

small furrows; the inner and upper surface is smaller and fastened to the œsophagus; the inner, lower surface is large, and attached to the large ampulla of the glandula hastatoria. The salivary ducts (fig. 27) are rather short (3 mm. long) and open into the pharynx.

The *œsophagus* is strong and rather wide (Pl. V. fig. 27, *d*; Pl. VI. fig. 6, *b*), and passes obliquely to the left and then downwards; when fully extended it measures 3.5 cm., with a diameter of 4.5 mm. in the anterior part, and 1.5 mm. in the posterior; the interior has numerous folds, which are prolonged into the upper part of the stomach. The *first stomach* (Pl. VI. figs. 6, *e*, 7, *e*) is short and pear-shaped, about 11 mm. long by 9.5 mm. in diameter; it is yellowish in colour, with a thin wall not more than .4 mm. thick, but with stronger circular bundles; the inside is covered with fine longitudinal folds, which usually bear very fine tubercles; the opening into the œsophagus and into the anterior (fig. 6, *c*) and inferior (fig. 6, *d*) hepatic duct, is round, with fine folds. The *second stomach* (figs. 6, *f*, 7, *f*; Pl. V. fig. 27) lies obliquely from above downwards and to the right; it is 15.5 mm. broad and about 7.5 mm. long in the middle, and at the ends 9 mm., with a thickness of 9 mm.; this masticatory stomach is somewhat compressed above, rounded and flattened, the lower end also rounded, the hinder end deeply cleft (Pl. VI. fig. 6); the median and largest portion of both flattened sides is occupied by a large tendinous patch, almost hour-glass shaped, of the ordinary bluish-white nacreous appearance; this stomach is marked off from the first stomach by a circular furrow, deeper above; a tendinous cord, broader at its two extremities, joins (fig. 6) the upper end of the second stomach with the third stomach. At the middle of the sides of the organ, where the tendinous patch is, the thickness of the wall is .5 mm., at the ends they are (fig. 8) 6–6.5 mm. thick; in front the cavity of the masticatory stomach is connected with the first stomach by a wide oval aperture, the margin of which projects slightly into the interior of that first stomach; behind and above there is a small recess (fig. 8, *b*), which is prolonged and opens by a wide aperture into the posterior bile duct. The inside of the masticatory stomach behind (fig. 8, *b*) and in front (fig. 8, *a*) has longitudinal folds, but is smooth in the middle portion, on account of the thicker, somewhat uneven, yellowish cuticle. This cuticle was traversed by longitudinal furrows, and here and there by transverse furrows, which, by their intersection, mark off small longish, slightly-raised tubercles (Pl. V. fig. 23). When these thickened portions were cut through perpendicularly, the wall beneath this (.4 mm. thick) cuticula (Pl. VI. figs. 8, 9) and the epithelium attached to it, was seen to be composed of alternate layers of longitudinal and perpendicular muscle-fibres, which were easily separated from each other. On longitudinal section (fig. 8) they showed about six longitudinal bands, whitish, with a tendinous glitter,¹ which, however, do not reach from one end to the other; these longitudinal bands are composed of a number of longitudinally running fibres; they are separated from each other by short, perpendicular fibres of greyish-yellow colour. On trans-

¹ The above-mentioned small species (*Onchidium palaense*, S.) had a similar structure, and about the same number of bands (6).