

No. 653,024.

Patented July 3, 1900.

W. H. KING.

PROCESS OF ORNAMENTING HOLLOW WARE.

(Application filed Feb. 10, 1900.)

(No Model.)

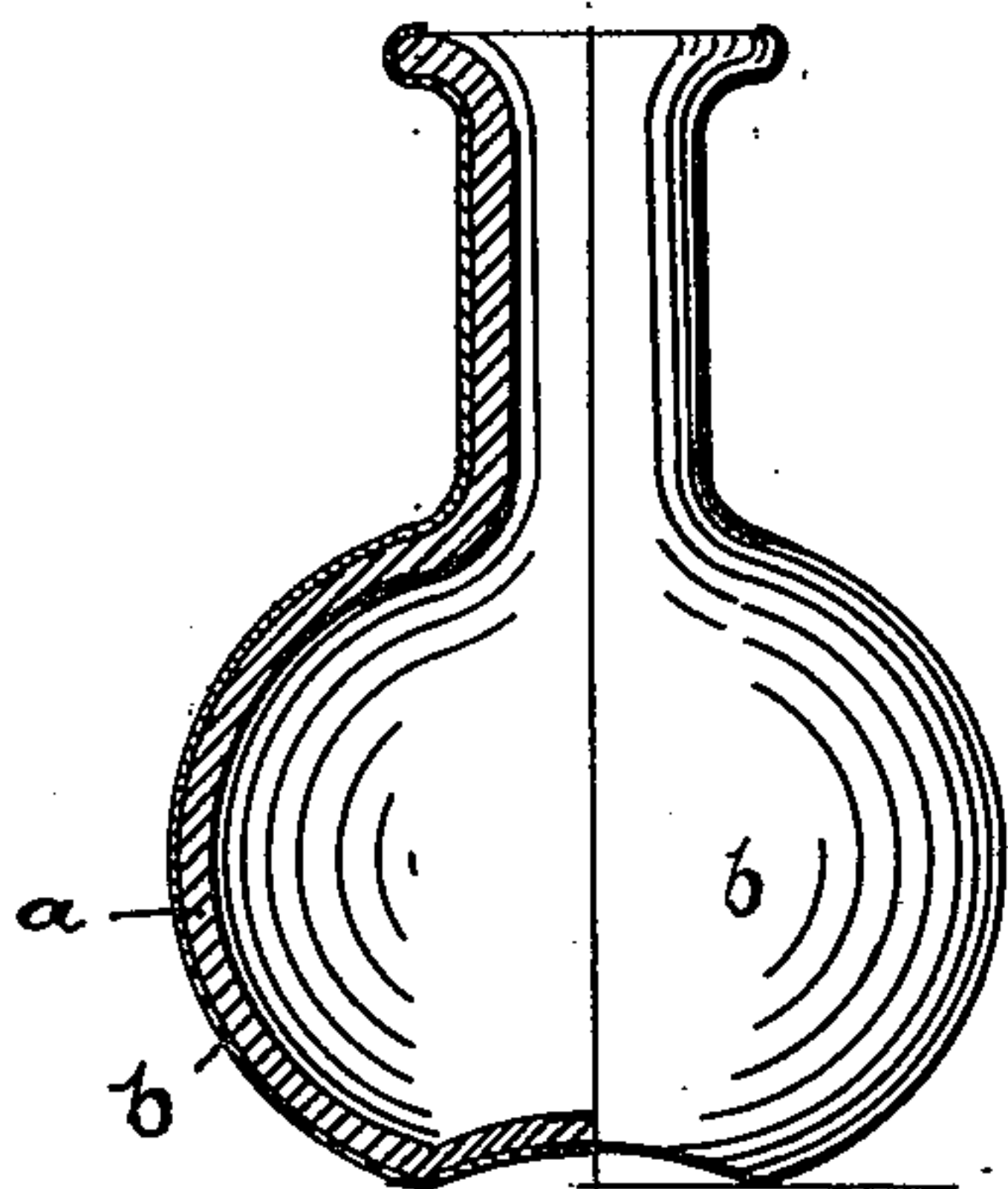


Fig. 1.

