

No. 721,507.

PATENTED FEB. 24, 1903.

A. FOGG.
AIR TIGHT BOX, TIN, OR CANISTER.
APPLICATION FILED JULY 22, 1902.

NO MODEL.

Fig. 1.

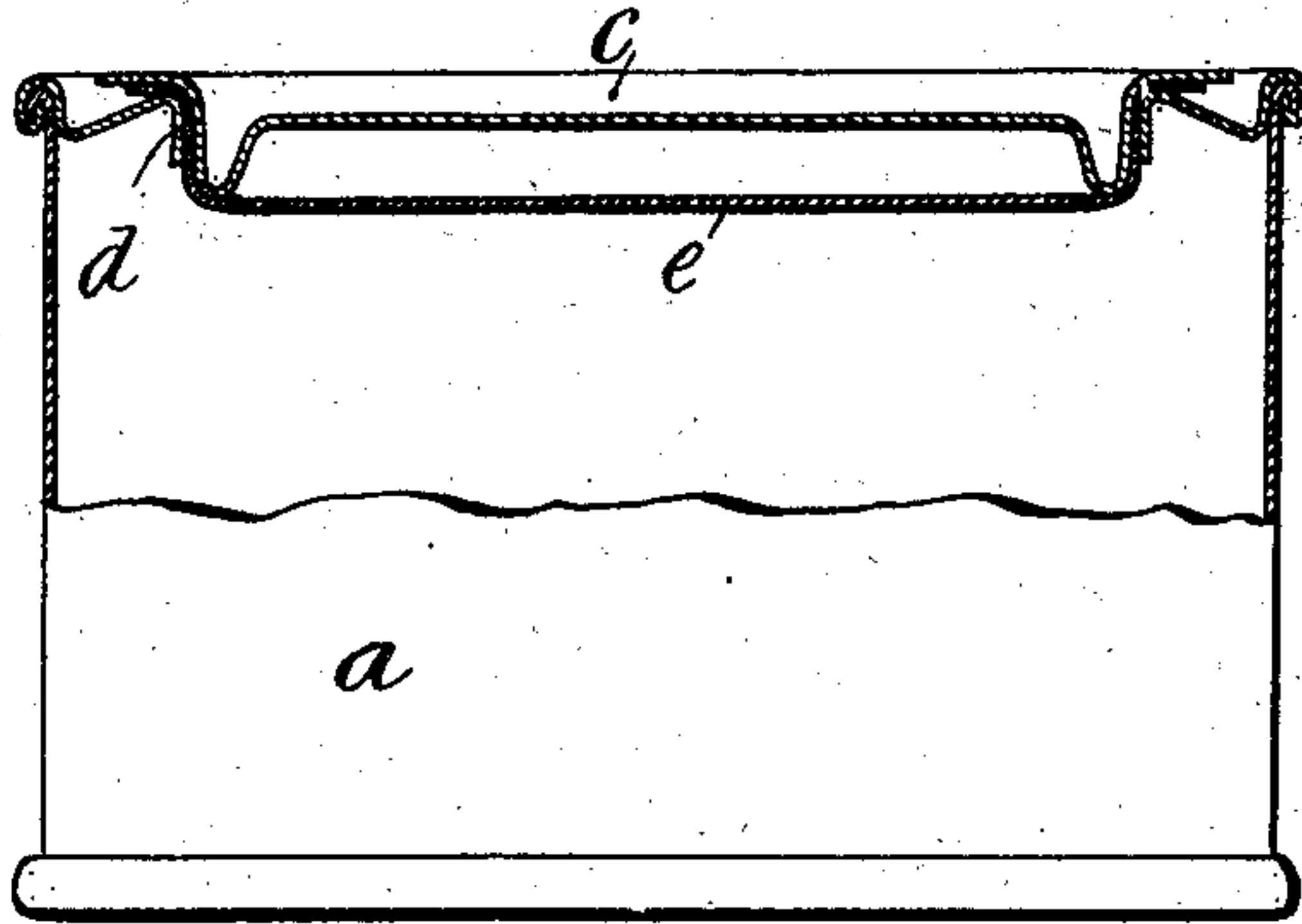


Fig. 2.

