

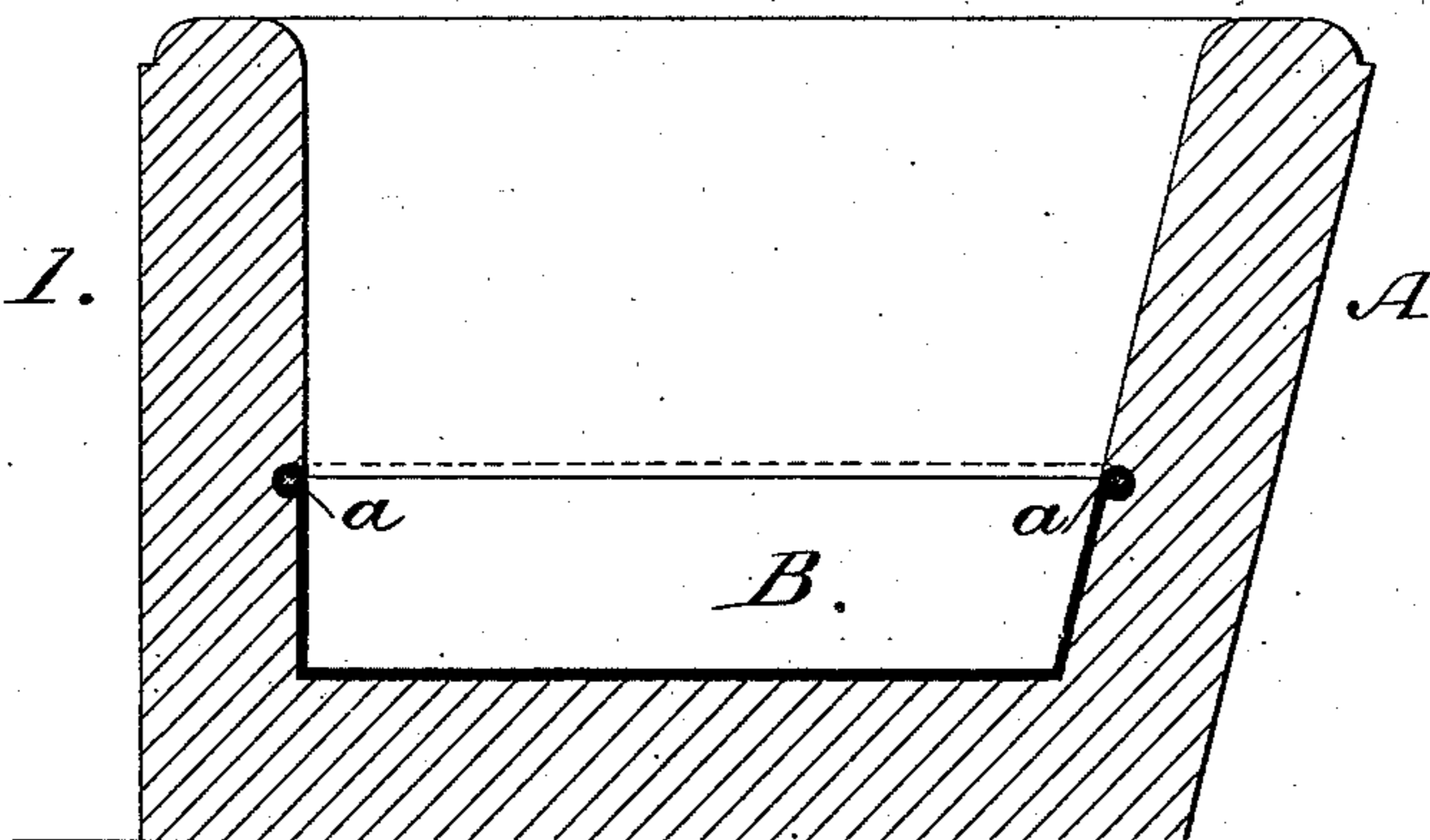
(No Model.)

