

ter band, which is succeeded by about 40 feet of marls. The limestone is a remarkable stratum, containing numerous nuclei of *Chara*, fresh water shells, viz. *Limnæa longiscata*, *Paludina globuloides*, *Planorbis*, *Melania*, and of land-shells, five species of *Helix*, *Bulimus ellipticus*, *Pupa perdentata*, and *Cyclotus cinctus*. Above this bed is a characteristic oyster-band with *Ostrea Vectensis*, and this is succeeded by marls in different bands highly charged with *Paludina lenta*, *Limnæa longiscata*, *Bulimus*, *Melania*, *Unio*, *Cyrena semistriata*, *C. obovata*, and other fresh and brackish water shells. In the Bembridge beds there has also been found the Anaplothroid mammal *Dichobune cervinum*, and five species of *Palæotherium*, viz. *P. crassum*, *curtum*, *magnum* (fig. 51), *medium*, and *minus*; the nearest living analogues of which may be said to be the tapirs of the South American rivers.

The *Hempstead Beds* form the uppermost portion of the British Eocene strata. The Bembridge beds below pass gradually into them, and the fossils throughout the lower part of the Hempstead series are in great measure identical with those of the Bembridge marls, containing *Paludina lenta* in profusion, *Planorbis obtusus*, *Limnæa*, *Cyrena semistriata*, *Unio*, *Melania*, &c., and at the very top is a marine band containing *Corbula pisum*, and *Oysters*. The mammalia *Hyracotherium leporinum* and *Hyopotamus bovinus* and *H. Vectianus* (Suidæ) occur in these strata. These Hempstead beds were first clearly described by Edward Forbes, who considered them to be of Upper Eocene age. Sir Charles Lyell, however, following Mr. Pengelly, because of certain land plants, considered these uppermost strata to be Lower Miocene. Plants afford a more uncertain test of geological age than mollusca,