which we often see in vineyards. The vine frequently thrives remarkably on the declivities of mountains, in which it sends its roots among fragments of stones. Experience shows, that the quality of wine is influenced by the different conditions of the stones, among which vines are planted. Albertus Magnus has observed, that the vine thrives well in earth which is mixed with fragments of black roofing slate; and Humboldt remarks, that the vines which grow upon the mountains of the valley of the Rhine, consisting of black clay-slate, afford an excellent wine. At the Cape of Good Hope, also, the vine thrives well in a soil produced by the decomposition of clay-slate, and mixed with fragments of it *. It is probable, that the adaptation of this sort of soil to the cultivation of the vine, depends upon its slow conducting power, and upon its rapidly imbibing the rays of the sun, on account of its dark colour, and thus increasing the heat of the ground.

Hitherto we have only spoken of the *proximate* influence of rocks upon plants; but it cannot be denied, that the *remote* effects which they produce, (inasmuch as vegetable soil is derived from them, and, therefore, the qualities of this soil depend in a great measure upon their nature,) are of greater importance.

It is from the rocks which constitute the crust of the earth, that the principal portion of productive soil is derived. Although other substances belonging to the animal and vegetable kingdoms, are necessary for the

---

* *Vide* Dr Adam of Calcutta's Remarks on the Rocks and Soil of Constantia at the Cape of Good Hope, in an early number of the Edinburgh Philosophical Journal.