(No Model.)

F. A. WALSH.

SHEET METAL VESSEL.

No. 383,507. Patented May 29, 1888.

Fig. 1.

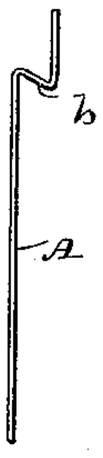


Fig. 2.

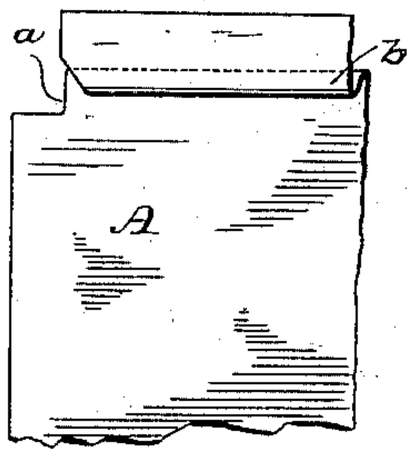


Fig. 3.

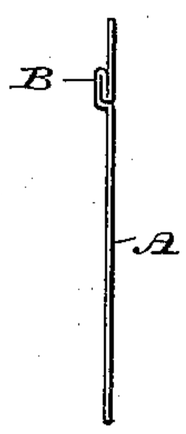


Fig. 4.

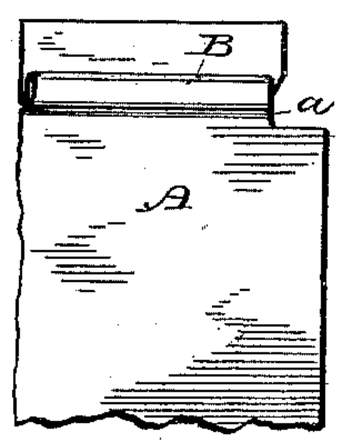


Fig. 5.

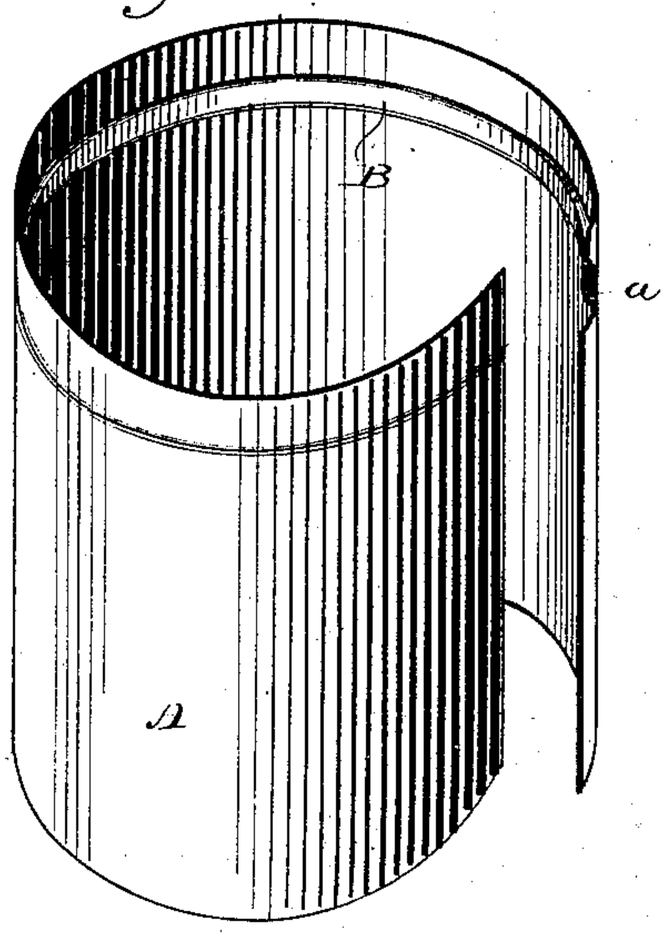


Fig. 6.

