For obvious reasons, conglomerate and sandstone occur together, rather than conglomerate and shale. The agitation of the water which could form and deposit coarse detritus, like that composing conglomerate, was too great to admit of the accumulation of fine silt. On the other hand, we may look for shale or clay rather than sandstone, as an accompaniment of limestone, inasmuch as when the gentle currents by which fine argillaceous silt was carried in suspension ceased, they would be succeeded by intervals of quiet clearing of the water, during which calcareous material might be elaborated either chemically or by the action of living organisms.

Relative persistence of Strata.—A little reflection will convince the student that all sedimentary rocks must thin out and disappear, and that even the most persistent, when regarded on the great scale, are local and lenticular accumulations. Derived from the degradation of land, they have accumulated near land. They are necessarily thickest in mass, as well as coarsest in texture, nearest to the source of supply, and become more attenuated and fine-grained as they recede from it. We have only to observe what takes place at the present time on lake-bottoms, estuaries, or seamargins, to be assured that this is now, and must always have been, the law of sedimentation.

But while all sedimentary deposits must be regarded as essentially local, same kinds possess a far greater persistence than others. As a general rule, it may be said that the coarser the grain, the more local the extent of a rock. Conglomerates are thus by much the most variable and inconstant of all sedimentary formations. They suddenly sink down from a thickness of several hundred feet to a few yards or die out altogether, to reappear, perhaps further on, in the