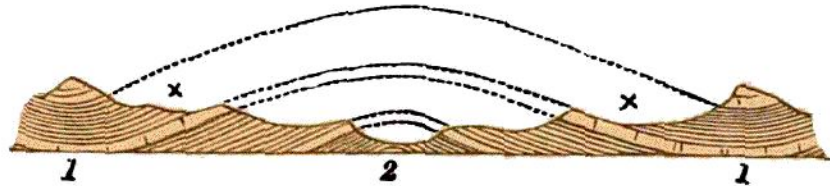


solidated into rock, and afterwards bent and contorted. The strata marked x may perfectly correspond in all respects in their structure and fossils, and in hundreds

FIG. 7.



1. Synclinal curves. 2. Anticlinal curve,

of similar cases it is certain that they were once joined as horizontal strata, and afterwards thrown into anticlinal and synclinal curves. The strata indicated by dotted lines (and all above) *have been removed by denudation*, and the present surface is the result.

Chemical action is another agent that promotes waste or denudation. Thus rain water, always charged with carbonic acid, falling on limestone rocks such as the Carboniferous Limestone, or the Chalk, not only wears away part of these rocks by mechanical action, but also dissolves the carbonate of lime and carries it off in solution as a bicarbonate. This fact is often proved by numbers of unworn flints sometimes several feet in thickness scattered on the surface of the table-land of chalk in Wilts and Dorsetshire. The flints now lying loose on the surface once formed interrupted beds often separated by many feet of chalk. The chalk has been dissolved and carried away in solution chiefly by moving water, and the insoluble flints remain.

Degradation of the rocks of many regions is also powerfully affected by occasional landslips. The waste thus produced is seen on a large scale in many of the Yorkshire valleys, where Carboniferous sandstones and shales are interstratified, and vast shattered ruins of