

*Habitat.*—Off Bahia, 10 to 20 fathoms.

[The only specimen of this apparently undescribed species is a small dead fragment, containing no chitinous parts, and otherwise in bad condition, so that it is doubtful whether there really is an internal denticle; but the median descending avicularium, of which I cannot see more than one in the entire specimen, renders it almost certain that the form belongs to *Smittia*, or is closely allied to it.]

(b) Unilaminar, erect or crustaceous, unattached (hemescharan).

(2) *Smittia smittiana*, n. sp. (Pl. XVII. fig. 3).

*Character.*—Zoarium quite unattached, foliaceous, expanded. Zoecia quincuncial, elongated oval, or fusiform. Surface uniformly punctured, epitheca thick and white. Primary orifice suborbicular, rather wider than high, with two lateral notches in the lower lip; secondary clithridiate, peristome much raised all round, but especially on the sides; a median oral avicularium of circular form, with a short duck-bill shaped mandible, deeply seated behind which is an internal rather broad denticle. Oecium prominent, hemispherical, with an oval or rather reniform circumscribed area in front, within which are usually five converging more or less triangular openings, the borders of which are not thickened. The anterior border of the oecial mouth straight, joining the lateral elevations of the peristome on each side. On the dorsal aspect, the zoecia are barrel-shaped and imperforate, and the texture of the hind wall is very coarse and thick. Zoecia from 0''·02 to ·03 wide × ·04 to ·06 long.

*Habitat.*—Station 320, lat. 37° 17' S., long. 53° 52' W., 600 fathoms, green sand.

This beautiful form differs from *Smittia landsborovii*, Johnst.: 1, in the form of the zoecia, and in their not being separated by septal ridges; 2, in the size and form of the suboral avicularium; 3, and more especially in the primary conformation of the orifice, which in that species has a prominent tooth within the lower lip, with a minute denticle on either side of it (Hincks), whilst in *Smittia smittiana* the lower lip presents two small lateral notches separated by a wide portion of the border, which in a subsequent stage of development appears to be reduced to a comparatively narrow hammer-shaped denticle.

(3) *Smittia marsupialis*, n. sp. (Pl. XVIII. fig. 1).

*Character.*—Zoecia serial, quadrilateral, flattened in front, with the oral portion somewhat raised; wall punctured. Orifice, at first suborbicular, entire, with a broad internal median denticle, and two smaller points on the sides; afterwards the peristome