

tion, but yet may be advantageous to the organism in the struggle for life. It is easier to fight when useless baggage is thrown aside. Hence we meet everywhere, in the more highly developed animal and vegetable bodies, processes of divergence, which are in reality the cause of the degeneration, and finally of the loss, of particular parts. And now the most important and instructive of all the series of phenomena bearing upon the history of organisms presents itself to us, namely, that of *rudimentary or degenerate organs*.

It will be remembered that even in my first chapter I considered this exceedingly remarkable series of phenomena, from a theoretical point of view, as one of the most important and most striking proofs of the truth of the doctrine of descent. We designated as rudimentary organs those parts of the body which are arranged for a definite purpose and yet are without function. Let me remind the reader of the eyes of those animals which live in the dark, in caves and underground, and which consequently never can use them. In these animals we find real eyes hidden under the skin, frequently developed exactly as are the eyes of animals which really see; and yet these eyes never perform any function, indeed cannot, simply for the reason that they are covered by an opaque membrane, and consequently no ray of light falls upon them. In the ancestors of these animals, which lived in open daylight, the eyes were well developed, covered by a transparent horny capsule (cornea), and actually served the purpose of seeing. But as the animals gradually accustomed themselves to an underground mode of life, and withdrew from the daylight and no longer used their eyes, these became degenerated.

Very clear examples of rudimentary organs, moreover, are