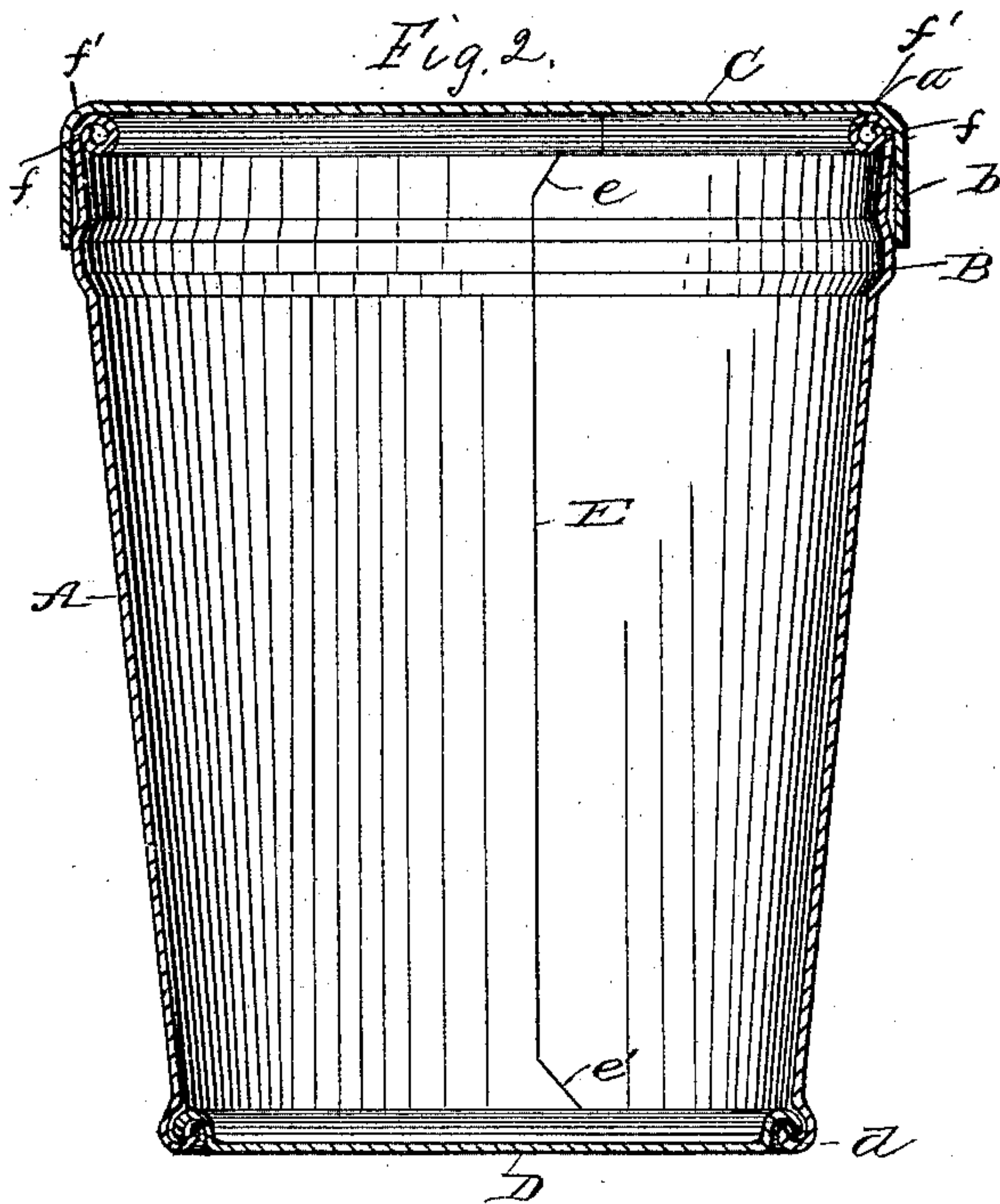
