

ears, but for all that he has them. Again, all the apes use their feet, as well as their hands, to grasp with; they can all use the great toe as we use the thumb, that is, they can oppose it to the other toes and seize and hold sticks, nuts, or other things between the great toe and little toes, just as they or we can seize and hold small articles between the thumb and fingers. We have no such power, we cannot make use of our toes in this way, still every muscle which exists in the foot of the ape by means of which he executes the movements in question exists also in our feet; but we make no use of them, and can make no use of them. Did we ever make use of these muscles? If so, when? If we never used them why were they placed in our feet? Why should dozens of muscles be made and carefully placed and connected in our feet for no purpose? The muscles in question are now greatly atrophied for want of exercise. Were they created in this atrophied state, or were they created to be used, and have they since shrunk from want of exercise? Another instance: Cattle, horses, and many other of the lower animals have a broad flat muscle just under the skin of their neck and shoulders (a part of the body to which their tails will not reach), by means of which they shake the skin covering these parts and so drive away flies which have settled there. We also have that muscle in our body, it is called the *platysma myoides*, but we have no use for it, and could not use it if we wanted to do so, since from long inaction or some other cause its fibres have become in us incapable of contraction. Did we ever use that muscle? And, if so, when? If we never used it, why was it placed in our bodies. Once more: You all know that while we, in common with all land animals, breathe with lungs, the whole family of fishes breathe with gills. In our body there is a large artery called the *pulmonary*, which carries the blood from the heart to the lungs to be aerated. In fishes there is a corresponding artery called the *branchial*, which carries the blood from the heart to the gills for the same purpose. But the gills are much further from the heart and nearer to the head than are the lungs; it is therefore easy to distinguish by its position a rudimentary branchial from a rudimentary pulmonary artery, and rudimentary gills from rudimentary lungs. Now it is a fact that at a certain stage of the development of