

*Amphicteis gunneri*, M. Sars, var. *atlantica* (Pl. XXVIA. figs. 26–29).

*Habitat*.—Trawled at Station 63 (towards the middle of the Atlantic, between Spain and the American shore), June 19, 1873; lat. 35° 29' N., long. 50° 53' W.; depth, 2750 fathoms; surface temperature, 71°·0; sea-bottom, red clay.

The length of the single example is 26 mm., and the diameter (exclusive of the bristles) anteriorly is barely 2 mm.

In general appearance this form corresponds with *Amphicteis gunneri* from Europe and Canada, though the anterior fan of bristles is decidedly longer. The seventeen pairs of bristles behind the anterior fan likewise correspond in number, though perhaps the winged bristles are somewhat more slender and tapering. The number of segments (fifteen) bearing hooks posteriorly is also the same.

The anterior fan certainly appears to be longer than in either the Canadian or the British form, and its structure leans to the latter variety rather than to the former. The bristles (Pl. XXVIA. fig. 26) are long and tapering, with a decided curve at the tip, the perfect or unworn form having a long terminal filiform process. They are less attenuate in general appearance than the British variety, while they are more elongate than the Canadian. The latter tapers rapidly from the robust basal region, shows little or no curvature, and ends in a slender point, the whole bristle being comparatively short. A slight indication of a wing, moreover, occurs at each side of the tip in the Challenger form. It more resembles the Norwegian representatives of *Amphicteis gunneri* than even the British, each having characters of its own.

The hooks (Pl. XXVIA. fig. 27) approach those of *Amphicteis gunneri*, but differ slightly from the foregoing in the shortness of the dorsal margin, which also has a less evident depression (very distinct in the Norwegian forms). There are five large teeth and a rudimentary one above the inferior process.

The distinctions between the Challenger species and *Amphicteis gunneri* are not easily recognised, but they seem noteworthy. The gradation passes from the Atlantic form to the Canadian (Pl. XXVIA. fig. 28) and then to the British (Pl. XXVIA. fig. 29). The food in the alimentary canal consists of greyish mud in which numerous small *Globigerinae*, Diatoms, and other minute structures occur.

There is little in section of the body-wall to distinguish this form from *Amphicteis gunneri*, except that the nerve-cords are less flattened.

*Amphicteis sarsi*, n. sp. (Pl. XLVII. fig. 12; Pl. XXVIIA. fig. 1).

*Habitat*.—Trawled at Station 325 (in the Atlantic, off the South American coast), March 2, 1876; lat. 36° 44' S., long. 46° 16' W.; depth, 2650 fathoms; bottom temperature 32°·7, surface temperature 70°·8; sea-bottom, blue mud.