

The right auriculo-ventricular opening is guarded by a valve formed of five triangular membranous cusps. Three of these lie anteriorly against the anterior wall; one lies to the right in relation to the sharp margin of the heart; whilst the fifth is placed posteriorly against the septum. United at their bases, the five segments constitute an annular membrane by which they are attached around the opening. The three anterior cusps are very small and of equal size; the posterior segment is very large; whilst the right segment is intermediate in size.

The orifice of the pulmonary artery is guarded by the usual three semi-lunar valves.

*Left auricle.*—The appendix of the left auricle is filled by a very beautiful arrangement of muscoli pectinati. These intersect one another, and pass between the walls so closely that the cavity is broken up into a sponge-like texture. There are no muscoli pectinati on the walls of the atrium. On the posterior wall there are three venous openings.

*Left ventricle.*—The cavity of the left ventricle is very narrow and of a conical shape. The fleshy columns are very strongly marked, some, indeed, stretching as thick prominent ridges from the auriculo-ventricular orifice to the apex. The muscoli papillares are two in number, and very powerful. The auriculo-ventricular valve is bicuspid, and the segments are placed obliquely as in Man. The orifice of the aorta is provided with the usual three semilunar segments.

Turning now to the *Dasyurus viverrinus* we find that the right auricle of the heart is in every respect the same as in the *Thylacine*. There is no bifurcation of its appendix, and its interior presents the same appearance.

In the right ventricle what strikes one most is the extreme smoothness of its walls. There is hardly a trace of columnæ carneæ except where the septum joins the anterior wall; here we notice a series of "moderator bands" passing from the septum to the anterior wall of the ventricle. The muscoli papillares are three in number, and they all spring from the septum. The right auriculo-ventricular valve is peculiar. In front and at the sides of the orifice there is simply a membranous curtain of uniform length hanging down into the cavity, and to this all the chordæ tendineæ from the three muscoli papillares are attached. Behind, there is a broad separate segment which is bound directly to the septum by chordæ tendineæ.

The left side of the heart in the *Dasyure* is the same as in *Thylacine*.

In *Cuscus* the heart has the same elongated narrow appearance as in *Thylacinus*. The right auricular appendage, however, presents a deep crescentic notch on its inner free margin into which is received the first part of the aortic arch. So deep is this notch that the aorta is almost completely surrounded by the appendix, and the posterior or upper cornu appears in the interval between the pulmonary artery and the aorta. The left auricular appendage shows no notching, and stretches inwards for a considerable distance in front of the conus arteriosus and the pulmonary artery in the form of a narrow tongue-like process.