

decussata [crassatina], *Pholadomya* [martesia?] *cuneata*, *P. Koninckii*, *Corbula regulbiensis*, etc.), a few species of gastropods (*Natica infundibulum* [subdepressa], *Aporrhais Sowerbii*, etc.), a nautilus, and the teeth, scales, and bones of fishes (*Odontaspis*, *Pisodus*).

The Woolwich and Reading Beds," or "Plastic Clay" of the older geologists, consist of lenticular sheets of plastic clay, loam, sand, and pebble-beds, so variable in character and thickness over the Tertiary districts that their homotaxial relations would not at first be suspected. One type (Reading) presenting unfossiliferous lenticular, mottled, bright-colored clays, with sands, sometimes gravels, and even sandstones and conglomerates, occurs throughout the Hampshire basin and in the northern and western part of the London basin. A second type (Woolwich), found in West Kent, Surrey, and Sussex, from Newhaven to Portslade, consists of light-colored sands and gray clays, crowded with estuarine shells. A third type, seen in East Kent, is composed only of sands containing marine fossils. These differences in lithological and palæontological characters serve to indicate the geographical features of the southeast of England at the time of deposit, showing in particular that the sea of the Thanet beds had gradually shallowed, and that an estuary now partly extended over its site. The organic remains as yet obtained from this group amount to more than 100 species. They include a few plants of terrestrial growth, such as *Ficus Forbesi*, *Grevillea Heeri*, *Laurus Hookeri*, *Aralia*, *Lygodium*, *Liriodendron*, *Palmetto*, and *Platanus*—a flora which, containing some apparently persistent types, has a temperate facies.²¹ The lamellibranchs are partly estuarine or fresh-water, partly marine; characteristic species being *Cyrena cuneiformis*, *C. cordata*, and *C. tellinella*. *Ostrea bellovacina* forms a thick oyster-bed at the base of the series, besides occurring throughout the group. *Ostrea tenera* is likewise abundant. The gastropods include a similar mixture of marine with fluviatile species (*Potamides* [Cerithium] *funatus*, *Melania inquinata*, *Melanopsis buccinoides*, *Neritina globulus*, *Natica infundibulum*, *Pisania* [Fusus] *lata*, *Viviparus* [Paludina] *lentus*, *Planorbis lævigatus*, *Pitharella Rickmanni*, etc.). The fish are chiefly sharks (*Odontaspis*). Bones of turtles, scutes of

²¹ Prestwich, Q. J. Geol. Soc. x. p. 75; Whitaker, "Geology of London," p. 122.

²² J. S. Gardner, "British Eocene Flora," Palæontog. Soc. p. 29.