1. Tessaraspis arachnoides, n. sp. (Pl. 136, fig. 1).

Parmal pores pentagonal, ten to twenty times as broad as the thin thread-like bars, on an average of about the same size as the irregular sutural meshes; the majority of the latter are either triangular or hexagonal. Radial spines very thin and long, cylindrical, their outer part two to four times as long as the inner. As the insertion of the spines is on the highest point of the plates, the shell becomes polyhedral (dodecahedral?).

Dimensions.—Diameter of the shell 0.15 to 0.17, of the parmal meshes 0.02 to 0.025, sutural meshes 0.01 to 0.03, bars 0.002.

Habitat.—Equatorial Atlantic, Station 347, surface.

2. Tessaraspis pentagonalis, n. sp.

Parmal meshes pentagonal, three to four times as broad as the thick bars, and on an average smaller than the irregular polygonal sutural meshes. Radial spines stout, quadrangular; their outer pyramidal part shorter than the inner prismatic part.

Dimensions.—Diameter of the shell 0·12, of the parmal pores 0·01 to 0·012, bars 0·003.

Habitat.—Central Pacific, Station 269, surface.

3. Tessaraspis tetragonalis, n. sp.

Parmal meshes tetragonal, or nearly square, six to eight times as broad as the thin bars, and on an average larger than the irregular polygonal sutural meshes. Radial spines thin, quadrangular, prismatic, their outer part longer than their inner.

Dimensions.—Diameter of the shell 0.16, of the parmal pores 0.012 to 0.016, bars 0.002. Habitat.—South Pacific, Station 288, surface.

4. Tessaraspis hexagonalis, n. sp.

Parmal meshes hexagonal, ten to twelve times as broad as the thin bars, and on an average larger than the polygonal sutural meshes (the two proximal sides of each hexagonal parmal mesh two to three times as long as the four distal sides). Radial spines cylindrical, thin; their outer part longer than the inner.

Dimensions.—Diameter of the shell 0.15, of the parmal pores 0.01 to 0.015, bars 0.001. Habitat.—North Pacific, Station 254, surface.

5. Tessaraspis trigonalis, n. sp.

Parmal meshes triangular, three to four times as broad as the thick bars, and on an average smaller than the irregular sutural meshes (in each plate all four parmal meshes of the same size, formed like an isosceles triangle, the distal base of which is somewhat curved, and convex towards