large masses of stratified rock, the geologist finds it needful for convenience of reference to subdivide these into groups. He avails himself of two bases of classification— (1) lithological character, and (2) organic remains.

1. The subdivision of stratified rocks into groups according to their mineral aspect is an obvious and easily applied classification. Moreover, it often serves to connect together rocks formed continuously in certain circumstances which differed from those under which the strata above and below were laid down-so that it expresses natural and original subdivisions of strata. In the middle of the English Carboniferous system of rocks, for example, a zone of sandy and pebbly beds occurs, known as the Millstone Grit. No abrupt and sharp line can be drawn between these strata and those above and below them. They shade upward and downward into the beds between which they lie. Yet they form a conspicuous belt, traceable for many miles by the scenery to which it gives rise. Again, the red rocks of central England, with their red sandstones, marls, rock-salt, and gypsum, form a well-marked group, or rather series of groups. It is obvious, however, that characters of this kind, though sometimes wonderfully persistent over wide tracts of country, must be at best but local. The physical conditions of deposit must always have been limited in extent. A group of strata, showing great thickness in one region, will be found to die away as it is traced into another. Or its place is gradually taken by another group which, even if geologically contemporaneous, possesses totally different lithological characters. Just as at the present time a group of sandy deposits gradually gives place along the sea-floor to others of mud, and these to others of shells or of gravel, so in former geological periods,