

This method of welding gold I got from Dr. Bing, of Paris, some eight years ago when I was there. At first I considered it more of a novelty than of practical benefit, but in the welding of bands in the past five or six years I have not used any other method. I have not used solder because solder is very apt to leave the part at the joint more rigid and stiff. Having welded I press it down until it whitens the gum, taking it off and trimming where necessary from time to time until at last, having fitted it to the gum, I complete the welding.

We will say the fitting has been perfect around the margin of the gums and the part extending above the cusps is now to be taken into consideration. Fill the inside of the band resting above the summit of the cusps with plaster with a small spatula such as is used in mixing fillings, being careful to exclude air. This will ensure a perfect impression of the cusps and inside of the band. After the plaster is set remove the plaster and band, hold it over a lamp in tweezers and dry it slightly to get rid of excessive moisture, and pour in a small quantity of low fusing metal, fusing at 212, metal that you begin to know as Melotte's fusible metal. When the metal is thoroughly congealed I then remove the plaster which reveals the cusps cast in this fusible metal. You are looking down upon the cusps in this cap. Now with the shears trim the part of your band extending above the height of the tooth down to the level of the summit of the fusible metal cusps, on the little cast, upon the inside. Then with a file or corundum wheel bevel or grind the surfaces to a thin edge. Then with a burnisher or hammer, being careful not to mar the fusible metal, it is contoured. Having contoured and brought the edges of the fusible metal down to a level with the outer edges a little wax may be used to more perfectly contour and make smooth and uniform the edge that extends over on to the fusible metal. You will see this model here represents the cusps with the band extending around and bevelled over. Now take an impression in the moldine of the surface extending just above the line of the cusps, and having melted the metal after putting on the little rubber ring over the moldine in the cup pour in fusible metal as cold as it will run well. Have it cooled down almost to the congealing point and fill the ring with the fusible metal, making quite a thick cast—perhaps in thickness half as great as that of the width of the little rubber band.

It is very important in manipulating this metal you should not pour it too hot if you wish to get a perfect cast. After your metal has congealed and is cold enough to handle take the ring and metal off and then take the rubber ring off with the metal and pour cold water on it until it is perfectly cold if you want to make a counter-die. Having this metal perfectly cold and wet, you all