

round the border; the interspaces are sometimes irregularly cancellated. Surface porcellanous. Primary orifice suborbicular, sinuated below; operculum semiorbicular with a straight lower border about $0''\cdot006 \times \cdot004$. Pre-oral rostrum small, conical, obtuse, presenting on one side near the base a very minute avicularium, with a semi-elliptical mandible pointing upwards. Interspersed prominent avicularia, with a short duck-bill shaped mandible and simple non-serrated beak. Very rarely one of large size, completely immersed, with a long spatulate obtuse mandible very wide at the base.

Habitat.—Off Samboangan, 10 fathoms.

In the figure the orifice is represented as notched on one side, but the apparent notch is merely caused by the projection of the base of the rostrum; the rostral avicularium is represented larger than it should be. The form may probably be only a variety of *Cellepora polymorpha*.

(12) *Cellepora discoidea*, n. sp. (Pl. XXX. fig. 8, and Pl. XXXV. fig. 1).

Character.—Zoarium (in a single specimen) discoid, unilaminar, attached only at the centre. Zoecia (at the growing edge) ventricose; surface granular, entire. Primary orifice (fig. 8*b*) suborbicular or elliptical with a minute three-toothed process within the lower border, which is gradually developed into a large pre-oral rostrum (fig. 8*a*) on one side at the base of which is a small labial sinus and posteriorly a large avicularium with a duck-bill shaped mandible and a toothed beak (*c*); beyond which the rostrum in the older zoecia is produced in the form of a strong conical solid spine. A few interspersed recumbent, subimmersed avicularia with a long lanceolate retentive mandible and simple non-serrated beak (*d*).

Habitat.—Station 186, off Cape York, 8 fathoms, coral mud.

The peculiar characters of this species are derived from: 1. The entire suborbicular orifice, within the lower border of which is, in quite the earliest stage, after the calcification of the front of the zoecium is completed, a minute tridentate process, which appears progressively to become a rounded eminence (fig. 8*b*), toothed or serrated at the summit, the serrations forming the upper border of an avicularium; and as growth goes on, this eminence rises into a thick obtuse pre-oral rostrum, which always retains the serrated edge of a large avicularium (fig. 8*c*); at a still further stage this obtuse rostrum is produced beyond the avicularium into a strong conical pointed solid spine. 2. Another character is shown in the interspersed retentive avicularia, which are of a wholly different character from that on the rostrum, being elongated, deeply immersed, in the form of a shallow boat and have a long lanceolate mandible and simple non-serrated beak. It may also be remarked that in this species there are two *lemnisci* attached to the tentacular sheath.