

the soft and cohesive gold, and therefore the mass of cohesive gold in the centre of the filling is liable to be displaced.

Practically, amalgam stands next to gold as a filling material, being sufficiently hard to bear the pressure of mastication, it is insoluble, easily inserted and easily adapted to the walls of the cavity. Where the patient is very susceptible to the influence of mercury, amalgam should not be used, but these cases are indeed rare. The influence of so small a quantity of mercury at such a low temperature would have little effect, because a temperature of five hundred degrees is required to produce any injurious mercurial salt.

In using amalgam it should contain such proportions of metals as to prevent it from shrinking. A good percentage of tin will prevent this, the presence of a large proportion of tin makes the filling less brittle which is rather an advantage, as it renders it less liable to crevasse. A good filling material is obtained from forty-nine parts tin and fifty-one of silver, a small portion of gold gives to it a finer grain. Crevasseing is a serious fault of amalgam, especially where the filling is required to bear much pressure. Take for instance an approximal cavity in a molar or bicuspid, the pressure of mastication chips the brittle edge off the filling, leaving a crevice between the tooth tissue and filling which is injurious in two ways; first, matters such as particles of food and the like, being pressed between the tooth and filling tend to force the filling out of place, second, these particles of food remain there and exert an evil influence by being decomposed, forming acid which renews the decay, this latter objection will apply to any amalgam filling which has to bear pressure, the former only to approximal fillings. Gold has not this objection, being malleable.

Another great objection to amalgam is its tendency to discolor. Any filling which contains mercury will discolor in the mouth, therefore is not suitable for use in any cavity where the filling is exposed to view, as for example in the incisors or anterior surface of cuspids. It not only oxidizes on the external surface but also on the surface, which is in contact with the tooth substance, and will cause a dark appearance on the surface where the walls of the cavity are thin and semi-transparent. The formation of oxide beneath the filling in some cases slightly raises the filling from its place so that the surface is higher than the surface of the tooth tissue surrounding it. This is apt to make the filling leak, yet it is possible that this oxidation retards the process of decay by its