

No. 652,067.

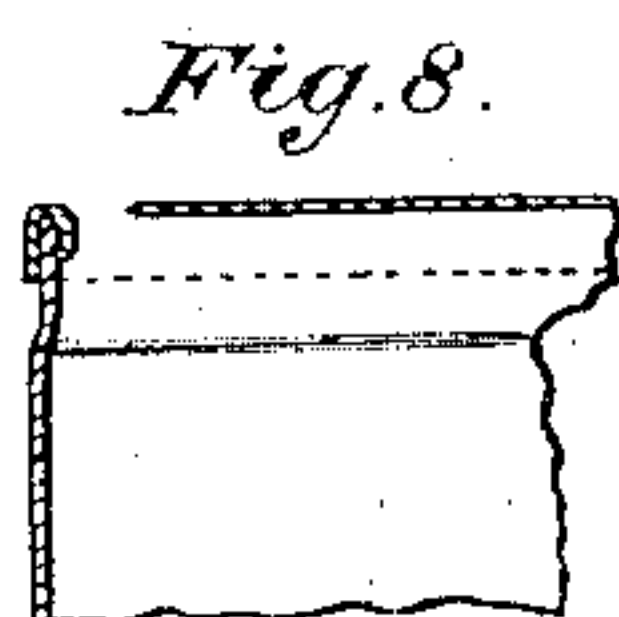
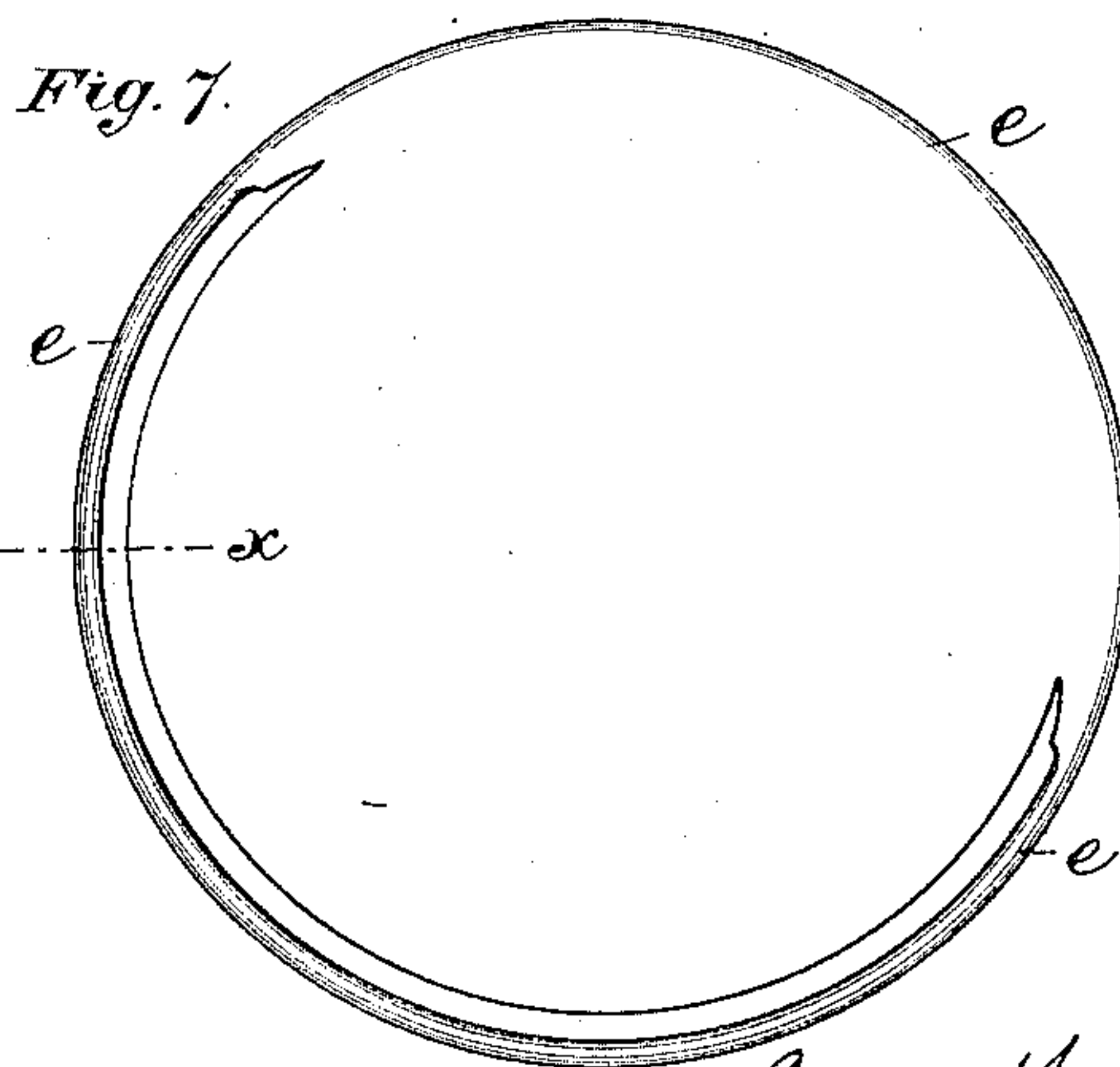
