

upon the crystalline rocks, particularly along the eastern margin of the plateau country. They will be severally considered in the discussion of the Coastal Plain formations.

### THE WESTERN DIVISION.

#### THE ALGONKIAN PERIOD.

The supposed Algonkian rocks of the western division of the Piedmont Plateau are infolded with the Paleozoic deposits of Montgomery, Frederick and Carroll counties. They consist, so far as has yet been observed, of but a single type, closely resembling the metamorphosed basic volcanic rocks of the Blue Ridge district.

THE BASIC VOLCANICS.—The basic volcanic rocks represented in Montgomery, Frederick and Carroll counties consist of long lenses or bands infolded with the phyllites and crystalline limestones. They follow the general structural lines in a N. E.-S. W. direction. The lenses are more numerous in Frederick county than in the area to the east. The rocks have been **highly** metamorphosed and show all the essential characters of the "Catoclin schist" of the Blue Ridge district and will be more fully described under that head.

#### THE CAMBRIAN AND SILURIAN PERIODS.

The western division of the Piedmont Plateau, comprising the larger part of the western slope of Parr's Ridge as far as the Monocacy river, has been described as composed mainly of semi-crystalline rocks of sedimentary origin. These rocks are almost unaltered along their western margin, and present the same characters as the sandstones, slates and limestones of the Blue Ridge and Frederick valley, where their age has been determined by fossils. As they approach the axis of the "fan," however, which has been shown above to be one of the principal features in the structure of the Piedmont Plateau, these schists become more crystalline. Here they stand nearly vertical, and show that the dynamic action has been at a maximum by the greatly contorted condition of the schists and the abundant development of new minerals within them. The slates have become roofing-slates, or