A. S. JOHNSON.  
ARTIFICIAL STONE VESSEL.

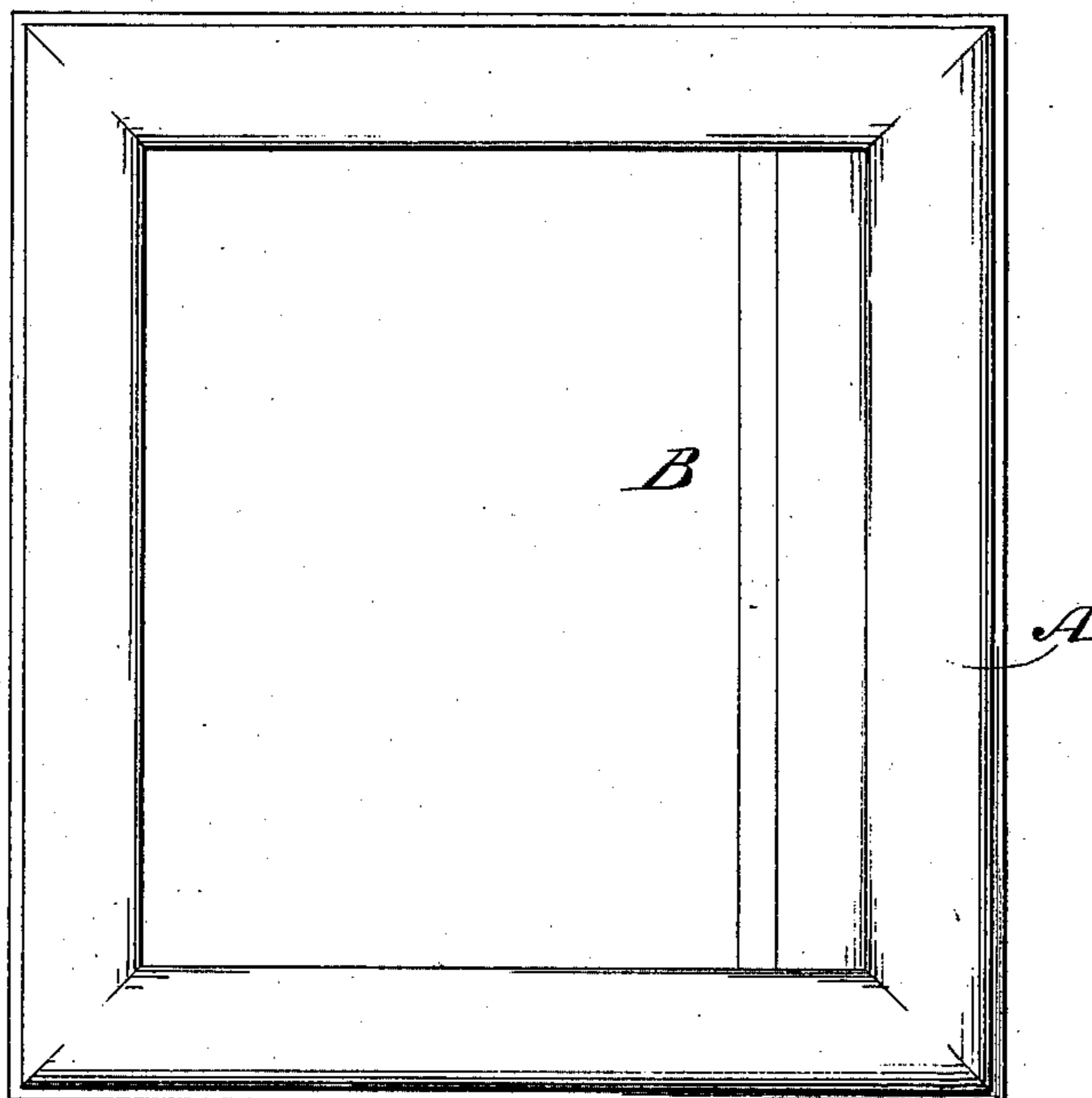
No. 303,019.

