

part of the county lying between Catoctin Mountain and the Monocacy River. Third, that part lying between the Monocacy River and the Eastern border of the county. The division of the variety of soils does not strictly correspond with this geographical division, and these I must classify according to the local names by which they are called in the neighborhood and the rocks from the decomposition of which they are composed. By the former the people of the county will have a clear comprehension of my meaning in referring to these soils. By the latter they will know their general composition, and appreciate the directions for their proper mode of treatment.

MIDDLETOWN VALLEY SOILS.—Before going into a description of these, I would be doing injustice to the beauty of this valley, if I did not speak of its scenery, and I shall not attempt to do it justice by a description of it. All that can gratify the eye or conduce to our pleasures in contemplating the beautiful in nature is unfolded in it. The truest and most exact picture of it would show real beauties, such as poetry describes in its wildest fancies, or the imagination paints in its brightest pictures. The soils of this valley are mainly, if not entirely, composed by the degradation of mica slates or shales, and the rocks known by the name of epidote. The former includes all the middle part of the valley; the latter the soils on the slopes of the mountains. There is, of course, a third class existing where these two unite, and which partakes most of the character of either as one or the other predominates. Mica-slate has the following composition, and the fundamental constituents of the soil, those mineral substances which form its great mass or body, will therefore exist nearly in the following proportions :

Silica or Sand.....	77.00
Alumina	}17.00
Oxyd of iron	
Lime and magnesia.....	4.00
Potash and Soda.....	2.00

Specimens from near Jefferson, from the neighborhood of Petersville, from near Burkittsville, near Middletown, and various other places in this valley, exhibited very much the same composition.

The nature of the separate elements which compose this mica-slate, is such as, on being decomposed, will form a compact, strong clay soil, well adapted to the growth of wheat and grass, and also of corn; indeed, soils formed from this species of rock, when thoroughly disintegrated, have every where been famous for their productiveness. When not fully decomposed, these soils are not fertile, not because they do not contain the substances necessary