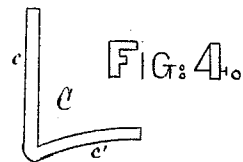
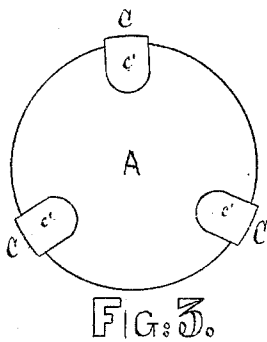
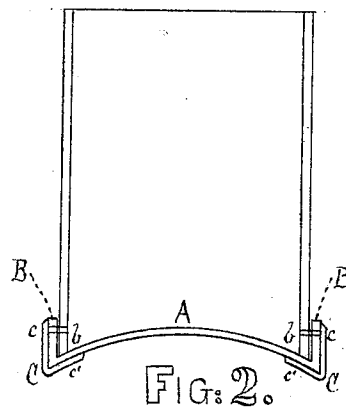
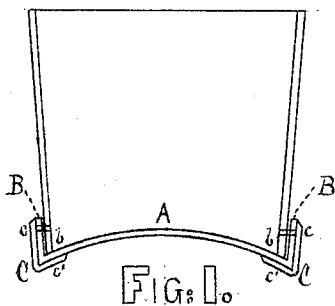


HENRY W. SHEPARD.

Improvement in Bottoms for Sheet-Metal Ware.

No. 114,481.

Patented May 2, 1871.



WITNESSES.

Edwin James.
Horace Brown Sr.

INVENTOR.

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per J. E. J. Holmead.
Attorney.

United States Patent Office.

HENRY W. SHEPARD, OF MANNSVILLE, NEW YORK.

Letters Patent No. 114,481, dated May 2, 1871.

IMPROVEMENT IN BOTTOMS FOR SHEET-METAL WARE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, HENRY W. SHEPARD, of Mannsville, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Metallic Can-Bottoms; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon making part of this specification, in which—

Figure 1 is a vertical sectional view, showing my improved brace-rest attached to a bottom, the body of the pail being seated therein.

Figure 2 is a vertical sectional view, showing my improved brace-rest attached to a can bottom.

Figure 3 is a reverse view of the can or pail bottom with the rests attached.

Figure 4 is a side view of the knee or elbow-shaped rest detached.

My present invention is an improvement on the can or pail bottom patented to me as a new article of manufacture January 4, 1870, and which was reissued June 14, 1870, and consists in securing, on a bottom constructed as therein claimed, three, four, or more knee or elbow-shaped rests or supports. The rests or supports thus formed are to be so riveted or otherwise attached to the hoop-rim of the bottom that it shall encircle its lower edge, thus bracing the bottom at the point where the greatest strength is required, and also securely guarding against any expansion of the hoop, and, consequently, the starting of the joint at the point of union between the bottom and the cylinder seated therein, which is very apt to occur in large cans, especially when the weight of the contents is great.

Besides these advantages another most important one is found in the great saving of expense in the manufacturing of the bottom, and, consequently, at the greatly reduced price at which it can be furnished to the trade.

To enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation.

The bottom of the can is made in one piece, as described in my reissued patent of June 14, 1870, and consists of a curved bottom or base plate, A, and an annular rim, B.

The degree of curvature of the plate A may be varied so as to bring the same to as near a flat surface as may be desired. The reason for curving the base plate is that it secures to the bottom the strength which results from the arch formation.

The annular hoop-rim B, when the bottom is designed for a milk-can or other vessel having a cylinder of uniform diameter, is vertical, as shown in fig. 2, but when for a pail it is to be slightly inclined, as shown in fig. 1.

O C are the knee or elbow-shaped rests, which are made of any suitable metal, and usually of the form shown in the drawing, in order to conform to the contour of the bottom, so that when they are attached they shall so fit over and rest against the bottom throughout their entire length as to furnish a positive or direct support.

To the hoop-rim B of each bottom, by rivets or other convenient means, I secure three, four, or more of these rests, the shank *c* extending along the entire surface of the hoop, while the shank *c'* passes up under the curved base-plate A.

Thus it will be seen that the angle at *b* of the bottom, and which is formed by the union of the base-plate A and hoop B, is encircled by these rests. This entirely protects the bottom at, heretofore, its only point of contact with the can or other floor; and, as the edge *b* is so completely guarded, I am enabled to manufacture the bottoms much lighter, in many classes only using fifty per cent. of the metal heretofore used.

This lightening the weight of the bottom not only much lessens its price, but is, in every way, a great advantage. This, owing to the brace-rests, I am enabled to accomplish without in any manner injuriously affecting the strength of the can, as the rests prevent the hoop B from expanding, and so free the bottom from contact with the floor that all the wear and tear which the edge *b* was formerly required alone to resist now falls directly on these knee-rests. This wear and tear, especially in large milk-cans, is immense, owing to the rough handling to which they are subjected, as is well known to all who are familiar with the trade in which they are used.

And again, when the can or pail is to be used as a cooler, the rests allow of a free circulation under the bottom of the can as well as around the same, which is impossible in cans or pails of ordinary construction.

Having thus fully described my invention,

What I claim therein as new, and desire to secure by Letters Patent of the United States, is—

As a new article of manufacture, the can or pail bottom herein described, consisting of the base A, hoop-rim B, and knee or elbow-shaped rests O C, when the latter are so secured to the hoop as to encircle the angle portion *b* of the bottom in order to act both as a support and a brace to the same, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

H. W. SHEPARD.

Witnesses:

ED. P. GODDARD,
JOHN B. BAKER.