felspar is commonly converted by decomposition into a hydrate or ochre. The carbonate of iron, as well as of manganese, which sometimes occur in rocks, in limestone rock for example, are deprived of carbonic acid by the oxidation of their bases. Charcoal and bitumen, which are sometimes contained in rocks, limestone and argillaceous ones for example, are dissipated by the contact of air, so that rocks which were originally of a dark colour, lose it, and become whitish. Water, as a chemical agent, contributes so much to the decomposition of certain rocks, that, either in a pure state; or in combination with carbonic acid, it dissolves their parts, of which gypsum and limestone afford examples. In certain other minerals, in felspar for instance, a separation of the constituent parts, produced by the contact of air and water, is observed, the proximate cause of which has not hitherto been discovered. The mass is decomposed, its lamellar structure is converted into an earthy nature, the alkali contained in the felspar is extracted by the water, a mineral is produced, to which the Chinese have given the name of *Kaolin*, and which is adapted for the manufacture of porcelain. Granite and gneiss occur in some districts, the felspar of which is decomposed in this manner through the whole mass,—a circumstance which must be of great importance in regard to the formation of productive soil.

Cryptogamic plants covering the surface of rocks, and thriving well in this situation, where more perfect vegetables could not grow, seem also destined to promote the chemical decomposition of rocks,—an effect which they produce both directly and indirectly. As they imbibe the water of the atmosphere, and retain it like a sponge,