

## PLATE II.

### Explanation of the letters used in the Plates.

<p><i>al</i> Alimentary canal.  <i>an</i> Anus.  <i>bc</i><sup>1</sup> Body-cavity of præoral lobe.  <i>bc</i><sup>2</sup> Body-cavity of second region.  <i>bc</i><sup>3</sup> Body-cavity of trunk.  <i>bp</i> Branchial plumes.  <i>bt</i> Basement-tissue.  <i>cb</i> Ciliated hypodermic organ.  <i>cm</i> Circular muscular coat.  <i>cos</i> Peculiar ciliated folds (sensory?).</p>	<p><i>gbs</i> Glandular organ at posterior end.  <i>hp</i> Hypoderm.  <i>int</i> Intestine.  <i>lm</i> Longitudinal muscular fibres.  <i>lpm</i> Longitudinal muscular coat  (somewhat pennate).  <i>m</i> Mouth.  <i>msv</i> Ventral mesentery.  <i>msd</i> Dorsal mesentery.  <i>np</i> Nephridia.</p>	<p><i>ns</i> Nerve-centre.  <i>nt</i> Nerve-cords.  <i>æ</i> (Esophagus.  <i>ov</i> Ova.  <i>r</i> Rectum.  <i>rm</i> Radiate muscles.  <i>vb</i> Blood-vessels.  <i>vc</i> Vascular spaces in region behind  tentacles.  <i>vt</i> Stomach.</p>
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Fig. 1. Transverse section of the anterior region about the level of the anus. The branchial meshes occur externally, the great vascular spaces, *vs*, just within these; while the anus and the nephridial channels have also come in the line of section. The pharyngeal region of the alimentary canal is seen at *al*. The nerve-tissue is indicated at *w*; and the anterior ends of the posterior body-cavities at *bc*<sup>3</sup>. x 40 diam.

Fig. 2. Transverse section of the posterior region of the body of the Australian *Phoronis*, showing the reproductive organs—*ovr*, ovary; *t*, *testis*. Between these organs various blood-vessels are observed—*vt*, stomach; *int*, intestine. x 40 diam.

Fig. 3. Transverse section of the tip posteriorly—with the peculiar glandular organ (*gbs*). The muscular layers (*ml*) of the body-wall have largely mingled, so that they cannot be individually separated. The centre of the glandular organ is filled with glandular tissue, and it has externally basement- and muscular tissue with endothelium. x 80 diam.

Fig. 4. A further stage in the structure just described—in a section behind the former. The organ has now become connected by its basement-tissue with that in the body-wall, and a lumen appears in the centre. x 80 diam.

Fig. 5. Transverse section of the tip behind the foregoing, showing the transference of the lumen of the canal of the glandular structure quite outside the basement-tissue, and, indeed, to the thick hypoderm of the region. The muscular coat (*ml*) consists of intermingled fibres, which thus cross to complete the body-wall posteriorly. x 120 diam.

Fig. 6. Longitudinal section of the folded hypodermic tissue attached to the left mesentery in the posterior division of the body-cavity. It rests on a considerable layer of basement-tissue. x 350 diam.