

the inside, with a thick epithelium; the diameter of the duct is about 0·5 mm. The *male branch* of the hermaphrodite duct is immediately continued into the *vas deferens*, which follows the same course as in the previous species; it accompanies the vagina and the duct of the mucous gland, and becomes imbedded in or near the outer lip of the "genital" furrow,¹ and is continued as far as its anterior end, where it apparently bends inwards, crosses through the frontal shield, and becomes again free on its inner side. The first 6 mm. of the *vas deferens* are delicate and whitish coloured; it then becomes about twice as thick and more yellowish coloured, and forms a coil which measured 11 mm. long by 5 mm. in diameter, and behind is of a rather clearer yellow colour; it then continues straight from the place of insertion of the retractor muscle (Pl. VII. fig. 3, c) for the space of about 6 mm. to the penis (fig. 3, b); when unravelled and extended the *vas deferens* measures some 20 cm.² by ·4 mm. in diameter; the difference in colour between the prostatic and muscular portions of the duct is not very conspicuous. The *penis* (Pl. VII. fig. 3, a) is short and sac-shaped, a little flattened, 4·5 mm. long by 2·5 mm. broad; its cavity opens laterally by a slit into the middle of the sac of the dart-gland. The *præputium* of the penis is like that of the previously described species; its cavity is clothed with a thick yellow cuticle and has strong transverse furrows, it is nearly filled by the short thick glans (fig. 3) with its cylindrical truncated prolongation, black on account of the hooks (fig. 3). This protrusible end of the *vas deferens* is 1·6 mm. long by ·35 mm. in diameter; the hooks are arranged as usual in longitudinal quincuncial series (fig. 4), about twelve or fifteen rows at the base of the protrusible part and fifteen to twenty at the point, and more backwards in the interior generally twenty-two to twenty-five; these hooks (fig. 4) were of the usual form, attaining a height of ·035–·045 mm., dirty yellow coloured, inclined to brown upon the base. The portion of the *vas deferens* armed with hooks does not extend backwards beyond the base of the penis; the whole length of this portion is not more than 6 mm. In the last straight portion of the *vas deferens* (fig. 3, bb) the proper seminal duct itself winds down in a cork-screw fashion, but goes straight in the other parts. The retractor muscle of the penis (fig. 3, c) is rather shorter than in the previous species,³ at least 8 mm. long, and about the same breadth as the *vas deferens* throughout.—The *dart-gland* covers the largest part of its ampulla with its own windings; when unrolled it measured 51 cm. by ·8–1 mm. in diameter;⁴ its structure is as above described. The *ampulla of the gland* has again the same form and structure; its length is 2·5 cm. and diameter 4·5 mm. The duct, which takes its rise from the anterior end of the ampulla, is coiled, when unrolled it measures 2·5 cm., and is hardly thicker than the gland. The strong *retractor sacci hastatorii* and the protrusors are quite as

¹ At the bottom of this furrow there was a fine longitudinal fold, whose sides were traversed by other folds; a similar condition was found by Semper (*loc. cit.*, Taf. xxii. fig. 20) in *Onchidium glabrum*.

² Semper (*loc. cit.*, p. 259) describes the length of this portion as being over 20 cm.

³ According to Semper (*loc. cit.*, p. 259, Taf. xxii. fig. 10, *rp.*), the retractor muscle of the penis is much shorter.

⁴ Semper (*loc. cit.*, p. 259), in a specimen measuring 5 cm., found the gland to have a length of 80 cm.