

fig. 3<sub>b</sub>.) The dentine is composed of very minute calcigerous tubes, which pass off at right angles from the pulp-cavity to the periphery; and it is covered by a layer of cement, or coarser dentine, which is encased in a coat of enamel, forming the external investment of the tooth.\* The long conical teeth are implanted in *alveoli* or sockets, to the walls of which they are anchylosed at their base.

The teeth of several extinct genera of sauroid fishes occur in the Chalk, Oolite, Lias, and Carboniferous formations; but none have been observed in the Tertiary deposits. I have not observed any trace of this family in the Wealden. The great strength and size of some of these teeth, prove that the seas of those remote periods were inhabited by voracious fishes of enormous magnitude.

The teeth and jaw of a gigantic sauroid (*Megalichthys*), from the Carboniferous strata at Burdiehouse, are figured *Bd.* pl. 27; the sections of the teeth shown in figs. 13, 14, of that plate, illustrate the size of the pulp-cavity and the thickness of the layer of dentine. These remains were associated

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\* These remarks are based on M. Agassiz's description and my own observations. An interesting paper, "On the Microscopic Structure of the Teeth of the *Lepidostei*, and their analogy with those of the *Labyrinthodonts*, with a plate," by *Dr. Jeffries Wyman*, will be found in *Amer. Journ. of Science*, October, 1843, p. 359.