

PLATE IV.

Figs. 1, 2. *Cymbulia*.

Fig. 1. Central part of the animal, seen from the right side as a transparent object ; *a*, "shell"; *b*, truncated fin; *c*, posterior appendage of the fin, cut short; *d*, space between this appendage and the shell; *e*, pallial gland; *f*, entrance of the pallial cavity; *g*, mouth; *h*, visceral mass; *i*, anus; *j*, genital orifice, followed by the spermatic groove leading to the penis; *k*, aperture of the penis; *l*, lumen of the kidney; *m*, aperture leading from the kidney into the pallial cavity; *n*, heart; *o*, central nervous system; *p*, pallial cavity.

Fig. 2. Stomato-gastric nervous system, seen from the left side; *a*, mouth; *b*, buccal mass; *c*, salivary gland; *d*, œsophagus; *e*, stomach; *f*, intestine; *g*, buccal ganglion; *h*, œsophageal nerve leading to *i*, the gastric plexus.

Figs. 3, 4. *Gleba*.

Fig. 3. *a*, Pallial gland; *b*, outline of the shell.

Fig. 4. Central nervous system, seen from the left side; *a*, cerebral ganglion; *b*, pedal ganglion; *c*, left visceral ganglion; *d*, posterior visceral or abdominal ganglion; *e*, cerebral commissure; *f*, otocyst; *g*, nerves to the fin; *h*, nerve to the retractor muscle of the proboscis; *i*, tentacular nerve; *j*, œsophagus; *g*, visceral (genital) nerve; *4*, left pallial nerve.

Fig. 5. *Notarchus*.

Fig. 5. Sagittal section of the buccal mass, from a sketch kindly presented by Dr. Vayssièrre; *a*, palatine teeth; *b*, right jaw; *c*, radula; *d*, mouth; *e*, œsophagus.

Fig. 6. *Dexiobranchæa*.

Fig. 6. Diagrammatic sagittal section of the buccal mass; *a*, hook-sac; *a'*, hook-sac as found in *Pneumonoderma*; *b*, jaw; *c*, radula; *d*, mouth; *e*, œsophagus.

Fig. 7. *Pneumonoderma*.

Fig. 7. Transverse section of the dorsal patch; *a*, epithelium; *b*, large glandular cells; *c*, small central glandular cells.

Fig. 8. *Spongiobranchæa*.

Fig. 8. Dorsal view of the generative organs; *a*, genital gland; *b*, genital duct; *c*, muciparous gland; *d*, albuminiparous gland; *e*, receptaculum seminis; *f*, genital orifice.

Fig. 9. *Pneumonoderma*.

Fig. 9. Ventral view of the central nervous system, the cerebral commissure having been divided and the cerebral ganglia reflected ventrally; *a*, cerebral ganglion; *b*, pedal ganglion; *c*, pleural ganglion; *d*, right visceral ganglion; *e*, buccal ganglion; *f*, cerebro-pleural connective; *g*, cerebro-pedal connective; *h*, pleuro-visceral connective; *i*, cerebro-buccal connective; *j*, nerve from the pleural ganglion; *k*, pedal commissure; *l*, second pedal commissure; *i.*, nerve to the foot; *ii.*, nerve to fin; *iii.*, *iv.*, lateral pedal nerves; *v.*, *vi.*, *vii.*, cervical nerves; *1*, nerve from the right visceral ganglion; *2*, *3*, median nerves from the left visceral ganglion; *4*, lateral nerve from the left visceral ganglion.

Fig. 10. *Clionopsis*.

Fig. 10. Ventral view of the osphradium; *a*, osphradium; *b*, nerve ramifying in the osphradium; *c*, anus; *d*, opening of the kidney; *e*, cloacal depression.