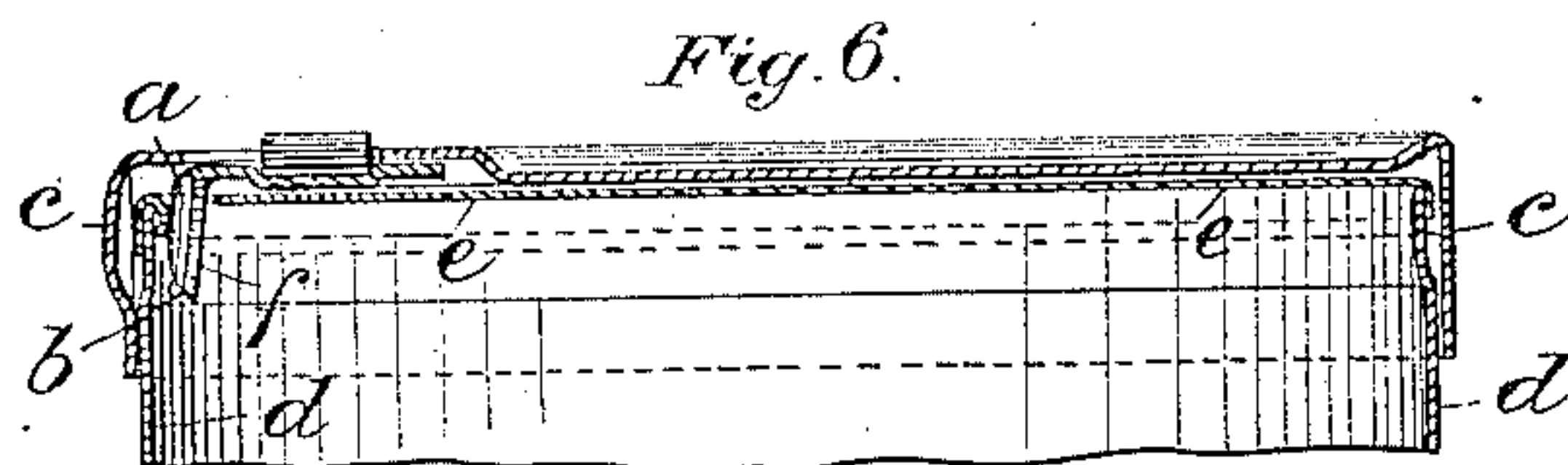
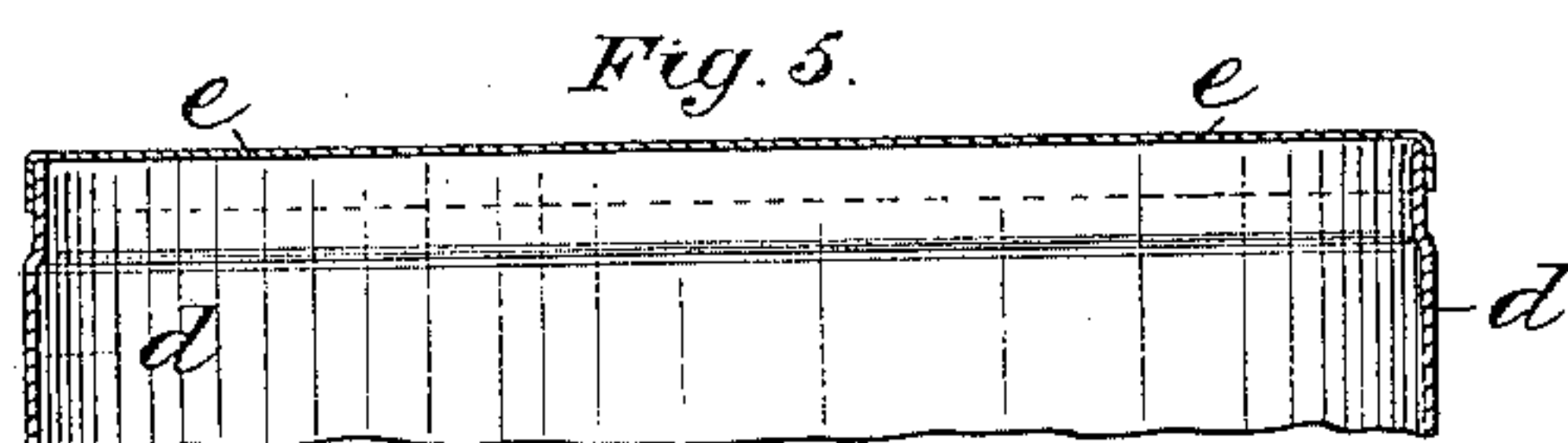
