T. Evans,

Pail Ear.

No. 24,451. Patented June 21, 1859.

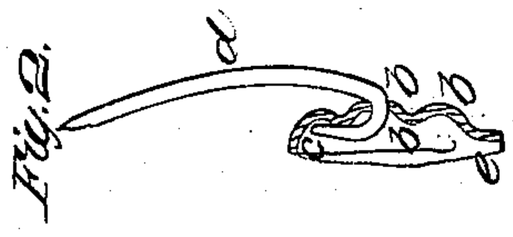

Fig. 2.

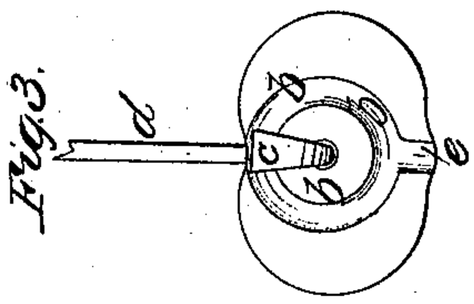

Fig. 3.

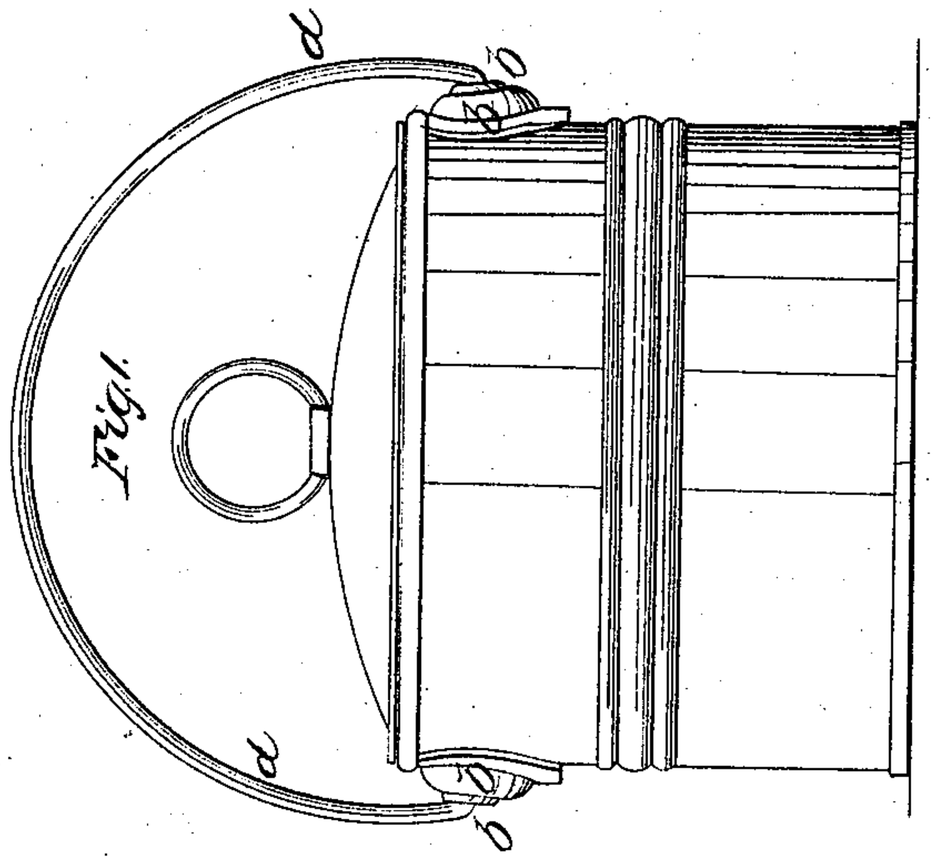

Fig. 1.

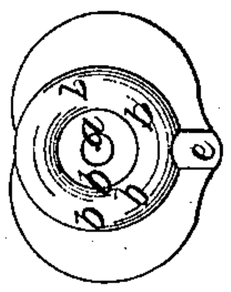

Fig. 4.

