

are characterised by the last four valves being considerably isolated, the distance between them varying with the contraction or extension of that region of the body. On this subject M. de Rochebrune says: "La position isolée des valées a été tout aussi mal interprétée; douze espèces de Chitonelles et soixante et un individus de ces espèces sont sous nos yeux, toutes à l'exception des *Cryptoplax fasciatus*, Quoy et Gaim., et *oculatus*, Quoy et Gaim., ont les valves imbriquées, et même ces deux espèces n'ont de réellement isolées que les trois valves postérieures."¹

The valves of *Cryptoplax* consist of a small tegmentum resting like a cap upon the well-developed articulamentum. The articulamentum may perhaps be best described, for all the valves except the first, as resembling a heart-shaped or sagittate scoop, the emargination being in front. The posterior border is always entire and often greatly thickened, and it may be squared, rounded, or pointed; the bowl of the scoop may be comparatively flat, or the two sides may meet at a sharp angle. The anterior wings constitute the laminæ of insertion of the valve, and are unslit at the sides or behind in the terminal valve.

The anterior valve is oval in shape, but more or less squared posteriorly; the articulamentum is also scoop-shaped, and its posterior border may be enormously thickened; the anterior projection forms the lamina of insertion of this valve, which here alone is slit, there being three slits, forming two central broad teeth. The tegmentum may leave a larger or smaller amount of the articulamentum exposed on a dorsal view, and on the under surface it is seen to wrap round the hinder edge of the articulamentum, as is usually the case in other Chitons. The upper surface of the valve is usually much corroded, and its sculpture generally appears to consist of irregular granules and to differ slightly from that of the other valves.

The tegmentum of the remaining valves has a more or less pyriform or oval contour; it always leaves the laminæ of insertion largely exposed; posteriorly it usually forms a sort of cap or clothing to the apex or rounded end of the articulamentum, and thus is generally apparent on an under view of the valve, where it has some resemblance to the calyx of a flower. In all the valves the jugum is distinguished as a more or less smooth elongated triangle, the pleura being granular and irregularly grooved, the grooves radiating from the posterior umbo. There are no lateral areas.

The above general account will serve to explain the drawings on Plate III., and on reference to these the differences between the valves of the one species or between corresponding valves of the four species will be readily apparent, so that there is no need to enter into minute description or comparison of the several valves.

The first three and the last valves have alone been figured, as differences between the remainder and the third are of no great importance or interest; each of these valves has been drawn as seen from above, from below, and from the side. The first three species are drawn from specimens collected by the Challenger Expedition. Mr Smith kindly

¹ *Ann. des Sci. géol.*, vol. xiv. p. 11.