prominent plains (planes) in the region. Of Kittatinny (Blue) Mountain he said, "Its crest a nearly horizontal line everywhere about the same height (1,500 to 1,600 feet above the sea)." (p. 23.)

In the following quotations he describes the slate and limestone belts of Northampton County. His descriptions are equally applicable to Lehigh County: "The slate belt of Northampton County stretches from the Delaware to the Lehigh for seven miles south of the mountain. It is (a) region of low flat-topped hills, trenched by a multitude of small valleys, and when looked down upon from the mountain, appears like a great plain, which it really is." (p. 27.) "The limestone plain of Northampton County is about seven miles wide, and elevated about 400 feet above tide; its hill tops sometimes reach 450 feet. This plain is intersected in every direction by gently sloping vales." (p. 36.)

A mere casual examination of the topographic map reveals four sharply distinct topographic regions. A fifth one is poorly represented. From north to south these are Kittatinny Mountain, the slate region, the limestone valley, and the hills of the southern part of the county. These will be described in turn. The first three belong to the Ridge and Valley Province and the fourth to the Reading Prong of the New England Uplands. The fifth is the Triassic Lowlands.

In some regions the topographic features have little relation to the stratigraphy. In Lehigh County, however, each of the erosion surfaces (peneplanes?) is almost completely confined to a particular formation or group of formations. This has resulted in a discussion as to whether the successive more or less level surfaces should be designated as peneplanes or not. At this point they will be described as topographic features only and called erosion surfaces. Their origin will be discussed on later pages.

Kittatinny (Blue) Mountain.—This even-crested mountain ridge, visible on a clear day for long distances, is the most regular and most impressive topographic feature of the entire region. Viewed from the distance, it has the appearance of the edge or the escarpment of an elevated plateau. When one climbs it and finds that the mountain is a narrow ridge with the top scarcely wider than one-fourth mile any place and generally much narrower, the mountain then appears as a barrier ridge. The hard Tuscarora conglomerates and sandstones forming the mountain dip to the northwest at angles varying from 30° to 60°. The Martinsburg shales beneath dip in the same direction, likewise at various angles. The contact between the two formations, seldom observable on account of the hillside talus, is generally about half way up the southern slope.

The crowding of the contours shown on the map indicates the steepness of the slopes. They can be climbed by the pedestrian only with considerable difficulty. The two roads that cross the mountain ascend by diagonal and zigzag courses and finally cross the crest in notches or minor gaps. No stream crosses the ridge west of Lehigh Gap within the county, so that it forms a prominent divide between the tributaries of the Lehigh River and between Lehigh and Carbon Counties. The mountain is a single ridge with a remarkably straight trend to the