Witnesses:

Archibald Robbins

John Graham

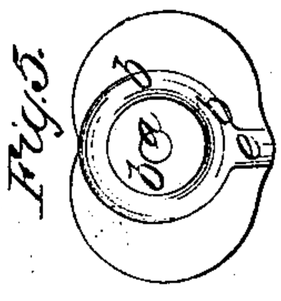

Fig. 5.

Inventor:

Thos. Evans

UNITED STATES PATENT OFFICE.

THOMAS EVANS, OF WATKINS, NEW YORK.

IMPROVED ATTACHMENT OF HANDLES TO TIN PAILS.

Specification forming part of Letters Patent No. **24,451**, dated June 21, 1859.

To all whom it may concern:

Be it known that I, THOMAS EVANS, of Watkins, in the county of Schuyler and State of New York, have invented certain Improvements in Metallic Ears for Tinware and other Purposes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figure 1 is an elevation showing the ears in use. Fig. 2 is a vertical section showing the manner of attaching the bail. Fig. 3 is a reverse elevation showing the flattened end of the bail. Fig. 4 is a front elevation of the ear. Fig. 5 is a reverse elevation of the same.

Similar letters refer to corresponding parts in all the figures.

My improvements are applicable to those ears which are used for affixing bails to tin and other sheet-metal wares, which are of convex form externally, and are attached to the sides of pails or vessels and do not extend above the top. In such the end of the bail passes through an eye and is bent in the form of a hook, which turns within the concave or raised portion of the ear.

In my improved ear the eye *a* forms the center of a series of concentric corrugations, *b b b*, which surround it, extending as far as the swelled or convex surface does. These corrugations give increased strength to the bearing of the ear where it rests on the bail, that being the point which receives all the weight of the contents of the vessel, and consequently requires unusual strength in comparison with the other parts. A swelled or convex ear, simply, is bent and drawn out of shape, and soon becomes useless from this cause, the material being too thin to retain its shape from ordinary use. This difficulty, though sufficiently overcome for ordinary uses, I further provide against by making the flattened end *c* of the bail *d* bear against one of the rings or corrugations *b*, the outer one being the most convenient for that purpose, by which the eye is relieved of a considerable portion of the strain coming upon it, and thereby is less affected. This renders the bail less subject to becoming loose, as the eye is prevented, in a great measure, from wearing larger by this double bearing which is given the bail. The corrugations may be more or less in number, as the size or thickness of the metal may require. The end of the bail is flattened to give it more bearing-surface, and likewise to enlarge it sufficiently to prevent it from slipping out of the ear, as shown in Fig. 3, by which it cannot be detached without cutting away the flattened portion. A groove or channel, *e*, is provided on the lower side of the ear, communicating with the interior cavity thereof, which allows the water that will at times insinuate itself into the eye to escape freely. This is an important requisite, small as it may appear, to the practical use of ears of this form, as moisture, if allowed to remain in the cavity of the ear, very soon occasions rust to form and corrode the thin metal until the ear is spoiled.

This form of ear is very desirable from numerous causes. It renders pails, &c., more elegant in appearance and convenient to use than when the bail is attached above the top. It possesses greater strength and durability than the ordinary ears and is far cheaper, being produced by the single and almost instantaneous operation of a die or press, instead of by hand-labor. They are easily attached, either by solder or riveting, and allow the bail to turn freely, while still maintaining its double bearing.

I am aware that ears have been formed with a concave recess to receive the hook of the bail, and this, simply, I do not claim; but

What I claim as my invention, and desire to secure by Letters Patent, is—

Forming metallic ears for pails, buckets, and other vessels with concentric annular corrugations surrounding the bail-orifice, in combination with the flattened hook at the end of the bail, provided with an additional bearing against the surface of one or more of said corrugations, and the drip-opening or downward continuation of the outer corrugation, substantially in the manner and for the purposes herein shown and described.

THOS. EVANS.

Witnesses:

ARCHIBALD ROBBINS,

JOHN GRAHAM.