

J. M. PATTERSON.
SHEET METAL VESSEL.

No. 172,648.

Patented Jan. 25, 1876.

Fig. 1.

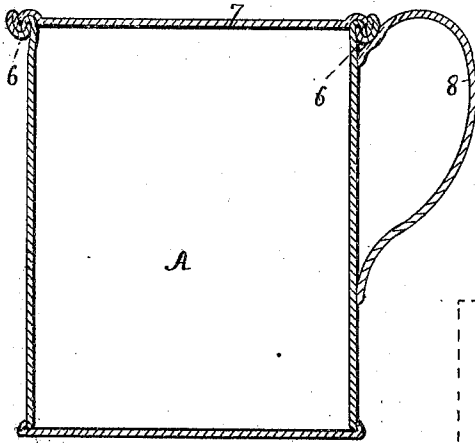


Fig. 2.

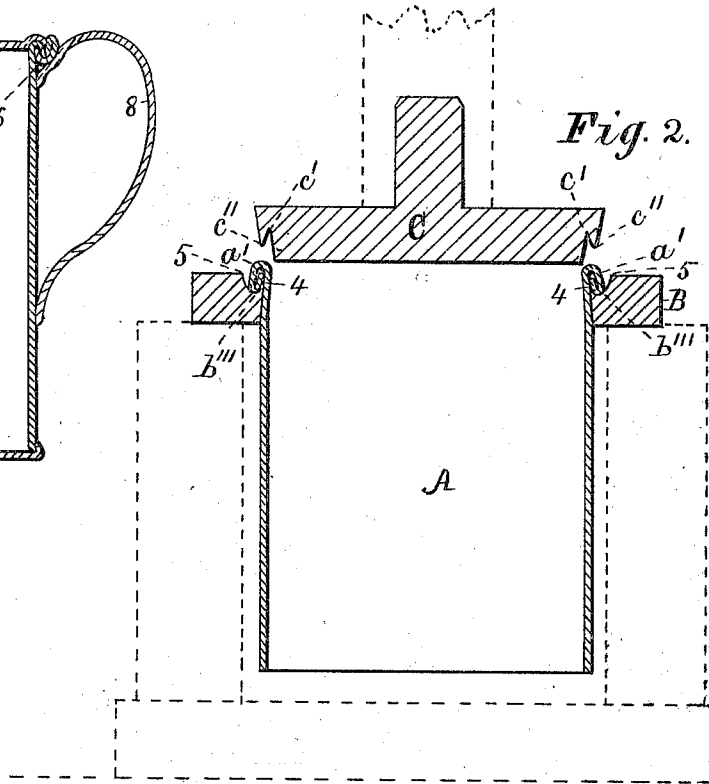
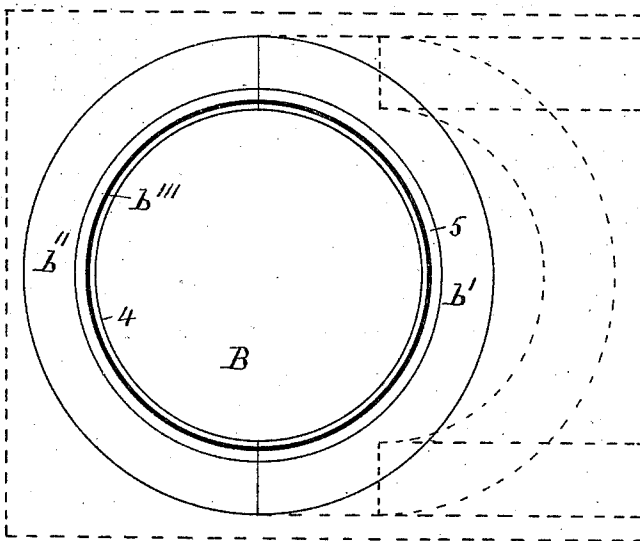


Fig. 3.



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UNITED STATES PATENT OFFICE.

JACOB M. PATTERSON, OF WOODBURY, NEW JERSEY.

IMPROVEMENT IN SHEET-METAL VESSELS.

Specification forming part of Letters Patent No. **172,648**, dated January 25, 1876; application filed November 16, 1875.

To all whom it may concern:

Be it known that I, JACOB M. PATTERSON, of Woodbury, in the county of Gloucester and State of New Jersey, have invented an Improvement in Sheet-Metal Vessels, of which the following is a specification:

My improvement relates especially to such sheet-metal vessels as are intended for inclosing fruits, vegetables, paints, and similar articles in an air-tight manner; and the object of my invention is twofold—first, to afford a V-groove, consisting of either two or three thicknesses of the metal of the upper end of the intended vessel, around the said upper end, for the reception of the flanged edge of a cap or cover, which is co-extensive in area with the area of the whole upper end of the vessel, for the purpose of allowing fruits, vegetables, and similar articles to be readily placed in the vessel in their undivided or whole condition; and, second, to give rigidity and strength to the upper end of the vessel, after the cap or cover has been detached, in order that the said vessel may be used as a measuring or carrying vessel.