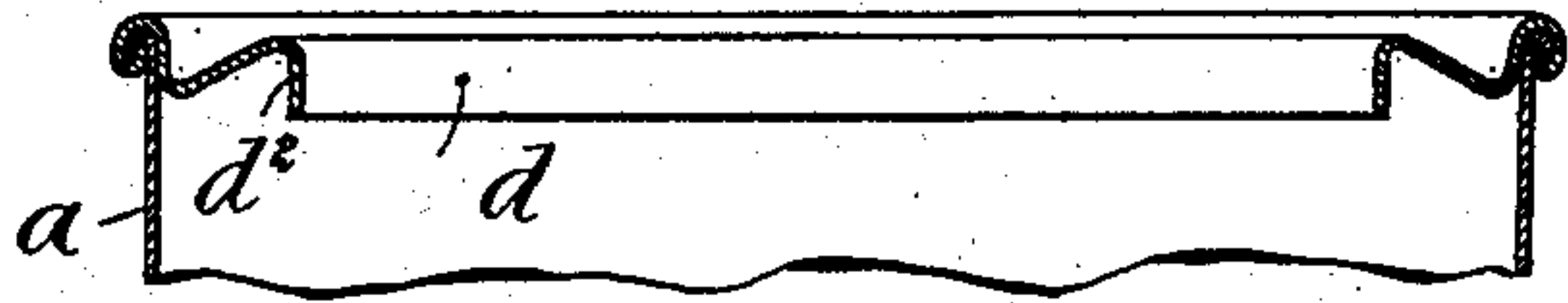
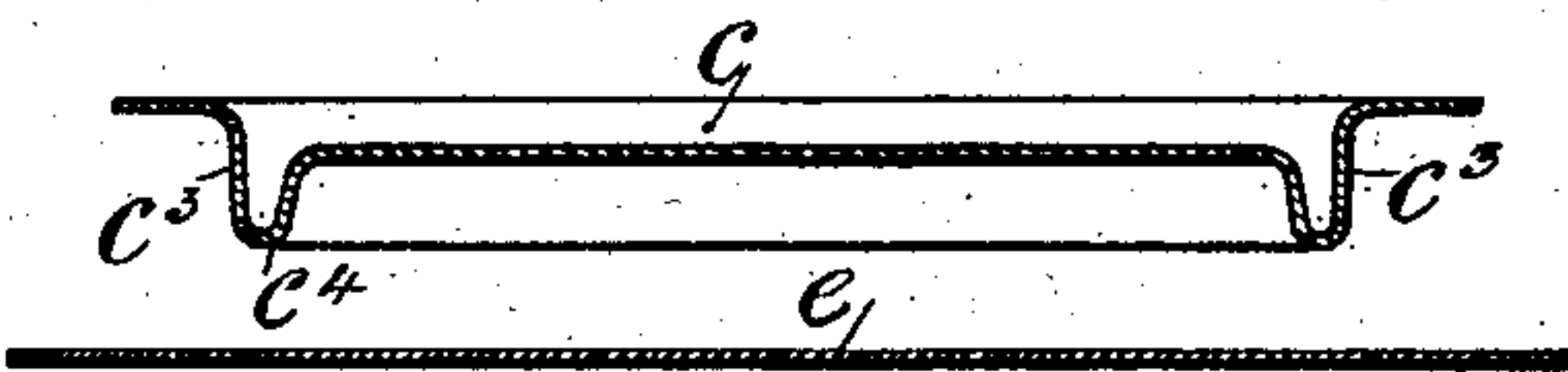


Fig. 3.

