Westward from the Delaware Valley the Kemmererville anticline noses out in the region of Kemmererville, from which it is named, and probably is not prolonged west of that village. The sequence at the Wind Gap is not so well exposed as at the Delaware, and structures are less clearly discernible. Briefly, the dip is gentler than to the east, and there appears to be no interruption by fold or fault until the top of the Silurian is reached, which is thought to be thrust against beds of early Middle Devonian age in Cherry Ridge.

On the Lehigh, the section is uninterrupted by any important structures. The base is of particular interest. Here the unconformity between the Shawangunk and Martinsburg is exposed clearly. Beds above the Bloomsburg are concealed, so that nothing can be said of their structures.

If one examines the topographic map of the Delaware Water Gap sheet, he will at once notice that the crest of Kittatinny Mountain is offset slightly at the gap. The crest on the New Jersey side appears to have been moved north a few hundred feet relatively in comparison with that of the mountain on the Pennsylvania side. The supposition is that there is a vertical tear fault running up the river valley here, and that the beds on the New Jersey side have been pushed north a short distance relative to those on the Pennsylvania bank. Comparison with the supposed structure and the offsets in Kittatinny Mountain between Delaware Water Gap and the Wind Gap is instructive. The geologic map shows two great S-shaped curvatures in the trace of the mountain crest in this region. Here, the relatively flat-lying Shawangunk has been gently folded in the region of the offsets. Whether further tear faulting has also affected the structure here is doubtful. Talus and timber both contribute to obscure the exposures, but it is not impossible that there has been horizontal movement of the beds relatively northward on the east side of the offsets to those to the west.

**COMPARATIVE SECTIONS**

*Delaware Water Gap section.* The section on the Delaware River is readily available for study, as on each side there is a railroad and a road, the excavations along which supplement the natural rock exposures and outcrops for some miles. At Delaware Water Gap the Delaware River has cut through Kittatinny Mountain (also called "Blue," "North," and "First"), a persistent ridge, extending east-west for miles across New Jersey and Pennsylvania. The Delaware is but one of several streams which have sawed their courses down through the hard ridge-forming Shawangunk formation, but the gap of the Delaware is considered the most attractive of all, possibly because of the sinuous course of the river here, whereas the Schuylkill,