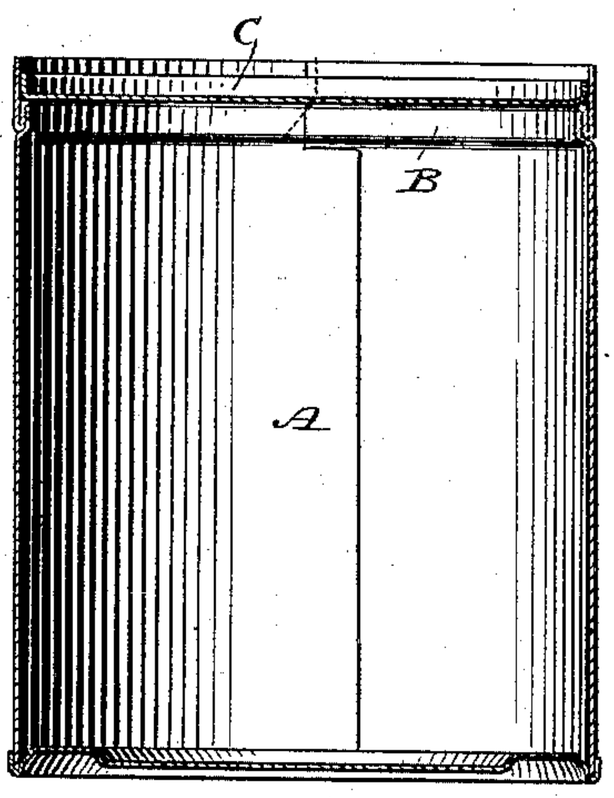


Fig. 7.

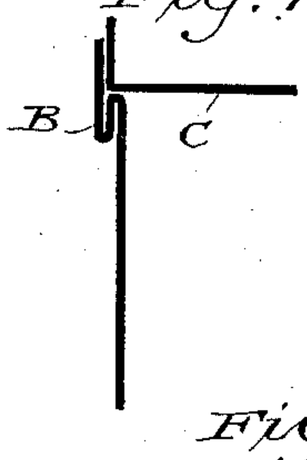


Fig. 8.

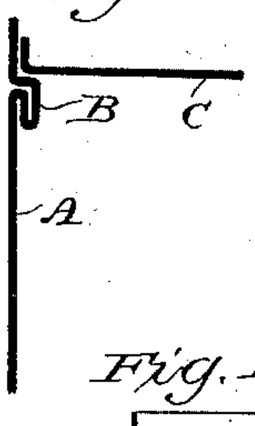


Fig. 9.

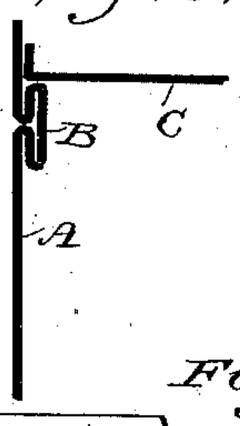


Fig. 10.

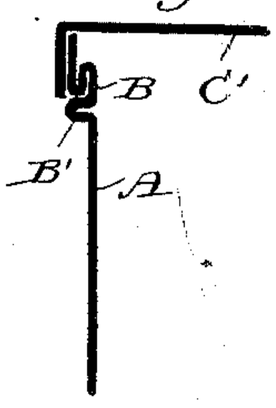


Fig. 11.

Fig. 12.

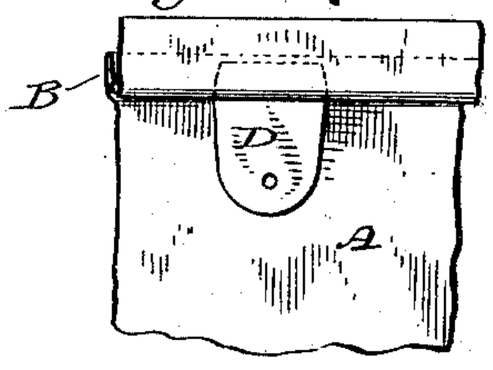
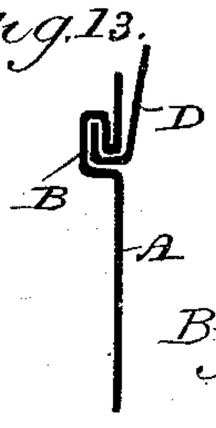


Fig. 13.



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Francis A. Walsh.
By Stout & Underwood
Attorneys.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

FRANCIS A. WALSH, OF MILWAUKEE, WISCONSIN.

SHEET-METAL VESSEL.

SPECIFICATION forming part of Letters Patent No. 383,507, dated May 29, 1888.

Application filed November 14, 1887. Serial No. 255,173. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS A. WALSH, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Sheet-Metal Vessels; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to sheet-metal vessels, and will be fully set forth hereinafter, and pointed out in the claims.

