

(No Model.)

J. H. SCHARLING.
PROCESS OF DECORATING GLASS.

No. 472,230.

Patented Apr. 5, 1892.

Fig. 1.

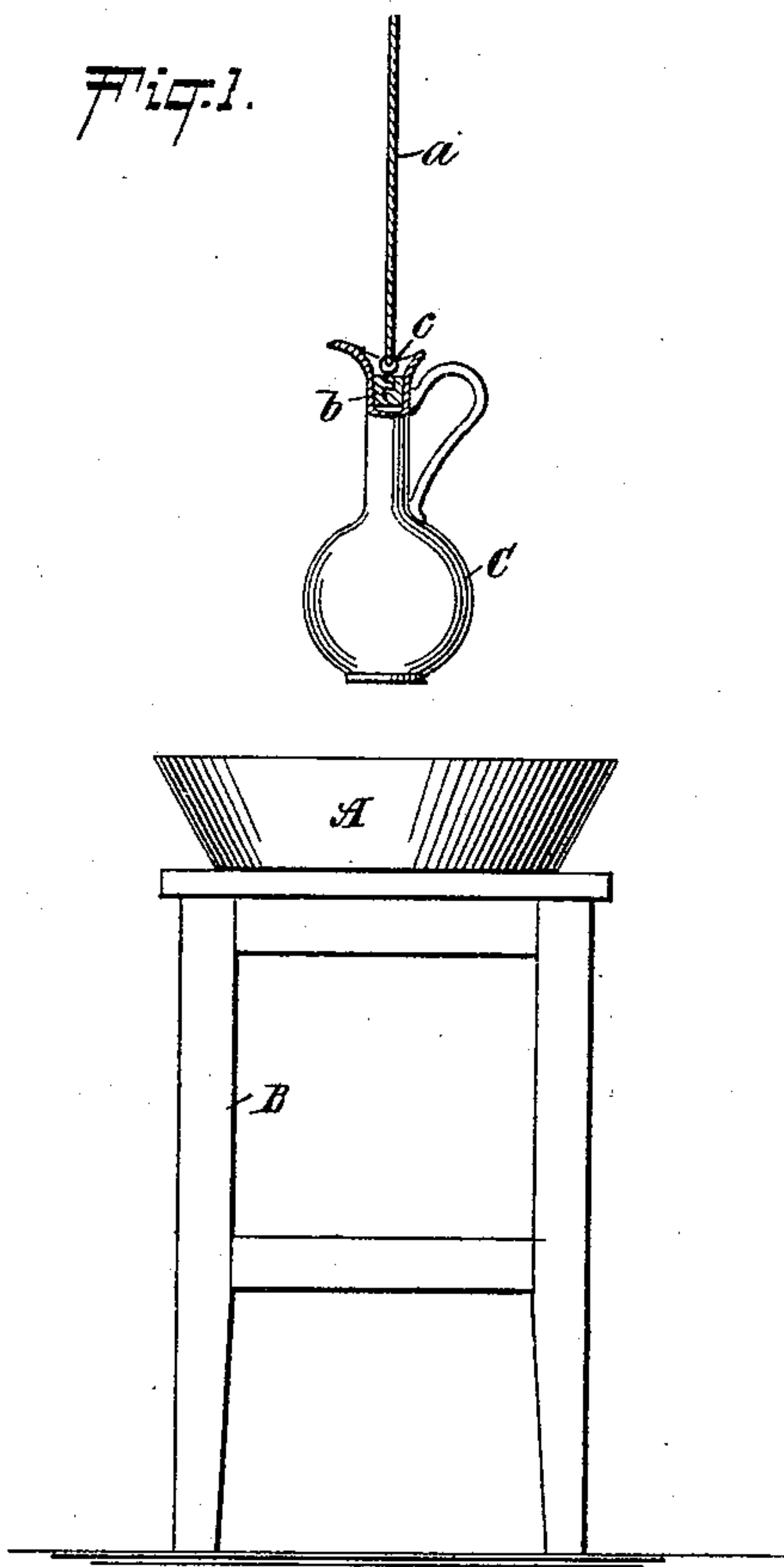
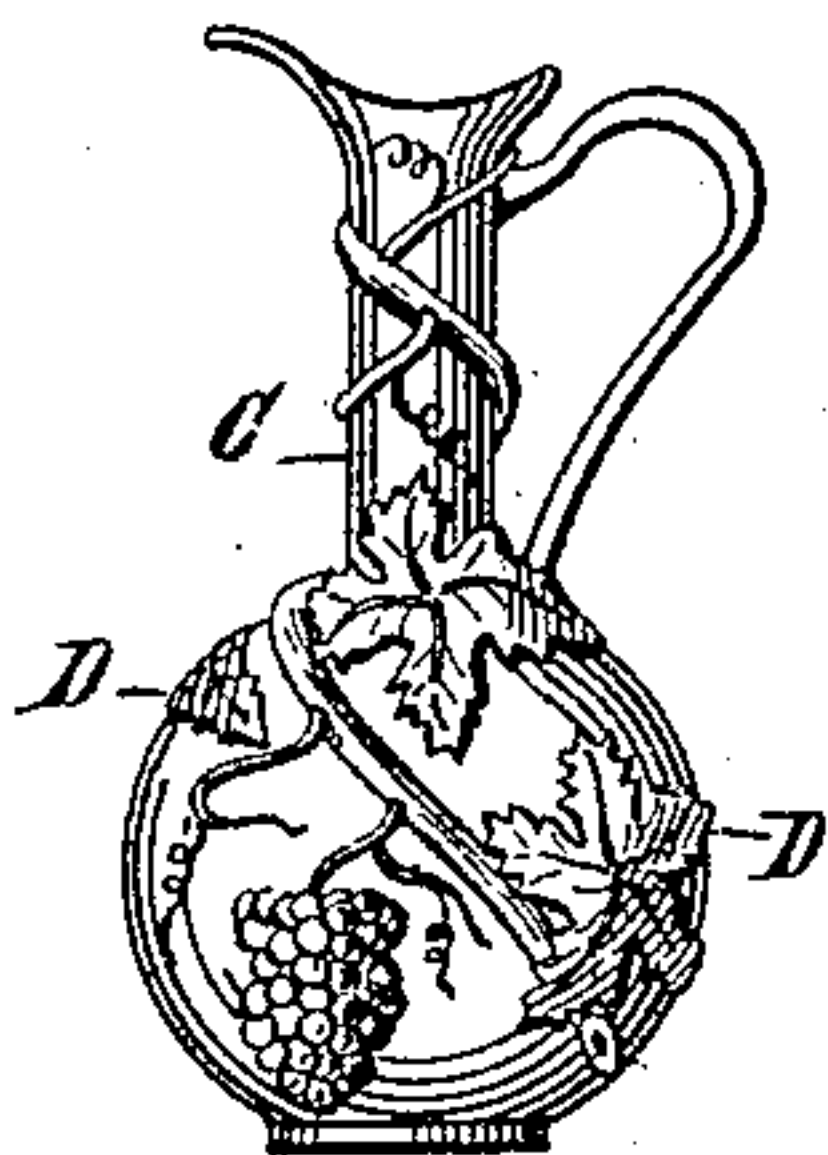


