Amphibians, and to typical numbers and arrangement in the bones of the leg, has been stated on page 726. Once reached, these numbers remain the normal or typical numbers for Reptiles, Birds, and Mammals. The typical number of *cervical* vertebræ, seven, sometimes occurs in Reptiles; but variation from this number is not in them a character of generic importance.

Under Mammals, the differentiation of the teeth in all typical species, into incisors, canines, and molars, exists, commencing with Triassic Marsupials; but the number of teeth continues to be multiplicate through the Jurassic, the typical Mammalian number, 44, being usually exceeded, and sometimes by 24. The number seven became the fixed or normal number of cervical vertebræ, first, among Vertebrates, in Mammals. It is a character of all existing Marsupials, and probably was of those of the early Mesozoic, — a doubt remaining because no skeleton of an ancient species has yet been found.

Exceptions to normal numbers, after they were once attained, have proceeded from specializations in the course of upward as well as downward progress; but the larger part occur among degenerate forms, and in these, as the examples mentioned show, the divergence is often very great.

2. *Location of the function of locomotion.* — As remarked on page 726, the typical Amphibian, on becoming adult, passes from the stage of caudal or *urosthenic* locomotion, to locomotion by limbs, or *podosthenic*. The latter is the typical condition in Reptiles, Birds, and Mammals. But groups under each differ as to the pair of limbs which bears the chief part of the work.

The Triassic and Jurassic periods were distinguished eminently by *hind-limb location of force and locomotion*. It was the era of very small brains, and of great development of the posterior extremities — the era of Merosthenic Vertebrates, as the Devonian and Carboniferous eras were of Urosthenic Vertebrates. The prominent feature of all Dinosaurs is their enormous hinder parts. Moreover, as has been mentioned, many of the species, the gigantic Stegosaurs preëminently, have a provision for this arrangement of the forces of the Reptile, as Marsh first brought out, in the great nervous mass of the sacrum.

The Amphibians also were strongest in the hind limbs, as is indicated by the remains of the Labyrinthodonts. The wings of the Jurassic Bird of Solenhofen prove that they were poor flyers, and consequently that their legs or hind limbs were their chief locomotive organs. Moreover, in this *merosthenic* era, the Mammals probably had the hind limbs much the stronger of the two pairs, as is true of modern Marsupials.

The species of Reptiles that were distinctively *strong in the fore limbs*, or *prosthenic*, are the Pterosaurs; and among these, the Pterodactyls, having the head large, the posterior feet small, and the tail short, with the brain and sternum Bird-like, appear to have taken the lead. Seeley has placed them in an independent group separate from Reptiles. The absence of scales from the body, and the light bones, with air cavities and pneumatic foramina, still further ally them to Birds, and separate them from other Reptiles. It