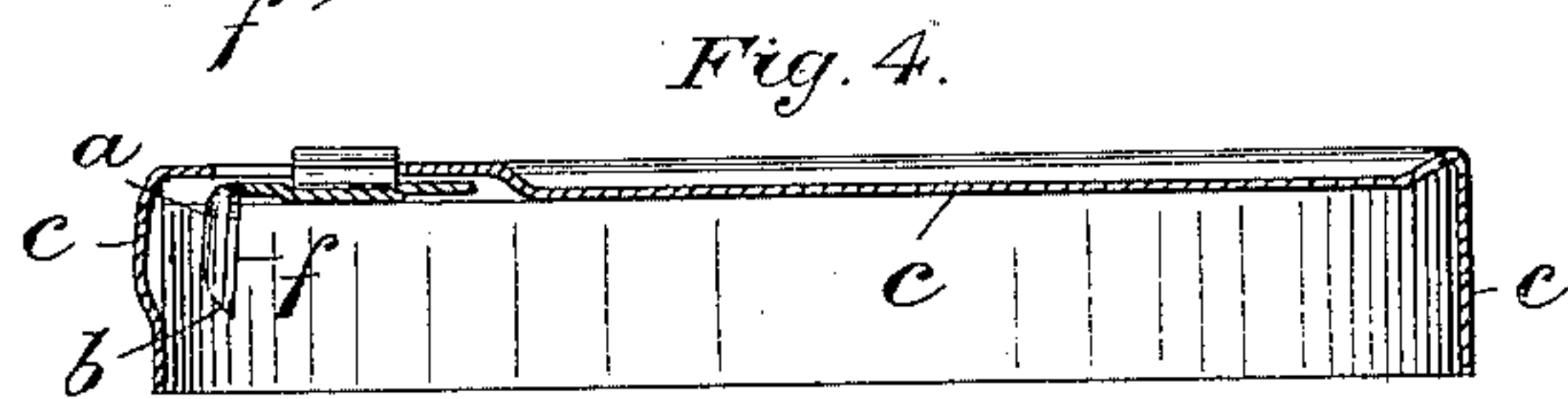
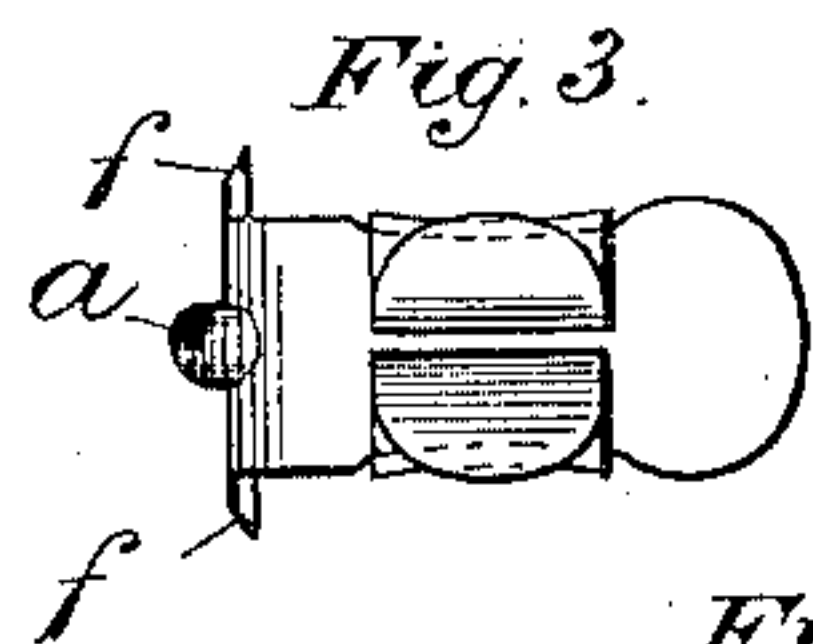