Fig. 2.



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PROCESS OF DECORATING GLASS.

SPECIFICATION forming part of Letters Patent No. 472,230, dated April 5, 1892.

Application filed July 1, 1891. Serial No. 398,158. (No specimens.)

To all whom it may concern:

Be it known that I, JOHN H. SCHARLING, a citizen of the United States, and a resident of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Decorating Glass, of which the following is a specification.

My invention relates to an improvement in decorating glass and other ware with metal, and more particularly to the decoration of articles having non-conducting surfaces with gold, silver, or other precious metal, or with any two or more of the same.

It is a well-known fact to those skilled in the art that in depositing metal upon glass or other non-conducting surfaces the deposit forms upon the under sides thereof, while the upper side or sides thereof remain uncovered or only imperfectly covered, and therefore in coating glass or other articles of a round, oval, cylindrical, or of other shape than flat it has been necessary to metallize the non-conducting surface of the article under treatment by first applying a coating or covering of varnish, cement, or other adhesive substance and then a coating of plumbago, bronze, or other metallic powder. The articles thus treated is submerged in an electroplating-bath and the decorative metal deposited thereon, the article being finally completed by cutting away a portion or portions of the metal and also by engraving, etching, &c. Certain objections, however, have been urged against this class of goods, namely: the black inner surface of the metal due to the application of the plumbago or metallic powder, which gives to the article an unsightly and displeasing appearance, especially to articles—such as cups or bowls—which have a large open top and the inner surface of which is plainly visible; also to those articles from which large portions of the surrounding metal have been cut away or removed and the dark inner surface of which can be plainly seen through the open metal-work.

A further objection to the process above referred to is that the fragile articles require a great amount of handling before they are in readiness for the electroplating-bath, the con-

sequent danger of breakage being correspondingly great.

The object of my invention is to overcome these defects both in the process and product by first cheapening the process, and therefore the product; secondly, producing an article with a bright inner surface, thereby adding to instead of detracting from the artistic appearance and value thereof, and, thirdly, to devise a process whereby the necessity of so much handling of the article will to a great extent be overcome and the danger of breakage lessened.

With these ends in view my invention consists in dispensing entirely with the first two steps of the process above referred to—that is, omitting, first, the step of applying the adhesive, and, secondly, the plumbago or metallic powder—and forming directly on the article a thin coating or envelope of silver or other metal.

I am aware that others have heretofore attempted to accomplish this end by entirely immersing the article in a bath and allowing the metal in solution to deposit thereon; but, as before stated, it has always been found impracticable, owing to the well-known fact that the envelope or coating of metal will not perfectly form on the upper sides or surface of the immersed article, and also by reason of the fact that the solution—an item of great expense—in a few minutes becomes worthless by reason of the precipitation of the metal therein, the quantity necessary to completely submerge the article being very large.

After various experiments I have learned that articles may be decorated with metal by making a small quantity of solution—a quantity just sufficient to form a coating on the article under treatment, the exact quantity of course depending entirely upon the size of said article or the surface to be covered, a few trials by the operator enabling him to judge of the quantity necessary to be made to coat any given surface. For example, I may state that I have found that about eight ounces of any of the ordinary silver solutions used in making mirrors will be sufficient to cover the outer surfaces of a pint bottle.

