This could hardly be otherwise, as long as the different categories of the structure of animals had not been clearly distinguished.[1]

CLASSIFICATION OF K. E. VON BAER.

In conformity with his embryological investigations, K. E. von Baer proposes the following classification.

I. Peripheric Type. (RADIATA.) Evolutio radiata. The development proceeds from a centre, producing identical parts in a radiating order.

II. Massive Type. (MOLLUSCA.) Evolutio contorta. The development produces identical parts curved around a conical or other space.

III. Longitudinal Type. (ARTICULATA.) Evolutio gemina. The development produces identical parts arising on both sides of an axis and closing up along a line opposite the axis.

IV. Doubly Symmetrical Type. (VERTEBRATA.) Evolutio bigemina. The development produces identical parts arising on both sides of an axis, growing upwards and downwards, and shutting up along two lines, so that the inner layer of the germ is inclosed below and the upper layer above. The embryos of these animals have a dorsal cord, dorsal plates, and ventral plates, a nervous tube and branchial fissures.

1°. They acquire branchial fringes;

a. But no genuine lungs are developed.

α. The skeleton is not ossified. Cartilagineous Fishes.

β. The skeleton is ossified. Fishes proper.

b. Lungs are formed. Amphibia.

α. The branchial fringes remain. Sirens.

β. The branchial fringes disappear. Urodela and Anura.

2°. They acquire an allantois, but

a. Have no umbilical cord;

α. Nor wings and air sacs. Reptiles.

β. But wings and air sacs. Birds.

b. Have an umbilical cord. Mammalia.

α. Which disappears early;

1°. Without connection with the mother. Monotremata.

2°. After a short connection with the mother. Marsupialia.

β. Which is longer persistent;

1°. The yolk sac continues to grow for a long time.

The allantois grows little. Rodentia.

The allantois grows moderately. Insectivora.

The allantois grows much. Carnivora.

2°. The yolk sac increases slightly.

The allantois grows little. Umbilical cord very long. Monkeys and Man.

The allantois continues to grow for a long time. Placenta in simple masses. Ruminants.

The allantois continues to grow for a long time. Placenta spreading. Pachyderms and Cetacea.

[1] Compare Chap. II., Sect. 1 to 9.