

resembles the other end, but the lamina is here thicker, and the ventral margins have fused, forming a closed quadrangular tube.

The next portion is quite similar in form, and from a consideration of its breadth and depth must have been situated posteriorly to the largest piece, and separated from it by a distance of 2 or 3 cm.; it measures 5 cm. in length. The next piece is 6.5 cm. long, and evidently fitted closely to the one just mentioned; this appears to have been followed by a piece 6 cm. long, separated from it by about 1 cm., and finally there is a portion 8.5 cm. long succeeding to this, but separated from it by about 5 cm. All these portions resemble the first in the form of their transverse section, and taper gradually backwards, so that the posterior extremity of the last has a depth of 6 mm. and a breadth of 4.5 mm., as shown in fig. 5. This termination is, however, roughly truncated, and was evidently not the end in the natural condition; it probably came to a point as in most other forms.

In addition to all these there is a long strip 26.5 cm. in length which consists almost entirely of the dorsal keel, which is here larger than in the portion first mentioned, and it is slightly larger at one extremity than the other. The smaller end was presumably separated by an interspace of unknown length, from the part shown in fig. 1, and on one side it bears a piece of the lamina, 6 cm. in length, 2.5 cm. in breadth posteriorly, and tapering to a point anteriorly (see fig. 2); the margin is perfectly smooth and even, so that this was evidently the anterior part of the expanded lamina or blade of the pen.

The anterior extremity of the keel (fig. 4a) is 5 mm. high, 3 mm. broad at the top, and 6 mm. at the base; it is irregularly truncated, so that it evidently did not form the anterior extremity, and its lateral margins are also rough, so that its breadth was originally somewhat greater than at present.

Unfortunately it is impossible to give even a probable estimate of the total length of the pen; all the fragments and the interspaces which can be calculated with some degree of certainty amount together to 78 cm., so that we have here a minimum; but what was the length of the flat expanded portion of the blade, or whether indeed any portion was actually widely spread out, there are no means of ascertaining.

The only structure known to me with which this pen can be at all compared is that of *Chiroteuthis lacertosa*, as described by Verrill, but to this the resemblance is apparently rather close. In both there is a narrow anterior portion, with a keel of very similar form (compare his figure, pl. lvi. fig. 1a' with Pl. XXXI. fig. 4a). The correspondence between his figure 1a'' and fig. 3 is so close as to strike any one who places them side by side. The likeness is, I think, sufficient to prove that the forms belong at any rate to closely allied genera.

Professor Steenstrup has also told me that the specimen of *Doratopsis vermicularis*, in the Copenhagen Museum, has a pen somewhat resembling this, but as I did not see that specimen during my visit I can give no particulars regarding the comparison; it will be described and figured, however, in one of his forthcoming papers.