

genus *Gonatus*, not, however, without making several mistakes, which have since led to great confusion. Steenstrup has tabulated the most serious of these as follows:—

- a. Gray overlooked the difference between the armature of the ventral and of the other arms, not seeing the tips of the hooks in the two median series of suckers, as his description “all with small circular rings”<sup>1</sup> proves; the same error reappears in the phrase “and the outer series of the cups on the shorter arms are like the other, with circular arms and no hooks.”<sup>2</sup> Møller had rightly observed that the horny rings had often a very small hook on the margin, but thought, wrongly, that they had fallen out or were lost in those cases in which he did not see them (“uncinis marginalibus minutissimis et admodum caducis [rarissime obviis] instructis”).<sup>3</sup>
- b. Gray denied the presence of the minute suckers along the stems of the tentacles which Møller had correctly observed and recorded (“brachiis pedunculatis per totam longitudinem cotylis præditis”), whilst Gray in his turn perceived the hooks in the tentacular clubs whose existence Møller regarded as doubtful. (“Uncinos in brachiis ped. nondum vidi; fortasse tamen adsunt, sed æque caduci ac uncini brachiorum sessilium.”)
- c. Gray states that the siphon has “no interior valve,” and that it is “without superior central band”; and
- d. That the gladius has no terminal cup, although in other respects his description of it is correct.

Nothing was added to our knowledge of this form between 1849 and 1878, when Professor G. O. Sars published<sup>4</sup> some figures and a description of a small specimen captured in the Porsangerfjord, concerning which Steenstrup makes the following criticisms:<sup>5</sup>—

“In the enlarged details of portions of an arm, and of suckers from the median and lateral series, any one who is acquainted with *Gonatus* will readily recognise its characters, and will also see in fig. 10 an approximate though not quite accurate representation of its tentacles. The same holds of fig. 11, which represents the most important middle portion of a tentacular club, except that the connective apparatus is omitted both in the drawing<sup>6</sup> and in the text. As regards the gladius, the ventral aspect of which is shown in fig. 4, its terminal cone has been laid open in the middle line and spread out on either side, instead of being retained in its proper conical shape with which agrees also the expression in the text ‘extremitate postico leviter cochleariformi.’

<sup>1</sup> B. M. C., p. 67.

<sup>2</sup> *Op. cit.*, p. 68.

<sup>3</sup> Ind. Moll. grøn., p. 3.

<sup>4</sup> Moll. Reg. Arct. Norv., p. 336, tab. xxxi.

<sup>5</sup> *Op. cit.*, p. 14.

<sup>6</sup> There are a number of minute dots along the arm which seem to me as though intended to suggest the presence of minute suckers.—W. E. H.