

of the central cube arise eight primary radial spines, and often others from the framework between them.

The genus *Centrocubus* and the following closely allied *Octodendron* may represent a peculiar small group of Spongiommida, remarkable for the regular, cubical form of the medullary shell, which is composed of twelve thin rods, corresponding to the twelve edges of a mathematical cube; from the eight corners invariably arise eight primary radial spines, the branches of which form the spongy cortical shell.

1. *Centrocubus octostylus*, n. sp.

Radial spines eight, arising from the eight corners of the cubiform, regular, medullary shell, gradually increasing in thickness towards the club-shaped distal end, which is five to six times as broad as the central end. From the three denticulate edges of each spine arise six to eight lateral branches, which ramify irregularly and form by their anastomosis the spongy framework which is of nearly similar structure throughout, and with large loose meshes. The free distal part of each spine is half as long as the enclosed part.

*Dimensions*.—Diameter of the sphere 0.6, of the central cube 0.02; length of the spines 0.15, distal thickness 0.02.

*Habitat*.—Central Pacific, Station 271, surface.

2. *Centrocubus cladostylus*, n. sp. (Pl. 18, fig. 1).

Radial spines thirty-two, club-shaped, at the distal end eight to ten times as broad as at the basal end. Eight primary spines arise from the eight corners of the regular, cubiform medullary shell, and from these, in the form of lateral branches, twenty-four secondary spines arise with concavely curved bases (three from the three denticulate edges of each spine, at nearly equal distances from the centre). The free distal end of each of the thirty-two spines is of the same shape, about half as long as the radius of the spongy sphere; framework much looser in the outer than in the inner part.

*Dimensions*.—Diameter of the sphere 0.8, of the central cube 0.02; length of the spines 0.2, distal thickness 0.02.

*Habitat*.—North Pacific, Station 256, surface.

3. *Centrocubus polystylus*, n. sp.

Radial spines sixty to eighty, club-shaped, four to six times as broad at the distal as at the basal end. Eight primary spines arise from the eight corners of the regular, cubiform medullary shell, the remainder either springing as lateral branches from the three denticulate corners of the former, or arising within the spongy framework, which is much denser and darker in the central than in the peripheral part. The free distal end of each spine is one-third as long as the radius.