

such as *Oaks*, *Yews*, *Cypress*, *Spindle-trees*, *Dryandra*, *Laurels*, *Limes*, *Figs*, *Sennas*, &c., &c., but all of extinct species. In this assemblage of plants we have ample evidence of the vicinity of land, and though modern crocodilia have no special objection to salt-water in the mouths of the Ganges, yet they are not in the habit of pursuing their game into the open ocean, and we may therefore more than suspect, that even this part of the Eocene series was deposited within the ocean mouth of a great river such as the Amazons.

The Bagshot series, including all the strata mentioned above, form the highest part of the Eocene strata, which exclusively contain marine mollusca.

We now come to the undoubtedly Upper Fresh-water and Estuarine deposits.

The *Headon Hill Sands* (fig. 47), including the clays of *Hordwell Cliffs*, come next in succession. These form the lowest part of the great fluvio-marine deposits, which constitute the remainder of the Eocene rocks of Hampshire and the Isle of Wight, for none of these strata are found within the area of the London basin. Some of the marine shells of Hordwell are common to the Barton beds. Its marine strata contain sharks' teeth, *Murex*, *Buccinum*, *Ancillaria*, *Voluta*, *Marginella*, &c., *Oysters*, *Pectens*, *Corbula*, *Balanus*, &c., *Fusus porrectus*, *Oliva Branderi*, and *Nummulites lævigata*. The brackish-water strata have yielded *Cerithium mutabile*, *C. cinctum*, *Potamomya plana*, &c., and the fresh-water rocks contain *Paludina lenta*, *Planorbis euomphalus*, *Limnæa caudata*, *Cyclas*, several species of *Cyrena*, *Unio Solandri*, *Melania*, &c., besides land-shells of the genus *Helix*, and of vegetable remains, two species of *Carpolithes* (a conifer), and *Chara Wrightii*. In the Hordwell Cliffs and elsewhere,