In the drawings, Figure 1 is an end view, and Fig. 2 a side view, of a flat strip of tin as first creased in the process of making my improved sheet-metal vessel. Figs. 3 and 4 are similar views showing the said flat strip after the next stage, Fig. 4 showing the side opposite that shown in Fig. 2. Fig. 5 is a perspective view showing the flat strip rolled into the shape of the vessel. Fig. 6 is a vertical central section through a completed vessel. Figs. 7 to 10, inclusive, are diagram views illustrating modifications in the described fold, and also showing the relation of a cover thereto. Fig. 11 is a diagram view illustrating the manner of securing an ear or like attachment to the vessel. Fig. 12 is a detail side view of the same; and Fig. 13 is a view analogous to Fig. 12, but showing the ear-piece raised.

In my present invention, in place of spinning or otherwise forming a bead on a rounded or cylindrical or other vessel, I form a fold in the strip of sheet metal while it is yet "in the flat," and thereby make a stronger article and one less liable to become cracked or injured in the process of manufacture or afterward.

A is the strip of sheet metal, which is notched out, as at *a*, in one corner and subjected to suitable machinery, which produces the crease *b*, (shown in Fig. 1,) and then by additional pressure this crease is formed into the flat fold shown at B in Figs. 3 to 6. This fold (or false seam) may be variously modified, as shown in the diagram views, Figs. 7 to 10, inclusive. In these views the several thicknesses of the tin sheet are shown pressed quite closely together, and the upper edge of the fold B forms a secure and convenient seat for an inner diaphragm or cover, C; but in Fig. 10 I have shown an additional fold or bead, B′, beneath the fold B, and show a slip-cover, C′, in this view.

My fold or false seam B may be varied almost infinitely without departing from the spirit of my invention, and as it is always constructed while the sheet metal is flat it may be either on the inside or outside of the completed vessel. When on the inside, as shown, it forms a convenient seat for the inner cover, C, (which may be of thick or thin sheet metal, wood, paper, pasteboard, or any other material preferred,) and my said fold may be inverted, as shown in Fig. 8, and may also be applied to any other part of the vessel beside or instead of to the upper part, as shown. Slip-covers may of course be used with any of these forms, as may covers adapted for seaming.

In Figs. 11 to 13, inclusive, I show a novel and convenient means for attaching the bail-ears to my vessels. While the tin is in the flat and in the position shown in Figs. 1 and 2, I slip the ear-piece D in between two of the adjacent partially-folded surfaces, and then when the additional pressure is given the piece D is securely fastened in the proper position, as indicated in Figs. 11 and 12, after which the pieces may be bent up, as indicated in Fig. 13, and a bail secured thereto in any ordinary manner. I may secure tags or labels in the same manner as the ear-pieces are fastened, and may vary the shape or form of the piece D in any way preferred.

As shown in Figs. 7, 8, and 9, the top of the vessel-body above the vertical fold or false seam and the vertical flange on the head or cover C rise to different heights, to enable these parts to be readily seamed together.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is--

1. In a sheet-metal vessel, the body having a flat vertical fold or false seam constituting part of said vessel-body and continuous and integral therewith, said fold being of two thicknesses only in close contact, and one of said thicknesses being in close contact with said body, forming a seat for the can head or cover, in combination with a head or cover consisting of a horizontal plate having a vertical flange on its periphery, said head or cover resting on said seat composed of said vertical fold or false seam.

2. In a sheet-metal vessel, the body having a flat vertical fold or false seam constituting part of said vessel-body and continuous and in-

tegral therewith, said fold being of two thicknesses only in close contact, and one of said thicknesses being in close contact with said body, forming a seat for the can head or cover, and said body rising vertically above said fold or seam, in combination with a head or cover consisting of a horizontal plate having a vertical flange on its periphery, said head or cover resting on said seat composed of said vertical fold or false seam within the vessel-body, and the top of said vessel-body above said fold or seam and the vertical flange of the head or cover rising to different heights.

3. In a sheet-metal vessel, the combination of the body having a fold or false seam formed therein, with ears or analogous attachments secured to the body by being pressed between two adjacent surfaces of the said folded part, substantially as shown and described.

4. In a circular sheet-metal vessel, the body A, consisting of a sheet of metal notched out, as shown at *a*, and provided with a flat vertical fold or false seam, B, near its upper end, consisting of two thicknesses of the vessel-body pressed closely together, and one of said thicknesses pressed closely against the said body, forming a seat for a head or cover.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

FRANCIS A. WALSH.

Witnesses:
H. G. UNDERWOOD,
N. E. OLIPHANT.