UNITED STATES PATENT OFFICE.

CHARLES L. WOODBRIDGE, OF BROOKLYN, NEW YORK.

METHOD OF PRODUCING DESIGNS ON BUTTONS.

SPECIFICATION forming part of Letters Patent No. 234,106, dated November 2, 1880.

Application filed August 2, 1880. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. WOODBRIDGE, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Method of Producing Designs on Buttons, of which the following is a specification.

The object of this invention is to form distinct and artistic patterns on pearl buttons.

The invention consists in first painting or sizing on the surface of the button, with some substance not soluble in a nitrate-of-silver solution, the pattern that is to be produced, then a solution of nitrate of silver is applied with a brush to the whole surface of the button and the button then exposed to the light. The actinic effect of the light soon changes the color of the nitrate of silver either to a light brown or a darker color, according to the duration of the exposure and strength of the solution. Then the paint or size is washed off with spirits of turpentine or other resolvent, and the design is thus left clear and distinct in the natural color of the button on the face of the button, after which the design may be further wrought out by engraving and gilding.

I expressly disclaim the well-known process or method of spattering the button with nitrate of silver, since it is evident that no regular pattern can thus be produced.

I also disclaim the use of an elastic stamp, which is a different process, and applied especially in dyeing vegetable-ivory buttons.

I also disclaim the use of so-called dyes and dye-stuffs, as such processes injure the finish of the button.

I also disclaim the process or method of painting designs on buttons with colored pigments, which soon wear off, whereas, by my process the color penetrates the pearl itself and will neither wear nor wash off.

I also disclaim the process or method of coloring the whole button and then grinding or carving off portions of the color to form the design.

Instead of painting on the button the design to be produced, so that it may afterward appear in the natural color of the button, the whole surface of the button excepting the design to be produced may be painted and then the solution of nitrate of silver be applied, so that when the paint is removed the design will appear as produced by the action of the nitrate of silver, while the surrounding surface of the button will be of the natural color of the pearl.

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

1. The method, substantially as herein described, of producing patterns on pearl buttons, which consists in first painting on the surface of the button the design or pattern that is to be produced, in then applying a solution of nitrate of silver to the whole surface of the button and exposing the button to the light, and in then washing off the paint, as set forth.

2. The method, substantially as herein described, of producing patterns on pearl buttons, which consists in first painting on the surface of the button the design or pattern that is to be produced, in then applying a solution of nitrate of silver to the whole surface of the button and exposing the button to the light, in then washing off the paint, and in then completing or finishing the pattern or design by engraving, as set forth.

3. The method, substantially as herein described, of producing patterns on pearl buttons, which consists in first painting on the surface of the button the design or pattern that is to be produced, in then applying a solution of nitrate of silver to the whole surface of the button and exposing the button to the light, in then washing off the paint, and in then completing or finishing the design by engraving and gilding, as set forth.

C. L. WOODBRIDGE.

Witnesses:

JACOB J. STORER,

C. SEDGWICK.