

Some of these conditions are to be found in the structure of the teeth we fill with amalgam, others in the position of the cavity, difficult of access, and still others in the operation itself. It is usually chosen for teeth which are of so poor structure, or so weakened by the ravages of decay, that nothing else is available. It is, therefore, not surprising if many amalgam fillings are lost, reducing the average period of duration very low. A tooth whose structure is termed chalky, in which we cannot get clearly defined margins to the cavity, or sharp anchorages for the filling, is not of suitable structure to be filled successfully with gold; the phosphates are soluble, and gutta percha is too easily crushed out of proximate cavities; we must then have recourse to amalgam.

We begin the preparation of the cavity for any filling by cutting away, preferably with a chisel, the overhanging edge until we have free entrance. Then with spoon-shaped excavators, remove loose debris, that we may see the condition of the cavity and our work, as we proceed. If an attempt is made to excavate the cavity without thus obtaining free entrance and vision, the instrument may strike the pulp, causing great immediate pain and possibly after complication, or if the pulp be not exposed, much of the pain caused in excavating a sensitive cavity is due to causes which are avoidable. We usually find a leathery brownish layer indicating the character of decay. This must now be thoroughly removed, which is best done with spoon excavators getting under the edge and moving the entire mass with a quick motion. This usually causes considerable pain, but usually one well-directed motion so far separates the entire mass, that the further preparation of the cavity is, or can be made comparatively free from pain. The causes and prevention of this pain it is not within the purposes of this paper to discuss.

The next step is to shape the cavity and margins with greater exactness. With a suitably shaped chisel or trimmer for the margins, and spoon-excavators for the interior of the cavity, trim the margins to a right angle with the external surface of the enamel, giving particular attention to the cervical margin, if the cavity is a proximate one. Thus there are left no thin edges of enamel to crumble or of amalgam to be broken, and leave a crevice for the recurrence of caries. As amalgam is not easily forced into a fine sharp line or pit, the undercut should be made broad, as with a spoon or hoe excavator, and need not be deep, only using a drill