feet thick, but it becomes thinner in a westerly direction, and does not occur beyond Ealing.*

The Woolwich and Reading beds in the Hampshire basin rest immediately on the Chalk, and separate it from the overlying London Clay, as may be seen in the fine exposure of the Tertiary strata in Alum Bay, at the western extremity of the Isle of Wight, and in Studland Bay, on the western side of the Isle of Purbeck, in Dorsetshire.

In the London basin the Woolwich and Reading beds also rest on the Chalk, where the Thanet Sands are absent, as is the case, for the most part, over the area west of Ealing and Leatherhead.

The beds in question are very variable in character, but may be generally described as irregular alternations of clays and sands—the former mostly red, mottled with white, and from their plastic nature suitable for the purposes of the potter; the latter also of various colours, but sometimes pure white, and sometimes containing pebbles of flint.

The Woolwich and Reading beds are called after the localities of the same names; they are fifty feet thick at Woolwich, and from sixty to seventy feet at Reading.

The Oldhaven beds (so termed by Mr. W. Whitaker from their development at the place of the same name in Kent) are a local deposit, occurring beneath the London Clay on the south side of the London basin, from Croydon eastward, at the most eastern part of Surrey, and through Kent—in the north-western corner of which county they form some comparatively broad tracts. The beds consist of rounded flint pebbles, in a fine sandy base, or of fine light-coloured sand, and are from eighty to ninety feet thick under London.

The London Clay, which has a breadth of twenty miles or more about London, consists of tenacious brown and bluish-grey clay, with layers of the nodular concretions, called Septaria, which are well known on the Essex and Hampshire coasts, where they are collected for making Roman cement. The London Clay has a maximum thickness of nearly 500 feet. The fossils of the London Clay are of marine genera, and very plentiful in some districts. Taken altogether they seem to indicate a moderate, rather than a tropical climate, although the Flora is, as far as can be judged, certainly tropical in its affinities.† The number of species of extinct Turtles obtained from the Isle of Sheppey alone, is stated by Prof. Agassiz

* "Memoir of the Geological Survey of Great Britain. The Geology of Middlesex, &c.;" by W. Whitaker, p. 9.

† Prestwich. *Quart. Jour. Geol. Soc.*, vol. x., p. 448.