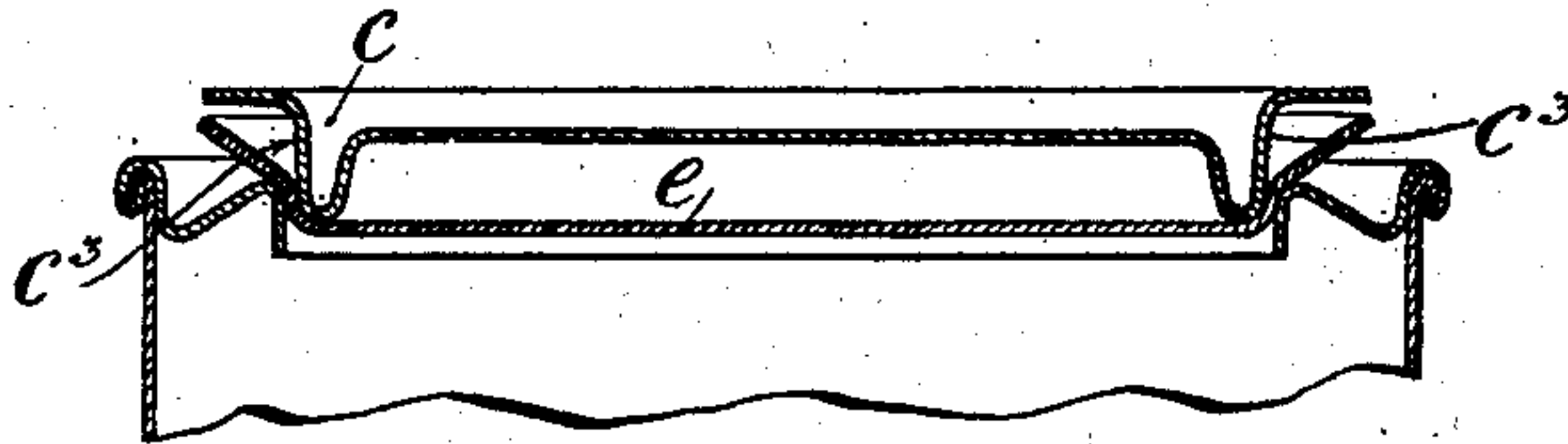


Fig. 4.

