

out in Fig. 249 and 252,* have been conjectured to be respiratory organs, chiefly, I believe, because they are not known to serve any other purpose.

The *Entozoa*, in like manner, present no appearance of internal respiratory organs; so that they probably receive the influence of oxygen only through the medium of the juices of the animals on which they subsist. *Planariæ*, which have a more independent existence, though endowed with a system of circulating vessels, have no internal respiratory organs; and whatever respiration they perform must be wholly cutaneous. Such is also the condition of several of the simpler kinds of *Annelida*; but in those which are more highly organized, an apparatus is provided for respiration, which is wholly external to the body, and appears as an appendage to it, consisting generally of tufts of projecting fibres, branching like a plume of feathers, and floating in the surrounding fluid. The *Lumbricus marinus*, or lob-worm,† for example, has two rows of branchial organs of this description, one on each side of the body; each row being composed of from fourteen to sixteen tufts. In the more stationary *Annelida*, which inhabit calcareous tubes, as the *Serpula* and the *Terebella*, these arborescent tufts are protected by a sheath which envelops their roots; and they are placed on the head, as being the only part which comes in contact with the water.

Most of the smaller *Crustacea* have branchiæ in the form of feathery tufts, attached to the paddles near the tail, and kept in incessant vibratory motion, which gives an appearance of great liveliness to the animal, and is more especially striking in the microscopic species. The variety of shapes which these organs assume in different tribes is too great to allow of any specific description of them in this place: but amidst these varieties, it is sufficiently apparent that their

* Pages 67 and 68 of this volume.

† *Arenicola piscatorum*. (Lam.) See a delineation of this marine worm in Fig. 135, vol. i. p. 198.