length, pear-shaped. Thorax broader than long. Abdomen with three prominent, rounded edges, prolonged over the concave base into three conical, hollow, and fenestrated feet, twice as long as the thorax. Pores small, circular, irregular, in longitudinal series along the edges.

Dimensions.—Length of the three joints, *a* 0·04, *b* 0·04, *c* 0·12; breadth, *a* 0·04, *b* 0·06, *c* 0·18.

Habitat.—Central Pacific, Station 268, depth 2900 fathoms.

10. *Lithochytris vespertilio*, Ehrenberg.

Lithochytris vespertilio, Ehrenberg, 1875, Abhandl. d. k. Akad. d. Wiss. Berlin, p. 76, Taf. iv. fig. 10.

Shell three-sided pyramidal, with two indistinct strictures. Length of the three joints = 1 : 2 : 5, breadth = 2 : 3 : 10. Cephalis with a short horn of half the length, conical. Thorax inflated. Abdomen without prominent edges, divided in the lower half into three large, conical, hollow, and fenestrated feet, twice as long as the thorax. Pores small, irregular, roundish.

Dimensions.—Length of the three joints, *a* 0·02, *b* 0·04, *c* 0·1; breadth, *a* 0·04, *b* 0·06, *c* 0·2.

Habitat.—Fossil in Barbados.

Family LXVI. Phormocyrtida, n. fam.

Theophormida et Theophœnida, Haeckel, 1881, Prodromus, pp. 436, 437.

Definition.—Tricyrtida multiradiata. (Cyrtoidea with a three-jointed shell, divided by two transverse constrictions into cephalis, thorax, and abdomen, with numerous, four to nine or more, radial apophyses.)

The family Phormocyrtida, composed of the Theophormida and Theophœnida of my Prodromus, comprises those Cyrtoidea in which the lattice-shell is three-jointed, and bears numerous radial appendages (usually six or nine, sometimes more, rarely less, four or five). The two subfamilies differ in the shape of the terminal mouth, which is in the Theophormida a simple wide opening, in the Theophœnida closed by a lattice-plate. The phylogenetic origin of the Phormocyrtida may be found either in the Podocyrtida or in the Anthocyrtida; they may be derived either from the former by interpolation of interradial, secondary apophyses between the three primary perradial apophyses; or from the latter by development of an abdomen.

The radial apophyses are originally radial ribs, which arise from the base of the cephalis on the collar stricture, run along the thorax and abdomen, and are often prolonged into terminal feet. Whilst in some forms the radial ribs are completely preserved in both joints, they are in other forms only partly visible (in the abdomen), and very often only their free terminal prolongations are preserved in the form of a corona of feet around the mouth of the thorax. This corona is either simple or double. Sometimes also a corona is developed on the lumbar stricture, between the thorax and abdomen.