to form the main-class of the trachea-breathing Arthropoda, or Tracheate Insects (Tracheata).

In all animals with articulated feet, as the name indicates the legs are distinctly articulated, and by this, as well as by the strong differentiation of the separate parts of the body, or metamera, they are sharply distinguished from Ringed worms, with which Bär and Cuvier classed them. They are, however, in every respect so like the Ringed worms that they can scarcely be considered altogether distinct from them. They, like the Ringed worms, possess a very characteristic form of the central nervous system, the so-called ventral marrow, which commences in a gullet-ring encircling the mouth. From other facts also, it is evident that the Arthropoda developed at a late period out of articulated worms. Probably either the Wheel Animalcules or the Ringed worms are their nearest blood relations in the Worm tribe. (Gen. Morph. ii. Plate V. pp. 85–102.)

Now, although the derivation of the Arthropoda from ringed Worms may be considered as certain, still it cannot with equal assurance be maintained that the whole tribe of the former has arisen out of one branch of the latter. For several reasons seem to support the supposition that the Gilled Arthropods have developed out of a branch of articulated worms, different from that which gave rise to the Tracheate Arthropods. But on the whole it remains more probable that both main-classes have arisen out of one and the same group of Worms. In this case the Tracheate Insects —Spiders, Flies, and Centipedes—must have branched off at a later period from the gill-breathing Insects, or Crustacea.

The pedigree of the Arthropoda can on the whole be clearly made out from the palæontology, comparative ana-