

three orders, and except in the directive septa projects into the intraseptal space ; it is a powerful muscular protuberance, which begins at nearly equal distances from the middle point and the periphery of the pedal disk, becomes distended half-way up, and then gradually becomes narrower till it is inserted at the oral disk inside the tentacles (Pl. VII. fig. 5). The muscular protuberance lies almost freely on the surface of the septum, and is only fastened to it near its adaxial margin by a kind of mesentery. In transverse section, it therefore shows (fig. 3) a figure resembling a mushroom-shaped excrescence, a broad mass from which a stalk thrust to one side passes up to the septum. The connective substance of the septum enters through the stalk into the longitudinal muscle, where, seen in transverse section, it becomes dendritically branched. The ramified lamellæ of connective tissue, which produce the dendritic figure in transverse section, are covered by a continuous layer of muscular fibrillæ ; the whole is covered with epithelium, which reaches to the bottom of the interstices between the layers of connective tissue, so that the endodermal muscular fibres never become transformed into mesodermal fibres.

The longitudinal muscle described above is part of the layer of longitudinal fibres, which is slightly folded in other places, and shows in transverse section a second smaller dendritic figure at the base of the septum only. Opposite it, on the other side of the septum, we reach the site of the transverse muscular fibres, which are directed transversely from the wall towards the axis of the body of the Actinia, and as usual are strongest in the upper third. The parietobasilar muscle is found on the same side, where it can be distinctly recognised as originating by a pleating of the transverse muscular layer. It is, in fact, simply a crescentic fold lying loosely on the septum, so that a pouch-shaped space opening into the stomach, into which one can thrust the point of a needle, always runs in between the two parts. The fold is covered on both sides with an ample muscular layer running parallel to the margin of the fold. The parietobasilar muscle springs from the pedal disk, from its margin nearly to its middle, after which it is attached to the wall as far up as the lower circular muscle. When the animal is contracted it draws the pedal disk and the wall nearer one another, and as the former is the part which is more easily moved, it becomes arched upwards, and so forms a slightly depressed sucker ; the muscle therefore plays an important part in attaching the body of the Actinia to the ground beneath. As regards septal stomata, the inner or peristomial appear to be present, whilst the outer or marginal are certainly wanting.

I consider the small Actinia described above as identical with a small form found by Dana, near Valparaiso, in the American expedition under Captain Wilkes. According to Dana's description, the whole animal is whitish, with a touch of yellowish-brown, the oral disk pale flesh-colour, and the tentacles yellow. Drayton gave it the name of *Actinia nymphæa*, which was afterwards changed by Milne-Edwards into *Paractis nymphæa* ; finally, Verrill included the species with a mark of interrogation in the genus *Sagartia*, for which, however, there is no sufficient ground.