

as great in the coal afterwards examined by me farther west at Pomeroy on the Ohio, confirming the theory first advanced by Mr. H. D. Rogers, of the progressive debituminization of coal as we advance from west to east, or from the horizontal coal fields in the plains of the Ohio to the anthracite of Pennsylvania. (See above, pp. 89 and 249, vol. i.)

The coal measures of this part of Maryland are usually called the Cumberland coal field, from Fort Cumberland, famous for the wars of the English with the French and Indians, in which General Washington took part, before the American Revolution. The carboniferous strata consisting, as usual, of shale, grit, sandstone, limestone, argillaceous iron ore, and coal, are arranged geologically in a trough, about twenty-five miles long, from north to south, and from three to four miles broad. Professor Silliman and his son, who surveyed them, have aptly compared the shape of the successive beds to a great number of canoes placed one within another. The entire thickness of the coal measures is about 1500 feet, including the fundamental quartzose sandstone, called by the miners here, as in England, the millstone grit, which is about forty feet thick, and contains small pebbles, sometimes as big as nuts. These pebbles, therefore, are very diminutive in comparison with those before mentioned as occurring in the same rock in the anthracite basins of north-eastern Pennsylvania, where some of them were stated to be as large as a hen's egg. The conglomerate of that region, it will be remembered, was 1500 feet in thickness, instead of forty feet as at Frostburg, showing the reduction of size in