sharp. Artopilium may be also derived from the three-jointed Dictyoceras by addition of new terminal joints.

Subgenus 1. Trictenartus, Haeckel, 1881, Prodromus, p. 437.

Definition.—Shell with three annular strictures and four joints.

1. Artopilium elegans, n. sp. (Pl. 75, fig. 1).

Shell three-sided pyramidal, with three annular strictures. Length of the four joints = 1:2:9:3. Cephalis small, hemispherical, with two large, prismatic, divergent horns of three times the length. The three prominent edges of the second and third joints are finely latticed and dentated, and at the basal end of the third joint are prolonged into three stout, free, pointed, pyramidal, divergent wings, about as long as the horns. The fourth joint is only as long as the second, three-sided prismatic, its wide triangular mouth is armed with six parallel, vertical, slender teeth (two between every three wings). Network very delicate and regular, in the first and second joints with circular, in the third and fourth joints with small hexagonal meshes.

Dimensions.—Length of the shell (with four joints) 0.3, breadth of the third joint 0.3, of the fourth 0.2. Length of the single joints, a 0.02, b 0.04, c 0.18, d 0.06.

Habitat.—Central Pacific, Station 274, depth 2750 fathoms.

2. Artopilium longicorne, n. sp. (Pl. 77, fig. 10).

Shell subovate, with three internal annular septa. Length of the four joints = 2:3:2:6. Cephalis hemispherical, with a very large three-sided prismatic horn, nearly as long as the shell. Along the three following joints arise three broad, triangular, latticed wings, about as long as the shell. The fourth joint is the broadest, and twice as broad as the constricted mouth. Pores in the two upper joints regular, circular, in the two lower and the three wings hexagonal.

Dimensions.—Length of the shell (with four joints) 0.13, breadth 0.09. Length of the single joints, a 0.02, b 0.03, c 0.02, d 0.06.

Habitat.—Central Pacific, Station 263, depth 2650 fathoms.

3. Artopilium cyrtopterum, n. sp. (Pl. 77, fig. 12).

Shell subovate, with three sharp strictures. Length of the four joints = 1:2:3:3. Cephalis subspherical, with a stout, pyramidal horn of twice the length. Along the second and third joints arise three broad, triangular, latticed wings, about half as long as the shell. The third joint is the broadest, and twice as broad as the constricted mouth. Pores subregular, circular.

Dimensions.—Length of the shell (with four joints) 0.18, breadth 0.1. Length of the single joints, a 0.02, b 0.04, c 0.06, d 0.06.

Habitat.—North Pacific, Station 253, depth 3125 fathoms.