

connected with the overlying umbrella disk by the four arm pillars, and forms a thick gelatinous disk of the base form of a quadrate prism, nearly half as thick as broad, (40 mm. side length, by 16–18 mm. thick). If we transect two adjacent arm pillars at their base and then turn back the half-loosened arm disk, its upper or aboral surface which is turned towards the vestibule then becomes visible. It is quadratic and nearly flat, only arched somewhat convexly towards the middle, whilst it slopes away very gently outwards towards the lateral margins. The four perradial obtuse angles of the quadrate pass into the distal ends of the oral pillars; and the distal ends of the eight limbs of the genitalia (fig. 6, *sz*) (which rise in pairs on the axial wall of the pillar canals, *cd*) pass diverging, a little way on the oral surface of the arm disk. The lateral margins of the pillars are slightly indented in the middle, and form at once both the lower margins of the subgenital aperture (*ig*) and the distal margin of the four equilaterally triangular, slightly convex subgenital valves (fig. 6, *wv*); the latter are fused in some measure at their lateral margins with the oral processes of the pillars, and so form the arm disk.

The lower or oral surface of the oral disk is occupied by the frilled oral area ("area oralis"); the suture of the oral cross and the eight-rayed rosette of tufts covering it lies in the centre, whilst the eight arms run out round about it (fig. 7). The central rosette of tufts is actually formed by four pairs of tufted frills, which correspond to the four bifurcate branches of the four limbs of the oral suture, but the eight oral arms which go out in pairs from the bifurcation of the distal end of the four oral pillars divide at its bifurcated base so soon that they lie in the eight adradia almost from the first, and the rosette of tufts also assumes a nearly regularly eight-rayed form, as on the oral axial surface. The branched compacted bunch of tufts composing the rosette have the same structure as the funnel frills at the distal part of the arms. If we cut off the tufts, we see the regular suture of the oral cross ("sutura staurostomalis," fig. 1, *as*); as in all *Rhizostoma*, it has arisen from the fusion of the frilled margins of the cruciform oral opening, which is open at an early stage.

The eight oral arms in our *Leonura* show, on the whole, the same peculiar formation which was previously only known in *Leptobrachia leptopus* (= *Rhizostoma leptopus*, Chamisso, *loc. cit.*, pl. xxvii.). They appear as eight adradial, slender, band-shaped appendages of the arm disk, whose length nearly equals the diameter of the umbrella or only surpasses it a little. As in all *Rhizostomæ multicrispæ* (*Pilemidæ* and *Crambessidæ*), there are really two distinct principal parts on each arm, viz., the single-frilled upper arm and the three-frilled lower arm (System, p. 582). In the *Leptobrachidæ*, however, the short upper arm ("epibrachium") is quite rudimentary, and passed by concrecence into the formation of the thick oral disk. The whole free part of the arm is therefore formed here by the lower arm ("hypobrachium"). The proximal (upper) half of each lower arm is naked, and without frills, and consists of a thin, triangularly prismatic gelatinous band, whose three angles run out into three narrow wings, each of which show