then the deposition of the rocks that rest upon the disturbed strata; then the action of water scooping out the valley; and lastly, the formation of the bed of gravel in the bottom of the valley. When the series of active agents employed in producing the present appearance of rocks is considered, it becomes the geologist to make his deductions with caution, and never without careful examination.

The fan-shaped stratification is the reverse of the saddle-shaped. The following figure is a section of the mountain limestone, as it occurs at Daleberry Camp, and is an example of this variety of stratification. To produce this appearance