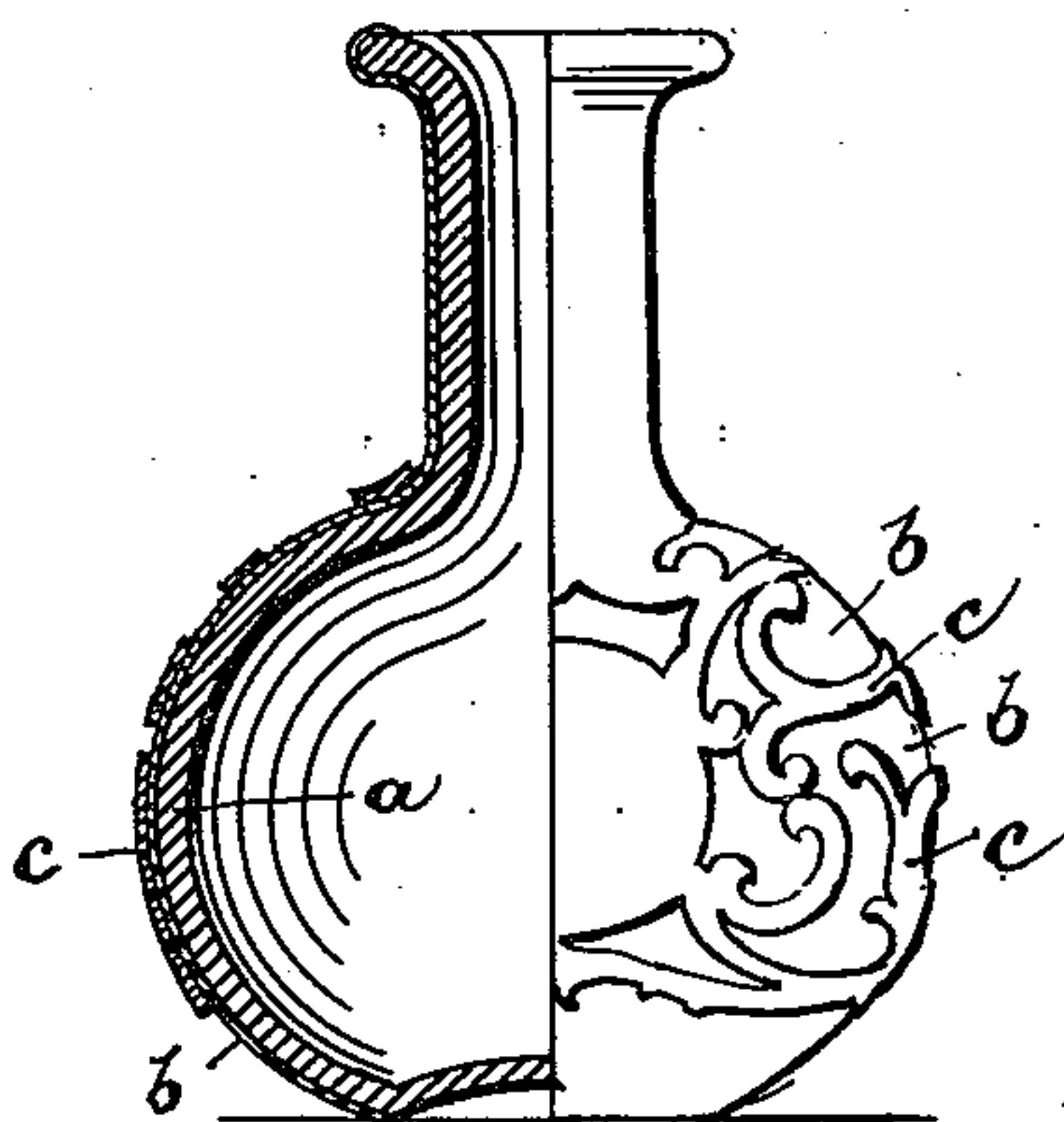


Fig. 2.

