C. Deposits—reddish-brown, concentric bodies alone.

Trochostoma ooliticum (*Chirodota*), Pourtalès, 1851; Danielssen and Koren, 1878, 1882. *Holothuria pentactes*, Gould, 1841 (according to Pourtalès). *Molpadia oolitica*, Selenka, 1867 (*partim*). *Haplodactyla oolitica*, Semper, 1868 (*partim*).

Habitat.—Massachusetts at Boston (Gould, Pourtalès, Selenka), Block Island south of Cape Cod, and Boon Island (Verrill).

Neither in the papers of Danielssen and Koren and Sars, nor in those published by Pourtalès, have I found any direct statement of the conformation of the tentacles in *Trochostoma boreale* and *Trochostoma ooliticum;* but Danielssen and Koren, who referred these species to *Trochostoma*, distinguish the named genus from *Haplodactyla*, by its having digitate tentacles and the integument mostly rough. For my own part I do not believe these characters to be of much importance, and the more so as several species of *Trochostoma* have very rudimentary digits, evidently forming a transition to *Haplodactyla* with its simple tentacles, and, besides, two species of *Trochostoma* have the skin smooth. Further investigations may prove whether the specific characters above cited be true, or only of varietal significance, or due to difference of ages or sex.

D. Deposits in the perisoma, absent.

Trochostoma arenicola (*Liosoma*), Stimpson, 1857.

Habitat.—San Pedro in California (Stimpson).

Each of the fifteen tentacles "is composed of a short peduncle with four or five digitations at the disk-like summit." With regard to the deposits, Stimpson says: "The genus differs from *Chirodota* in the want of the calcareous deposits in the skin so characteristic of the later form." Numerous specimens of a *Trochostoma* are preserved in the State Museum of Stockholm, dredged at the same locality in California, which, in external appearance, are almost like the preceding northern species, and doubtless are just the same forms as that examined by Stimpson. They are of about the same body-form as, for instance, *Trochostoma boreale* and *Trochostoma arcticum*, &c., but possibly more swollen at the middle of the body. They resemble the above named species in internal and external organisation, but seem to be totally devoid of deposits in the perisome. The tentacles are completely retracted in all specimens, consequently it is not possible to state their true appearance, but they evidently bear some short digits. Integument thick, smooth, leathery. Calcareous ring with five bifurcate prolongations posteriorly. The retractors absent, but traces of such present where the longitudinal muscular bands join the calcareous ring.