

not depressed, punctate, punctures very regularly quincuncial. Orifice semicircular, slightly coarctate, about 0''·01 wide, lower lip straight entire or sometimes showing a few very shallow notches close to the angle. A minute internal conical tooth (? articular) on each side. On some of the cells a small immersed avicularium on one or both sides of the orifice, of an oval form (with a triangular mandible looking downwards). Dorsal surface vitreous, transversely wrinkled, with a large oval or reniform opening closed by a perforated membrane and with a raised but not thickened border, and besides this, one or several small circular pores also with raised margins, from which proceed flexible radical tubes, the wall of which is very finely annulated. Lateral interzoecial plates, small and circular, eight in number, disposed in alternate rows (four to each of the contiguous cells).

*Habitat.*—Station 186. Cape York, lat. 10° 30' S., long. 142° 18' E.; 8 fathoms, coral mud.

This fine species exemplifies, in the most striking manner, the structure of a hemescharine zoarium. It is loosely attached, apparently by long flexible radical tubes, to subjacent bodies, probably coral, and besides these tubes each zoecium has a gigantic "perforated plate," the function of which, in such a situation, appears to be very obscure. It is clear, however, that it is not for the purpose of keeping up any communication with a contiguous zoecium, although in structure it precisely resembles those "Rosettenplatten" which occur on the walls of contiguous cells and have been supposed to be for the purpose of communication between the two.

(b) Adnate (lepralian).

(5) *Lepralia feegeensis*, n. sp. (Pl. XXII. fig. 9).

*Character.*—Zoecia very large, 0''·05, completely immersed so as to form an almost level surface, slightly convex in front, oblong and rectangular, disposed in linear series; surface smooth, very finely and obscurely punctured. Mouth large, slightly coarctate, with a straight prominent lower lip. On many of the zoecia, on each shoulder, on the sides of the orifice, a horizontal immersed avicularian (with an elongated acute mandible pointing directly inwards). Oecia inapparent.

*Habitat.*—Station 208, lat. 11° 37' N., long. 123° 31' E., 18 fathoms, blue mud (on a dead shell).

[Hongkong, Dr. Harland.]

A very remarkable form, in which is well displayed the mode in which the marginal growth of the colony is effected. Each of the contiguous series of zoecia is produced a long way in front of the last inhabited one, in a perfectly smooth chitinous expansion, extending to the length of two or three of the zoecia, and in which scarcely any indica-