

UPPER EOCENE.

	Thickness.
A. Hempstead beds, Isle of Wight, see above, p. 192	170 feet.

MIDDLE EOCENE.

B. 1. Bembridge Series,—North coast of Isle of Wight	120
B. 2. Osborne or St. Helen's Series,— <i>ibid.</i>	100
B. 3. Headon Series,—Isle of Wight, and Hordwell Cliff, Hants	170
B. 4. Headon Hill sands and Barton Clay,—Isle of Wight, and Barton Cliff, Hants	300
B. 5. Bagshot and Bracklesham Sands and Clays,—London and Hants basins	700

LOWER EOCENE.

C. 1. London Clay proper and Bognor beds,—London and Hants basins	350 to 500
C. 2. Plastic and Mottled Clays and Sands (Woolwich and Reading series),—London and Hants basins	100
C. 3. Thanet Sands,—Reculvers, Kent, and Eastern part of London basin	90

The true place of the Bagshot sands, B. 5 in the above series, and of the Thanet sands, C. 3, was first accurately ascertained by Mr. Prestwich in 1847 and 1852. The true relative position of the Hempstead beds, A, of the Bembridge, B. 1, and of the Osborne or St. Helen's series, B. 2, were not made out in a satisfactory manner till Professor Forbes studied them in detail in 1852.

Bembridge series, B. 1.—These beds are above 100 feet thick, and, as before stated (p. 187), pass upwards into the Hempstead beds, with which they are conformable, near Yarmouth, in the Isle of Wight. They consist of marls, clays, and limestones of freshwater, brackish, and marine origin. Some of the most abundant shells, as *Cyrena semistriata* var., and *Paludina lenta* (fig. 175, p. 193), are common to this and to the overlying Hempstead series. The following are the subdivisions described by Professor Forbes :

- a. Upper marls, distinguished by the abundance of *Melania turritissima*, Forbes (fig. 182).

Fig. 182.



Melania turritissima, Forbes.
Bembridge.

Fig. 183.



Fragment of Carapace of *Trionyx*.
Bembridge Beds, Isle of Wight.

- b. Lower marl, characterized by *Cerithium mutabile*, *Cyrena pulchra*, &c., and by the remains of *Trionyx* (see fig. 183).
c. Green marls, often abounding in a peculiar species of oyster, and accompanied by *Cerithia*, *Mytili*, an *Arca*, a *Nucula*, &c.
d. Bembridge limestones, compact cream-colored limestones alternating with