

## CLASSIFICATION OF LAMARCK.

*Histoire naturelle des Animaux sans vertèbres*, etc., Paris, 1815-1822, 7 vols. 8vo. — A second edition with notes has been published by *Mosses*: *DesHayes* and *Milne-Edwards*, Paris, 1835-1843, 10 vols. 8vo. — For the successive modifications this classification has undergone, see also: *Système des animaux sans vertèbres*, etc., Paris, 1801, 8vo. — *Philosophie zoologique*, etc., Paris, 1809, 2 vols. 8vo. — *Extrait du Cours de Zoologie du Muséum d'Histoire naturelle*, etc., Paris, 1812, 8vo.

## INVERTEBRATA.

## I. APATHETIC ANIMALS.

- CL. 1. Infusoria. *Ord.* Nuda, Appendiculata.  
 CL. 2. Polypi. *Ord.* Cilinti (Rotifera), Denudati (Hydroids), Vaginati (Anthozoa and Bryozoa), and Natantes (Cruroids, and some Halcyonoids.)  
 CL. 3. Radiaria. *Ord.* Mollia (Acalephæ), Echinoderms, (including Holothurim and Actinim.)  
 CL. 4. Tunicata. *Ord.* Bothryllaria (Compound Ascidiens), Ascidia, (Simple Ascidiens.)  
 CL. 5. Vermes. *Ord.* Molles and Rigiduli (Intestinal Worms and Gordius), Hispiduli (Nais), Epizourim (Epizon, Lernæans.)

Do not feel, and move only by their excited irritability. No brain, nor elongated medullary mass; no senses; forms varied; rarely articulations.

## II. SENSITIVE ANIMALS.

- CL. 6. Insects. (Hexapoda.) *Ord.* Aptera, Diptera, Hemiptera, Lepidoptera, Hymenoptera, Neuroptera, Orthoptera, Coleoptera.  
 CL. 7. Arachnids. *Ord.* Antennato-tracheales (Thysanura and Myriapoda), Exantennato-tracheales and Exantennato-branchiales (Arachnids proper.)  
 CL. 8. Crustacea. *Ord.* Heterobranchia (Branchipoda, Isopoda, Amphipoda, Stomapoda) and Homobranchia (Decapoda.)  
 CL. 9. Annelids. *Ord.* Apoda, Antennata, Sedentaria.  
 CL. 10. Cirripeds. *Ord.* Sessilia and Podunculata.  
 CL. 11. Conchifera. *Ord.* Dimyaria, Monomyaria.  
 CL. 12. Mollusks. *Ord.* Pteropoda, Gasteropoda, Trachelipoda, Cephalopoda, Heteropoda.

Feel, but obtain from their sensations only perceptions of objects, a sort of simple ideas, which they are unable to combine to obtain complex ones. No vertebral column; a brain and mostly an elongated medullary mass; some distinct senses; muscles attached under the skin; form symmetrical, the parts being in pairs.

## VERTEBRATA.

## III. INTELLIGENT ANIMALS.

- CL. 13. Fishes.  
 CL. 14. Reptiles.  
 CL. 15. Birds.  
 CL. 16. Mammalia.

Feel; acquire preservable ideas; perform with them operations by which they obtain others; are intelligent in different degrees. A vertebral column; a brain and a spinal marrow; distinct senses; the muscles attached to the internal skeleton; form symmetrical, the parts being in pairs.

It is not easy to appreciate correctly the system of Lamarck, as it combines abstract conceptions with structural considerations, and an artificial endeavor to arrange all animals in continuous series. The primary subdivision of the animal kingdom into Invertebrata and Vertebrata<sup>1</sup> corresponds, as I have stated above, to

<sup>1</sup> See, above, Chap. 2, Sect. 1, p. 138.