respects the following family, the Antheadæ. Like the latter they have long tentacles, of which the muscles are but slightly developed, and which are consequently capable of a small amount of contraction, and they are also unable to draw the upper margin of the wall over the oral disk. The most important difference between the two families is, that in the Antheomorphidæ incapacity for protecting the oral disk is caused by complete want of the circular muscle, whilst in the Antheadæ it is owing to the muscle being only slightly developed.

The Antheomorphidæ are easily distinguished from the Corallimorphidæ by the absence of the intermediate secondary tentacles; in other respects the grade of development is the same in both families. The principal tentacles form a single corona, which exactly occupies the point of junction of the oral disk and the mural membrane. The muscular layers of the oral disk and of the septa are hardly pleated at all. The reproductive organs are developed on all the septa.

Besides the species described two other species should perhaps be added to this family, but these were unfortunately not sufficiently well preserved to allow of detailed examination. I have therefore inscribed them on the roll of doubtful forms under the names of *Porponia clongata* and *Porponia robusta*.

Antheomorphe, n. gen.

Antheomorphidæ with a corona of tentacles placed in a single row; tentacles of different sizes decreasing according to the orders; wall smooth.

Antheomorphe elegans, n. sp. (Pl. I. fig. 8).

Twenty-four extremely long marginal tentacles of different sizes, the six largest corresponding to the six pairs of principal septa, the six middle to the six pairs of septa of the second order, the twelve last to the interseptal spaces.

Habitat.—Station 244. June 28, 1875. Lat. 35° 22′ N., long. 169° 53′ E. Depth, 2900 fathoms. Three specimens.

Dimensions.—Height, 1·5–2·0 cm.; breadth, 1·5–3·0 cm.

The three specimens upon which I founded the erection of the new genus and new species were unfortunately not well preserved, so that I had almost to desist from any examination of the inner parts, such as the septa with their muscular system. On the other hand, the general form of the body was very well preserved.

The animals had been dredged from the depth of 2900 fathoms, and were attached to stones by their extended bases. In the largest specimen the diameter of the base amounted to 3 cm., whilst the height of the cylindrical body was only 2 cm., and the diameter of the oral disk again 3 cm. The lines of origin of the septa shone distinctly through the wall as twenty-four streaks; these passed on to the oral disk, which was somewhat raised and thickened in the periphery of the mouth. In one specimen the mouth even rose like a proboscis above the upper surface of the peristome.