

under the microscope, it consists of a muscular lamella pleated into unbranched folds, which lie closely together like the leaves of a book, are highest in the middle of the tract, and gradually decrease in size on either side till they pass into the smooth fibrillar layer of the wall.

The constitution of the oral disk of the specimen examined could not accurately be determined, as it was closely folded in consequence of the extreme contraction. Its peripheral margin bore three alternating rows of tiny tentacles, which only projected like small buttons, and corresponded in number to the individual septa. On transverse section, the tentacles of the inner circle proved to be evaginations of the intraseptal, whilst those of the outer circles belonged to the interseptal spaces.

The radial muscular fibres of the oral disk (Pl. VII. fig. 1) are mesodermal, but otherwise only slightly developed. Sparse thin bundles are separated from the ectoderm by a narrow layer of connective substance, and connected like a net with one another by an interchange of fibres. They enter the bases of the tentacles and extend to their points. There were apparently no openings in the tentacles.

The pedal disk is of no great interest. A small circular ridge, caused by a thickening of the supporting lamella, ran on its inner side between the septa, at a little distance from and parallel to the margin. As I only examined a single specimen of this Actinia, it is impossible to determine whether this structure is constant or not.

The species before us is chiefly characterised by the size and disposition of the septa, of which I therefore give a more detailed description. It is difficult, on the whole, to recognise in their arrangement the regularity shown by the Hexactiniæ. The six pairs of principal septa, of which two lie as directive septa in the sagittal axis, are certainly distinguished at once by their size, but the six pairs of the second order are very small, and in this respect fall short of the twelve pairs of the third order. All the septa already mentioned reach to the œsophagus, whilst those following are imperfect. Of these the twenty-four pairs of septa of the fourth order are always present, but unequally developed, being larger in the neighbourhood of the principal septa, smaller in the neighbourhood of the septa of the second order. This latter region is, therefore, plainly retarded in growth, and this becomes still more conspicuous in the following septa. In the interseptal spaces, which are contiguous to the septa of the second order, the septa of the fifth order are extremely small, and those of the sixth order are still completely wanting. On the other hand, in the neighbourhood of the principal septa, the septa of the sixth order are already as large as those of the fifth order. It is, however, quite possible that the irregularities just described become equalised in the course of growth, as the specimen examined was a young animal without any indication at all of reproductive organs.

The muscles of the septa show peculiar conditions, especially the longitudinal and parietobasilar muscles. The former is only distinctly present on the septa of the first