(No Model.)

H. W. SHEPARD.

BOTTOM SUPPORT.

No. 272,590. Patented Feb. 20, 1883.

Fig. 1.

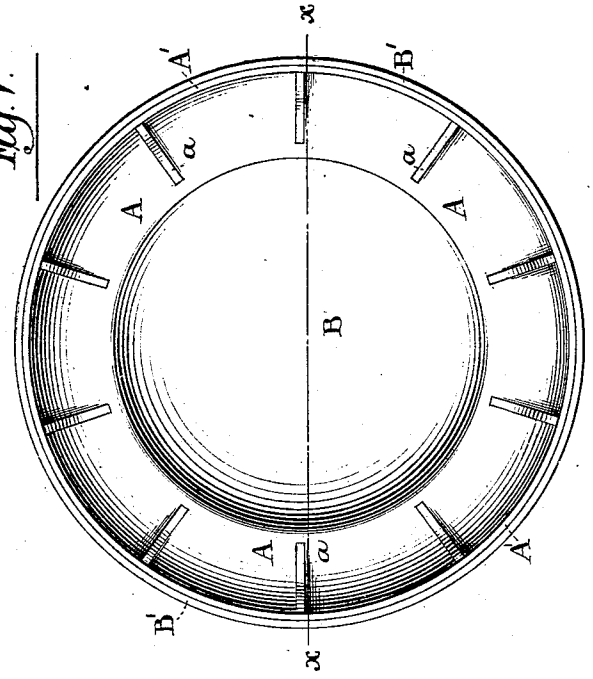


Fig. 2.

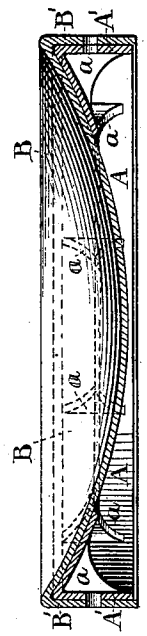
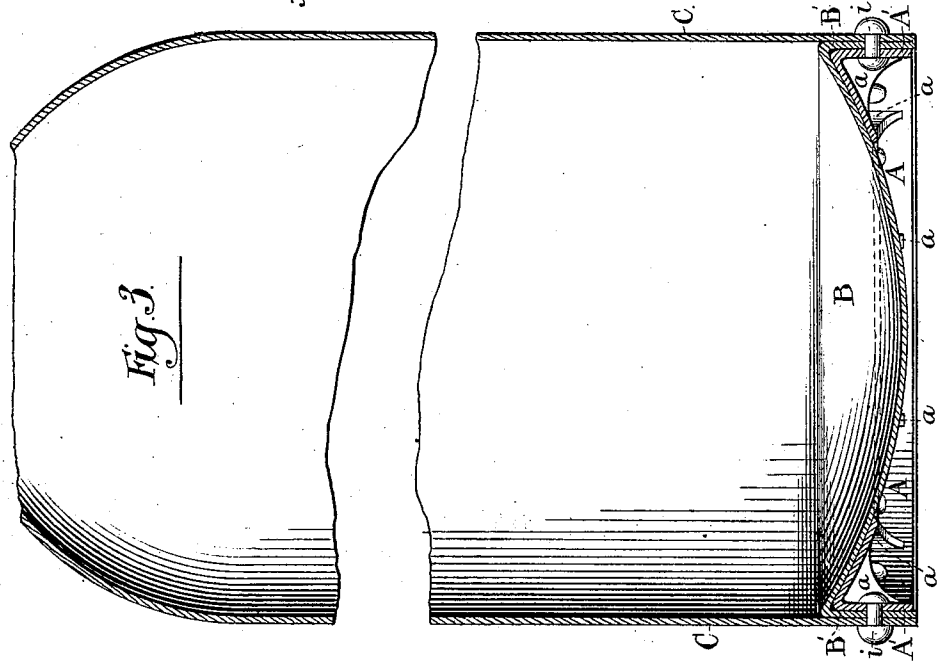


Fig. 3.



