

# JOHN WIDGERY. Sheet Metal Cans.

No. 124,466.

Patented March 12, 1872.

Fig. 3.

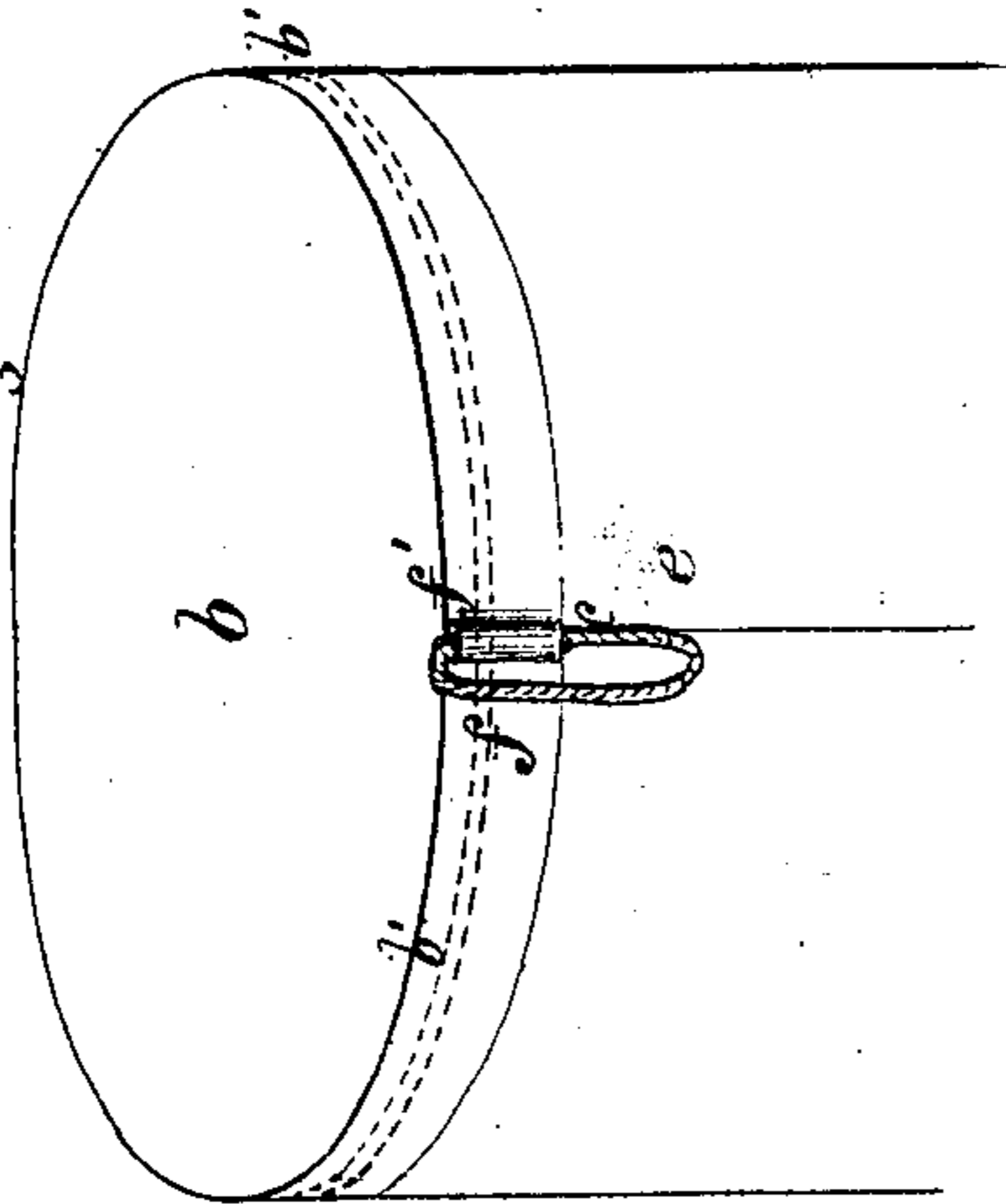


Fig. 4.

