

E. A. LELAND.
SHEET-METAL CANS.

No. 179,033.

Patented June 20, 1876.

Fig. 1.

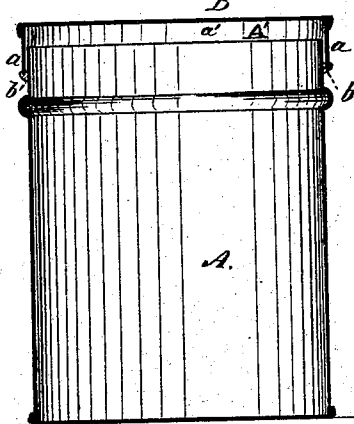


Fig. 2.

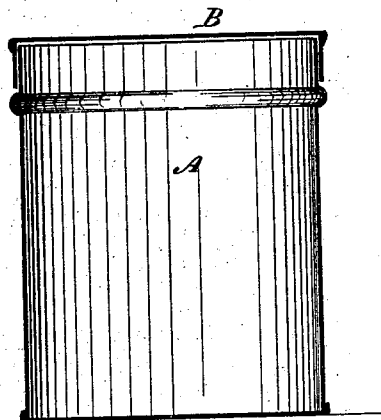
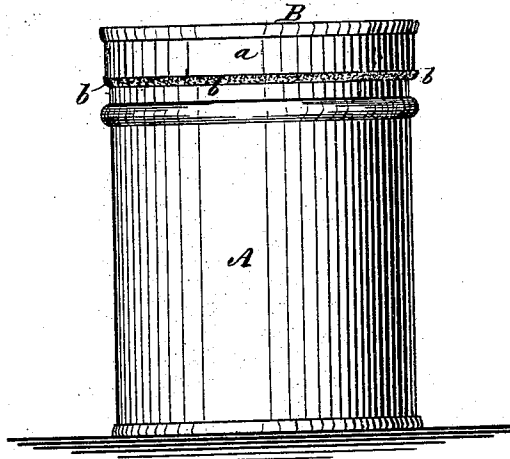


Fig. 3.



Witnesses:

Henry Eichling.
H. Wells, Jr.

Inventor:

Edwin A. Leland
per James A. Whitney.
Atty.

UNITED STATES PATENT OFFICE.

EDWIN A. LELAND, OF NEW YORK, ASSIGNOR TO LEONARD RICHARDSON,
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IMPROVEMENT IN SHEET-METAL CANS.

Specification forming part of Letters Patent No. **179,033**, dated June 20, 1876; application filed
April 15, 1876.

To all whom it may concern:

Be it known that I, EDWIN A. LELAND, of the city, county, and State of New York, have invented an Improvement in Sheet-Metal Cans, of which the following is a specification:

The object of this invention is to provide in a hermetically-sealed can a sufficiently frangible soldered joint between the cover and the can to permit the ready fracture of such joint by a moderate degree of force designedly applied by striking, sudden pressure, &c., to enable the cover to be detached from the can with much greater certainty, ease, and convenience, than is possible with the soldered joint ordinarily provided in the manufacture of tinware.

To this end my invention consists in the combination of a galvanized-iron cover with the sheet-tin body of a can, the two united by a soldered joint, or, as the equivalent thereof, a sheet-tin cover and a galvanized-iron body, united by the soldered joint, there being a space between the top of the body and the inner side of the cover, the comparatively slight adhesion of the solder to the galvanized surface of the iron causing the iron portion of the can to be detached from the solder much more readily than the tin portion of the can, so that the detachment of the iron from the tin portion of the can with a moderate degree of force may always be relied upon, whereas, when the tin is soldered upon tin, the fracture of the joint, unless some special mechanical construction is adopted, is a matter of more or less doubt and difficulty. The can, as constructed according to my invention, moreover, while being thus capable of being readily opened, possesses strength between the cover and the body of the can sufficient to resist all vicissitudes of ordinary usage.

Figure 1 is a central longitudinal section of a can made according to my invention when the same is hermetically closed. Fig. 2 is a like section of the same when the soldered joint thereof has been fractured or broken, to permit the detachment of the cover from the body of the can. Fig. 3 is a side view of the can when hermetically closed.

A is the body of the can of the usual or any suitable form, and made, for example, of sheet-tin. B is the cover, of any suitable configuration, to be slipped or fitted upon the body A, and when the latter is made of sheet-tin, the said cover B, being made of galvanized sheet-iron—that is to say, iron coated with zinc by well-known methods. The cover B, however, instead of being pushed clear down upon the body A—that is to say, with the top of the latter resting against the underside of the former, is so placed that a space, A', exists between the upper edge of the body A and the top or flat portion of the cover B. The cover B being in this position, the lower edge of its rim *a* is soldered to the adjacent circumferential surface *b* of the body A.

It is to be expressly understood that the adhesion of the solder to the zinc surface of the galvanized iron is much less than the adhesion of the solder to the thin surface of the sheet-tin, consequently, (the cover B being of galvanized iron, and the body A of sheet-tin,) when force is applied to press the cover B down upon the body A, as, by means of a blow upon the same, or of sudden or suitable pressure exerted thereon, the solder will part from the galvanized iron, and the said cover will be forced downward into the position represented in Fig. 2, being thereby effectually loosened from the body A. When this is once accomplished, the cover B, by simple manipulation, may be drawn off from the body A, and access be had to the interior of the can.

It is manifest that, by making the body A of galvanized iron, and the cover B of sheet-tin, the result will be the same, except that the solder will separate from the body, instead of from the cover of the can. This soldered joint between the galvanized iron and the sheet-tin portions of the can, while thus affording a ready means of fracturing the connection between them and permitting their separation, is sufficiently strong to resist all vicissitudes of ordinary usage when the can is filled for transportation, storage, and the like.

I do not claim a can in which the cover and body are of the same material, and connected

by a frangible joint, the fracture of which is dependent upon the character of the solder or the allocation of the parts; but

What I do claim as my invention, irrespective of the character of the solder, &c., is—

In a hermetically-sealed can, the combination of a galvanized-iron cover and a sheet-tin body, or of a sheet-tin cover and a galvanized iron body, with the soldered joint *a*, the parts being constructed and arranged with a space be-

tween the top of the body and the inner side of the cover, substantially in the manner set forth, whereby provision is made for the ready fracture of the joint and the separation of the cover from the body of the can.

EDWIN A. LELAND.

Witnesses:

EDWARD HOLLY,
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