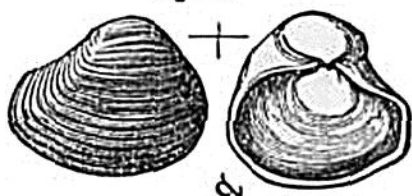


SUBDIVISIONS OF THE HEMPSTEAD SERIES.

1. The uppermost or *Corbula* beds, consisting of marine sands and clays, contain *Corbula pisum*, fig. 170, a species common to the Middle Eocene clay of Barton; *Cyrena semistriata*, fig. 171, which is also a Middle Eocene fossil; several *Cerithia*, and other shells peculiar to this series.

Fig. 170.



*Corbula pisum*. Hempstead Beds, Isle of Wight.

Fig. 171.



*Cyrena semistriata*. Hempstead Beds.

2. Next below are freshwater and estuary marls and carbonaceous clays, in the brackish-water portion of which are found abundantly *Cerithium plicatum*, Lam., fig. 172, *C. elegans*, fig. 173, and *C. tricinctum*; also *Rissoa Chastelii*, fig. 174, a very common Limburg shell, and which occurs in each of the four subdivisions of the Hempstead series down to its base, where it passes into the Bembridge beds. In the freshwater portion of the same beds *Paludina*

Fig. 172.



*Cerithium plicatum*, Lam. Hempstead.

Fig. 173.



*Cerithium elegans*, Hempstead.

Fig. 174.



*Rissoa Chastelii*, Nyst, Sp. Hempstead, Isle of Wight.

Fig. 175.



*Paludina lenta*. Hempstead Beds.

3. The next series, or middle freshwater and estuary marls, are distinguished by the presence of *Melania fasciata*, *Paludina lenta*, and clays with *Cypris*; the lowest bed contains *Cyrena semistriata*, fig. 171, mingled with *Cerithia* and a *Panopæa*.
4. The lower freshwater and estuary marls contain *Melania costata*, Sow., *Melanopsis*, &c. The bottom bed is carbonaceous, and called the "Black band," in which *Rissoa Chastelii*, fig. 173, before alluded to, is common. This bed contains a mixture of Hempstead shells with those of the underlying Middle Eocene or Bembridge series. The seed-vessels of *Chara medicaginula*, Brong., and *C. helecteras* are characteristic of the Hempstead beds generally. The mammalia, among which is a species of *Hyootherium*, differ, so far as they are known, from those of the Bembridge beds immediately underlying.