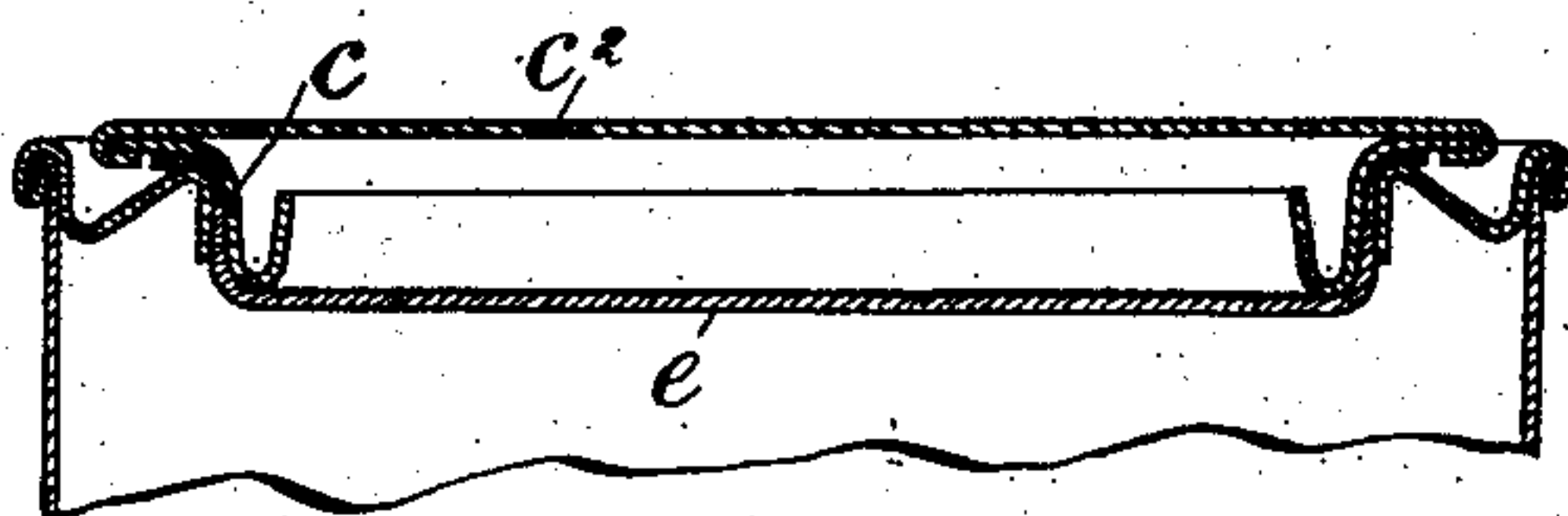
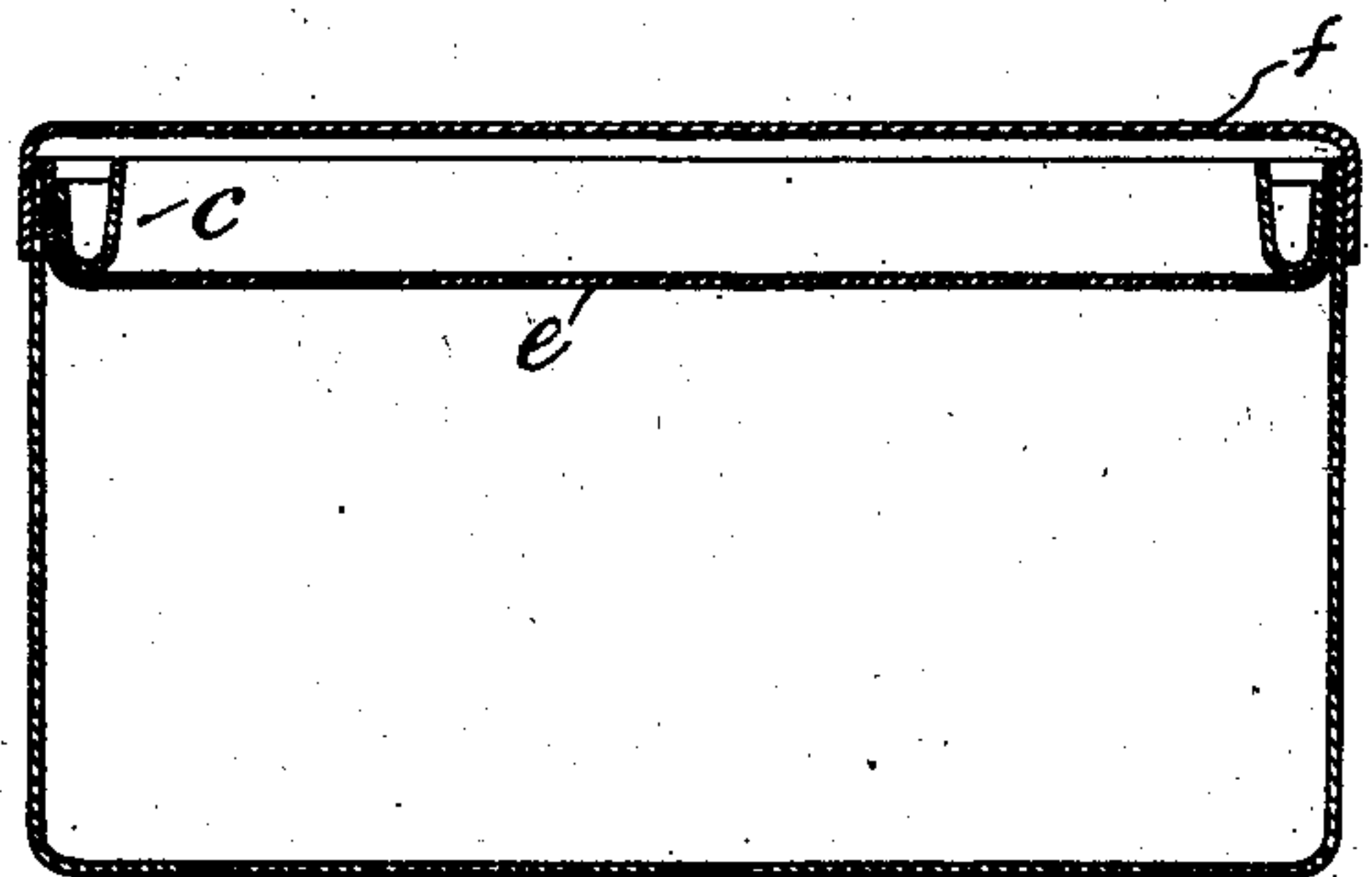


Fig. 5.



WITNESSES

N. L. Bogan
W. B. Keefe

INVENTOR.

Arthur Fogg.
By James L. Norris.
Att'y

UNITED STATES PATENT OFFICE.

ARTHUR FOGG, OF SHELTON, STOKE-UPON-TRENT, ENGLAND.

AIR-TIGHT BOX, TIN, OR CANISTER.

SPECIFICATION forming part of Letters Patent No. 721,507, dated February 24, 1903.

