

much shorter than the second), then three jaws, and three jaw-feet, then five very long legs (the three fore ones of which, in the *Peneus*, are furnished with nippers, and the third of which is the longest). Finally, on the first five joints of the hinder part of the body there are other five pairs of feet. This shrimp, which is one of the most highly developed and perfect crabs, originates (according to Fritz Müller's important discovery) out of a nauplius (*Fn* Plate VIII.), and consequently proves that the higher Crustacea have developed out of the same form as the lower ones, namely, the nauplius. (Compare vol. ii. p. 175).

PLATES XII. AND XIII. (*Between pages 200 and 201, Vol. II.*)

*Blood relationship between the Vertebrata and the Invertebrata.* (Compare vol. ii. pp. 152 and 201.) It is definitely established by Kowalewski's important discovery, which was confirmed by Kupffer, that the ontogeny of the lowest vertebrate animal—the Lancelet, or *Amphioxus*—agrees in all essential outlines completely with that of the invertebrate Sea-squirts, or *Ascidiae*, from the class of Sea-sacks, or *Tunicata*. On our two plates, the ascidia is marked by *A*, the amphioxus by *B*. Plate XIII. represents these two very different animal-forms in a *fully developed* state, as seen from the *left side*, the end of the mouth above, the opposite end below. Hence, in both figures the dorsal side is to the right, the ventral to the left. Both figures are slightly magnified, and the internal organisation of the animals is distinctly visible through the transparent skin. The full-grown ascidia (Fig. *A* 6) grows at the bottom of the ocean, from whence it cannot move, and clings to stones and other objects by means of peculiar roots (*w*) like a plant. The full-grown amphioxus, on the other hand (Fig. *B* 6), swims about freely like a small fish. The letters on both figures indicate the same parts: (*a*) orifice of the mouth; (*b*) orifice of the body, or porus abdominalis; (*c*) dorsal rod, or chorda dorsalis; (*d*) intestine; (*e*) ovary; (*f*) oviduct (same as the sperm-duct); (*g*) spinal marrow; (*h*) heart; (*i*) blind-sac of the intestine; (*k*) gill