

# UNITED STATES PATENT OFFICE.

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PROCESS OF MAKING ALLOYED RAISED GOLD PLATES WITH CORRUGATED BACKGROUND FOR JEWELRY.

SPECIFICATION forming part of Letters Patent No. 412,017, dated October 1, 1889.

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*To all whom it may concern:*

Be it known that I, JOSEPH BULOVA, of New York city, New York, have invented an Improved Process of Making Alloyed Raised Gold Plates with Corrugated Background for Jewelry, of which the following is a specification.

This invention relates to an improved process for making gold plates of the kind in which an ornament or initial is raised from a roughened or corrugated background. This class of plates is used in the manufacture of rings, lockets, chains, and similar articles. These plates were heretofore made by placing a softened alloyed gold plate, with its oxidized coat or surface, in a die from which the raised figure or ornament alone was struck up. The oxide was next removed from the background by scraping, and then the corrugations were formed upon the background by a chisel or punch. Finally, the raised parts or ornaments were polished. The difficulties accompanying this process were so many that plates of this kind were rarely made. The removal of the oxide by scraping around the raised parts was accompanied with much difficulty. The corrugation of the background by hand was also a tedious process, and the corrugations were not apt to be uniform. Moreover, dirt was apt to settle in the cavities, as the punch in forming the background was apt to throw the diminutive lips formed in one descent partly over the adjacent cavities to partly close them.

I overcome all of the above objections and produce an alloyed-gold plate of the kind de-

scribed in a cheap manner and in perfect form by the following process:

The alloyed gold plate is annealed, and then while the plate is still smooth the oxidized coat upon its surface is carefully removed by emery or by a similar polishing material. This gives to the annealed-gold plate its natural clean color. The plate is next placed in a female die, which contains the ornament or initial to be produced. The lower surface or background of the die is corrugated to correspond to the corrugations to be produced upon the annealed-gold plate. Pressure being applied, the annealed-gold plate will receive its raised ornament or initial, and at the same time its corrugated or roughened background. The raised parts of the plate are now polished, while the groundwork is perfect in finish, and need not be scraped or operated upon in any manner. Thus the plate is ready to be used in the manufacture of jewelry without being subjected to further manipulations.

What I claim is—

The process of producing alloyed raised gold plates with corrugated background, which consists in annealing the alloyed-gold plate, removing the oxide from its surface, stamping it out in a female die containing the raised ornament and the corrugated background, and then polishing the raised ornament, substantially as specified.

JOSEPH BULOVA.

Witnesses:

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