

its conveniently small size I selected the latter species for anatomical study by means of transverse sections, which I found much better than dissection owing to the state of preservation of the specimens.

On Pl. X. fig. 6 is figured a transverse section through the head of *Serolis septemcarinata* showing the salivary glands *in situ*; *a* is the aperture of the mouth, *b* the buccal cavity, and *c* points to the ventral wall of the body bounding the mouth; the salivary glands (*d*) are arranged in rosette-shaped aggregations of cells surrounding a central cavity; these cells are highly granular, and stain deeply with carmine; each is provided with a large nucleus which stains rather more deeply than the surrounding protoplasm; the glands are imbedded in the cellular connective tissue of the body, some of the cells of which are shown in the figure (*e*). Similar structures have been observed by Dohrn<sup>1</sup> in *Anceus* and *Paranthura*, and are figured and described by him in his account of the anatomy of these two genera.

The œsophagus, as in other Crustacea, passes upwards into the masticatory stomach, which is furnished with a complicated series of chitinous plates.

On Pl. X. fig. 9 is figured the masticatory stomach of *Serolis bromleyana* viewed from beneath; the "pyloric" end is directed towards the upper margin of the plate.

There is an upper median azygos cardiac plate (*m*); in front of this and below is a cylindrical plate (*LR*, *RP*) on either side ("Reibe-platte"), the lower surface of which is traversed by a row of rib-like thickenings. On either side of the median plate are three lateral plates (*l*, *la*, *lp*), one median, one anterior, and one posterior; the median lateral plate (*l*) is furnished with numerous fine hair-like processes on the under surface. On the ventral surface of the stomach is a large ossicle (*V*) which reaches beyond the commencement of the dorsal azygos piece (*m*), and terminates in a bifurcate extremity; behind this comes the pyloric portion of the stomach, which has four ossicles on either side; two small triangular ossicles (*t*), situated just above the median piece (*V*), and behind three pairs of elongated ossicles which are furnished with delicate hairs directed inwards and form a sieve-like structure; the outermost ossicle (2) is connected both with the median ventral ossicle (*V*) and the lateral plate (*R.P.*) of its own side; *s* points to the pyloric aperture.

In *Serolis antarctica* the masticatory stomach is entirely similar.

In *Serolis paradoxa* the masticatory stomach apparently differs from that which has just been described by the very incomplete calcification of the cardiac ossicle, which is indeed hardly to be recognised as a distinct ossicle; the ventral median ossicle does not extend so far backwards as in *Serolis bromleyana*, and is less markedly emarginate at its apex.

The masticatory stomach in the two other species in which I have studied it, *viz.*,

<sup>1</sup> Entwicklung und Organisation von Praniza (*Anceus*) maxillaris, *Zeitschr. f. wiss. Zool.*, Bd. xx. p. 55, 1870; and also Zur Kenntniss des Baues von *Paranthura costana*, *Ibid.*, p. 81.