

companiments have been the results of transportation, he reasons as if *all* the coal had been formed in this manner. (pp. 10, 14.) But there are eminent geologists, who attribute only the smaller proportion of coal formations to this mode of origin; and conceive that the greater masses have been derived from trees of vast size and close contiguity, submerged in their native seats, without being removed from their place of growth, and marking their scarcely disturbed prostration by the well-known impressions, on the shale-roofs and bottoms, of their most delicate parts, which would have been greatly defaced or quite obliterated by even a little tossing and drifting. Detached pieces of trunks do indeed occur, whose denuded and broken state suggests a derivation from neighbouring high land, and whose forms and position prove them to have been accidental intruders; but the idea of masses of such vegetation as composes the coal-beds having floated from different quarters, and then, which must have been of necessity, *irregularly and confusedly heaped together*, appears to be absolutely irreconcilable with the facts exhibited in the impressions of the plants upon the shale, just now mentioned. My kind readers will give themselves pleasure and do justice to the argument by consulting the specimens of this kind in most of the Museums of Natural History, which happily are multiplied in our country. An excellent suite is in the Adelaide Gallery, presented by my young friend, Mr. Edward Charlesworth, a gentleman whose devotedness to Natural History from his very childhood has produced important results, and promises more. For this purpose, I cannot but also wish that studious attention were given to the accurate and beautiful figures in the Fossil Flora of Great Britain, by Dr. Lindley and Mr. William Hutton; and in Mr. Artis's Antediluvian Physiology. "That any considerable part of the plants which formed the beds of coal were drifted at all, appears—to be highly improbable: that they should have been brought by equatorial currents from the regions of the tropics, is perfectly chimerical." Fossil Flora, vol. II. Pref. p. xxi. In the same splendid work, an accumulation of facts is brought in proof of this doctrine; and to illustrate the alternations of material in the coal measures, a circumstance on which Dr. Y. lays great stress, (p. 11,) but which those eminent naturalists account for in a way which his objections do not touch. Foss. Flor. vol. III, pp. 28—35. On the other hand, Prof. Phillips deems it "the most probable view, that the plants forming coal were, with the arenaceous and argillaceous substances, swept into the sea by inundations from the land, and subsided into strata on the bed of the sea." Treatise in Lardner's Cyclop., vol. I. p. 160. But it is important to consider that this must have been from *neighbouring* land, probably clusters of islands over-