central portion of the State. If there is an appreciable time gap here, it is hoped that evidence of the events of that time will eventually be obtained.

The Allentown strata pass beneath the Beekmantown and again there seems to be perfect conformity. This contact is well shown in the exposed section along the Delaware River road about one and a half miles north of Chestnut Hill. It is difficult to determine the particular place to draw the separation line inasmuch as certain transitional beds might with almost equal reason be included in either formation but within a few feet distinctions are sufficiently great for ready differentiation of the two.

Although in general all the Paleozoic formations of the county appear as outcropping bands in order of decreasing age, there are several places where folds or faults have brought certain formations to the surface in other than the regular arrangement. The general dip of all the strata is to the northwest at varying angles but complex structures have resulted in varying dips and strikes.

Local details.—There are so many and such excellent exposures of Allentown strata along the Lehigh and Delaware rivers, the Monocacy and Bushkill creeks and minor streams that it is hard to select certain ones for special mention. A few examples of sections that show special features are selected.

There is an excellent exposure of Allentown beds in Bethlehem along the Central Railroad of New Jersey from New Street bridge eastward. The alternating dark and light bands are well shown with Cryptozoa, mud (sun) cracks, edgewise conglomerate, and ripple marks. Sandy layers are present which in a few places are almost pure quartzitic sandstones. These exhibit excellent cross-bedding on weathered surfaces.

The Chapman quarry of the Bethlehem Steel Co. along the Lehigh Valley Railroad east of Bethlehem shows a variety of strata, thick and thin beds, some shaly, some high in silica, others low, Cryptozoa, ripple marks, veins of calcite and quartz, some geodes, folds, faults and abundant joints, varying dips and strikes and deep clay pockets.

A roadside outcrop of Allentown formation half a mile north of Butztown shows a fine example of edgewise conglomerate in which the dolomitic fragments are enclosed in a siliceous sand matrix.

In a quarry on the south side of the Bethlehem-Easton highway about one-quarter mile west of Farmersville, one massive bed of dolomite, about twenty inches thick, is a conglomerate with some fragments as much as six inches long and two inches wide. In places the matrix is a siliceous sand. One interbedded shaly layer shows excel-