

portion of felspar which enters into its composition, it does not afford so productive a soil.

In the sixth class may be placed the slaty rocks, whether simple, or intimately compounded, which do not readily undergo chemical decomposition, but which easily separate at their natural fissures, and are mechanically resolved into an earthy mass, forming a paste with water,—circumstances which are observed chiefly in *clay-slate*, a rock of much importance in the formation of productive soil, usually passing into a clayey sort of earth.

To the seventh class belong the conglomerated rocks, whose parts indeed undergo very little, if any, chemical change, but are easily separated by mechanical means, and are thus converted into a gravelly, sandy, or earthy mass. Of this kind are *greywacke*, *old red sandstone*, and sandstones of various kinds. Much diversity is exhibited by these rocks, with regard to the facility with which they undergo disintegration, as well as the nature of the soil arising from them; circumstances which chiefly depend upon the nature of the cement, and its relation to the parts cemented. The disintegration of these rocks is the more easily effected that the cement is abundant, and less intimately connected with the other parts, that is, the more they depart from a crystalline nature; on which account *greywacke* is less easily converted into soil, than the common varieties of sandstone. By the decomposition of *greywacke*, a loose and fertile soil is formed, containing particles of quartz and clay in due proportion; on the other hand, by the decomposition of red sandstone, a soil is frequently produced, abounding in argillaceous particles impregnated with iron,