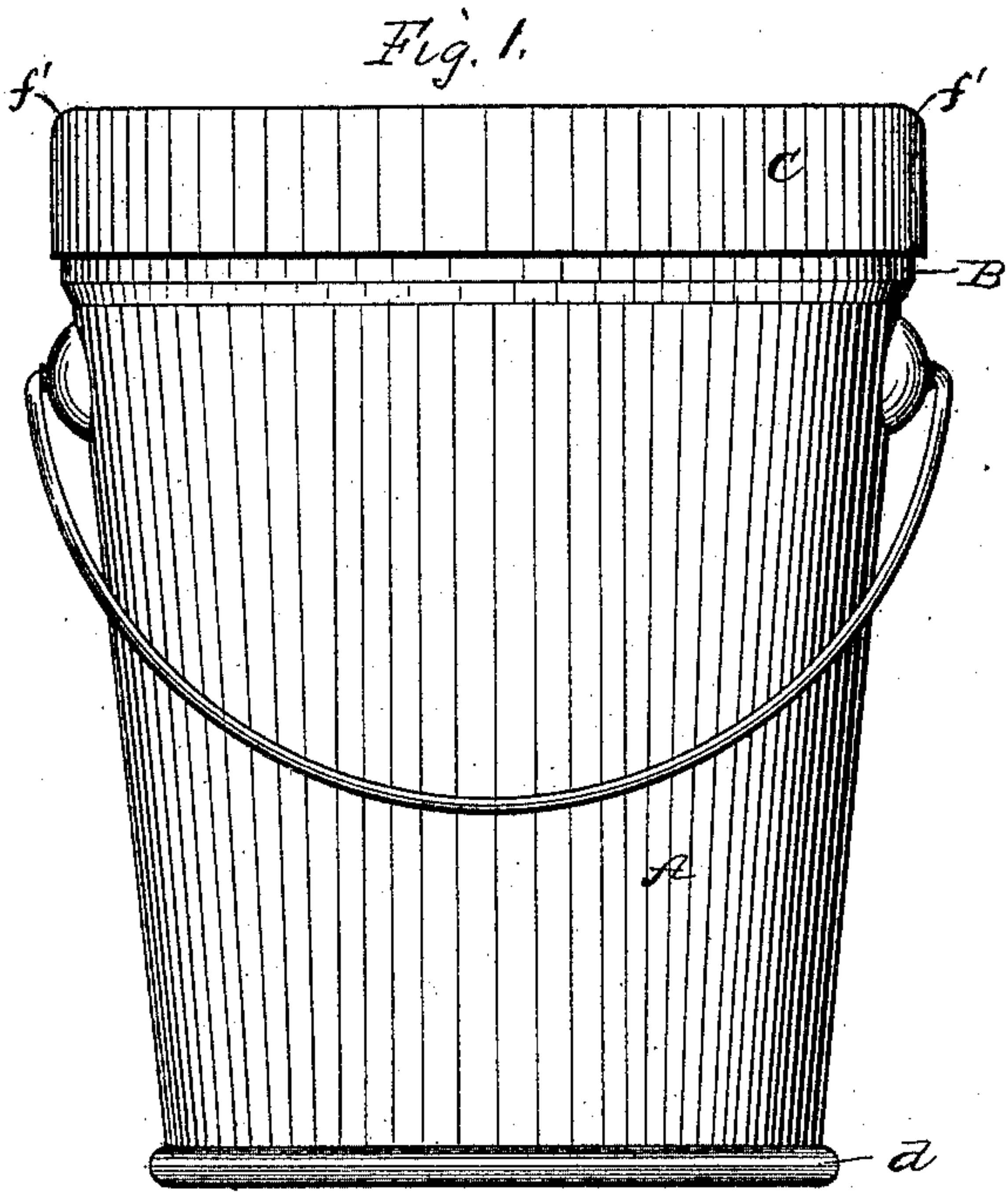


