In the oolitic system there are still some beds of sand, but sandstones predominate; there are also clays, but they grow denser toward the lower or lias formation; and the limestones exhibit the same gradations. In these respects the saliferous system differs but little, and still shows clays and sands and soft limestones; among the carboniferous rocks we lose almost totally the trace of loose sands, and soft clays (until brought to the surface) and the limestones acquire that compact and solid character which belongs to almost all the strata below the old red sandstone. Below the silurian rocks the induration of the strata is rapidly accelerated; the clays have become slate, the sandstones are changed to quartz rocks, and the limestones have undergone an equal metamorphosis. The superior consolidation of the primary strata has struck every intelligent observer, and, allowance being made for difference of materials and local igneous agency, there can be no doubt of the justice of referring this quality to the higher degree in which they have been influenced by general subterranean heat.

Alteration of the Structure of Rocks by Heat.

The influence of heat in altering the structure of rocks is no less decided than in condensing their substance. For by this agency the original stratified arrangement of rocks is greatly obscured, and in some cases almost wholly extinguished, while entirely new structures are introduced to supplant those formerly imparted by water. The general character of the divisional planes in rocks has been already noticed*, nor does it appear necessary to extend the description formerly given of slaty cleavage, the most striking and important of all these structural changes. We shall therefore proceed to consider the evidence on which geologists appear justified in attributing these effects to the agency of subterranean heat.

A case which has fallen under our own observation

* Vol. I. p. 66, &c.