

is inserted the strong black-pigmented retractor magnus muscle; the other thinner retractors were similarly pigmented in the upper part. The rhinophorial nerve swells above into a small *rhinophorial ganglion*, which gives off several nerves, forming a network of branching fibrils, the *plexus gangliosus*, the ultimate fibrils of which end in the *olfactory epithelium* at the end of the rhinophore. The walls of the cavity of the rhinophoria were provided with some special thin nerves. I did not succeed in finding the *otocysts*,¹ owing to the strong pigmentation of the central nervous system. The *skin* (of the back) has an outer cuticle, underlying which is a thin single layer of cylindrical epithelial cells, among which were a number of variously-sized unicellular glands, with clear or granular contents. The peculiar dorsal eyes were present.²

The *buccal tube* (Pl. V. fig. 3) is strong, 6.5 mm. long, with a diameter at its hinder end of 8 mm.; in the middle line above are attached two lateral retractor muscles (figs. 3, 27), and just in front of them, running forwards, are a pair of protractors; on the underside two stronger retractors (fig. 3, c); the interior of the buccal tube has the usual longitudinal folds.—The strong *bulbus pharyngeus* (Pl. IV. fig. 26; Pl. V. fig. 3) is about 10 mm. long by 9.75 mm. in breadth and height; the strong radula-sheath also (Pl. IV. fig. 26, a; Pl. V. fig. 3, d) projects backwards about 3.5 mm.; the underside of the bulbus is flattened, the sides rounded, the upper side sloping at a considerable angle, both in front and behind; in front, on the under side, are a considerable number of protractor muscles. On opening the bulbus there were seen, on either side above the root of the tongue, a longish *palatal plate*, rounded at one end and more drawn out at the other (fig. 4, b, b), of a pale chitinous-yellow colour, and about 3 mm. in length by about 1.4 mm. in breadth. A closer examination showed these plates to be made up of a number of irregular borders and raised portions, generally prolonged into more or less worn-out teeth (figs. 5, 6); this whole chitinous layer was about .2 mm. high. In the longitudinal and transverse furrows, also between these palatal plates here and there, instead of the ordinary cuticle, special similar thickenings were found (fig. 5). The fine terminal end of the palatal plates was continued as far as the opening of the pharynx (fig. 4). The *tongue* (Pl. V. fig. 4, a) was as usual, broad and strong, with a deep dorsal furrow; on the chitinous yellow radula there were forty-eight *rows of teeth* (counting by the outer edge of the radula), of which twenty-three were more or less incomplete, with a good many teeth worn; on the point of the tongue there were traces of two series that had dropped away. Further back, within the radula-sheath, there were forty-one developed and four not fully developed series; the total number was thus ninety-three. The total length of the

¹ In a small specimen of *Onchidium palaense*, S., measuring about 2.5 cm., from the Philippine Sea, I discovered the otocysts, visible as white points beneath the lens, in front of and above the pedal ganglia; their diameter was about .12 mm., and they contained a large number of round and oval otoconia, measuring about .007 mm. in diameter.

² Semper found among all the species of *Onchidium* which he investigated, only two, *Onchidium staudachneri* and *Onchidium reticulatum*, that did not possess dorsal eyes.