Witnesses:-
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Arthur C. Webb.

Inventor:
Henry W. Shepard
By his Attorney
Ernest C. Webb.

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UNITED STATES PATENT OFFICE.

HENRY W. SHEPARD, OF BROOKLYN, ASSIGNOR TO THE IRON CLAD MANUFACTURING COMPANY, OF NEW YORK, N. Y.

BOTTOM-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 272,590, dated February 20, 1883.

Application filed November 28, 1882. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. SHEPARD, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Bottom-Supports for Receptacles, of which the following is a full, clear, and exact description.

This invention relates to a new article of manufacture, consisting of a bottom-support adapted to be connected to the bottoms of cans, soda-fountains, boilers, or other like vessels, when the bottoms employed in such vessels are of the construction described and claimed in United States Letters Patent granted to me January 4, 1870, reissued June 14, 1870, No. 4,032, and subsequently shown and described in United States Letters Patent No. 161,845, granted to Frederick W. Wiesebrock April 6, 1875, for improvement in soda-fountains, the essential objects of my present invention being to strengthen the bottoms of such vessels, and where they are subjected to internal pressure to counteract the tendency of such pressure to "break" or force apart the joint of the bottom and cylindrical portion of the vessel.

My invention consists in a convexo-concave annular plate surrounded by a vertical downwardly-depending flange or hoop, and provided with a series of braces of an arched form, bearing against the convexed face of the plate and the inner side of its flange or hoop.

In the accompanying drawings, Figure 1 is a plan view of the under side of my improved bottom-support and the ordinary bottom of the vessel when combined with a bottom of the construction referred to. Fig. 2 is a cross-section thereof, taken on the line *x x*, Fig. 1. Fig. 3 is a central vertical section of the cylinder of a soda-fountain and its bottom, together with my improved bottom-support.

Similar letters of reference designate corresponding parts in all the figures.

A designates the annular convexo-concave plate of the bottom-support, having a downwardly-depending flange or hoop, A′, and *a* designates the braces, which are arched or inwardly curved in the direction of their length. These braces may be cast in one piece with the plate A and flange or hoop A′.

B designates a convexo-concave bottom of the construction referred to, having a downwardly-depending flange or hoop, B′; and C designates the cylinder of a soda-fountain for example. In connecting the parts together, the bottom B is inserted in the end of the cylinder C, the flange or hoop B′ fitting tightly against the inner side of the end of the cylinder, the concave side of the plate A of the bottom-support fitting tightly against a portion of the convex side of the bottom B, and the flange A′ against the flange B′. The end of the cylinder C and the flanges or hoops A′ B′ are united together by rivets *i*, and may also be further secured by being soldered or sweated together. My invention is particularly intended for use in connection with the bottoms of milk-cans, soda-fountains, steam-boilers, and like vessels, which are made of metal; but it is obvious that it may be applied to any vessel having a bottom constructed and applied like the bottom B. These bottom-supports can be readily and cheaply manufactured, and will serve to render vessels to which they are applied very durable, strengthening the bottoms and rendering them less liable to be externally injured, and when the vessels are subjected to internal pressure they will counteract the tendency of the pressure to force apart the joints. This is of great importance in vessels lined with soft metal—like soda-fountains, for instance—because, if the joint of the bottom with the cylinder is opened by such pressure even very slightly the lining will be driven into this opening, rendering it liable to be punctured or cracked, and thereby causing leakage.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, a bottom-support consisting of a convexo-concave annular plate, A, having a downwardly-depending vertical flange or hoop, A′, and braces *a*, constructed substantially as herein shown and described, for the purposes set forth.

2. The combination of the bottom-support A A′, when formed with braces *a*, with the bottom B B′ and cylinder C of a vessel, substantially as herein shown and described, for the purposes set forth.

In testimony whereof I have hereunto set my hand this 14th day of November, A. D. 1882.

HENRY W. SHEPARD.

Witnesses:

ERNEST C. WEBB,

ARTHUR C. WEBB.