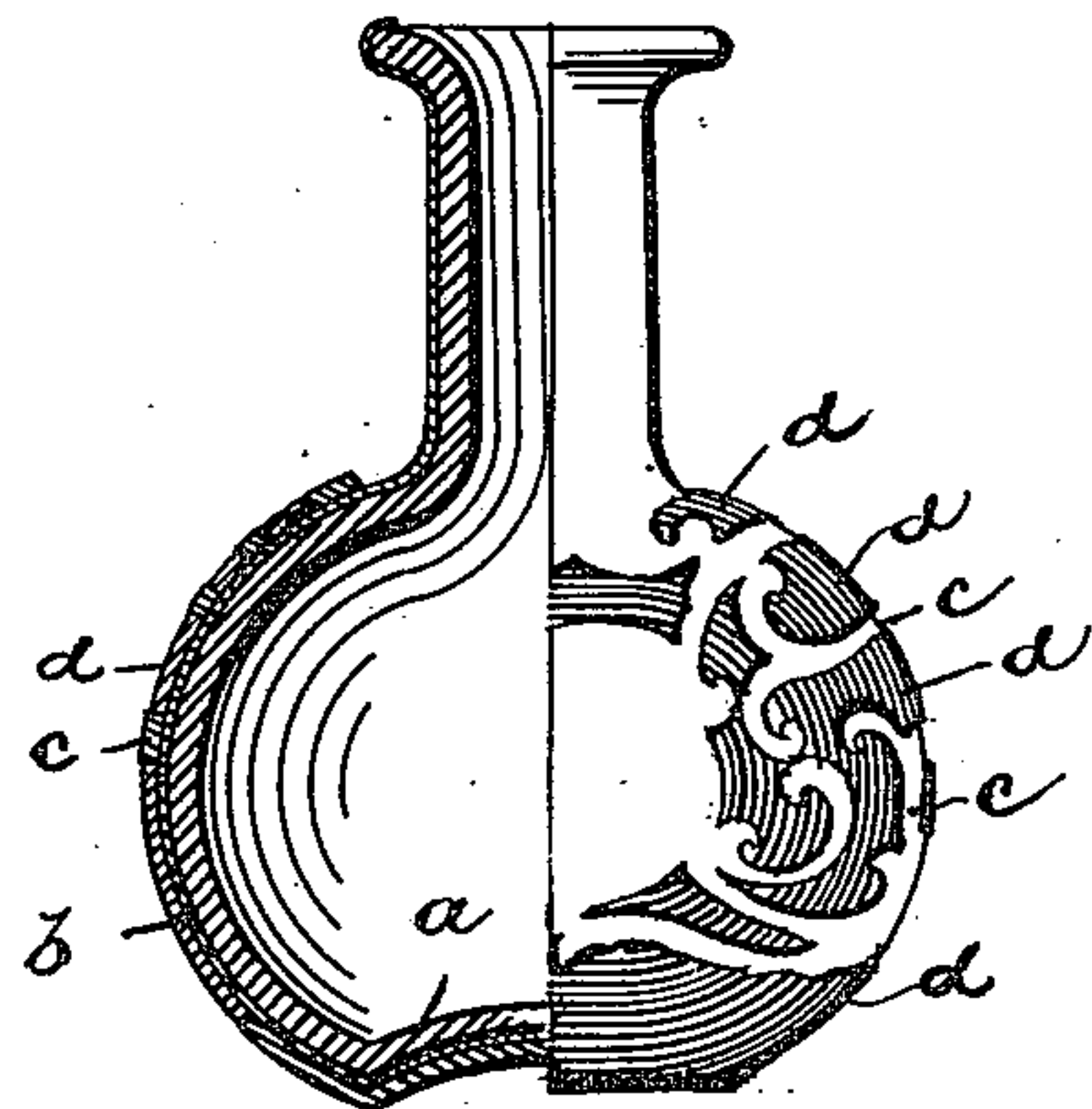


Fig. 3.

