

form prominences ("erbsengrosse Anschwellungen"), probably the basal parts of the detached and lost bracts. The siphons themselves (in a strongly contracted state) attain a length of 50 to 60 mm. and a thickness of 30 mm., and are therefore much larger than in any other known Siphonophoræ; in the fully expanded state they may have a length of half a metre or more. The basal half of the spindle-shaped siphons is distinguished outside by the possession of two opposite lateral wings or crests. Their whole inside is covered with innumerable small villi, which replace the wanting hepatic ridges. The gonodendra, which seem to alternate with the siphons, are elegant oblongish bunches 70 mm. to 80 mm. in length and 10 mm. to 15 mm. in breadth, attached directly to the trunk by thin tubular pedicles of nearly the same length. Each gonodendron is richly branched, and bears many hundreds of pediculate ovate gonophores, about 1 to 1.5 mm. in diameter. The bad state of preservation did not allow the recognition of their structure; but all the gonophores in each gonodendron seemed to be of the same sex.

Unfortunately the bracts as well as the nectophores were all detached and lost in the fragments of the corm described by Studer; but the great facility with which these parts are detached in all Forskalidæ explains their complete absence sufficiently; and the more so, as the mode of capturing this gigantic deep-sea form, brought up on a grapnel from depths of 1000 to 1800 fathoms, must have injured the delicate corm in the most violent manner. The tentacles which were originally attached to the base of the siphons were also found separate from them; they bore a series of tentilla, with ovate cnidosacs 12 to 15 mm. in length and 4 to 5 mm. in thickness; their spiral cnidoband had numerous turnings. Similar to the siphons, but of half their size, and provided with two larger longitudinal wings, were detached bodies, which Studer has described as "bracts" (*loc. cit.*, p. 20, Taf. iii. fig. 25); they are probably cystons.

Probably to the same genus belongs a gigantic deep-sea form, the detached siphons of which Fewkes has described in 1886 as *Pterophysa grandis*, taken from a depth of 2109 fathoms in the Gulf Stream (45, Nr. xxxvi. p. 960, pl. x. figs. 1-3). Scattered fragments and detached parts of another large Forskalid, probably closely allied, were found in a bottle in the Challenger collection taken in the South Atlantic (Station 323, depth 1900 fathoms). It may be called provisionally *Bathyphysa gigantea*.

Family XV. NECTALIDÆ, Hæckel, 1888.

Nectalidæ, Hkl., System der Siphonophoren, p. 41.

Definition.—Physonectæ polygastricæ, with a short vesicular stem of the siphosome, bearing numerous siphons, palpons, and bracts, each siphon provided with a branched tentacle. Nectosome with two or four rows of nectophores. Pneumatophore with radial pouches.