

UNITED STATES PATENT OFFICE.

THEODORE Z. H. ST. CYR, OF THOMPSONVILLE, CONNECTICUT, ASSIGNOR TO
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COMPOSITION OF MATTER FOR COATING WITH SILVER.

SPECIFICATION forming part of Letters Patent No. 503,358, dated August 15, 1893.

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To all whom it may concern:

Be it known that I, THEODORE Z. H. ST. CYR, a citizen of the United States, residing at Thompsonville, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in a Composition of Matter; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a composition of matter, and it has for its object, to provide a solution which shall have the qualification of giving to an article to which it is applied, an ivory-like or celluloid appearance.

Heretofore, it has been customary to ornament coffin handles and other analogous articles, by plating them with any one of a number of metals; the one generally used for the purpose being silver, and applied by precipitation.

The method of such procedure is usually the following:—The article to be treated is first cleaned and polished, after which it is dipped into a solution containing the desired metal, and after it has been withdrawn and allowed to dry, is coated with a suitable lacquer. It has been customary in coating in such manner with metallic silver, to use a solution consisting of two parts silver, three parts of potassium-cyanide, and one hundred and twenty-eight parts water, by weight, the resulting appearance of an article dipped therein, being a brilliant silver.

My invention is different from the above named solution, in that it contains a greater proportion of silver, and a correspondingly less proportion of potassium-cyanide, and furthermore, in that the result obtained therewith is entirely different, an article when withdrawn from the solution, having a pure ivory-white appearance, and being in no way similar to one treated with the old solution. The proportions which I prefer to use are, metallic silver four parts, potassium-cyanide five parts, and water one hundred and twenty-eight parts, by weight, inasmuch as they give the best results. However I may vary the proportions by using a solution consisting of silver three parts potassium-cyanide four parts, and water one hundred and twenty eight parts or one consisting of silver five parts and potas-

sium-cyanide six parts, or any proportions therebetween, and water one-hundred and twenty eight parts the result being a decrease in the resemblance of the article to ivory, in accordance with the variance from the preferred proportions as above stated. However the same proportion of water is adhered to. A solution containing less than three one-hundred-and-thirty-sixths, or more than five-one-hundred-and-thirty-eighths silver, will not give the desired result, and herein lies my invention.

The articles to be coated may be dipped and treated according to the old method, but I prefer to facilitate the action by the employment of electricity, which result is accomplished by attaching the object to be treated, to the negative electrode of a battery, or other source of electricity, the positive electrode thereof, which should consist of a substance insoluble in the bath, being submerged therewith, in the solution or bath, the result being as above stated. After which a lacquer may be applied.

The principal objection to ivory, to the manifold uses to which an article treated with my solution may be applied, is its cost, whereas celluloid is unsubstantial. Many substitutes have heretofore been used, but they do not possess the soft tone which is characteristic of the effect of my solution.

I do not wish to be understood as limiting myself to the described methods of application, nor to the use of my solution upon any particular class of articles, as it may be used to treat any or all objects, such as toilet articles, hollow ware, jewelery, harness trimmings, picture frames, and others.

Having now described my invention and the manner in which it may be compounded and applied, I do declare that what I claim is—

A solution for coating metals, consisting of silver-cyanide, potassium-cyanide, and water, the amount of metallic silver in the solution being from three-one-hundred-and-thirty-sixths to five-one-hundred-and-thirty-eighths of the total weight.

In testimony whereof I affix my signature in presence of two witnesses.

THEODORE Z. H. ST. CYR.

Witnesses:

JOHN H. FOWLER,
H. L. VIETTS.