

I believe, first promulgated by Mr. Featherstonehaugh in 1831, at a time when many geologists were disposed to assign a higher antiquity to the anthracite than to the bituminous coal-measures of the United States. The recent surveys have now established this fact beyond all question, and hence it becomes a subject of great interest to inquire how these two kinds of fuel, originating as they did from precisely the same species of plants, and formed at the same period, should have become so very different in their chemical composition. In the first place, I may mention that the anthracite coal-measures above alluded to, occurring in the eastern or most disturbed part of the Appalachian chain, are fragments or outliers of the great continuous coal-field of Pennsylvania, Virginia, and Ohio, which occurs about forty miles to the westward. This coal-field is remarkable for its vast area, for it is described by Professor H. D. Rogers as extending continuously from N. E. to S. W., for a distance of 720 miles, its greatest width being about 180 miles. On a moderate estimate its superficial area amounts to 63,000 square miles. It extends from the northern border of Pennsylvania as far south as near Huntsville in Alabama.

This coal formation, before its original limits were reduced by denudation, must have measured, at a reasonable calculation, 900 miles in length, and in some places more than 200 miles in breadth. By reference to the section (fig 5., p. 74.), it will be seen that the strata of coal are horizontal to the westward of the mountain in the region D, E, and become more and more inclined and folded as we proceed eastward. Now it is invariably found, as Professor H. D. Rogers has shown by chemical analysis, that the coal is most