

the albuminiparous gland; the male branch is continued in the *vas deferens*. This last is hardly thinner than the duct of the mucous gland, and accompanies it, being separated from it by a nerve cord, as far as its entrance into the side wall of the body; it could be traced in company with the vagina as far as the vulva, it then becomes thinner and bends forwards and runs in the outer lip of the female genital furrow as far as its anterior extremity (Pl. VI. fig. 12). In this long portion the vas deferens is firmly embedded in the substance of the lip, from which it cannot be freed; in transverse sections through the side walls of the body the vas deferens is seen within or near this same lip (compressed and perpendicularly oval) (Pl. VI. fig. 21, *c*), about .25 mm. greatest diameter, with a very narrow cavity;<sup>1</sup> the course of the vas deferens along the body wall is (fig. 12) apparently quite straight. I could not follow it as far as the place where it appears to enter the frontal shield; within the last, but nearer the upper side, the vas deferens could be separated out, its course here is arched, the length of this portion being at least 4 mm. Beneath the right rhinophore, on the outer side of the common opening of the dart-gland and præputium (Pl. VI. fig. 12, *l*), the vas deferens is again free (it is of course only visible from the inside of the visceral cavity); for the first 8 mm. of its length it is somewhat thinner (fig. 12, *d*), it afterwards becomes about double the thickness, changes in colour from white to brownish-yellow, becomes of a somewhat softer consistency, and forms a coil, brownish coloured behind (fig. 12, *e*) and more yellowish in front (fig. 12, *f*); the length of this coil is about 8 mm., and its diameter is 6 mm.; when unrolled, this, the *prostatic portion* of the seminal duct (fig. 14, *ee*), was fully 24 cm. in length and .4–.5 mm. in diameter. Through the axis of the coil runs an artery, and a strong connective tissue strand, which anteriorly (fig. 14, *i*) is prolonged into a muscle going towards the penis-sac (fig. 14, *k*). Behind the *prostatic portion* is continued into the *muscular part* (fig. 14, *f*) of the vas deferens, which forms the hindermost portion of the coil, and when unrolled has a length of 4.5 cm. Shortly before the muscular part of the vas deferens leaves the anterior end of the coil (Pl. VI. fig. 14, *k*), the strong *retractor penis* muscle is attached to it, which takes its origin behind at several points from the body-wall, in the neighbourhood of the anterior end of the pericardium; it is greatly swollen in the middle, and thinner where it is attached to the vas deferens (fig. 14, *i*); from this point the vas deferens takes its course to the penis, being slightly thicker (fig. 14, *g*); this portion of the vas deferens is 14 mm. long. The *penis* is about 3.5 mm. long, and pear-shaped; it is connected laterally with the dart-gland by a transverse cleft (fig. 15). The præputium is rather thick-walled, the interior has numerous longitudinal furrows and fine transverse folds; the upper portion of the cavity of the præputium is nearly filled by the glans, which is about 1.4 mm. long, cylindrico-conical, and lined by a strong yellowish cuticle (figs. 16, 17). The *glans* had a round aperture, filled by a small cylindrical evagination, which was perforated

<sup>1</sup> Semper, *loc. cit.*, Landmollusken, Heft v., 1880, Taf. xxii. fig. 20 (*Onchidium glabrum*, S.).