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PRECIOUS METAL ALLOY COMPOSITION

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1 Claim. (Cl. 75—1)

My invention relates to precious metal alloy compositions. It relates more particularly to compositions of this character for use in wrought and cast dental work and for use in manufacturing jewelry. An object of the invention in general is to produce an alloy which has distinct advantages for such uses and an object in particular is to improve on the composition disclosed and claimed in my Patent No. 1,965,012, issued July 3, 1934.

The full objects and advantages of my invention will appear in connection with the detailed description thereof and the novel features of the invention will be particularly pointed out in the claim.

In carrying out my invention, I utilize the following elements combined in proportions by weight within the following ranges:

	Per cent
Gold	25 to 65
Palladium	2 to 25
Silver	10 to 33
Copper	10 to 25
Indium	½ to 5
Platinum	½ to 10

Among the advantages of my alloy are the following:

1. It resists oral and atmospheric corrosion.
2. It melts smoothly and casts easily.
3. It is lighter in weight than the conventional dental casting gold alloys.
4. It is of pleasing color.
5. The melting range is in the same temperature range as that of gold alloys commonly used in dentistry and is considerably lower than that of the alloy disclosed in my prior patent above referred to.

The use of indium is of particular importance in controlling or improving color, corrosion resistance, melting range, hardness, and strength.

The use of platinum is of importance due to the fact that it assists in controlling the grain structure of the composition so that the material may be more readily rolled and drawn.

I claim:

A precious metal alloy composition composed of from 25 to 65% of gold, from 2 to 25% of palladium, from 10 to 33% of silver, from 10 to 25% of copper, from ½ to 5% of indium, and from ½ to 10% of platinum.

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