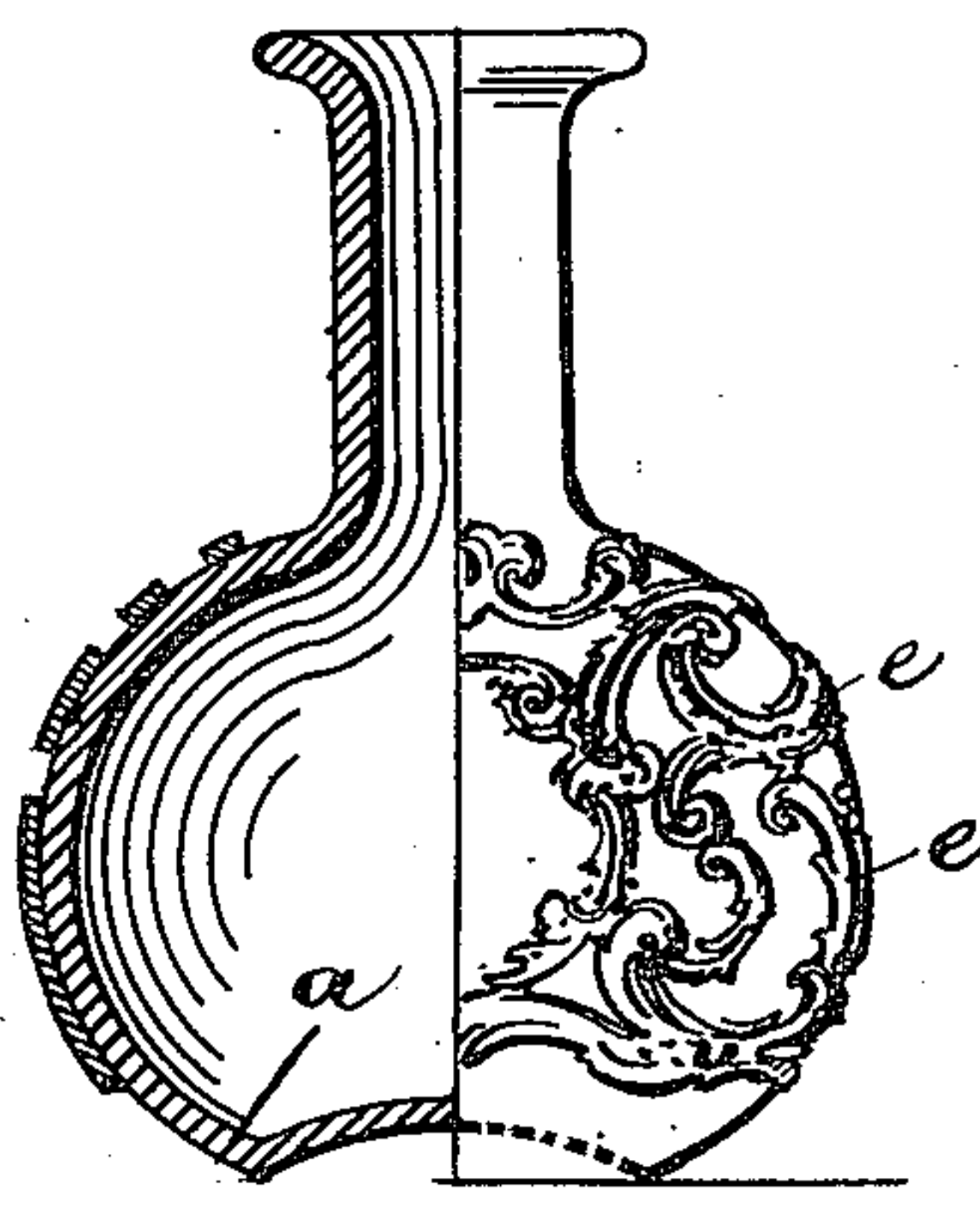


Fig. 4.

WITNESSES:

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PROCESS OF ORNAMENTING HOLLOW WARE.

SPECIFICATION forming part of Letters Patent No. 653,024, dated July 3, 1900.

Application filed February 10, 1900. Serial No. 4,723. (No specimens.)

