chambers. Pores regular, circular; seven on the radius of the phacoid shell, one single pore on each chamber (the size increasing from the centre). Margin with thirty to forty angular, broad, dentate spines, the prolongations of the inner radial beams.

Dimensions.—Diameter of the disk (with six rings) 0.22, of the phacoid shell 0.1, of the medullary shell 0.04.

Habitat.—Pacific, central area, Station 268, depth 2900 fathoms.

## 2. Astrocyclia stella, Haeckel.

Lithocyclia stella, Ehrenberg, 1875, Abhandl. d. k. Akad. d. Wiss. Berlin, p. 78, Taf. xxix. fig. 2.

Phacoid shell three times as broad as the medullary shell, surrounded by four to eight rings of increasing breadth from the centre, the outer of which are more or less spongy. Each ring is divided by forty to fifty piercing radial beams into chambers of increasing size. Pores regular, circular; a single one on each chamber, ten on the radius of the phacoid shell. On the margin are scattered ten to twenty thick and short spines, four-sided pyramidal, about as long and as broad at the base as the diameter of the medullary shell.

Dimensions.—Diameter of the disk (with eight rings) 0.25, of the phacoid shell 0.09, of the medullary shell 0.03.

Habitat.-Fossil in the rocks of Barbados.

## 3. Astrocyclia rotula, n. sp.

Phacoid shell four times as broad as the medullary shell, surrounded by one single ring, which is divided by forty radial beams into equal chambers. Pores regular, circular; two on the breadth of the ring, six on the radius of the phacoid shell. Margin with forty short, conical spines, the prolongations of the inner radial beams, twice as long as the breadth of the ring.

Dimensions.—Diameter of the disk 0·13, of the phacoid shell 0·1, of the medullary shell 0·025. Habitat.—South Atlantic, Station 332, depth 2200 fathoms.

## 4. Astrocyclia arachnia, n. sp.

Phacoid shell twice as broad as the medullary shell, surrounded by four to six rings of equal breadth, which are divided by twelve to twenty radial beams into broad chambers. Pores regular, circular; two on the breadth of each ring, eight on the radius of the phacoid shell. Margin with twelve to twenty very long and thin, bristle-shaped, radial spines, the prolongations of the inner beams, longer than the diameter of the disk. (Resembles Stylodictya arachnia, but differs in the possession of a phacoid shell.)

Dimensions.—Diameter of the disk (with six rings) 0.22, of the phacoid shell 0.09, of the medullary shell 0.045.

Habitat.-North Atlantic, Canary Islands.