

K. GODDARD.
Ornamenting Metal Surfaces.

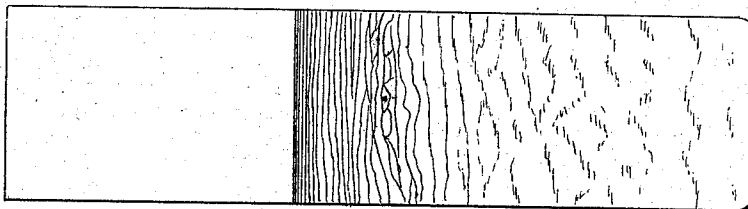
No. 152,741.

Patented July 7, 1874.

Fig. 1



Fig. 2.



Witnesses:

*Chas. Rastig.
Edw. Webb*

Inventor:

*K. Goddard
by his attorney
A. V. Bricey*

UNITED STATES PATENT OFFICE.

KINGSTON GODDARD, OF RICHMOND, NEW YORK.

IMPROVEMENT IN ORNAMENTING METAL SURFACES.

Specification forming part of Letters Patent No. **152,741**, dated July 7, 1874; application filed April 20, 1874.

To all whom it may concern:

Be it known that I, KINGSTON GODDARD, of the town and county of Richmond, State of New York, have invented a new Improvement in Ornamenting Metallic Surfaces, of which the following is a specification:

This invention has for its object to marbleize metallic surfaces with metal, in which surfaces one metal will form the ground and the other the veins.

The principle of the invention is based upon the different degrees of hardness of the several metals. The invention consists in electroplating an ingot of a soft metal with a harder metal, and then rolling out the ingot so covered, whereby the harder metal is torn or broken into veins that are pressed into the surface of the softer metal, thus obtaining a beautiful and rich effect.

In the drawing, Figure 1 represents a longitudinal section of an ingot electroplated as stated and partly rolled out; and Fig. 2 is a top or face view of the same.

Similar letters of reference indicate corresponding parts in both figures.

The ingot A, which may be made of lead or other soft metal, is, by electroplating or other equivalent process, covered with a thin film of gold, B, or other metal harder than that used in the ingot. Thereupon the ingot is submitted to pressure between two rollers or otherwise, and drawn out, as shown at the right-hand end of Fig. 1, into a thin sheet or foil. The soft metal A, being thus drawn out, attempts to carry the harder metal with it; but as the resistance which is offered to the gold or other harder metal by the lead is less than the resistance offered by the tenacity of the gold, the consequence will be that the gold,

instead of being carried over the lead into a still finer film than that in which it was applied, will not be drawn out, but will be torn into veins or transverse fragments, which are bent and further ruptured during the continued rolling process, thus forming marble-like veins, substantially as indicated in Fig. 2.

The more the rolling process is continued the finer will be the veins, and it is certain that a very beautiful effect is produced by this process, which a pen-and-ink drawing is not capable of reproducing.

The invention may be used in all kinds of metals, the only thing necessary being the use of a film of a harder metal on an ingot of a softer metal, and the subsequent rolling out of the ingot to produce the veins described.

I claim as my invention—

1. The process herein described of ornamenting metal by plating, electroplating, or otherwise covering a plate, bar, or ingot of soft metal with a thin film of harder metal, and then rolling out or pressing the ingot into a sheet, whereby the coating is broken into irregular forms, and a marbled appearance produced on the surface of the sheet, substantially as specified.

2. As a new article of manufacture, a plate or sheet of marbled metal composed of a core or body of soft metal and a coating of harder metal drawn out and broken into irregular forms and distributed over the surface of the body in the process of rolling or pressing, substantially as described and shown.

KINGSTON GODDARD.

Witnesses:

M. S. GODDARD,
A. V. BRIESEN.