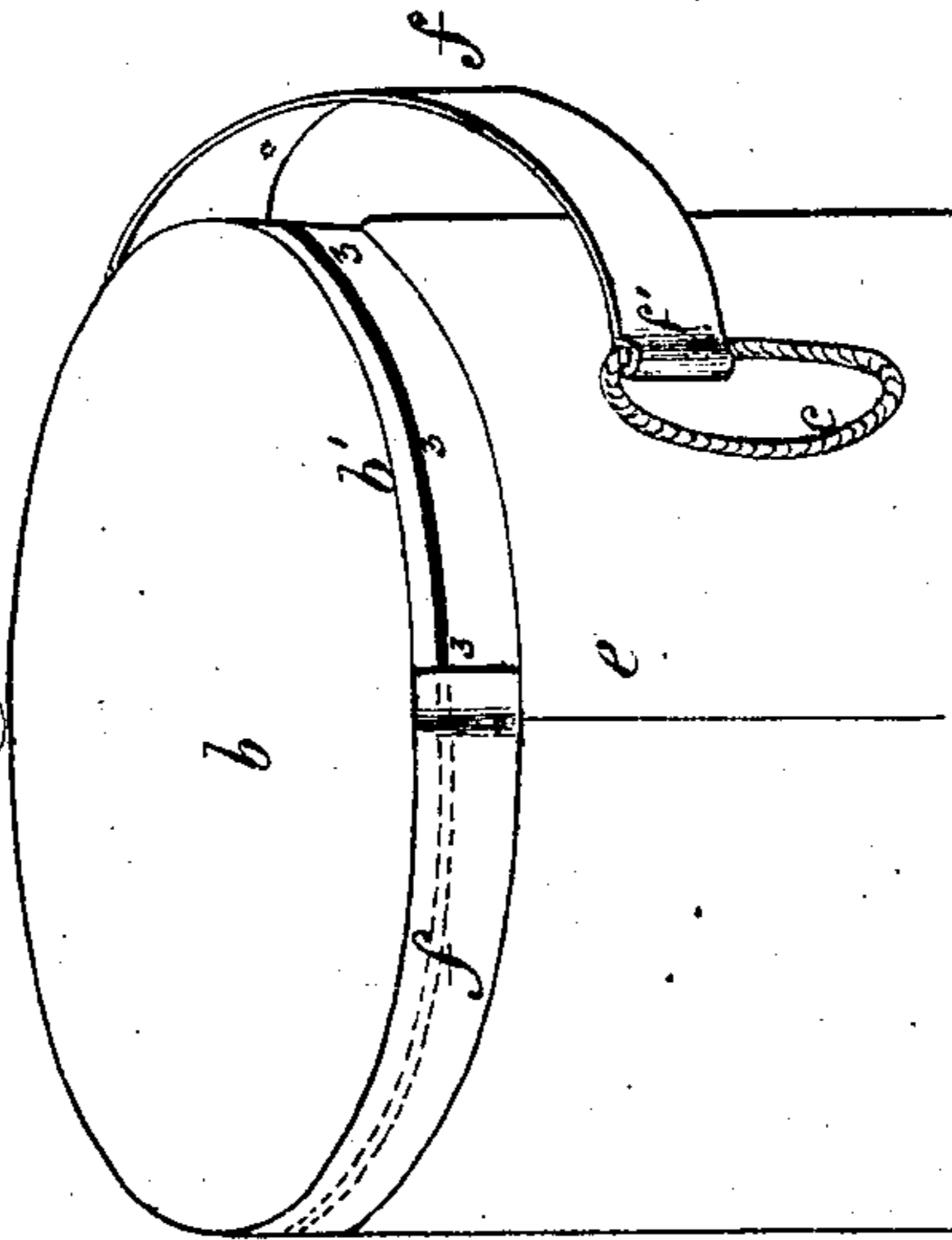


Fig. 1.

