glomerates are mainly composed of pure quartz grains and pebbles, which are commonly cemented by means of silicious materials. These coarse deposits are also frequently cross-bedded and are very irregular in both their extent and sequence. Important deposits of fire-clays are found in the Pottsville formation. They occur at two horizons, one above the middle of the upper half of the formation and the other in a similar position in the lower portion. Overlying the upper fire-clay deposit is a thin seam of coal which has been exploited to some extent at the Mount Savage mines and may prove of value at other points. The thickness of the formation is between 300 and 350 feet.

The Savage Formation.—The Savage formation, so called from Savage mountain, Maryland, is the lowest of the coal-bearing formations in western Allegany and Garrett counties and occupies the basal portion of the basins within the synclines, which are outlined by the Pottsville conglomerates. The deposits consist of shales and sandstones in which are interbedded several coal seams. The most valuable of these coal seams is known as the "Six-foot Vein," which is found at the top of the formation. It is the most important coal seam next to the "Big Vein" of the Elkgarden formation. Another seam of coal of some importance, which, however, seldom reaches 3 feet in thickness, is found about 30 feet from the base of the formation. There are also one or two seams of smaller proportions which have never been regarded of economic importance. The sandstones and shales are very variable, the sandstones often becoming shaley. The thickness of the formation is about 150 feet.

The Bayard Formation.—The Bayard formation, so called from Bayard, West Virginia, overlies the Savage formation, above described, and has in general the same area of distribution. The deposits consist of sandstones in which are interbedded three workable seams of coal. The lower portion of the formation consists of rather thick-bedded sandstones in which are interbedded thinner sandstones and shales and an unimportant coal seam. The middle of the formation consists of shales, with thin-bedded sandstone in which are interstratified the three workable seams of coal, viz.: the "Three-foot Vein," near the base; the "Two-foot Vein," which is some 50 feet higher; and the "Four-foot Vein," which is at the top of this division.