

metal (gold and platinum), just about in this shape (illustrating), letting it extend below the cutting edge of the porcelain, and then fill in here with solder. I should recommend the piece to be about twenty-three or twenty-four gauge, and when a tooth is invested let the investment come over the edge to hold it firmly and then fill in here with solder. You can do that after it is waxed on to the cap.

You can take twenty carat gold with three or six per cent. platinum. The metal ordinarily used for clasps will do very well, producing hardness of the gold by admixture of a small percentage of platinum, and then by filing and grinding this away, leaving it extending a little below, you will have a hard cutting edge to save the porcelain from fracture. I think that is quite important in bridge work, and in fact wherever the occlusion comes very greatly upon the front tooth.

There is another point I may state here. Where centrals and laterals are to be supplied and the back teeth are lacking to any great extent, destruction will come to such a piece of bridge work, unless the teeth are shouldered at this point. By filling in with solder here and building out a shoulder, the lower teeth will catch here on this shoulder, so in biting it will have a tendency to throw the teeth in, instead of striking on a bevel and throwing the teeth out.

Of course the incisors, in cutting, strike the cutting edge; but as they come up they strike this shoulder and that overcomes the resistance. You have really converted the anterior teeth supplied into bicuspid. That is quite important. There are very many pieces of bridge work made to supply the lines of the anterior teeth between the bicuspid. These pieces answer, as a rule, for a time very nicely; but unless the posterior occluding teeth are in good condition, these pieces are very quickly destroyed by the undue force put upon them.

Q.—Any piece of metal put in front, would not that have a tendency to crack the facing?

A.—No, I don't find that. Porcelains crack by undue use of borax. I have every piece of gold I use smeared with borax. I paint it on with a camel's hair brush where I want to have the solder flow, for I don't sprinkle it on, because borax unites with the body of the tooth and the enamel and will weaken the tooth. The breaking of porcelains comes, I think, more from not properly heating pieces before submitting to the melting flame. A piece should be heated until it is brown and then quickly transferred to the pad and under a blow-pipe, the heat applied at that part farthest from the porcelain first, gradually working up to the point where the porcelains are lying under gold. With proper investments covering porcelains, and proper heating and proper cooling, you should