

cility; having, in fact, two thumbs, which are opposable to the two fingers. They have been termed *Scansores*, or *Zygodactyli*. Almost all other birds have three toes before, and one behind.

From this enumeration, it would appear as if Nature, in modifying the type of vertebrated animals to suit the purposes required in the bird, had purposely omitted one of the toes which are usually five in number. But instances occur of birds, in which we may trace the rudiment of a fifth toe high upon the metatarsus, and upon its inner side. The spur of the cock may be regarded as having this origin. What confirms this view of the subject, is, that in those birds which have only three toes, namely, in the *Emu*, the *Cassowary*, and the *Rhea*, it is again the inner toe which disappears, leaving only the three outer toes, namely, those which have, respectively, three, four, and five phalanges. The *Ostrich* has only two toes, one having four, and the other five phalanges; here, again, it is the innermost of the three former, that is, the one having three phalanges, which has been suppressed.*

A bird is capable of shifting the position of the centre of gravity of its body according as circumstances require it, simply by advancing or drawing back its head. While flying, the neck is stretched forwards to the utmost, in order to bring the centre of gravity immediately under the origin of the wings, by which the body is then suspended. When birds stand upon their feet, they carry the head back as far as possible; so as to balance the body on the base of support. When preparing to sleep, they bring the centre of gravity still lower, by turning the head round and placing it under the wing. These motions of the head are again resorted to when the bird walks; and the centre of gravity is thus transferred alternately from one foot to the other: hence

* The last bone of the outer toe of the ostrich is very small, and being usually lost in preparing the skeleton, has been overlooked by naturalists; but Dr. Grant has ascertained, by the careful dissection of a recent specimen, the existence of this fifth phalanx.