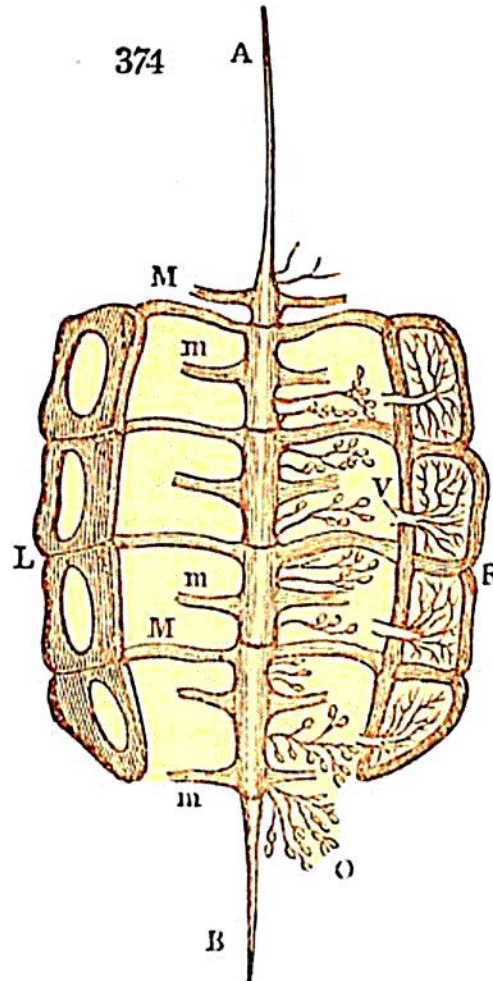


pulmonary cavities (r) on the right side, whence the blood is conveyed by a corresponding set of branchial veins to the dorsal vessel; and other vessels, which are ordinary



veins, are seen at o, proceeding from the abdominal cavity to join the dorsal vessel. The membrane which lines the pulmonary cavities is curiously plaited, presenting the appearance of the teeth of a comb, and partaking of the structure of gills; and on this account these organs are termed by Latreille *pneumo branchie*. Organs of a similar description exist in Spiders, some species having eight, others four, and some only two: but there is one entire order of Arachnida which respire by means of trachææ, and in these the circulation is as imperfect as it is in insects.

It may here be remarked that an essential difference exists in the structure of the respiratory organs, according to the nature of the medium which is to act upon them: for in