

in the previous species. The *dart-sac* also is like that of the previous species; it is 6 mm. long by 3 mm. in diameter, its wall is not thick, the inside is covered with fine transverse furrows, the cuticle is thin; the cavity is filled by the short conical *dart-cone* (Pl. VII. fig. 5, *a*); the duct (fig. 5, *b*) of the gland, accompanied by two nerves (fig. 5, *d*) and several muscle-slips (fig. 5, *e*), could be followed to the depressed hinder end of the cone; the opening on the apex of the cone was a fine slit; the surface of the cone is covered by a low, beautiful large-celled epithelium. The opening on the apex of the cone leads into its cavity, whose walls are thicker and yellower in the outer portion; farther back the walls are thinner, on which account the enclosed *dart* (fig. 5, *c*) is dimly visible through; behind, the walls are continuous with the base of the dart, which is slightly moveable in the cavity. The *dart* (fig. 6, *ab*) has a whitish thick basal portion about 2 mm. long; the rest measures 4.25 mm. by .37 mm. in diameter behind, and .15 mm. at the apex, in other parts its diameter is about .2 mm. It is straight and stiff, and brownish coloured; the lumen is circular, the walls thin; the opening on the apex is obliquely cut off (fig. 6, *a*), the margin at the side springs out as a short rounded projection, whence the aperture is of an oval form and generally varies in appearance according to the different positions (Pl. VI. fig. 19). The structures first observed by Semper<sup>1</sup> in this and other species in the form of branched cells like bone corpuscles, I have myself observed here (and in several other species) in the substance of the walls. These cells are here of a longish oval form, generally .016–.020 mm. long, with a small nucleus; they are not frequently branched, but more generally simply drawn out at both ends; they are only found in the anterior half of the dart, and especially near its point. These cells have probably wandered into the chitinous tube during its development from the *membrane*, which clothes the *inner side of the chitinous tube* and is formed of small cells.

On carefully removing the intestines the whitish *foot gland*<sup>2</sup> (fig. 2, *b*) comes into view, about .5 cm. behind the opening of the mouth-tube (fig. 2, *a*), in a slit behind the anterior ends of the two superficial pedal muscles, which here cross. Its length was 4 mm., breadth 2.5 mm., and height the same; it was a little egg-shaped (Pl. VII. fig. 1), higher in front than behind, with a longitudinal furrow along the sides, flattened on the under side, arched above. The duct (fig. 1, *b*) was about as long as the gland, wider in front than behind, and taking its origin from the anterior part of the gland; it had a funnel-shaped opening behind the end of the genital furrow. The wide cavity extended through the

<sup>1</sup> Semper, *loc. cit.*, pp. 260, 263, 264, Taf. xxii. figs. 1, 3, 13, Taf. xxiii. figs. 4, 11.

<sup>2</sup> In the genus *Triboniophorus* the foot gland extends much more into the body cavity (Keferstejn, Ueber die zweitentakeligen Landschnecken, *Zeitschr. f. wiss. Zool.*, Bd. xv., 1864, p. 84, Taf. vi. fig. 4, *gp*,—and R. Bergh, *Anat. Untersuch. d. Triboniophorus schütteei*, K., *Verhandl. d. k. k. zool.-bot. Gesellsch. Wien*, Bd. xx., 1870, p. 850), also in *Limax pectinatus*, Selenka (*Malacolog. Blätter*, 1865, p. 107, Taf. ii. fig. 3, *gp*), in *Janella* (Keferstejn, Ueber d. *Anat. d. Janella bitentac.*, *Zeitschr. f. wiss. Zool.*, Bd. xv., 1865, p. 449, Taf. xxxiv. fig. 3, *gp*), and partly in *Limax marginatus*, Drp. (*Zeitschr. f. wiss. Zool.*, Bd. viii., 1857, p. 351 (Semper)); in *Philomycus*, on the other hand, and certain species of *Onchidium* (*Onchidium tumidum*, S.), the gland is enclosed in the foot (R. Bergh, *loc. cit.*, pp. 860, 865), or partly free (Keferstejn, *Zur Anat. von Philomycus carolinensis*, *Zeitschr. f. wiss. Zool.*, Bd. xvi., 1866, p. 187, Taf. ix. fig. 2, *gp*).