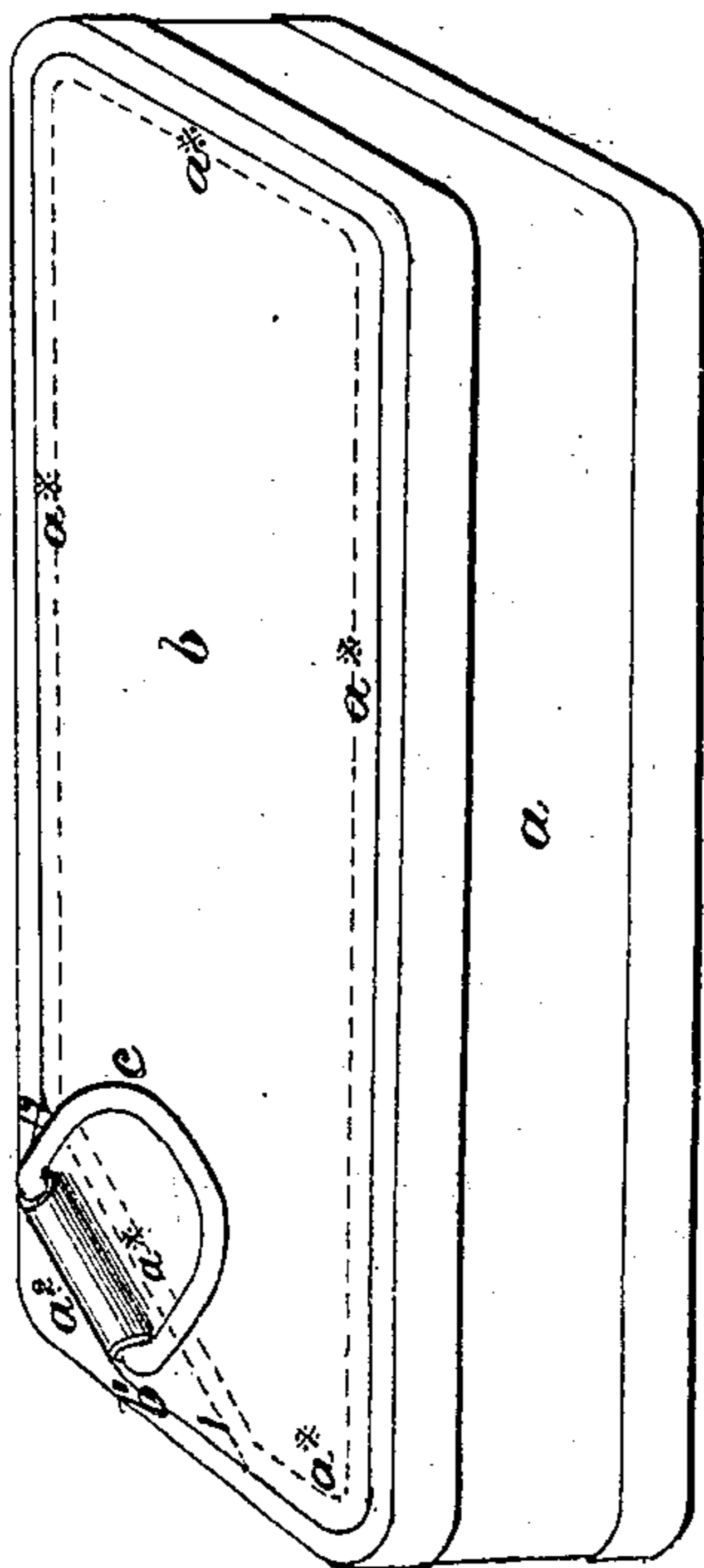
