

cause a reticulate appearance. A dark brownish circular ring surrounds the bases of the papillæ, and this ring is in its turn encircled by a second whitish ring, which is especially distinct on the back. The upper part of the papillæ is whitish. The papillæ along the angles of the body, however, are not enclosed by these rings, which are confluent and form an irregular, undulated dark line along each side above the row of papillæ and another line, though more indistinct, on the ventral surface.

The calcareous ring (Pl. VII. fig. 11, *f*) is of the usual shape without posterior processes. A single large madreporic canal with the free end enlarged and pear-shaped, and several (seven) Polian vesicles are present. The reproductive organs are made up of a single bundle of long, cylindrical, narrow tubes, which are bipartite or tripartite only at the base.

The integument is not very thick, and contains tables and knobbed buttons. The tables (Pl. VII. fig. 11, *a*, *b*, *c*) are robust, and their perforated disk is mostly smooth on the margin and convex on the inner surface; I have sometimes seen spines on the margin. The spire is usually short, about 0.048 mm. long, broad and built up of four rods, united by a single transverse beam under the top, which is mostly rounded and covered with spines. Among these tables I have also seen others with the spire more slender and with two transverse beams and also a few with a larger, more irregularly reticulate disk and a slender, longer spire with about three transverse beams. The most common buttons (Pl. VII. fig. 11, *d*) are oval, with six holes and two knobs on the middle beam and some less prominent ones on the margin. Their length is about 0.04 mm. But I have also found much more elongated buttons with numerous holes in two rows and many knobs, so that the margin becomes very uneven. A series of transitional forms is to be found between the extremes. The papillæ are strengthened by strong, curved rods (Pl. VII. fig. 11, *e*), with perforated ends, and dilated and provided with holes, at the middle only, or along one or both sides. Semper's *Holothuria squamifera* is doubtless nearly allied to this species of Jæger, which, however, is devoid of smooth buttons, &c.

*Holothuria impatiens*, Forskaal, 1775 (Pl. VII. fig. 9).

*Habitat*.—Fiji Islands; a single specimen. Sandwich Islands; one specimen.

The incomplete specimen brought home by the Challenger Expedition from the Fiji Islands has a length of about 95 mm. The calcareous ring, tentacles, &c., are destroyed. The colour in alcohol is pale greyish or reddish-brown, excepting along the dorsum, where it is auburn. The rounded warts which carry the pedicels are pale, inclining to yellowish, excepting along the back, where they are darkish brown. The surface of the perisome is rough from the spinous tops of the tables. The tables (Pl. VII. fig. 9, *a*, *b*, *c*) have a height of about 0.068 mm., and their disks measure 0.11 mm. in diameter. The