

CHAPTER XIX.

PEDIGREE AND HISTORY OF THE ANIMAL KINGDOM.

II. MOLLUSCA, STAR-FISHES, AND ARTICULATED ANIMALS.

Tribe of Molluscs.—Four Classes of Molluscs: Lamp-shells (Spirobranchia); Mussels (Lamellibranchia); Snails (Cochlides); Cuttle-fish (Cephalopoda).—Tribe of Star-fishes, or Echinoderma.—Their Derivation from Ringed Worms (Mailed Worms, or Phractalminthes).—The Alternation of Generation in the Echinoderma.—Four Classes of Star-fish: Sea-stars (Asteridea); Sea-lilies (Crinoidea); Sea-urchins (Echinidea); Sea-cucumbers (Holothuridea).—Tribe of Articulated Animals, or Arthropoda.—Four Classes of Articulated Animals: Branchiata, or Crustacea, breathing through gills; Jointed Crabs; Mailed Crabs; Articulata Tracheata, breathing through Air Tubes. Spiders (Long Spiders, Round Spiders).—Myriopods.—Insects.—Chewing and Sucking Insects.—Pedigree and History of the Eight Orders of Insects.

THE great natural main groups of the animal kingdom, which we have distinguished as TRIBES, or PHYLA ("types" according to Bär and Cuvier), are not all of equal systematic importance for our phylogeny or history of the pedigree of the living world. They can neither be classed in a single series of stages, one above another, nor be considered as entirely independent stems, nor as equal branches of a single family-tree. It seems rather (as we saw in the last chapter) that the tribe of Protozoa, the so-called primæval animals, is the common radical group of the whole animal kingdom. Out of the Gastræada—which we class among