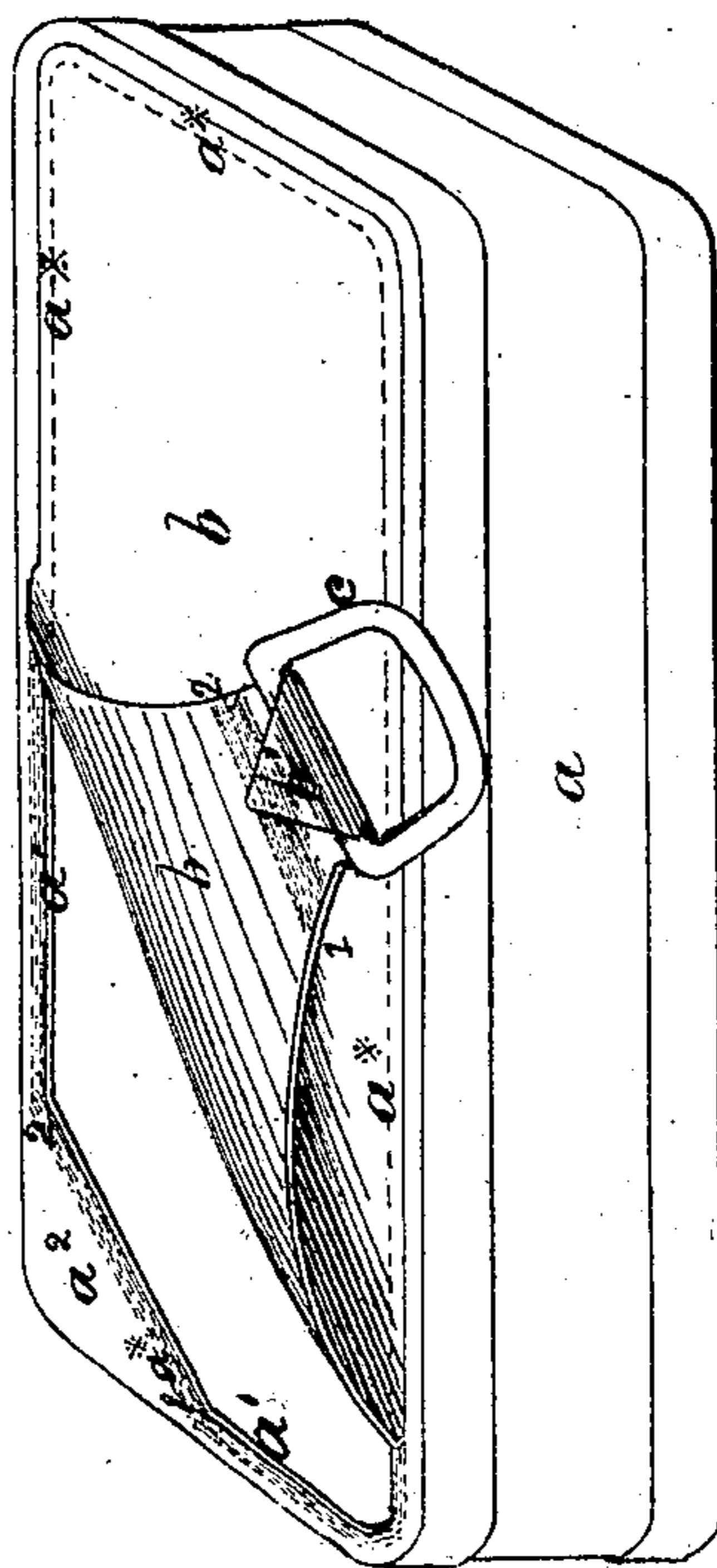