To all whom it may concern:

Be it known that I, WILLIAM H. KING, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Processes of Applying Open-Work Ornamentation in Metal to Hollow Ware and the Like; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The objects of this invention are to reduce the cost of applying the electrodeposited ornamentation, to secure a more perfect ornament, to avoid all the disadvantages incident to etching and to prevent the metal on the under side from being discolored by the etching acids and the discoloration appearing through the glass from reducing the ornamental effect to the eye and reducing the value of the ornament, to avoid the loss of time incident to the etching operation and to prevent the loss of precious metal also due to such process, to prevent cracking of the glazing or enamel when applying the ornamental metal to pottery-ware, and to secure other advantages and results, some of which may be referred to hereinafter in connection with the description of the improved process.

The invention consists in the process of applying open-work ornamentation in metal to hollow ware, substantially as will be hereinafter set forth and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, which show the ware in different stages of ornamentation, Figure 1 is a view, partly in section, showing an article of hollow ware in a first stage of ornamentation. Fig. 2 is a similar view showing said article in a second stage of ornamentation. Fig. 3 shows the article with a background coating of asphaltum, and Fig. 4 shows the article in a finished condition.

In carrying out the invention I first apply to the surface of the hollow ware *a* a very thin but solid electrodeposit *b* of metal, preferably silver. By "solid" I mean devoid of open-work such as appears in the finished article.

This thin coating may be applied in any manner common in the art. It is of sufficient thickness to be stable under the operations hereinafter described, but sufficiently thin to be easily removed by the finger-nail or an engraving-tool when removal is desirable. Upon the first solid or unbroken coating or layer *b* of metal I apply an open-work design *c*, Fig. 2, in water-color, or at least in a material such as will readily wash off. I prefer to employ for this purpose a mixture of whiting and water with sufficient mucilaginous matter to prevent an immediate rubbing off undersubsequent handling. This open-work design may be applied by a brush, stencil, or the like. This design being applied, the parts of the layer or coating *b* remaining uncovered, and which form the background of the design, are covered with asphaltum *d* or other liquid composition or paint adapted to act as a resist to the electric current and prevent a deposit of metal thereon. This resisting background *d* having been applied and dried, the design is removed by washing, so that the design appears to view in the metal first applied and the article is ready to be subjected to a further electrodepositing operation, and upon the exposed metal is deposited a heavy coating *e* of metal of sufficient thickness to serve in the final ornament to protect the hollow-ware article and withstand the wear to which it may be subjected. The heavy deposit being applied, the asphaltum is removed by subjecting to a suitable solvent, after which the article presents to view the design in heavy metal and a background in very thin metal. I then with a suitable engraving-tool trim the rough edges of the heavy design, and this operation serves at the same time to cut through the thin layer of metal, so that the background may be removed by simply rubbing with the nail or otherwise. Thus the glass or earthen body of the hollow-ware article appears as the background, and inasmuch as all etching operations are dispensed with the back of the first deposit of metal appears in all its original brightness without any of the discoloration due to acid finding its way between the metal and the transparent body. Furthermore, inasmuch as the etching operation and the heat generated by such operation are avoided when the hollow ware is of

glazed earthenware, such as Rookwood and the like, there is no cracking of enamel due to such heat and a much more ornamental product results.

5 Having thus described the invention, what I claim as new is—

1. The process of ornamenting ware in open-work metal, which consists in applying a continuous or unbroken deposit of metal to the
10 surface of the article, then applying a design in color or material which can easily be removed, then applying a groundwork in resisting material which will not be removed by the means employed for removing the design,
15 then removing the design-color and subjecting the uncovered metal to the depositing-bath and adding to the first deposit and cutting or engraving the edges of the final deposit and simultaneously cutting away the thin back-
20 ground metal, substantially as set forth.

2. The process of ornamenting ware in open-work metal which consists in applying to said ware, a continuous or solid electrodeposit of

metal comprising a heavy design and thinner background between or at the sides of the
25 parts of the deposit forming said heavy design and cutting away the thin background in the act of engraving and finishing the heavy-design metal, substantially as set forth.

3. The process of ornamenting hollow ware,
30 which consists in electrodepositing a continuous coating of metal over the surface of the hollow ware, parts of said coating being extremely thin, and other parts being made thick, and removing said thin parts of the
35 coating to form an ornamental network of protecting metal about the said ware, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 30th day of
40 January 1900.

WILLIAM H. KING.

Witnesses:

CHARLES H. PELL,
C. B. PITNEY.