gradually in thickness in the part nearest the long junctions, so that here the disk remains comparatively thicker, near the margins, than is the case at the peripheric end of the short junctions, where it suddenly loses its thickness in rounded outlines, passing obliquely towards the periphery in the direction of the crooked lines. The natural consequence of this disposition is that the part of the disk which embraces the deep indentations is comparatively thin, and remains so to a greater distance from the margin; while the part embracing the lesser indentations is comparatively thicker. Besides this, there is a deep furrow along the short and the long junctions, and a prominent keel along the crooked lines. The colored pigment, however, covers only the bulging, rounded part of this surface, but does not extend over the crooked lines, nor over the short and the long lines of junction of the segments of the disk, so that these lines naturally appear more transparent than the spaces which they circumscribe.

From this it will easily be understood why the disk, seen from above, presents, as the optical effect of its structure, the various lines already described, and how important it must be for those engaged in drawing Acalephs to understand this accurately, in order correctly to represent what they see. The figures of a great many Discophoræ, published by different authors, and especially those in the voyages of the Uranie and of the Coquille, however beautiful in their appearance, represent these lines as surface features of the Medusæ. Mr. Sonrel, who has drawn the plates quoted above, has succeeded admirably in reproducing the transparency of the gelatinous disk, in such a way as to make it apparent that all these outlines are only the optical effect of structures seated on the lower surface of the disk or in its thickness, and not upon its upper surface. A comparison of Plate V. with Plate III. confirms plainly this impression, as in the latter figure the furrows following the long and the short junctions appear like keels in the direction of the deeper and lesser emarginations, and the inequalities which mark the tessellate appearance of the lower surface of the central circular area are visible as slight prominences within these ridges.

The most marked depression observed upon the upper surface of the disk lies in the prolongation of the long junction, near the margin;—it is scooped out, so as to render that portion of the long junction thinnest which extends immediately above the ocular apparatus. The spaces of each gelatinous mass, contained between the long junction and the adjoining crooked lines, are so bulging towards the circumference, that the small lobes are thickest in the middle and thinnest along their edge, Pl. V^a. *Fig.* 1. This is particularly well seen, when the lobes are bent downward, as in Pl. IV. *Fig.* 6 and Pl. V. *Fig.* 2. The spaces between the short junctions and the adjoining crooked lines are also bulging, so that the large lobes are likewise thicker in the middle than on the margin, and this, again, is best seen