

be objectionable. In my own case, with a large surface of crowns below, and the tongue connecting the two metals, a metallic taste was ever present.

Now let us return to the subject of gingivitis. The cause of gold crown disturbances has been well defined in the effects of gold upon tissue we will recapitulate. Gold in the mouth becomes charged with electricity when the metal rests upon gum tissue; like a plate no harm is done when only small portions rests upon the gums or under the gums that portion receives the amount of heat and electricity that is received upon the whole surface. I know from experience that hot water alone produces severe pain on the sensitive dentine below the gum line. That coffee increases the current from the effects of the carbon in the coffee acting upon the saliva. I find that bridges are worse than single crowns, having more gold surface to gather the electricity. Bear in mind that in physics intense heat can be produced by electricity. In animal life the range is between freezing, and $100.3-4^{\circ}$ above. Cathaphoresis teaches that intense currents destroy gum tissue; feeble currents, for a long period, produce like effects on organized bodies. It is a natural law that gold terminating in a band under the gum causes an abnormal condition as seen in connection with crown work. Perfection in fitting cannot set this law aside. As a remedy for sensitiveness of dentine silver nitrite is the most effectual I have used. Shortening the band, so as not to extend beneath the gum, is usually a remedy for inflammation.

With the above explanation, aided by evolution in practice, with a better general understanding of oral electricity, I will try to make plain why gold fillings are not compatible with dentin in teeth of children, or in deep-seated cavities where the tissue is a conductor, without an insulating lining. As above stated, gold worn in the mouth becomes the positive plate or pole of a battery. During mastication or mingling of positive and negative elements with saliva, gold crowns are highly charged and the current passes into the gum tissue when the band extends under the gums. That is, the gold in contact becomes an electrode. To carry out the correspondence, every gold filling at a point nearest the pulp, or any part of the walls of the cavity which may be the best conductor, is an electrode. Where the dentin is normal, or when the dentin has been protected so as to insulate the current, no harm follows. Where the current continues, dissolution of the lime salt is the result, though it may be years in doing its work. To relieve pulp irritation caused from thermal changes, I have removed large gold filling which was done by different operators, and had given no trouble, nor did they show indication of leakage, and found the dentin covering the pulp decalcified a nice organic conductor. The same principle is active when children's teeth are filled before becoming