detached teeth belongs to various species and genera of that most numerous, and widely distributed family of voracious fishes, the SHARKS. In the Tertiary strata, teeth of this kind occur of a very large size; in the Chalk many species abound, particularly of the lanceolate and compressed forms, and of the rugous mammillated teeth, commonly termed *palates*. As we pass to the more ancient formations, teeth of a different form prevail; and those which approach the recent types, are either very rare, or altogether absent. We will select some examples of the different genera in illustration of this subject; our previous observations on the form and structure of the recent teeth, render but few introductory remarks necessary.

FOSSIL TEETH OF SHARKS.—The fishes of the families of Sharks and Rays, belong to the *Placoid* order, their scales consisting of enamelled plates and tubercles, forming a *shagreen* in the former, and appearing as spines and bosses, irregularly disposed, in the dermal integument of the latter. Notwithstanding the diversity in appearance of the teeth of Sharks, they all possess one essential character of structure, namely, a base, or osseous root of variable form, which is implanted in the integuments; and a crown, or external portion, which projects into the mouth, is covered with enamel, or compact dentine, and assumes numerous modifications, by which the fossil genera are characterised. These teeth are never imbedded in sockets, nor united to