

## CARBONIFEROUS PERIOD.

IN the history of our globe the Carboniferous period succeeds to the Devonian. It is in the formations of this latter epoch that we find the fossil fuel which has done so much to enrich and civilise the world in our own age. This period divides itself into two great sub-periods: 1. The *Coal-measures*; and 2. The *Carboniferous Limestone*. The first, a period which gave rise to the great deposits of coal; the second, to most important marine deposits, most frequently underlying the coal-fields in England, Belgium, France, and America.

The limestone-mountains which form the base of the whole system, attain in places, according to Professor Phillips, a thickness of 2,500 feet. They are of marine origin, as is apparent by the multitude of fossils they contain of Zoophytes, Radiata, Cephalopoda, and Fishes. But the chief characteristic of this epoch is its strictly terrestrial flora—remains of plants now become as common as they were rare in all previous formations, announcing a great increase of dry land. In older geological times the present site of our island was covered by a sea of unlimited extent; we now approach a time when it was a forest, or, rather, an innumerable group of islands, and marshes covered with forests, which spread over the surface of the clusters of islands which thickly studded the sea of the period.

The monuments of this era of profuse vegetation reveal themselves in the precious Coal-measures of England and Scotland. These give us some idea of the rich verdure which covered the surface of the earth, newly risen from the bosom of its parent waves. It was the paradise of terrestrial vegetation. The grand *Sigillaria*, the *Stigmaria*, and other fern-like plants, were especially typical of this age, and formed the woods, which were left to grow undisturbed; for as yet no living Mammals seem to have appeared; everything indicates a uniformly warm, humid temperature, the only climate in which the gigantic ferns of the Coal-measures could have attained their magnitude. In Fig. 37 the reader has a restoration of the arborescent and herbaceous Ferns