Patented Aug. 5, 1884.

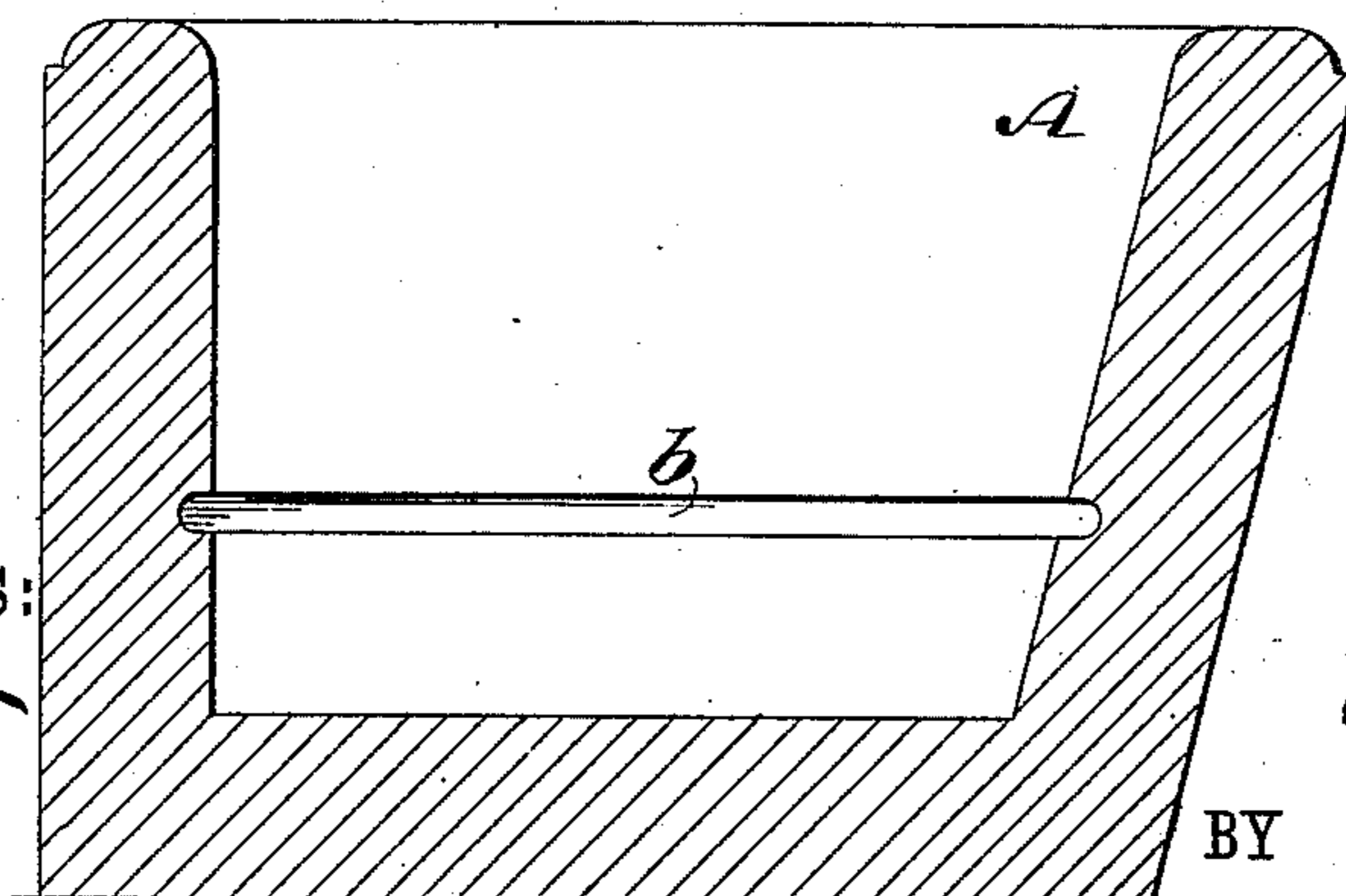
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ALEXANDER S. JOHNSON, OF NEW YORK, N. Y., ASSIGNOR TO LOUIS G. LEYRER, CHESTER A. WELLER, AND EMMA L. JOHNSON, ALL OF SAME PLACE.

