

of functional changes. Lamarck's explanation of the snake's elongated legless body, and the duck's webbed feet is given by himself as follows:

"It is part of the plan of organization of reptiles, as well as of other vertebrates, that they have four legs attached to their skeleton. . . . but snakes acquired the habit of gliding over the ground and concealing themselves in the grass; owing to their repeated efforts to elongate themselves, in order to pass through narrow spaces, their bodies have acquired a considerable length, not commensurate with their width. Under the circumstances, legs would serve no purpose, and consequently would not be used;



Fig. 1.—LAMARCK

long legs would interfere with the snakes' desire for gliding, and short ones could not move their bodies, for they can only have four of them. Continued lack of use of the legs in snakes caused them to disappear, although they were really included in the plan of organization of those animals."

On the other hand, "the frequent use of an organ, made constant by habit, increases the faculties of that organ, develops it and causes it to acquire a size and strength it does not possess in animals which exercise less. A bird,