

the latest of those repetitions, becomes less perfect, and ends by being abortive. In the present instance, the consequences of this law are highly advantageous, since it provides for the flexibility of the tail, and qualifies it for being applied to a great variety of useful purposes, as we find more especially exemplified in the *Ateles*, or spider monkey, and in the *Kangaroo*.

Next in importance to the spine is the *cranium*, or osseous covering of the brain; together with the bones of the face, which protect the organs of the finer senses. An accurate investigation of the mode in which these bones are formed has led many modern anatomists to the opinion that they were originally parts of the spinal column, and that they are, in fact, developments of vertebræ, much altered, indeed, in shape, in consequence of the new conditions to which they have been subjected; but still possessing all the essential elements of vertebræ. In the embryo condition of these organs, and while the brain is yet undeveloped, the resemblance of the bony circles which enclose it to vertebræ is certainly very striking; but in proportion as the brain becomes expanded, the similarity diminishes; for the rapid growth of the brain in the higher orders of animals is necessarily attended with an equally sudden expansion of the bones of the skull. Hence, their several elements are thrown into unusual positions, and being variously distorted and disfigured, can hardly be recognised under the strange disguises they assume.

The extensive researches that have been recently made in this branch of comparative anatomy, have supplied many facts, which tend to support the hypothesis that the bony coverings of the brain are the result of the development of three vertebræ. According to this theory, the first of these supposed *cranial vertebræ*, beginning our enumeration from the neck, is the origin of the occipital bone, of which the lower part, or that which immediately supports the cerebellum, corresponds to the body of the vertebra; the two lateral portions to the leaves; and the upper flat plate, to the spinous process. The body of the second cranial vertebra becomes,