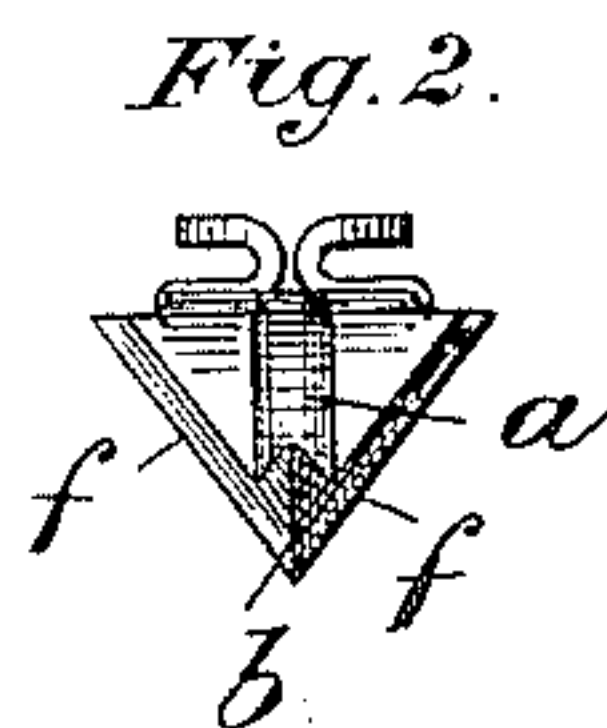
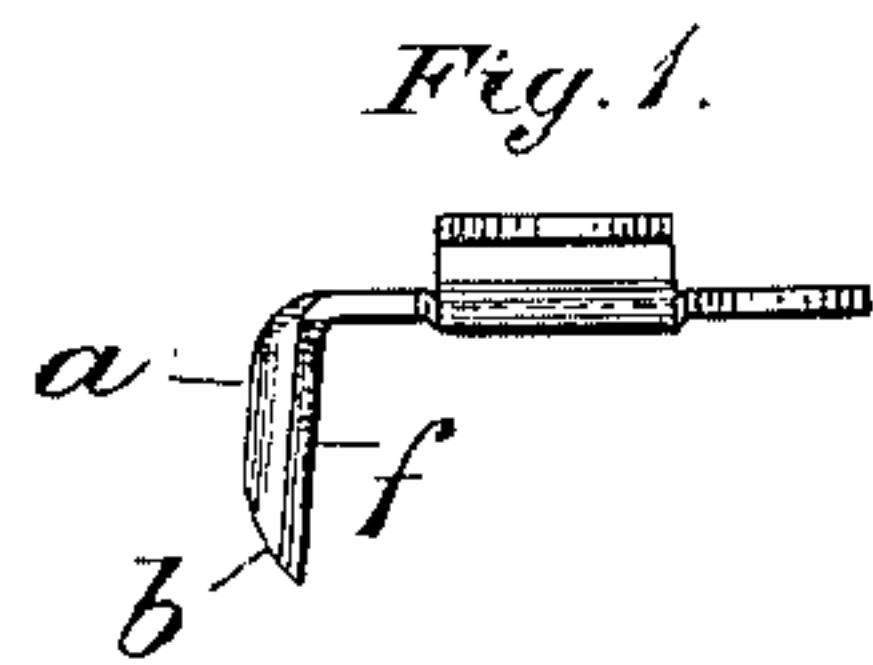
Patented June 19, 1900.

