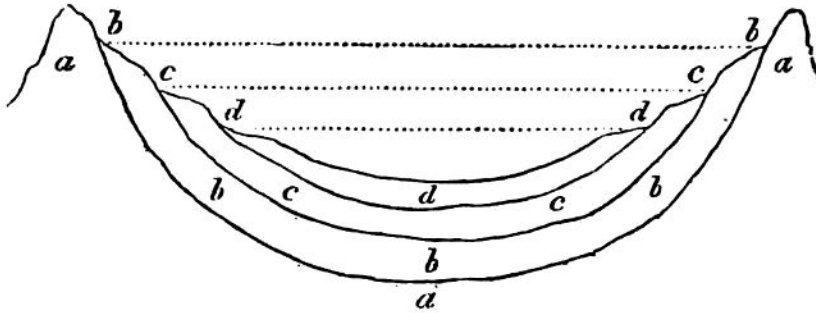


notice an important, but too hasty generalisation of an opposite school of geologists (the Wernerians), which supposes the basset edges of the strata to occupy levels successively lower and lower in proportion as they are of less ancient formation and recede from the primitive chains, forming the edges of the basins in which they have been deposited. The accompanying diagram will assist us in understanding these views, and comparing them with the real fact as it exists in nature,



Here *a a a* is the supposed fundamental basin of primitive rocks once occupied by the original ocean; when that ocean had sunk to the level of the dotted line *b b* it deposited the bed *b b b*, which conformed itself to the form of the bottom of the basin, and therefore rose in a steep angle against the ridges forming its side; when the ocean had further sunk to *c c* it deposited the bed *c c c*, and in like manner at the level *d d*, formed the bed *d d d*; but as the new deposits recede further from the steep primitive ridges, they would continue more horizontal even to their very edges.

From this hypothesis two corollaries necessarily arise; first, the basset edges of each formation must every where be of the same level; secondly, the basset edges of the strata, when traced horizontally across the surface of a country, will form parallel zones, in such a manner that the central area will be occupied by the most recent formation, encircled in regular order by successive zones of the older formations, the edge of each of which will take a wider and wider sweep.

canic nucleus was only gradually forming over it, than at present; and we shall also find a reason for the higher temperature which many of the remains both of the animal and vegetable kingdoms, found in the strata of countries, now too cold for the existence of their recent analogues, appear to indicate as having formerly prevailed,

10. It must be remembered that one of the essential conditions of the theory above sketched is, the operation of volcanic agency beneath the pressure of an incumbent ocean; and that it does not, therefore, in any degree question the Neptunian origin of the majority of the rocks which have evidently been formed in the bosom of that ocean. With regard to the trap rocks, and perhaps the granitic, alone, does it venture even to insinuate an opposite mode of formation.