

UNITED STATES PATENT OFFICE.

SIEGMUND HELLER AND CARL BAUMGARTL, OF TEPLITZ, AUSTRIA-HUNGARY.

PRODUCING A METALLIC COATING ON A NON-VITREOUS SURFACE.

No. 850,753.

Specification of Letters Patent.

Patented April 16, 1907.

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To all whom it may concern:

Be it known that we, SIEGMUND HELLER and CARL BAUMGARTL, subjects of the Emperor of Austria, residing in Teplitz, Kaiserstrasse, Villa Luksch, Empire of Austria, and Teplitz, Meissnerstrasse 851, Empire of Austria-Hungary, respectively, have invented certain new and useful Improvements in Producing a Metallic Coating on a Non-Vitreous Surface.

The invention relates to ceramic earthen or non-vitreous objects, such as cooking vessels or the like, which are provided with a metal coating melted or fused on and strengthened or thickened by galvanic deposition; and the invention consists of an improved process of producing the same.

The metal coating is produced by melting onto the ceramic article finely-divided gilt-enamel tombac, together with a mixture of enamel and calcined borax. Gilt-enamel tombac is a preparation or alloy which is fire-proof up to 1,200° centigrade. It is practical to mix two parts of enamel with one part of calcined borax and one part of finely-divided gilt-enamel tombac. Gilt-enamel tombac may consist of substantially three parts of copper, one part of zinc, and one-eighth part of gold. This mixture is put onto the ceramic objects to be coated and is burned in—as, for example, in a muffle at a temperature of 800° centigrade. After the article has cooled off the surface of this fused or

burned-in coating is ground, abraded, or polished, so that a clear metallic surface appears. The article is then placed in a galvanic bath, in which electrodeposition takes place, so that thereby the outer metallic envelop is plated, thickened, and strengthened to any suitable degree. The article is then ground and polished. The metal coating thus produced adheres with exceeding firmness to the base.

We claim as our invention—

1. The herein-described process of producing a metallic coating on a non-vitreous surface, consisting in fusing upon the surface to be provided with the coating a mixture of enamel, calcined borax and gilt-enamel tombac, and then plating this metallic base by electrodeposition.

2. The herein-described process of producing a metallic coating upon a non-vitreous surface, consisting in fusing upon such surface a metallic composition containing gilt-enamel tombac, and plating this fused coating by electrodeposition.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

SIEGMUND HELLER.
CARL BAUMGARTL.

Witnesses:

JOSEF HAAS,
FRANZ E. RAMBAS.