

deposited and building up the body of the tooth, and in the same proportion encroaching upon the cavity occupied by the pulp, which retires before it, until it is shrunk into a small compass, and fills only the small cavity which remains in the centre of the tooth. The ivory has by this time received from the capsule a complete coating of enamel, which constitutes the whole outer surface of the crown; after which no more is deposited, and the function of the capsule having ceased, it shrivels and disappears. But the formation of ivory still continuing at the part most remote from the crown, the fangs are gradually formed by a similar process from the pulp; and a pressure being thereby directed against the bone of the socket at the part where it is the thinnest, that portion of the jaw is absorbed, and the progress of the tooth is only resisted by the gum; and the gum, in its turn, soon yielding to the increasing pressure, the tooth cuts its way to the surface. This process of successive deposition is beautifully illustrated by feeding a young animal at different times with madder; the teeth which are formed at that period exhibiting, in consequence, alternate layers of red and of white ivory.\*

The formation of the teeth of herbivorous quadrupeds, which have three kinds of substance, is conducted in a still more artificial and complicated manner. Thus, in the elephant, the pulp which deposits the ivory is extended in the form of a number of parallel plates; while the capsule which invests it, accompanies it in all its parts, sending down duplicatures of membrane in the intervals between the plates. Hence the ivory constructed by the pulp, and the enamel deposited over it, are variously intermixed; but besides this, the *crusta petrosa* is deposited on the outside of the enamel. Cuvier asserts that this deposition is made by the same capsule which has formed the enamel, and which, previously to this change of function, has become more spongy and vascular than before. But his brother, M. Frederic Cuvier,

\* Cuvier. *Dictionnaire des Sciences Médicales*, t. viii, p. 320.