

The two pallial posterior apertures are prolonged by two siphons joined along their whole length, except towards the distal extremity, where they are slightly separated (Pl. IV. fig. 6, *s*, *t*); at this point they are surrounded by a common sheath (*w*). The extremity of the branchial siphon bears, ventrally, two pairs of claviform tentacles; the anal siphon has only three of these organs. The base of the branchial siphon is closed by a partition, in which is a linear aperture (*k*) of small extent.

The pallial cavity is divided into a dorsal and a ventral chamber (Pl. IV. fig. 6, *h*, *i*) by a muscular partition (*e*), extending from one adductor to the other, and joined to the mantle on each side by a more delicate membrane (Pl. IV. fig. 3, *h*). The foot issues near the middle of this partition, which has been considered as the body-wall.

The foot (*d*), which is rather delicate and linguiform, has a byssal groove on its posterior surface. Its posterior retractor muscle (Pl. IV. fig. 6, *n'*) is very delicate, single, and only bifurcated near its insertion on the shell, as in the two preceding genera (*Poromya* and *Silenia*).

The mouth (*a*) is rather widely open. According to Dall,¹ it has no labial palps. In reality it has two pairs, but these organs are much reduced, and would scarcely be visible in badly preserved specimens (Pl. IV. fig. 5). The anterior pair rest on the anterior adductor muscle; the posterior pair are carried far backwards on each side of the foot, as in *Solen*. In *Cuspidaria fragilissima* and *Cuspidaria curta* even the anterior pair are very slightly developed (Pl. IV. fig. 2).

The muscular partition (*e*), of which we have spoken above, is attached to the shell by two large muscular bundles in front of the posterior adductor, and by two others behind the anterior adductor, so that, seen from the side (Pl. IV. figs. 1, 4), the partition seems to form a curved mass, which Jeffreys,² looking through the transparent mantle, took for "pink gills."

The visceral mass lies in the chamber dorsal to the partition, and fills the greater part of it. Between the visceral mass (*f*) and the posterior retractor muscle of the foot (*n'*) is a delicate sagittal partition (*p*). On the wall of the visceral mass there is no trace of gills any more than on the muscular partition. This partition is absolutely homologous with the "branchial" partition in *Poromya* and *Silenia*, and consequently represents the gills of Pelecypoda.

Instead of the three groups of apertures observed in *Silenia* (Pl. III. figs. 8, 9), we only find here four separate apertures, arranged in the same manner in all the species (Pl. IV. figs. 1-4), and situated near the median line. Except for these apertures, and the little lips which border them, the whole surface of the partition is uniform. In *Cuspidaria fragilissima* (Pl. IV. fig. 1) and *Cuspidaria curta* (Pl. IV. fig. 2) there are two pairs of apertures behind the foot, while in *Cuspidaria rostrata* (Pl. IV. figs. 3, 4) and *Cuspidaria platensis* there is only one.

¹ Nature, vol. xxiv. p. 122.

² British Conchology, vol. iii. p. 45.