its upper half with three divergent ribs in the wall, half as broad as the subspherical lower half. (The three ribs probably were overlooked by Ehrenberg.)

Dimensions:—Cephalis 0.03 long, 0.03 broad; thorax 0.1 long, 0.07 broad.

Habitat.—North Pacific, Station 256, surface; Californian Sea, 2600 fathoms, Ehrenberg.

4. Sethopera lagena, Haeckel.

Lithopera lagena, Ehrenberg, 1875, Abhandl. d. k. Akad. d. Wiss. Berlin, p. 78, Taf. iii. fig. 4.

Cephalis pear-shaped, with a small conical horn of half the length. Length of the two joints = 3:8, breadth = 3:6. Thorax smooth, pear-shaped, with irregular roundish pores; in the wall of its upper third three divergent thin ribs (sometimes wanting); the lower half inflated. (Compare Sethocapsa lagena.)

Dimensions.—Cephalis 0.03 long, 0.03 broad; thorax 0.08 long, 0.06 broad.

Habitat.—Fossil in Barbados.

Genus 551. Lithopera, Ehrenberg, 1847, Monatsber. d. k. preuss. Akad. d. Wiss. Berlin, p. 54.

Definition.—Sethoperida (vel Dicyrtida triradiata clausa), with three divergent ribs enclosed in the cavity of the thorax. Cephalis with a horn.

The genus Lithopera is, like the preceding Sethopera, one of the most simple and oldest forms of the Sethoperida, and exhibits three divergent thoracic ribs, which are prolonged neither into lateral wings nor into basal feet. But whilst in Sethopera the three ribs are enclosed in the lattice-work of the shell-wall, in Lithopera they lie freely in its cavity, and are overgrown by the enveloping shell-wall, being inserted on its inner face with their distal ends. Lithopera may be derived directly from Lithomelissa, by development of lattice-work closing the shell-mouth. Therefore the lower part of the cephalis is hidden in the uppermost part of the thorax; only its upper part is free.

1. Lithopera bacca, Ehrenberg.

Lithopera bacca, Ehrenberg, 1872, Abhandl. d. k. Akad. d. Wiss. Berlin, p. 297, Taf. viii. fig. 1.

Cephalis spherical, with small, irregular pores and a bristle-shaped spine of half the length; its lower half hidden in the thorax. Length of the two joints = 1:6, breadth = 1:5. Thorax ellipsoidal, smooth, with regular, hexagonal, small pores, and very thin, thread-like bars. From the deep collar stricture there arise three internal, divergent bars, which are inserted at the uppermost third of the thorax.

Dimensions.—Cephalis 0.02 diameter; thorax 0.12 long, 0.1 broad.

Habitat.—Tropical Pacific, Stations 200, 224, 266, 271, &c., surface.

1 Lithopera = Stone-pouch; λίθος, πήςα.

(ZOOL. CHALL. EXP.—PART XL.—1886.)