(No Model.)

F. A. WALSH.  
SHEET METAL VESSEL.

No. 421,213.

Patented Feb. 11, 1890.



# WITNESSES

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# UNITED STATES PATENT OFFICE.

FRANCIS A. WALSH, OF MILWAUKEE, WISCONSIN.

## SHEET-METAL VESSEL.

SPECIFICATION forming part of Letters Patent No. 421,213, dated February 11, 1890.

Original application filed February 18, 1884, Serial No. 121,072. Divided and this application filed August 1, 1887. Serial No. 245,832. (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 the construction of sheet-metal vessels, and will be fully described hereinafter, and pointed out in the claims.

In the drawings, Figure 1 is a side elevation of a vessel constructed according to my present invention, and Fig. 2 is a vertical section of the same.

A is the body of the vessel, which is formed of a sheet of metal continuous from top to bottom, bent so as to be circular in cross-section, and united only by a vertical lap-seam E; or, if desired, the vessel-body may be in more than one piece, and hence there may be more than one vertical lap-seam E, but in any case the body piece or pieces must be continuous and integral from top to bottom. After the body has been formed and the lap sides secured together its upper edge is subjected to the action of a former, that gives an internal roll to the metal, as shown at *a*, which not only strengthens it, but presents a smooth and rounded surface, over which the cover C may be easily slipped. This rolled edge *a* may be either single or double, and is wholly free from any extraneous internal support when made and projects inside the vessel, as shown.

D represents the bottom plate of the vessel, preferably united by a rolled or beaded seam *d*, as set forth specifically in my application filed February 18, 1884, Serial No. 121,072, of which this present application is a division.

B is a bead formed on the body A a short distance below the top, the object of which is to receive the lower edge of the rim of the slip-cover C, so that, though the body tapers above the bead, the cover may be nicely fitted to it, a further advantage being that the said bead B holds the cover far enough away from the outside of the body near the lower edge of the rim of the cover to there form a chamber *b* for the reception of suitable pack-

ing, and thereby form an air-tight joint, and thus secure the preservation of the contents of the vessel, while the internally-rolled rim *a* facilitates the placing of the slip-cover C thereover and presents no obstructions to retard this or interfere with a tight contact of the cover and top of the body.

In order that there may be no obstruction to the ready inrolling of the top of the body in forming the rolled rim *a*, I have shown the edge of the sheet which overlaps to form the vertical seam E as cut away at *e*, so as to present less metal at the point of rolling the top of the body where the said vertical seam occurs; and I have also shown said edge similarly cut away at *e'* below for a like reason.

My vessels are preferably tapering, as shown, and thereby are adapted to be nested one within the other.

I am aware that heretofore a sheet-metal vessel has been provided with an independent sheet-metal collar stamped or formed up of a single piece of sheet metal and afterward seamed or soldered to the body of the vessel, the said collar having an internal bead and an outward horizontal flange turned down at its outer edge and there seamed or soldered to the body of the vessel, as above stated, producing a vessel with a reduced or constricted mouth or opening, and such I do not claim, as in my present invention the internally-rolled upper rim is formed directly on and out of the body of the vessel and in one and the same piece therewith.

I am aware that it has been proposed to form a sheet-metal vessel of cylindrical form with a continuous inwardly-rolled edge at the top with a wire seated or seamed in the rolled edge. I do not claim this, broadly. I deem it important that the inward roll at the top be unsupported by a wire and that the edge of the metal forming the roll be rolled under and up in contact with the outer wall of the vessel, as shown in Fig. 2, leaving three thicknesses of the metal upon a horizontal line centrally through the roll. This adds strength, makes a complete finish inside without solder, and secures the edge of the metal against displacement, the pressing on of the cover serving to bind the outer wall of the vessel against the inturned edge of the roll and the in-



turned edge of the roll serving to prevent bending inward or indenting of the upper edge or mouth of the vessel. The outer edge of the top or mouth of the vessel is rounded, as shown at *f*, and the edge of the cover or lid— that is, its junction of the top with the rim— is rounded, as shown at *F'* in Figs. 1 and 2, to conform to the rounding of the mouth of the vessel. This forms a better and snugger fit of the cover to the vessel. These features render my vessel stronger and better for the purposes for which it is to be used.

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

1. A sheet-metal vessel the body of which is circular in cross-section and provided at its top with a continuous inwardly-rolled edge and at a suitable distance below said edge an outwardly-projecting bead, combined with a cover having a depending rim extending over and engaging said projecting bead, substantially as specified.

2. As an improved article of manufacture,

a sheet-metal vessel having an inward roll at its mouth, a bead below said roll, and an inwardly-tapered portion extending from the roll to the bead, substantially as shown and described.

3. A sheet-metal vessel circular in cross-section and formed at its upper end or mouth with a continuous inward roll with rounded outer edge and an outwardly-projecting bead below the upper edge, combined with a cover having a depending rim of sufficient length to extend over and engage said bead and a rounded edge *f''* between the rim and the body of the cover, substantially as shown and described.

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,  
MAURICE F. FREAR.