

and remarkable organ, which plays an exceedingly important part in nourishing the young one developing in the maternal body. The placenta (also called after-birth) is a soft, spongy, red body, which differs very much in form and size, but which consists for the most part of an intricate network of veins and blood vessels. Its importance lies in the exchange of substance between the nutritive blood of the maternal womb, or uterus, and the body of the germ, or embryo. (See vol. i. p. 298). This very important organ is developed neither in marsupials nor in beaked animals. But placental animals are also distinguished from these two sub-classes by many other peculiarities, thus more especially by the absence of marsupial bones, by the higher development of the internal sexual organs, and by the more perfect development of the brain, especially of the so-called callous body or beam (*corpus callosum*), which, as the intermediate commissure, or transverse bridge, connects the two hemispheres of the large brain with each other. Placental animals also do not possess the peculiar hooked process of the lower jaw which characterizes Marsupials. The following classification (p. 246) of the most important characteristics of the three sub-classes will best explain how Marsupials, in these anatomical respects, stand midway between Cloacal and Placental animals.

Placental animals are more variously differentiated and perfected, and this, moreover, in a far higher degree, than Marsupials, and they have, on this account, long since been arranged into a number of orders, differing principally in the formation of the jaws and feet. But what is even of more importance than these, is the different development of the placenta, and the manner of its connection with the