been unsuccessful. The writer believes, however, that the notch has been cut down to its present level in gneiss by stream action from the original peneplaned crest of South Mountain. Faulting nearby undoubtedly shattered the crystalline rocks to such an extent that a stream could much more easily carve a channel here than where the rocks are less broken and thus exerted a controlling influence in the location of the gap.

This gap gives easy passage from the Great Valley to Saucon Valley and the highway through it is much used.

**Indian Creek Water Gap.** Indian Creek has cut a deep narrow water gap in a spur of South Mountain crystalline rocks at Powder Valley. The gap is over 200 feet deep and is utilized for a highway.

**Wind Gaps of Kittatinny (Blue) Mountain**

Wind gaps are gaps or notches in mountains, cut by streams which were later diverted to other places. They are common features in the Appalachians and elsewhere where adjustments of stream courses to geologic structures have taken place. The name suggests some connection with air currents and at times their origin has been erroneously attributed to the wind. They have received their name because occasionally surface winds are turned or directed by these gaps to such an extent that they are noted by the local residents.

Conditions are extremely favorable for stream diversion in this portion of the Appalachians and thus for the formation of wind gaps. The ridge of hard resistant rocks forming Kittatinny (Blue) Mountain is paralleled by a band of soft shales along the northern flank. Tributaries flowing over these soft shales have been able to push their heads backward until they encountered streams crossing the hard rocks of the mountain and cutting very slowly. Diversion of the stream has resulted.

The only prominent wind gap in Lehigh County is Lehigh Furnace Gap, although Ver Steeg (1930) has designated a minor gap near Bake Oven Knob as also a wind gap. In view of the fact that Ver Steeg has made such a thorough study of this region, his description is quoted in its entirety. His comparison with Little Gap (Northampton-Carbon counties) is of interest.

**Lehigh Furnace Gap**

Lehigh Furnace Gap is located about four and one-half miles directly west of Lehigh Gap. Through it passes an unimproved road which connects with the concrete highway at Ashfield, Pennsylvania.

The sequence of formations and structure is in general like that at Lehigh Gap, four and one-half miles to the northeast. The beds of Shawangunk conglomerate appear to dip 25° to 30° to the northwest.

Lehigh Furnace Gap has an elevation of 1305 feet A. T., about 300 feet below the summit of the ridge, which attains an elevation of 1600 feet A. T. on the east side. The width of the notch is about one mile across the top and its bottom, which is broad and rounded, is approximately one-tenth as much. The gap stands about 600 feet above the level of the Harrisburg peneplane, which has an elevation of about 700 feet A. T. in the Great Valley to the south.