

1. *Mesocena circulus*, Ehrenberg.

*Mesocena circulus*, Ehrenberg, 1840, Monatsber. d. k. preuss. Akad. d. Wiss. Berlin, p. 208.

*Mesocena circulus*, Ehrenberg, 1854, Mikrogeol., Taf. xix. fig. 44.

Rings of the skeleton circular, smooth or slightly denticulate on the outer margin, without spines. This simple form is probably the ancestral form of the Dictyochida.

*Dimensions*.—Diameter of the rings 0.02 to 0.03, thickness of the hollow rod 0.001 or less.

*Habitat*.—Fossil in Tertiary rocks of Barbados and of the Mediterranean (Ægina, Greece; Caltanissetta, Sicily).

2. *Mesocena annulus*, n. sp.

? *Mesocena crenulata*, Ehrenberg, 1860, Monatsber. d. k. preuss. Akad. d. Wiss. Berlin, p. 822.

Rings of the skeleton elliptical, smooth or slightly denticulate on the outer margin, without spines. This species is possibly identical with *Mesocena crenulata* of Ehrenberg, of which, however, no figure is given. The major axis of the ellipse is one and a half times as long as the minor.

*Dimensions*.—Diameter of the rings in the major axis 0.03; in the minor 0.02; thickness of the bars 0.002.

*Habitat*.—Tropical Atlantic, Station 347, depth 2250 fathoms.

3. *Mesocena diodon*, Ehrenberg.

*Mesocena diodon*, Ehrenberg, 1844, Monatsber. d. k. preuss. Akad. d. Wiss. Berlin, p. 84.

*Mesocena diodon*, Ehrenberg, 1854, Mikrogeol., Taf. xxxiii., Nr. xv. fig. 18.

Rings of the skeleton elliptical, smooth, with two opposite spines on the poles of the major axis, which is about one and one-third as long as the minor axis.

*Dimensions*.—Diameter of the rings in the major axis 0.04, in the minor 0.03; length of the spines 0.01.

*Habitat*.—Fossil in Barbados, and in North America (Virginia).

4. *Mesocena triangula*, Ehrenberg.

*Mesocena triangula*, Ehrenberg, 1840, Monatsber. d. k. preuss. Akad. d. Wiss. Berlin, p. 208.

*Mesocena triangula*, Ehrenberg, 1854, Mikrogeol., Taf. xxii. fig. 41.

*Dictyocha triangula*, Ehrenberg, 1875, Abhandl. d. k. Akad. d. Wiss. Berlin, p. 46.

*Lithocircus triangularis*, Stöhr, 1880, Palæontogr., vol. xxvi. p. 121, Taf. vii. fig. 10.

Rings triangular, with small peripheral thorns, and three larger teeth on the corners of the equilateral triangle.

*Dimensions*.—Diameter of the rings 0.03 to 0.05, length of the spines 0.01.

*Habitat*.—Fossil in Tertiary deposits of the Mediterranean; Caltanissetta, Sicily (Ehrenberg, Stöhr).