

names of *Encrinite* and *Pentacrinite*; the former (see Pl. 49, Fig. 1, and Pl. 47, Figs. 1. 2. 5.) most nearly resembling the external form of a Lily, placed on a circular stem; the latter (see Pl. 51, and Pl. 52, Fig. 1, 3.) retaining the general analogies of structure presented by the Encrinite, but, from the pentagonal form of its stem, denominated Pentacrinite. A third Genus, called *Apiocrinites*, or Pear Encrinite, (Pl. 47. Figs. 1, 2.) exhibits, on a large scale, the component parts of bodies of this family; and has been placed by Mr. Miller at the head of his valuable work on the Crinoïdea, from which many of the following descriptions and illustrations will be collected.

Two existing species of recent animals throw much light on the nature of these fossil remains; viz. the *Pentacrinus Caput Medusæ* from the West Indies, represented at Pl. 52, Fig. 1, and the *Comatula fimbriata*,* figured in the first plate of Miller's Crinoïdea.

We will proceed to consider the mechanical provisions in the structure of two or three of the most important fossil species of this family, viewed in relation to their office as Zoophytes,

* The *Comatula* presents a conformity of structure with that of the *Pentacrinite*, almost perfect in every essential part, excepting that the column is either wanting, or at least reduced to a single plate. Peron states that the *Comatula* suspends itself by its side arms from fuci, and *Polyparies*, and in this position watches for its prey, and attains it by its spreading arms and fingers. Miller, p. 182.