

transverse sections are circular or nearly so. The nuclei of the cells of the gland are all situated at the periphery close to the membrana propria which envelops the body of the gland.

The structure of the gland in *Lepas* will now be easily understood. Let the wall of the gland in *Scalpellum* develop excrescences, so that the interior of each excrescence communicates with the interior of the original or main part of the gland, and the tubular gland will have changed into an acinous one. The excrescences have as a rule the shape of globules, but they may also be elongated so as to form finger-shaped appendages. When the gland is divided by transverse and parallel sections in a series of preparations the shape and size of the cells are by no means so uniform as in the case of *Scalpellum*. This, of course, is partly in consequence of the sections not always cutting the cells in the same direction, though parallel. In some of the sections the cells are cylindrical, having a length of 0·1 mm. and a breadth of 0·026 mm. If these same cells had been cut transversely to their longest axis, their length would have appeared much shorter. The size of the oval nuclei is 0·016 mm. In the more tubular parts of the gland the cells are not so high and their walls not so parallel; in the sections, therefore, they are almost triangular or flattened quadrangulary; between them I observed here and there larger cells with very capacious nuclei. I measured one of the cells, the length of which was 0·13, whereas its breadth was 0·9 mm. It was furnished with a nucleus 0·05 mm. in diameter. The only difference which I could make out between the different cells of each gland was, however, in size; in regard to their staining with aluminium carminate, I must point out a very striking correspondence of these cells to those of the cement-apparatus of the peduncle, viz., the body of the cells is always beautifully lilac-coloured, the nuclei appearing dark violet. The latter are remarkable, in the same way also as those of the cement-glands, since coarse granules and even fibres fill their interior. A distinct membrana propria surrounds the body of the gland in *Lepas* as well as in *Scalpellum*.

The gland communicates with the interior of the stomach by means of a narrow duct which opens close to the cardia in an interspace between two of the so-called hepatic excrescences.

As to the function of these glands a few words may suffice. That they are not true salivary glands needs no further proof. At the same time it can hardly be doubted that their function is that of a digestive organ which pours its secretion into the alimentary canal. Whereas the recent interesting researches of Max Weber¹ have cast light upon the structure and function of the digestive glands (Verdauungsdrüsen) of the higher Crustacea (*Isopoda*, *Amphipoda*, *Decapoda*), we are still almost entirely ignorant of their occurrence, functions, structure, &c., in the different orders of Entomostraca. The supposition of Claus, that the name of liver in invertebrate animals has often been used

¹ Max Weber, Ueber den Bau u. die Thätigkeit der sog. Leber der Crustaceen, *Arch. f. Mikr. Anat.*, Bd. xvii. 1879.