The genus Concharium is the simplest and the most primitive form of all Concharida; it may be regarded as the common ancestral form of the whole family. The entire shell is usually almost spherical, without horns or teeth, and may be regarded as a Castanella which is bisected or broken into two equal hemispherical halves. The lateral margins of the two hemispherical valves are smooth, without teeth, and catch one into the other like the two valves of a Diatom, or the two halves of a bivalved box. Concharium agrees in this simple shape of the frontal margins with the following genus Conchasma, and represents with it the small subfamily Conchasmida.

1. Concharium bivalvum, n. sp. (Pl. 123, figs. 2, 2a).

Shell spherical, smooth. Diameter in all directions nearly the same. Borders of the two hemispherical valves circular, smooth, about twice as broad as the pores. In the half frontal perimeter of the shell (along the right and the left border of each valve) twenty-two to twenty-four pores, in the half sagittal perimeter (in the middle line of each valve) eighteen to twenty-two pores, in the half equator (in the cinctural perimeter of each valve) twenty to twenty-two pores. All pores circular, of the same size, twice as broad as their bars.

Dimensions.—Length of the shell (longitudinal diameter) 0.35, height (sagittal diameter) 0.34, breadth (lateral diameter) 0.33.

Habitat.—North Atlantic, west of Madeira, Station 354, depth 1675 fathoms.

2. Concharium nucula, n. sp. (Pl. 123, fig. 3).

Shell pear-shaped, with costate surface. Oral face somewhat truncated, broader than the aboral face. Its longitudinal diameter about one-fifth longer than the two other diameters. Borders of the two valves ovate, smooth, about as broad as the pores. In the half frontal perimeter of the shell twenty-two to twenty-four pores, in the half sagittal perimeter eighteen to twenty, in the half equator sixteen to eighteen. Pores irregularly roundish, three to four times as broad as the bars. The pores are so disposed in meridional rows that the crests between the rows converge towards the two poles of the sagittal axis.

Dimensions.—Length of the shell 0.2, height 0.18, breadth 0.16.

Habitat.—South Atlantic (west of Tristan da Cunha), Station 332, depth 2200 fathoms.

3. Concharium diatomeum, n. sp. (Pl. 123, fig. 1).

Shell nearly spherical, slightly lenticular, somewhat compressed in dorso-ventral direction; the sagittal diameter therefore somewhat shorter than the two others. Borders of the two hemispherical valves nearly circular, quite smooth, about as broad as the length of the largest pores. In the half frontal perimeter of the shell forty-four to fifty pores; in the half sagittal perimeter twenty to twenty-four; in the half equator thirty to thirty-three. Pores different in form and size; the