

United States Patent Office.

WALTER BENTLEY WOODBURY, OF LONDON, GREAT BRITAIN.

Letters Patent No. 77,231, dated April 28, 1868.

IMPROVEMENT IN THE PRODUCTION OF ORNAMENTAL SURFACES FOR JEWELRY, &c.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WALTER BENTLEY WOODBURY, of London, in the county of Middlesex, Kingdom of Great Britain and Ireland, have invented "certain new and useful Improvements in the Production of Ornamental Surfaces for Jewelry, and other Purposes;" and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to the production of surfaces to be used for jewelry and other ornamental purposes by the aid of photography, and the principal feature of novelty in the invention consists in the use of a combination of materials, one of which is opaque and the other transparent or semi-transparent. An ornamental "relievo" or "intaglio" surface being produced on the former, the transparent or semi-transparent material is forced therein and united thereto, and the picture or ornament will be seen through the upper material, more or less, according to the thickness of the same.

For example, I take a metal mould, produced by the method described in the specification of Letters Patent, granted to me, and bearing date at Washington, the 20th day of February, A. D. 1866, No. 52,803, (but produced from a transparent photographic "positive" instead of a "negative,") and I take an impression or cast therefrom, in white material, such as porcelain, plaster of Paris, or enamel; or if a "negative" be used to produce the metal mould, I take a reversed cast or electrotype therefrom, and take the impression in white material from this reversed copy. This cast so obtained will have the lights in high relief, and the shades proportionately countersunk or depressed.

I then force into this white cast or mould a colored semi-transparent material, such as glass or enamel, and I grind or otherwise level down the surface of the latter until the white cast becomes sufficiently visible through the semi-transparent material to produce the effect desired, the former showing more or less, according to the thinness or thickness of the semi-transparent material. I then unite or cement these two materials together, by fusion or otherwise, and the result is a permanent picture or ornament in a combined opaque and semi-transparent substance.

Or the two materials may be united together before the grinding away or levelling down of the semi-transparent material.

As a modification of my invention, I produce a metallic surface in "relievo" or intaglio by the electrotype process, or by stamping, embossing, or otherwise, and then silver or gild it by any known method, and afterwards fill in with the semi-transparent vitreous or other material, as above described.

Or, instead of taking a cast or copy, as above first mentioned, in white material, I take an impression in ebonite or other black or dark-colored substance, and I fill in with a semi-transparent white or light-colored material, so that the effect is produced by the dark color showing more or less through the semi-transparent white or light-colored material.

The only condition necessary to this invention being that the relief shall be upon the lower or opaque material constituting the body of the picture or ornament, which must be of a different or opposite color to that of the semi-transparent material used for filling in the surface.

What I claim as my invention, and desire to secure by Letters Patent, is—

The production of surfaces to be used for jewelry and other ornamental purposes by the aid of photography, substantially as hereinbefore set forth and described.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

WALTER B. WOODBURY.

Witnesses:

GEORGE DAVIES,

F. C. MICKLEWRIGHT.