The form and construction of the V-groove, and the dies for producing the same, will hereinafter be fully and clearly described with reference to the accompanying drawing, in which—

Figure 1 is a vertical central section of a fruit or vegetable vessel of sheet-tin embodying my invention; Fig. 2, vertical central sections, respectively, of the dies for giving the V form to the groove, and of the body of the can or vessel suspended in the lower die for the purpose of being grooved; Fig. 3, a plan view of the lower die.

A plate of sheet-tin or other suitable sheet metal is first cut to the length and width required for the can or vessel to be made, is placed in the ordinary and well-known "break" used by tinnerns, and a quarter of an inch, more or less, of the edge intended to receive the V-groove bent down flat upon the plate or sheet. It is then taken out, and again applied to the break, and the lapped edge of the sheet or plate bent down in the same manner, thus producing three thicknesses of the sheet or plate in the lapped edge, as shown in Fig. 2. The sheet or plate may be again lapped at

its said edge in the same manner, so as to give four thicknesses, if it be desirable; but three thicknesses, it is believed, will be amply sufficient. The sheet or plate is next rolled into a hollow cylinder, and the two opposite single edges soldered together; then the cylinder dropped down into the lower die, or inserted therein, so as to rest suspended by the lapped edge *a'*, as represented in Fig. 2. The lower die B is annular, and is divided diametrically into two horizontal parts, *b' b''*, (see Fig. 3,) one part, *b''*, being fixed rigidly upon any suitable support, and the other part, *b'*, secured to an adjustable sliding frame (see dotted lines in Fig. 3) in any suitable manner, so that the said die B can be closed and so held firmly, and opened when necessary with facility. The upper inner edge of the die B in its transverse section presents a groove, *b'''*, the inner side of which projects upward, and forms, in its transverse section, an acute angle, 4, while the outer or opposite side of said groove presents a concave curve, 5. The inner side of the annular die B is slightly beveled back from the top of the angle 4 to the lower side of the die, thus causing the acute angle 4 to lean a little toward the center of the die. (See Figs. 2 and 3.) The upper die C has its outer edge slightly beveled inward toward its lower side, and has a Λ -shaped groove, *c'*, which receives the angular projection 4 of the die B when the die C is closed down upon the said die B, as will be understood by reference to Fig. 2. The die C is intended to move up and down in any suitable vertically-moving frame operated by a treadle or otherwise.

The operation of the dies B and C in the production of the groove 6 in the upper end of the body of the can or vessel A (see Fig. 1) is as follows, viz: The body of the intended can is placed between the two parts *b' b''* of the lower die B, so that the lapped upper edge of the said body will rest with its outward projecting lapped portion directly down upon the top of the angular projection 4 of the lower die B, and then the latter closed firmly and securely against the body of A. The operator now forcibly brings down the die C upon the lapped edge of A, and thus causes the wedge-shaped projection *c''* of the upper die C to force the lapped edge *a'* of the body of the in-

tended can or vessel A into the groove b''' of the lower die B, and thus transform the lapped edge a' of A into the required groove 6. (Shown in Fig. 1.) The body A is then removed from the dies, the bottom plate of the former applied and soldered fast, and the flanged cap or cover 7 adjusted thereto ready for use.

A handle, 8, or a pair of "ears," may be attached, so that after the can or vessel is finally emptied of its contents, the said can or vessel may be used as a carrier for paint, or as a measure or dipper for water or other fluids.

It will be readily understood, without any further description, that as the whole area of the upper end of the vessel A is open, fruits or vegetables may be readily introduced in their undivided or whole condition, and afterward soldered up air-tight as easily as the small central openings in the tin cans now in use, and that the solder whereby the cap or lid is secured to the vessel can be as readily remelted for the removal of the same in opening the vessel as in the old construction; and,

moreover, that after the vessel or can is relieved of its contents, the said can or vessel, provided with the handle 8, or with a pair of ears for a bail, can be used as a measure, or as a paint-can of superior strength, because of the greater strength and rigidity produced by the lapped and grooved upper edge of the cylindrical body of the said vessel.

I claim as my invention—

A sheet-metal can or vessel for putting up fresh fruits and vegetables, liquid paints, and other articles, in an air-tight manner, having the groove 6, for receiving the flange of the cap or cover, formed of two or three thicknesses of the sheet metal of the upper end of the body of the said can or vessel, substantially as and for the purposes hereinbefore set forth and described.

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Witnesses:

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