

PLATE IV.

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Fig. 1. ETHMOPHYLLUM WHITNEYI.....

1. Enlargement to two diameters of one of the type specimens. Collection U. S. National Museum.
- 1a. Enlargement of the outer surface to 10 diameters. Collection U. S. National Museum.
- 1b. Longitudinal section of a specimen showing the vesiculose inner wall, which, when the outer wall and septa are broken away, gives the form described by Mr. Meek as *E. gracilis*. Collection U. S. National Museum.
- 1c. Transverse section showing the structure mentioned of fig. 1b still more clearly; also, the septa and poriferous outer wall. 37 septa. Collection U. S. National Museum.
- 1d, 1e. Two transverse sections of a very small specimen, in which the walls and septa are thickened.
- 1f. Transverse section, 1.5mm in diameter, showing eight septa. Collection U. S. National Museum.
- 1g. Similar section to 1f, with 14 septa. The two sections represented by figs. 1d, 1e, indicate irregular growth, and 1f, 1g, the uninterrupted, natural growth of the species. Collection U. S. National Museum.
- 1h. A larger transverse section, with 58 septa; numerous partitions between the septa, the outer poriferous wall, and the openings between the septa. Collection U. S. National Museum.

Fig. 2. ETHMOPHYLLUM

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2. Diagrammatic vertical section through the center on the line of the septa, to show the writer's view of the poriferous system. If the outer wall is removed, the large pores on the line of the septum would be shown as in fig. 1, pl. iv, and fig. 2, pl. v. The inner wall is perforated by smaller openings, and fewer of them, than the outer wall.

Fig. 3. ETHMOPHYLLUM PROFUNDUM.....

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3. Enlargement of a portion of the section represented by fig. 1, pl. i, to show the complicated structure more clearly.