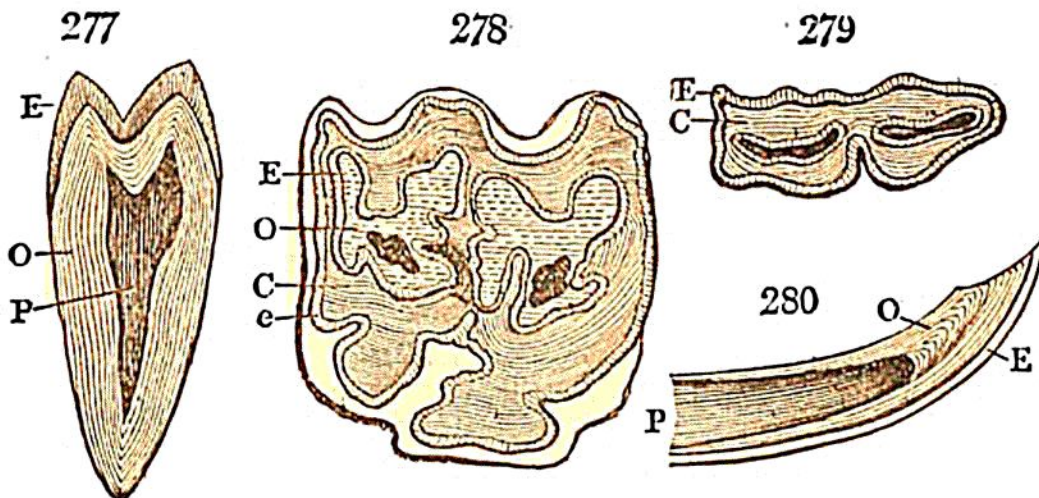


The teeth, though composed of the same chemical ingredients as the ordinary bones, differ from them by having a greater density and compactness of texture, whence they derive that extraordinary degree of hardness which they require for the performance of their peculiar office. The substances of which they are composed are of three different kinds: the first, which is the basis of the rest, constituting the solid nucleus of the tooth, has been considered as the part most analogous in its nature to bone, but from its much greater density, and from its differing from bone in the mode of its formation, the name of *ivory* has been generally given to it. Its earthy ingredient consists almost entirely of phosphate of lime, the proportion of the carbonate of that earth entering into its composition being very small; and the animal portion is albumen, with a small quantity of gelatin.

A layer of a still harder substance, termed the *enamel*, usually covers the ivory, and, in teeth of the simplest structure, forms the whole of their outer surface: this is the



case with the teeth of man and of carnivorous quadrupeds. These two substances, and the direction of their layers, are seen in Fig. 277, which is the section of a simple tooth. E is the outer case of enamel, o the osseous portion, and P the cavity where the vascular pulp which formed it was lodged. The enamel is composed almost wholly of phosphate of lime, containing no albumen, and scarcely a trace of gelatin;