blocks found in the red granite which appear to be xenolithic blocks caught up by the invading igneous mass. It is not entirely clear why they should not have developed a more schistose structure if they are of equivalent age with the Franklin limestone. This structure might well have been preserved in the supposed xenolithic blocks but does not appear. This material, therefore, is somewhat anomalous in its occurrence and does not lend itself to easy classification with any of the other sedimentary formations. Professor Caben has informed the writer that similar material occurs in a small area in Marble Mountain on the New Jersey side of the Delaware approximately opposite the occurrence of the serpentinite mass in Pennsylvania. Peck⁴ briefly described a series of beds from this locality as follows:

Above this limestone series, though separated somewhat from it by diorite gneiss, occurs the other unusual series of beds (2d), which consists of talcoses rocks of light color, passing into grayish-green chloritic rocks more or less slaty in character, containing pebbly beds, jasper beds of impure hematite, or beds of very pure hematite, in rapid alternation. On the summit of Marble Mountain these beds have a thickness of 50 to 75 feet, and years ago were prospected quite extensively for iron ore, but with no paying results.

Further studies of the New Jersey area may throw additional light on the nature and origin of this material.

**Monocacy Creek area.**—The Franklin limestone is also exposed in the old quarry on the west side of Monocacy Creek where it cuts the western end of Pine Top. At this place the limestone varies from a fine granular to a coarse crystalline marble-like material. All types contain disseminated flakes of graphite which increase in size in proximity to pegmatitic intrusions. Silification and silication of the limestone also occur in the neighborhood of the pegmatites. Along the south side of the old quarry the limestone layers are contorted and show small folds overturned to the north.

In the field to the west and northwest one finds blocks of the quartz graphite member of the Franklin formation. Here also are blocks of the Pochuck gneiss which for the most part show invading Byram material. One large block roughly ten to twelve inches on each side and four to six inches thick was found in the field just west of the quarry. This block was made up of coarsely crystalline Franklin limestone and a silicate rock which resembled somewhat silicified Pochuck. The specimen is important because it may give a clue to the age relations of the Franklin and Pochuck formations. It is described below so that the reader may have the information presented by this material and draw his own conclusions. The writer feels that there

⁴ Peck, F. B., op. cit., p. 183.