

being covered by a membrane; but when these animals are removed from a life of darkness to one of light the sight is ultimately restored. Does God or nature do this? In the upper jaws of calves are teeth that never cut; the dugong has tusks that never cut through the gums; the guinea pig has teeth that are shed before it is born; the boa-constrictor has little bones under the skin towards the tail, which have no present use, as they are the remains of hind legs and a pelvis; some whales and fishes have useless bones in the hinder parts of their bodies which are evidently the remains of hind-legs; in a certain worm (*Anguis*) there is a set of shoulder bones in the body but no legs attached to them. Were these all *designed*? In some breeds of sheep we find rudimentary ears, and of cattle small dangling horns. The males of the mammalia all have *mammæ* in a rudimentary condition, and sometimes so developed as to yield milk. Were these designed, and if so what for? They have no earthly use that the keenest naturalist can discover. Was the "bastard wing" in birds designed? Or the teeth in fetal whales which when grown up have no teeth? There are in animal and vegetable life thousands of such facts as these, of irredeemable *purposelessness*, so to speak,—facts which can never be reconciled on the theory of creation and design, but which are as plain as day on the Materialistic theory of development. If the Theist can give any rational account of them we will be glad to listen. "When we consider," says Haeckel "the attempts which the earlier naturalists have made in order to explain this mystery, we can scarcely help smiling." In the light of Evolution, however, we find the solution of the rudimentary organs as well as a thousand other phenomena; and hence the almost universal acceptance of Evolution at the present day by scholars and scientists. Touching this, Haeckel says, "It no longer occurs to physicists, chemists, mineralogists or astronomers, to seek to find in the phenomena which continually appear before them in their scientific domain the action of a Creator acting for a definite purpose. They universally, and without hesitation, look upon the phenomena which appear in their different departments of study as the necessary and invariable effects of physical and chemical forces which are inherent in matter."

You refer, Mr. Editor, to the adaptation of the eye to light, and ask the candid mind to decide whether Evolution furnishes a sufficient account of it. I freely admit that to the ordinary reader who has not studied carefully and thoughtfully the laws of heredity, of natural selection, of accidental variation, etc., as elaborated by Darwin and Haeckel, it would seem unreasonable. But the account is quite satisfactory to all the greatest living naturalists as well as thousands of others who have looked at the matter without prejudice. To all such the doctrine of development appears more reasonable and less mysterious than that of a personal god and design. Regarding the adaptation of the eye to light, if we had never seen any but the eyes of humans and the higher animals we might think it impossible that they could have been evolved by natural selection. But the belief becomes comparatively easy when we look at the gradual ascent from the lowest eyes in the lowest