tion, though occasionally the want of cohesion may arise from the nature of the sediment, as, for instance, where an intervening layer of mica-flakes has been laid down. A stratum may be one of a series of similar beds in the same mass of rock, as where a thick sandstone includes many individual strata, varying considerably in their respective thicknesses; or it may be complete and distinct in itself, as where a band of limestone or ironstone runs through the heart of a series of shales. As a general rule, the conclusion appears to be legitimate that stratification, when exceedingly well-marked, indicates slow intermittent deposition, and that when weak or absent it points to more rapid deposition, intervals and changes in the nature of the sediment and in the direction of force of the transporting currents being necessary for the production of a distinctly stratified structure.

Lines due to original stratification must be carefully distinguished from other divisional planes which, though somewhat like them, are of entirely different origin. Five kinds of fissility may be recognized among rocks—1st, *lamination* of original deposit; 2d, *cleavage*, as in slate; 3d, *shearing*, as near faults and thrust-planes (pp. 537, 538); 4th, *foliation*, as in schists; 5th, *flow-structure*, when extremely developed in some lavas, wherein, by the development of steam-holes or spherulitic concretions and the drawing-out of these into planes during the movement of the molten mass, a kind of fissility is produced which at first might be mistaken for the lamination of deposit. Close-set joints likewise give rise to divisional planes, which, like cleavage, may now and then deceive an observer by their resemblance to stratification.

Originally the planes of stratification, in the great ma-