Fig. 2.



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## UNITED STATES PATENT OFFICE.

JOHN WIDGERY, OF PLUMSTEAD, ENGLAND.

## IMPROVEMENT IN SHEET-METAL CANS.

Specification forming part of Letters Patent No. 124,466, dated March 12, 1872.

I, JOHN WIDGERY, of Plumstead, England, tin-plate worker, have invented certain Improvements in Metal Cans, Cases, and Boxes, of which the following is a specification:

The object of the said invention is the production of a metal can, case, or box, which, when hermetically sealed or closed, may be opened without the use of a knife or other instrument.

The manner in which I accomplish this object is illustrated in the accompanying drawing, which I will now proceed to describe.

Figure 1 is a perspective view of a sardine box or case with the cover soldered thereon according to my invention. Fig. 2 is a similar view, showing the said box opened. Figs. 3 and 4 are similar views of a tin or case for preserved milk or the like, showing the application of my invention to the same.

The case or box *a*, Figs. 1 and 2, is made of tin or other suitable metal, and the various parts are united by soldering them together in the manner in which such work is usually accomplished.

The distinguishing feature of this invention is the manner of forming the soldered joint, by which the cover *b* is secured and hermetically sealed on the box or case.

The top of the box *a* has an inside rim or flange, *a*<sup>1</sup>, upon which the cover rests. At one corner, *a*<sup>2</sup>, of the box this flange is made much wider than at the other portions, as shown. The soldered joint is indicated by the dotted lines *a*\*; and it will be seen that the cover, at the part *b*', projects beyond the soldered joint, this projecting portion forming an unsoldered lap, which, nevertheless, lies flat, and therefore offers no obstruction to the packing of the boxes. In making these boxes, the corner *a*<sup>2</sup> may be formed in one piece with the rim *a*<sup>1</sup>; or it may be first soldered on the cover to form a portion thereof, and then soldered with the cover on the said rim. When this piece *a*<sup>2</sup> is thus first attached to the cover, the bottom of the box is first soldered on the same, leaving the aperture at the top open for the introduction of the sardines. When the box or case has been filled, the cover *b* is placed over the said aperture, and is made perfectly tight by soldering it all round upon the rim or flange *a*<sup>1</sup>, the piece *a*<sup>2</sup> being also soldered and made tight thereon, as indicated by the continuation

of the lines *a*\* from 1 to 2. It must be understood that, in soldering this piece *a*<sup>2</sup> on the cover *b*, the latter has the aforesaid unsoldered portion *b*' left as a lap outside the soldered joint 1 2, which unites the parts *b* and *a*<sup>2</sup>. This unsoldered portion or lap of the part *b* is provided with a ring or loop, *c*; and by pulling this ring, the soldered joint 1 2 can be broken and the cover *b* detached from the piece *a*<sup>2</sup>, which remains on the box. When the edge or side of the cover has been thus opened, the remainder of the soldered portions *a*\* separate with very little force applied to the ring, and the cover may be pulled back, as shown in Fig. 2, and completely removed from the case or box.

If the piece *a*<sup>2</sup> is made in one piece with the other part of the rim *a*<sup>1</sup>, the cover will be soldered on the box before the bottom of the box is put on, in order to allow the joint at 1 2 to be properly made. Then the box is filled, and the bottom soldered thereon in the usual manner. When the box is to be opened, the lap *b*', with the adjacent soldered joint 1 2, is first raised and pulled back by the ring *c*, and the cover is then removed, as above described.

I attach the wire ring *c* or loop to one corner of the cover *b* by turning the corner over the ring and securing the turned-down portion by solder; and when the small separate piece *a*<sup>2</sup> is used, I solder it upon this portion of the cover in such a manner that the ring and the part to which it is attached project beyond the soldered joint, leaving the unsoldered lap *b*', as above described, with the ring at the outer edge of the same.

I may apply my invention in the same manner to the ends of round or cylindrical cans or cases; but I prefer to modify the said invention for these vessels, as shown in Figs. 3 and 4. I apply to the end of the can *e* either a plain disk or a cover, *b*, with a rim, *b*', such as is commonly used for similar vessels. Then I fit a narrow metal strip or band, *f*, around the periphery of the top of the vessel and the edge or rim of the cover, and solder the same all round the top 3 of the box and the rim *b*', thereby securing the cover *b* upon the vessel *e*, as shown in Fig. 3. The object of my invention in this modification thereof is accomplished by leaving one end of the metal band *f* projecting at *f*' over the other end, this projecting

portion or lap being unsoldered, as above described, and provided with a loop or ring, *c*, of cord or other suitable flexible material, by pulling which the soldered joint may be broken and the end *f'* of the band *f* separated from the other part. When this end is thus pulled away from the can or case, the metal band *f* may be taken completely off, and the cover will be detached.

I may, in like manner, apply a metal band, with one end overlapping the other, to a box or case similar to that shown in Fig. 1; also to boxes or cases which have a loose cover fitted within the hermetically-sealed cover; and I may otherwise modify my invention in detail, while retaining the essential principle thereof. And I may apply my invention to cases or boxes, of any size, shape, or construction, to be used for containing food or other perishable substances; powder, cartridges, and the like, for military purposes; and any other substances or articles which it is desirable or necessary

should be packed in hermetically-sealed cases for storage or transport.

*Claims.*

1. Attaching and hermetically sealing the cover upon a metal case or box by a soldered joint, so made as that a portion of the covering-plate shall overlap the soldered joint to form an exterior loose or unsoldered lap, substantially as and for the purpose herein set forth.

2. In combination with the loose or unsoldered lap of the cover, a ring, loop, or other equivalent device, to facilitate the breaking of the soldered joint in opening the box or case, as herein set forth.

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