2. *Mopsea encrinula* (Lamarck) (Pl. VII. figs. 1, 1*a*, 1*b*; Pl. IX. fig. 11).

Isis encrinula, Lamk., Hist. anim. sans vert., t. ii. p. 302.
Mopsea verticillata, Lamouroux, Hist. Polyp. flexibles, p. 467, pl. xviii. fig. 2, et Expos. méth., p. 30.
Mopsea encrinula, Ehrenberg, Corallenth. d. rothen Meeres, p. 131.

The colony is upright, ramified, the branches expanded in one plane. The main stem gives off from two sides, alternating, plume-like twigs, which remain simple, on a few larger branches which again bear plume-like twigs on two sides; since the larger lateral branches of the stem attain to the thickness and nearly to the length of the main stem, and as the finer plumes come off at angles of 35° to 40°, the whole colony acquires a fan-like appearance.

Length of the main stem 200 mm. Thickness at the base 2 mm. Length of one of the two main branches 145 mm. Length of the feather-like branches 20 to 25 mm.

The cœnenchyma is thick, not transparent. The polyps are closely crowded on the stem and twigs. On the stem and larger branches they are more developed on the sides where the branches arise and leave the intervening cœnenchyma free; on the twigs, on the contrary, they are arranged in close spirals. Each spiral is formed of five polyps, but the spirals follow so close upon one another that each, on superficial examination, looks like a whorl. The polyps are club-shaped, 1 mm. long. Their form very strongly recalls that of the polyps of the Primnoids, with which they agree in being able to bend themselves in towards the stem, as is always the case in death. The closed tentacles form over the calyx an obtuse cone which recalls the closed operculum of the Primnoids. The axis consists of horny and calcareous joints, which latter exhibit distinct longitudinal furrows. In the lower part of the axis the horny joints are larger than the calcareous joints. In one example the axis is horny up to 8 mm. above the base, further towards the point the calcareous and horny joints become of equal length, and soon the calcareous joints exceed the horny ones in length by more than double.

The branches and plumes arise on both sides of the stem alternately, for from every joint a twig comes off, on the one joint always from one side and on the next from the opposite side. The first joint of the branch or twig is horny and arises from the calcareous joint of the stem, but frequently close to the upper edge, so that its horny base fuses with the horny joint of the stem or branch. This occurrence is very frequent, and gave rise to the diagnoses of Ehrenberg and Milne-Edwards, that the branches and twigs arise from the horny joints.

In one specimen, in the collection of the Jardin des Plantes, Paris, the origin of several branches from the calcareous joints is easy to be seen.

The spicules of this species are rough and thorny, those of the cœnenchyma are longish lancet-shaped plates with sharp interlocking teeth on the edge. Length to breadth in mm.—0·1–0·05; 0·14–0·06; 0·13–0·05; 0·12–0·05; 0·1–0·03.