E. HUGUENIN.

METHOD OF ORNAMENTING METALLIC SURFACES FOR JEWELRY.

No. 192,167. Patented June 19, 1877.

Fig. 1.

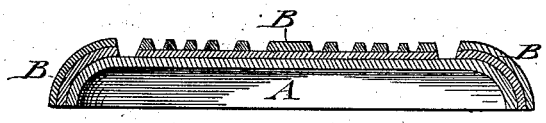
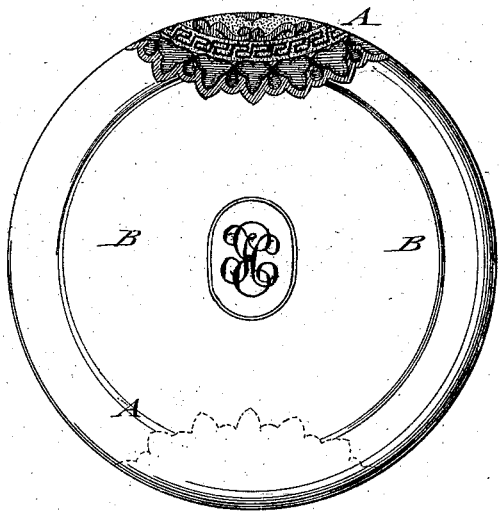


Fig. 2.



WITNESSES:

J. H. Scarborough.

A. F. Terry.

INVENTOR:

E. Huguenin.

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE

EDWARD HUGUENIN, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN METHODS OF ORNAMENTING METALLIC SURFACES FOR JEWELRY.

Specification forming part of Letters Patent No. **192,167**, dated June 19, 1877; application filed April 30, 1877.

To all whom it may concern:

Be it known that I, EDWARD HUGUENIN, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Ornamenting Jewelry, of which the following is a specification:

The object of my invention is to provide an improved method of ornamenting gold and other jewelry in highly artistic, durable, and multicolored designs, in perfect manner and without the old processes of cutting out and soldering on the ornaments, or of coloring by means of salts; and the invention consists in applying to a bottom plate of greater thickness, by soldering or rolling, a number of superimposed thinner plates of variously-colored gold, silver, platinum, or other metal, and finishing the article made therefrom by hand or machine work, producing a large variety of effects, by cutting down to the differently colored plates.

In the accompanying drawings, that illustrate my invention, Figure 1 represents a vertical central section, and Fig. 2 a top view, of a watch case, cap, or back, ornamented according to my improved method.

Similar letters of reference indicate corresponding parts.

In my improved process any number of different colors of gold, according to the design or fancy of the engraver, may be employed, each color requiring, however, a separate layer or plate of any suitable thickness, which layers are formed into a solid plate or piece of gold or other metal and employed in the manufacture of watch-cases, jewelry, or any other branches of the art of working metals.

As the object and application of this invention is mainly designed for ornamenting the precious metals, I will confine myself in describing the process to the same, though this method may also be applied to the ornamentation of the base metals for various applications in the trades.

In forming my compound plate I take, first, a bottom plate, A, of ordinary gold of higher or lower carat, and of the kind generally employed by jewelers, watch-case makers, &c. The color of the bottom plate may be more or less yellow or pink, according to the alloy and carat. On this bottom plate thin layers or plates B, of green, red, yellow, gray, blue, and other gold are placed, in any suitable number and combination, and also one or more plates of white metal of permanent color, as platinum, silver, or an alloy of the same, with gold, silver, or copper, if desired. These layers or plates are then either soldered together, so as to form, when properly soldered, a solid plate of certain thickness, which may be rolled out to the thickness required for work; or these plates are placed in an air-tight box, made of silver, copper, iron, or steel, and heated up to red heat, and passed then through rolls or a powerful press to produce the tight adhesion of the plates.

The compound plate thus obtained is then stamped out into the required form, either into watch caps and backs, or other articles of jewelry, being then ready to be worked upon by the engraver, who produces thereon the required ornamentation in different colors, according to the succession of the colored plates and designs, obtaining new and elegant effects in making monograms, flowers, scrolls, masonic emblems, and other flat or embossed work by cutting through the superimposed plates to the required depth of colored plate. In addition to this mode of producing colored ornamentation and designs, the coloring by chemicals, enameling, and machine-turned patterns may be produced, so as to furnish an almost unlimited variety of different effects, which may be enhanced by the addition of diamonds and other stones, &c.

The advantages of this method over the old style consists in producing the color by very thin plates, but in larger or smaller surfaces, as required, and in flat, round, or other shape, the engraver getting readily to the colors required by cutting through to the required layer or color, and enabling him to work continually on a solid plate without the uncertainties of the old soldering process, in which every ornament had to be cut out and soldered on, and which was liable, as well as the chemically-produced colors, to work off by use.

By my process a line of artistic work in jewelry, which has been almost abandoned on account of its expense and difficulty, may be revived, and the richest and most varie-

gated designs be executed without difficulty, in cheaper manner, and by the hands usually employed for such engraving work.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The process herein described of ornamenting jewelry by applying on a bottom plate of greater thickness a number of thinner plates of variously-colored metal, soldering or heating them together, and rolling them to the required thickness, to be finally engraved according to the desired colors and designs, substantially in the manner and for the purpose set forth.

2. As an improved article for jewelry, a blank or plate of solid metal formed of a bottom plate or backing of greater thickness and of a number of superimposed plates or layers of variously-colored metal, substantially as specified.

EDWARD HUGUENIN.

Witnesses:
A. LUCIUS HENNERSHOLTZ,
DE FORREST BALLOU.