

endeavored to fill up the chasm which separates insects from other animals; and by examining carefully the portions which compose the solid frame-work of insects, and following them through their various transformations in different classes, he conceived that he found relations of position and function, and often of number and form, which might be compared with the relations of the parts of the skeleton in vertebrate animals. He thought that the first segment of an insect, the head,² represents one of the three vertebræ which, according to Spix and others, compose the vertebrate head: the second segment of the insects, (the *prothorax* of Audouin,) is, according to M. Geoffroy, the second vertebra of the head of the vertebrata, and so on. Upon this speculation Cuvier³ does not give any decided opinion; observing only, that even if false, it leads to active thought and useful research.

But when an attempt was further made to identify the plan of another branch of the animal world, the mollusca, with that of the vertebrata, the radical opposition between such views and those of Cuvier, broke out into an animated controversy.

Two French anatomists, MM. Laurencet and Meyranx, presented to the Academy of Sciences, in 1830, a Memoir containing their views on the organization of molluscous animals; and on the sepia or cuttle-fish in particular, as one of the most complete examples of such animals. These creatures, indeed, though thus placed in the same division with shell-fish of the most defective organization and obscure structure, are far from being scantily organized. They have a brain,⁴ often eyes, and these, in the animals of this class, (*cephalopoda*) are more complicated than in any vertebrates;⁵ they have sometimes ears, salivary glands, multiple stomachs, a considerable liver, a bile, a complete double circulation, provided with auricles and ventricles; in short, their vital activity is vigorous, and their senses are distinct.

But still, though this organization, in the abundance and diversity of its parts, approaches that of vertebrate animals, it had not been considered as composed in the same manner, or arranged in the same order. Cuvier had always maintained that the plan of molluscs is not a continuation of the plan of vertebrates.

² Ib. 437.

³ Cuv. *Hist. Sc. Nat.* iii. 441.

⁴ Geoffroy Saint-Hilaire denies this. *Principes de Phil. Zoologique discutés en 1830*, p. 68.

⁵ Geoffroy Saint-Hilaire, *Principes de Phil. Zoologie discutés en 1830*, p. 55.