

Great variations in the character of stratified rocks may frequently be observed in passing from one part of a country to another along the outcrop of the same rocks. Thus, at one end, we may meet with a thick series of sandstones which, traced in a certain direction, may be found passing into shales (Fig. 218). A group of strata may consist of massive conglomerates at one locality, and may graduate into fine fissile flagstones in another. A thick mass of clay may be found to alternate more and more with shelly sands as it is traced outward, until it loses its argillaceous nature altogether.

Interesting illustrations of such arrangements occur in the southwest of England, where what are now groups of hills, like the Mendip, Malvern, and other eminences formerly existed as islands in the Mesozoic sea. De la Beche

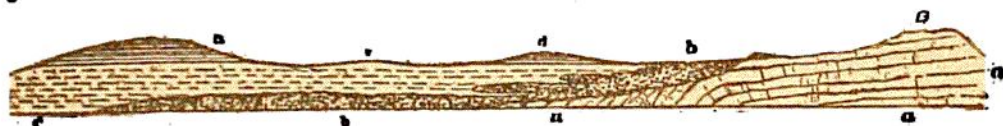


Fig. 219.—Section near Bristol to show how conglomerate may pass into clay along the same horizon.

B, Blaize Castle Hill; s, Mount Skitham (B.).

pointed out that the upturned Carboniferous limestone (*a a* in Fig. 219) has formed the shore against which the coarse shingle of the dolomitic conglomerate (*b b*) accumulated; that the latter, traced away from its shore-line, passes on the

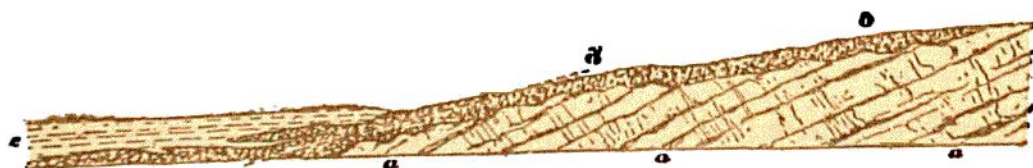


Fig. 220.—Section of part of the flank of the Mendip Hills (B.), showing the Carboniferous Limestone (*a a*) overlaid by dolomitic conglomerate (*b b*), and that by red marls (*c*).

same plane into red marl (*c*), and that during a gradual subsidence, the clays and limestones of the Lias (*d*) crept over the depressed shore-line. He likewise called attention to the important fact that, in such cases, a continuous zone of conglomerate may belong to many successive horizons. In Fig. 220 a section is given from one of the islands in the