

appears to be peculiar to animals of great longevity, and which subsist on vegetable substances containing a large proportion of tough fibres, or other materials of great hardness; and requiring for their mastication teeth so large as not to admit of both the old and new tooth being contained, at the same time, in the alveolar portion of the jaw.

An expedient of a different kind has been resorted to in the *Rodentia*, for the purpose of preserving the long chisel-shaped incisors in a state fit for use. By the constant and severe attrition to which they are exposed, they wear away very rapidly, and would soon be entirely lost, and the animal would perish in consequence, were it not that nature has provided for their continued growth, by elongation from their roots, during the whole of life. This growth proceeds in the same manner, and is conducted on the same principles, as the original formation of the simple teeth already described: but, in order to effect this object, the roots of these teeth are of great size and length, and are deeply embedded in the jaw, in a large bony socket provided for that purpose; and their cavity is always filled with the vascular pulp, from which a continued secretion and deposition of fresh layers, both of ivory and enamel, take place. The tusks of the *Elephant* and of the *Hippopotamus* exhibit the same phenomenon of constant and uninterrupted growth.

In the *Shark*, and some other fishes, the same object is attained in a different manner. Several rows of teeth are lodged in each jaw, but only one of these rows projects and is in use at the same time; the rest lying flat, but ready to rise in order to replace those which have been broken or worn down. In some fishes, the teeth advance in proportion as the jaw lengthens, and as the fore teeth are worn away: in other cases, they rise from the substance of the jaw, which presents on its surface an assemblage of teeth in different stages of growth: so that, in this class of animals, the greatest variety occurs in the mode of the succession of the teeth.

The teeth of the *Crocodile*, which are sharp-pointed hol-