

to a depth of 730 feet, passed through eighty-six beds of alternating quartzose sandstone, clay-porphry, coal, and indurated clay containing nodules of argillaceous ironstone. The sandstones of Coalbrook dale are fine-grained and micaceous, and some beds are penetrated by *petroleum*, which at Coalport escapes from the surface in a tar-spring; bitumen also occurs in some of the shales. Plants, shells, and crustacea are abundant in the shale and ironstone nodules; and the remains of insects sometimes occur.

This brief notice of two remarkable coal-fields will suffice to convey a general idea of the nature of carboniferous deposits. To exemplify those of the United Kingdom alone would require a course of lectures. The admirable memoirs on the British coal-fields in the Geological Transactions, by some of our most eminent observers, and in the works of Bakewell, Conybeare, Phillips, Lyell, De la Beche, Dr. Buckland, Murchison, and others, will afford those who wish to pursue the inquiry, information of the most important and interesting nature.

6. COAL-SHALES, AND VEGETABLE REMAINS.—The shales, or layers of slaty-coal, are the great depositories of the fossil vegetables. These strata intervene between the beds of bituminous coal, and when the latter are extracted, the roof and floor of the mines or galleries are composed of the schistose beds, which are not made use of for economical purposes. In these large slabs of shale, from