about the middle of the upper border of the fang. It was 7-10ths of an inch in its basal diameter, and 4-10ths from apex to base. The fang was homologous with the strap-shaped shaft in the adult tooth, but instead of being vertically elongated and strap-shaped, its longer diameter of 2 inches was in the antero-posterior direction, whilst its greatest vertical diameter to the base of the denticle was only 8-10ths of an inch. Along its deeper border it possessed a cleft 2-10ths of an inch wide, which led into the pulp-cavity. On making a vertical section through the middle of the entire tooth, this cavity was seen to be prolonged almost as far as the apex of the denticle (Pl. II. figs. 15, 16).

The free surface of the denticle was completely invested by a glistening white enamel. A thin vertical section was then taken out of the middle of the tooth and polished for microscopic examination.[1] The cap of enamel was then seen to be of almost uniform thickness over the entire denticle, at the base of which it was somewhat overlapped by an up-growth of cement from the fang. When highly magnified the surface of section was seen to be marked by delicate bands, extending almost perpendicularly to the surface of the denticle, which indicated the rods of which the enamel was composed.

Subjacent to the enamel was a well-defined mass of dentine, which constituted the chief substance of the denticle. It was traversed by undulating branched tubes, which radiated outwards from the pulp-cavity, and were arranged with as much regularity as one sees in the crown of a human tooth. Where the branched terminations of the dentine tubes came into relation with the deep surface of the enamel, a layer of irregular, but somewhat stellate, spaces occupied the dentine matrix. These spaces corresponded in appearance with the so-called granular layer situated in human teeth more especially in the fang, between the dentine and cement, and may be termed interglobular spaces (fig. 18).

The dentine was prolonged downwards into the fang, and with a simple lens could be traced almost as far as the edge of the cleft at its root, but it formed so thin a lamina in the greater part of its extent, as to appear merely as a line in the unmagnified section. When highly magnified, the dentine in the fang, immediately continuous with that in the denticle, was seen to contain the tubes arranged in a regular manner, but as the dentine was followed further into the fang, the tubes began to break up into irregular groups, then to be sparsely scattered through the matrix, and at last to disappear, so that in the lower part of the fang the dentine was represented by a translucent matrix, having indefinitely-shaped granules irregularly scattered through it.

The fang of the tooth was invested by a yellowish-brown substance, which was smooth on its surface in proximity to the denticle, but in the region of the cleft was pitted with shallow grooves and small foramina, so as to have a porous aspect. In the section this substance was seen to vary in thickness, its maximum being 1-10th of an inch, and becoming thinner both towards the denticle and the cleft. To the naked eye it was

[1] This and succeeding sections were kindly made for me in the Challenger Laboratory by my friend Mr John Murray.