

Several bands of blue limestone are also found in this division. The upper member of the Bayard formation consists of thick-bedded sandstones, sometimes flaggy, but almost always without traces of coal. Its lithologic characters serve as a guide, however, to the location of the underlying coals. The Bayard formation has a thickness of about 400 feet.

**THE FAIRFAX FORMATION.**—The Fairfax formation, so called from Fairfax, West Virginia, has only been observed to the east of the Alleghany front in western Allegany and eastern Garrett counties, where it occurs in a restricted area in the basin of the North Branch of the Potomac river and its tributaries. This formation is mainly composed of shales in which argillaceous sandstone beds are interstratified. It contains little carbonaceous material and has been referred to as the Barren Measures. There is, however, an "18-inch Vein," which generally bears coal of good quality, found about 50 feet below the top of the formation. At about the centre of the formation there is an impure carbonaceous bed that is locally known as "The Dirty Nine," but which has no economic value. The Fairfax formation has a thickness of about 300 feet.

**THE ELKGARDEN FORMATION.**—The Elkgarden formation, so called from Elkgarden, West Virginia, is like the Fairfax formation confined to the valley of the North Branch of the Potomac river and its tributaries, and is especially well developed in the central and northern portions of the George's Creek Valley in western Allegany county. The formation consists for the most part of shales in which are interbedded several sandstone layers and two important coal seams. The most important coal vein is situated at the base of the formation and is called the "Big Vein" or the "Fourteen-foot Vein." It is the most important coal-bearing seam in Maryland and is known in Pennsylvania as the "Pittsburg Vein." It affords coal of high quality and great purity, and has been a source of great wealth to the state. It varies in thickness, commonly from 10 to 14 feet, but in local areas has been found to reach 17 feet. About 115 feet above the top of the "Big Vein" is a coal seam which is known as the "Gas Coal" or "Tyson Vein." It has a thickness of from 3 to 7 feet. The thickness of the Elkgarden formation is about 250 feet.