## ARTIFICIAL-STONE VESSEL.

SPECIFICATION forming part of Letters Patent No. 303,019, dated August 5, 1884.

Application filed January 19, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, ALEXANDER S. JOHNSON, of the city, county, and State of New York, have invented certain new and useful  
5 Improvements in Artificial-Stone Vessels, of which the following is a full, clear, and exact description.

My invention relates more particularly to artificial-stone wash-tubs; and it consists in providing the tub with a metallic lining for protecting the bottom and side walls of the tub from being chipped off by hard substances, and for preventing the tub from being attacked by alkalis, &c., which corrode and destroy  
15 the solidity of the stone of which the vessel is composed.

The invention also consists in the method of making a water-tight joint between the lining and the walls of the vessel, the same consisting in molding the vessel upon its lining, or in molding the vessel with a groove upon the inside, into which the edges of the lining may be worked by a suitable tool, and cemented, if found necessary, all as hereinafter  
25 described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

30 Figure 1 is a sectional elevation of an artificial-stone vessel having my invention applied thereto. Fig. 2 is a plan view of the same, and Fig. 3 is a sectional elevation showing the vessel formed with a groove to receive the metallic lining.

A represents the body of the tub, which is molded of Portland cement or other artificial-stone composition, and B represents the sheet-copper or other metallic lining of the tub.

40 In the form of tub shown in Fig. 1 the metallic lining B is formed with the flange, rim, or bead *a*, and is molded in the tub, or rather has the material composing the tub molded upon it by placing the metallic lining upon the core of the mold after the confining walls or sections of the mold are put in place. Then the artificial-stone material is properly packed in the mold and placed over the bottom of the metallic lining B in proper thickness and troweled off. After this the sections  
50 of the mold are removed, leaving the perfectly-formed vessel with the lining B solidly af-

fixed to its inner surface and securely held in place by the narrow bead, flange, or rim *a*, forming a water-tight connection of the lining 55 with the walls of the tub.

Instead of molding the lining B within the tub A, the latter may have the groove *b* formed in its inner walls, as shown in Fig. 3, the groove being made at the point where it is 60 desired to have the upper edge of the metallic lining come. In this form of tub the metallic lining B will be placed in the tub after the tub is completed, and the upper edge of the lining will be forced with a suitable ap- 65 pliance or tool into the groove *b*, and if found necessary, a hard-rubber or other water-proof cement will be placed in the bottom of the vessel, or in the groove *b*, before the insertion of the lining, so as to insure a perfectly water- 70 tight and secure connection of the lining with the walls of the tub. In this manner it will be seen that the tub is protected by the metallic lining, so that hard substances cannot chip out or otherwise injure the bottom of the tub, 75 and that it is made proof against the attack of alkalis and other chemicals, which corrode and rapidly destroy the stone material of the tub if permitted to stand in contact with it.

Although I have described my invention as 80 applied to wash-tubs, it will be understood that it may be applied to other artificial-stone vessels and not depart from the spirit of my invention.

Having thus described my invention, I claim 85 as new and desire to secure by Letters Patent—

1. The artificial-stone vessel A, having the metallic lining B fitted therein, substantially as and for the purposes set forth. 90

2. The metallic lining B, formed with the bead *a*, and held in the artificial-stone vessel A by its bead embedded in the material of the vessel, substantially as and for the purposes set forth. 95

3. The artificial-stone vessel A, having the groove *b* formed in it for the attachment or fitting of a metallic lining therein, substantially as and for the purposes set forth.

ALEXANDER S. JOHNSON.

Witnesses:

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