same wedge-like fashion. Sandstones are less liable to such extremes of inconstancy, but they too are apt to thin away and to swell out again. Shales are much more persistent, the same zone being often traceable for many miles. Limestones sometimes occur in thick local masses, as among the Silurian formations, but they often also display remarkable continuity. Three thin limestone bands, each of them only two or three feet in thickness, and separated by a considerable thickness of intervening sandstones and shales, can be traced through the coal-fields of central Scotland over an area of at least 1000 square miles. Coal-seams also possess great persistence. The same seams, varying slightly in

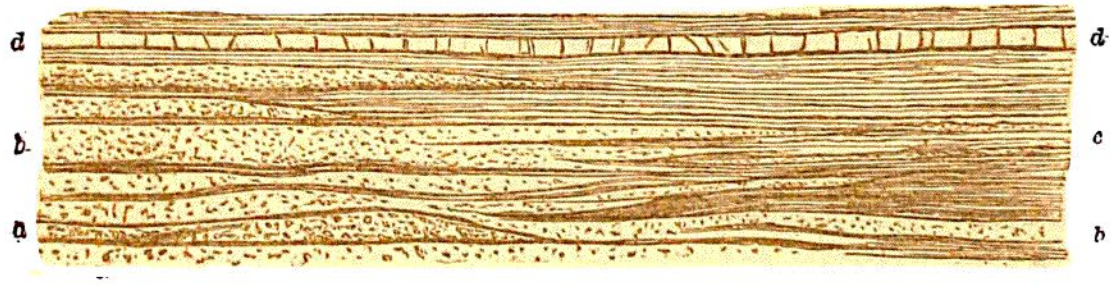


Fig. 218.—Section to illustrate the great lithological differences of contemporaneous deposits occupying the same horizon.
*a*, conglomerate; *b*, sandstone; *c*, shale; *d d*, limestone.

thickness and quality, may often be traced throughout the whole of an extensive coal-field.

What is thus true of individual strata may be affirmed also of groups of such strata. A thick mass of sandstone will be found as a rule to be more continuous than one of conglomerate, but less so than one of shale. A series of limestone beds usually stretches further than either arenaceous or argillaceous sediments. But even to the most extensive stratum or group of strata there must be a limit. It must end off, and give place to others, either suddenly, as a bank of shingle is succeeded by the sheet of sand heaped against its base, or, as is more usual, very gradually, by insensibly passing into other strata on all sides.