Application filed July 22, 1902. Serial No. 116,576. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR FOGG, dentist, a subject of the King of Great Britain, residing at 1 Havelock Place, Shelton, Stoke-upon-Trent, in the county of Stafford, England, have invented certain new and useful Improvements in Air-Tight Metal Boxes, Tins, or Canisters, of which the following is a specification.

- 10 The object of the improvements is to provide air-tight metal boxes, tins, and canisters with an inexpensive and effective method of closing air-tight their openings, to which detachable lids are usually fitted.
- 15 According to the improvements an opening in a metal box, tin, or canister is closed and sealed air-tight by forcing a soft-metal covering into and across the entire entrance of the said opening in a particular way by a rigidly-built wedging ring or disk of the same shape externally as the opening. The soft-metal covering, which is both ductile and compressible, is first laid flat over the entrance to the opening so as to more than entirely cover the said entrance, after which the wedging ring or disk which fits the entrance a fairly good fit even without the covering and which is inclined on its exterior surface is forced into the opening from the entrance end wedge-like and so as to drive or take in with it the soft-metal covering and wedge and pinch a portion of it between the inner walls of the opening and the exterior surface of the wedging ring or disk, the substance of the covering being sufficiently soft, ductile, and compressible to form a perfect air-tight closure to the opening. If the wedging-piece is a ring, a loosely-fitting cap may protect the opening closed air-tight, but if a disk this cap would not be needed.

A box, tin, or canister whose opening is closed air-tight, as aforesaid, can be reopened at any time by forcing out of the opening the wedging piece, ring, or disk, the invention providing air-tight boxes, tins, and canisters with detachable air-tight lids.

The soft-metal covering may be of meter metal, tin-foil, or of any other suitable metal substance which possesses the necessary ductile properties for making a perfect air-tight joint.

In the drawings accompanying and form-

ing a part of this specification, Figure 1 is an elevation of a box or tin including my invention, the upper part of the same being broken away to more clearly illustrate the invention. Fig. 2 is a sectional detail of the upper part of the box, showing the parts separated. Fig. 3 is a like view showing such parts assembled; and Figs. 4 and 5 are detail views, in sectional elevation, of a modification herein-after more particularly described.

The improvements will now be made quite clear by the aid of the annexed sheet of drawings, upon which three forms of the invention are shown.

In Figs. 1 to 3 the wedging-piece *c* is a metal disk, while in Figs. 4 and 5 the said wedging-piece is a metal ring, it, however, in Fig. 4 being covered in at the top by a metal plate *c*². The exterior surface *c*³ of each wedging-piece is tapered and of a diameter to fit (a fairly good fit) the opening *d* in the box, tin, or canister *a*.

e is a soft-metal covering, which is in the manner indicated by Fig. 3 driven into the opening *d* from the mouth thereof by the wedging action of the piece, ring, or disk *c*, Fig. 1 showing clearly the position of the soft-metal covering when the wedging-piece has been forced fully home within the opening. The covering *e* by the wedging action in the opening *d* becomes stretched across the wedging ring or piece, so as to entirely cover the contents of the box, tin, or canister, this stretched part of the said covering in the form of the invention Fig. 5, where the box *a* after being closed air-tight according to the invention is provided with a covering-cap *f*, being able to be cut with a knife in order to get at the contents of the box without lifting the wedging-piece.

The sides *d*² of the opening *d* are shown in the drawings as parallel; but they may slightly taper in the same direction as the exterior surface *c*³ of the wedging-piece.

The box, tin, or canister may be of any shape or cross-section; but the circular shape is the easiest form for the application of the invention.

The wedging ring or disk *c* can be produced from a flat blank or flat ring of metal by shaping the said blank or ring into a U or trough section at *c*⁴, as shown; but so long as the said

ring or disk is a rigid wedging-piece conforming on its wedging-surface to the shape of the opening & its construction is immaterial.

5 Both ends of boxes, tins, or canisters suitable for containing tobacco, meats, fruits, baking-powders, and similar substances can be hermetically sealed or made air-tight and removable by the method hereinbefore described.

10 Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

A metal box, tin or canister having an opening, the wall of which is approximately ver-

tically disposed, a ductile and compressible 15 metal covering for said opening and of a greater size than the latter, and a wedging-piece to fit the opening a tight fit and serving to wedge the said covering between the wall of the opening and the periphery of the 20 wedge-piece.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ARTHUR FOGG.

Witnesses:

HENRY R. KING,
J. F. CHILWELL.