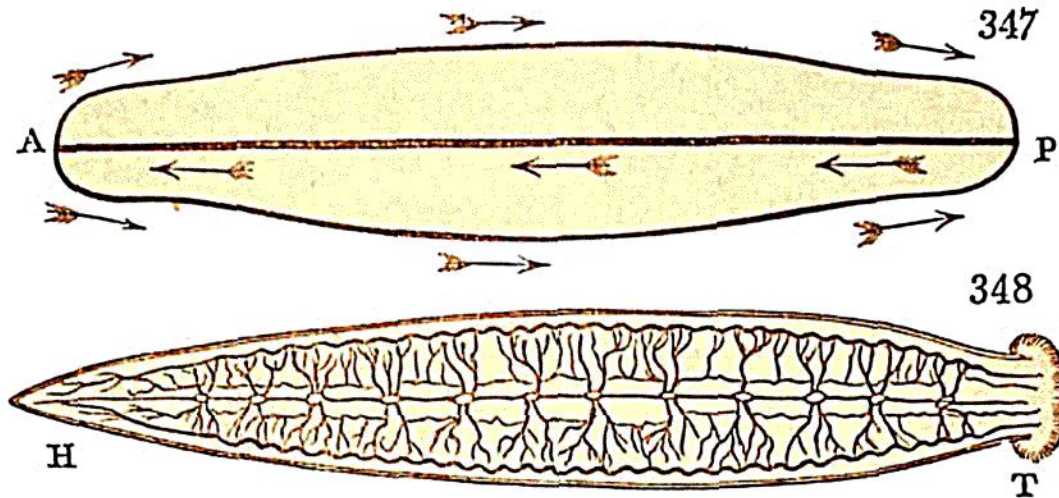


(Fig. 347;) where A is the anterior, and P the posterior extremity of the animal, the dorsal vessel occupying the mid-



dle straight line between the two lateral vessels, and the direction of the stream in each being indicated by the adjacent arrows. The blood in the abdominal vessel following the same course as that in the dorsal vessel, the same diagram represents also these vessels seen from below. Fig. 348 is a lower view of the *Erpobdella*, showing the numerous ramifications of the abdominal vessel; the lesser branches encircling the nervous ganglia, and accompanying the principal nervous filaments which proceed from them; while the lateral vessels are seen pursuing a slightly serpentine course.\*

The tribe of *Lumbrici*, which includes the earth-worm,

\* Dugès represents the blood of this animal as moving in different directions in the right and in the left lateral vessels; generally backwards in the former, and forwards in the latter: at the same time that it moves backwards in the dorsal, and forwards in the abdominal vessel. In the communicating branches which pass transversely from one lateral vessel to the other, the blood flows from left to right in those situated in the anterior half of the body, and from right to left in those of the posterior half; so that the plane in which its circuit is performed is horizontal, instead of vertical. It is curious to find an example of a similar transverse circulation, in the vegetable kingdom; this has recently been observed by Mr. Solly and Mr. Varley, in a sprout of the *Chura vulgaris*, near the end of which the enclosed fluid revolves continually on its own axis, instead of following the ordinary course of ascent and descent along the sides of the cylindrical cavity.—See *Trans. of the Society of Arts*, xlix. 180.