

happen that the soil produced by their decomposition may occur of very different qualities, in places not very distant from each other. The manner in which the soil is influenced by a difference in the arrangement and position of the strata, will become evident, on comparing districts in which one particular sort of rock lies beneath the surface in horizontal strata, with others in which the solid substratum is composed of various rocks differing in their inclination towards the horizon. In districts of the former kind, the qualities of the soil vary in general but little; in such as are of the latter kind, on the contrary, they are often found extremely different. The great diversity of soil seen in England, as well as in Germany, may, in fact, be partly explained by the circumstance, that, in those countries, the nature and position of the strata vary every where. On the other hand, the great similarity which pervades the soil of Southern Russia, is without doubt produced by a uniformity in the position and inclination of the limestone which lies immediately under the soil.

The nature of the principal mass of the strata usually exerts a great degree of influence over the qualities of the soil. When the solid substratum is sandstone, its effect upon the soil is, in general, as evidently seen, though not perhaps in an equal degree, as when it is marl. Exceptions, however, to this rule sometimes occur; as, for instance, when the principal mass of a rock which resists disintegration in a high degree contains beds that are easily reduced to earth. This is the case with the shell limestone (muschelkalkstein) of Germany, the mountains of which are not unfrequently co-