

July 2, 1875, and is 12 mm. long and 1 mm. broad. It represents evidently a somewhat less advanced stage of the same group of fishes than the following. The snout is much distorted, but the general form and structure of its component parts were probably the same as in the next largest specimen, although rather shorter. The eye is extremely large and of an oval shape, occupying nearly the whole depth of the head. The termination of the tail is diphycercal; the embryonic fin-fringe commences on the back as a transparent rayless membrane in about the middle of the length of the fish, the dorsal rays becoming a little more distinct further behind, all being much more feeble than those of the ventral side. The anal fin becomes distinct behind the middle of the length of the body, is higher than the dorsal, and after having proceeded for a short distance, the rays become abruptly longer, stronger, and more closely set, and are supported by hæmal elements nearly to the end of the chorda. The situation of the vent, and the position of the paired fins, if they be present, cannot be ascertained.

The second specimen (Pl. V. fig. B) is 14 mm. long, and was obtained on May 3, 1876, on the surface of the North Atlantic. It is elongate, band-shaped, with pointed, subconical snout. The mandibular and maxillary bones are long, and the cleft of the mouth extends to below the eye. Teeth, as represented by Richardson in *Prymnothonus*, cannot be detected in this specimen. The eye is large. The vent is clearly distinct at a distance from the head which is nearly equal to the length of the latter. Behind the vent a low embryonic fringe commences, which is continued round the tail, terminating on the back in about the middle of the length of the fish. The fringe is striated or rayed throughout, but the rays are exceedingly fine in the anterior half of the anal portion, become then suddenly longer and stronger, forming a kind of lobe, and are shorter again round the caudal extremity. The termination of the vertebral column is heterocercal, the end of the chorda being bent upwards and continued beyond a group of hæmal elements supporting an assemblage of stronger rays which in the adult fish would be developed into a distinct caudal fin. Of the paired fins the pectorals are clearly developed, but I cannot detect a trace of ventrals. Behind and above the pectorals a larger and two smaller roundish black spots are visible below the transparent integument, which are the liver and other abdominal organs. A similar black spot existed in the specimen of *Prymnothonus hookeri*, and was misunderstood by Richardson, who, having a drawing only for his description, considered it to represent the gill-opening. As far as I am able to judge from the specimen described here, the gill-opening is wide, and at its usual place.

The specimen of which Richardson (*loc. cit.*) has given a figure, reproduced here (Pl. V. fig. C), seems to have been intermediate, as regards development, between that just described and the third discovered by the Challenger. The termination of the tail is homocercal, with a distinctly differentiated caudal fin, which, however, is continuous with the dorsal and anal. The dorsal extends only a short way forward on the tail, but