G. H. WILLIAMSON & A. CULPIN.

CUTTER FOR OPENING HERMETICALLY SEALED METALLIC BOXES OR TINS.

(Application filed Aug. 25, 1899.)

(No Model.)



Witnesses:

George Shaw
Richard Skerrett

Inventors:

George Henry Williamson
Arthur Culpin

UNITED STATES PATENT OFFICE.

GEORGE HENRY WILLIAMSON AND ARTHUR CULPIN, OF WORCESTER,
ENGLAND; SAID CULPIN ASSIGNOR TO SAID WILLIAMSON.

CUTTER FOR OPENING HERMETICALLY-SEALED METALLIC BOXES OR TINS.

SPECIFICATION forming part of Letters Patent No. 652,067, dated June 19, 1900.

Application filed August 25, 1899. Serial No. 728,495. (No model.)

To all whom it may concern:

Be it known that we, GEORGE HENRY WILLIAMSON and ARTHUR CULPIN, subjects of the Queen of Great Britain, residing at Worcester, England, have invented certain new and useful Improvements in Cutters for Opening Hermetically-Sealed Metallic Boxes or Tins, of which the following is a specification.

Our invention consists of the improvements hereinafter described in cutters for opening hermetically-sealed metallic boxes or tins, and relates principally to the fixed, hinged, or sliding cutters attached to loose lids with which hermetically-sealed metallic boxes are provided when issued into commerce.

In order that our invention may be the better understood, we remark that when cutters of the ordinary kind are employed there remains on the removal of the taggers tin or other metallic top of the box or tin a sharp projecting edge of taggers tin or the like on the top of the inside of the opened box or tin; and the object of our invention is so to make the cutter that when by pressing and rotating the loose lid in either direction for cutting out the taggers top the opened top or mouth of the box or tin shall have a perfectly-smooth edge, the rim of taggers tin left by the cutting operation on the top of the box or tin being turned down, and thereby formed into a nearly-tubular bead.

We will describe our invention in connection with the cutter of a cylindrical tin provided with a loose cutter-lid, reference being had to the accompanying drawings, of which—

Figure 1 represents in side elevation the detached cutter of a loose lid containing our improvements. Figs. 2 and 3 are respectively a front elevation and plan of the same. Fig. 4 represents in vertical section a loose lid to which a cutter made according to our invention is applied. Fig. 5 represents in vertical section the top of a hermetically-sealed tin before the cutting operation. Fig. 6 represents in vertical section the lid, Fig. 4, applied to and pressed on the tin, Fig. 5. Fig. 7 represents in plan the tin, Fig. 5, after the partial rotation of the loose lid on the tin, and Fig. 8 is a section on the line xx , Fig. 7. Figs.

1, 2, and 3 are drawn to a larger scale than the other figures of the drawings.

In making a cutter according to our invention we form at the middle of the triangular-shaped turned-down point or cutter proper a convex corrugation or rib a , the said corrugation or rib a being beveled or tapering at its lower end into the point b of the cutter. When a loose lid c , Fig. 4, provided with a cutter of the kind described, is pressed onto the tin d , so as to pierce the taggers-tin top e of the said tin d , and is rotated in either direction on the tin d , Fig. 5, for cutting out the tagger or other hermetically-sealed top e of the tin d , as in Fig. 6, the advancing edge f of the cutter effects the cutting of the taggers top e and the middle convex corrugation or rib a , following the cutting edge f , acting on the inwardly-projecting edge of taggers tin left on the top of the box or tin by the cutting edge f of the cutter, turns down the said projecting edge of taggers-tin plate onto the inner side of the box or tin, as will be best understood by reference to Figs. 7 and 8, and thereby leaves a smooth or beaded edge on the opened box or tin.

Although we have only described and represented our invention in connection with a sliding cutter for the separate or loose lid of a hermetically-sealed cylindrical box or tin, yet we wish it to be understood that the said invention may be applied to fixed and hinged cutters of loose lids for cylindrical boxes or tins, as well as to detached cutters or instruments employed in the opening of hermetically-sealed metallic boxes or tins of various shapes.

Having now described our invention, what we claim as new, and desire to secure by Letters Patent, is—

A loose lid for hermetically-sealed metallic vessels, the said loose lid having a thin sheet-iron or steel cutter attached to its underside the outer end of which attached cutter is turned down at right angles to the other part and constitutes the cutter proper, the said turned-down end or cutter proper having in it a vertical rib or corrugation presented to the rim of the loose lid so that when the loose

lid is pressed and rotated on the hermetically-
sealed vessel for the purpose of cutting out
the taggers-tin cover thereof the rib or corru-
gation of the cutter follows in the rear of the
5 cutting edge of the said cutter and turns down
the edge of the taggers-tin cover left on the
top of the vessel into close contact with the
inside of the said vessel, substantially as de-
scribed.

In testimony whereof we have hereunto set to
our hands in presence of two subscribing wit-
nesses.

GEORGE HENRY WILLIAMSON.
ARTHUR CULPIN.

Witnesses:

GEORGE SHAW,
RICHARD SKERRETT.