shields long, triangular; much wider without than within, where they do not quite meet. Genital scales concealed under fine, closely-set disk scales. Under arm plates pentagonal near base of arm, farther out quadrangular, with an angle inward; one tentacle scale which is round, and situated on inner angle of the second and third under arm plates. Side arm plates thick, minutely tuberculous, meeting below, but not above, near base of arm. Upper arm plates near base of arm hexagonal, with outer and inner sides very short. Disk covered above and below by thin, rounded, minutely tuberculous scales; on the margin are larger angular plates of the same character. Radial shields small, minutely tuberculous, rounded triangular; length to breadth 1.5:.7; widely separated by a group of half a dozen plates, of which the outer ones are much wider than long. Two or three minute peg-like arm spines situated in a notch low on the side arm plate. Colour in alcohol, pale grey.

Station 33.—April 4, 1873; off Bermudas; 435 fathoms (same species?); mud. Station 236.—June 5, 1875; lat. 34° 58′ N., long. 139° 30′ E.; 420 to 775 fathoms; mud.

Ophiomusium archaster, Wyv. Thom. (Pl. II. figs. 4-6).

Ophiomusium archaster, Wyv. Thom., MS.; Lym., Bull. Mus. Comp. Zool., vol. v., part 7, p. 112, pl. ii. figs. 28, 29, 32, 1878.

Arms rather slender and tapering, cylindrical, or but slightly wavy. Upper and under arm plates persisting nearly to end of arm, but no tentacles beyond third or fourth under plate. Genital opening bounded by small close-set papillæ. Disk covered by thick skin, its upper surface occupied chiefly (and in half-grown specimens almost entirely) by radial shields and large primary plates, with small scales between. Arms even and cylindrical. Four minute rudimentary arm spines.

(Type specimen from Station 323.) Diameter of disk 10 mm. Width of arm close to disk, without spines, 2.5 mm. Five mouth papillæ on each side, short, pointed, closely joined with one large, diamond-shape at angle of jaw. Mouth shields broad, heart-shaped, with a peak within; length to breadth 1.3:1.5. Side mouth shields long triangular, very broad without; tapering and curved inward where they meet. First under arm plate very small, triangular, with angle inward; the three next bear tentacle scales, and are three-sided, with lateral sides a little reenteringly curved, and outer side slightly curved; the rest are small, triangular, with outer side curved. Side arm plates thick, slightly swollen, somewhat constricted within, meeting below throughout, and above beyond the third upper arm plate. First two upper arm plates rounded and much wider than those beyond, which are triangular, with an angle inward, lateral sides straight, outer edge much curved. Disk flat, covered with thick, minutely tuberculous plates and scales. Radial shields