

PLATE IX.

The lettering is the same in all the figures.

a Acontia.
b Mesenteric filaments.
c Stomata in the septa.
*c*¹ Perioral stomata.
*c*² Marginal stomata.
cu Cuticle.
d Glandular streaks of the mesenteric filaments.
e Ciliated streaks of the mesenteric filaments.
ek Ectoderm.
en Endoderm.
g Reproductive organs.
h Septa. *rh* Directive septa.
i Oral disk.

k Wall.
l Pedal disk.
m Muscles.
mm Mesodermal muscles.
ml Longitudinal muscles of the septa.
*ml*¹ Retractor.
mp Parietobasilar muscle.
mt Transverse muscles.
mr Radial muscles of the oral disk and longitudinal muscles of the tentacles
ms Circular muscle of the wall.
me Mesoderm.
n Urticating cells.
o Ovicells.

p Filamental apparatus of the ovicells.
*p*¹ Process of the ovicell.
*p*² Apical set of epithelial cells.
r Marginal spherules.
rh Directive septa.
s Œsophagus.
so Openings of the œsophagus into the radial chambers.
sr Œsophageal grooves.
sz Lappets of the œsophagus.
t Tentacles and the openings homologous with them.
*t*¹ Principal tentacles.
*t*² Accessory tentacles.
v Openings of the pedal disk.

All statements given as to magnifying powers have reference to Zeiss's system. The magnifying powers amount to

		Oc. 1.	Oc. 2.		Oc. 1.	Oc. 2.
<i>n</i> ¹		6	10	D	195	240
A		55	70	F	410	550
C		95	125	J	470	580

A with unscrewed front lens (unscr. A) magnifies with Oc. 1 : 30 times; with Oc. 2 : 40 times.

Polysiphonia tuberosa (figs. 1-10).

Fig. 1. Transverse section through the pedal disk, showing the muscular fibres which pass on to the furrows. A, Oc. 2.

Fig. 2. Transverse section through a tentacle bulb. a¹, Oc. 1.

Fig. 3. Horizontal section through the pedal disk. The upper part of the diagram is near the outer surface; the lower shows the section passing transversely through the bases of two septa. A, Oc. 2.

Fig. 4. Radial section through the pedal disk. C, Oc. 2.

Fig. 5. Pedal disk, natural size, seen from the lower side; about one-sixth of it shown.

Fig. 6. Transverse section through the tentacle near the point. a¹, Oc. 1.

Fig. 7. Part of a transverse section through the pedal disk (fig. 1) more highly magnified. C, Oc. 2.

Fig. 8. Tentacles seen from the side; natural size.

Fig. 9. A tentacle divided longitudinally; natural size.

Fig. 10. Bottom of a radial furrow of the pedal disk, with the adjacent muscular fibres; seen in transverse section. C, Oc. 1.

Corallimorphus rigidus (figs. 11 and 12).

Figs. 11 and 12. Transverse sections through the wall.