(No Model.)

L. BOUNEU.

MEANS OR APPARATUS FOR HERMETICALLY CLOSING BOTTLES.

No. 574,379. Patented Jan. 5, 1897.

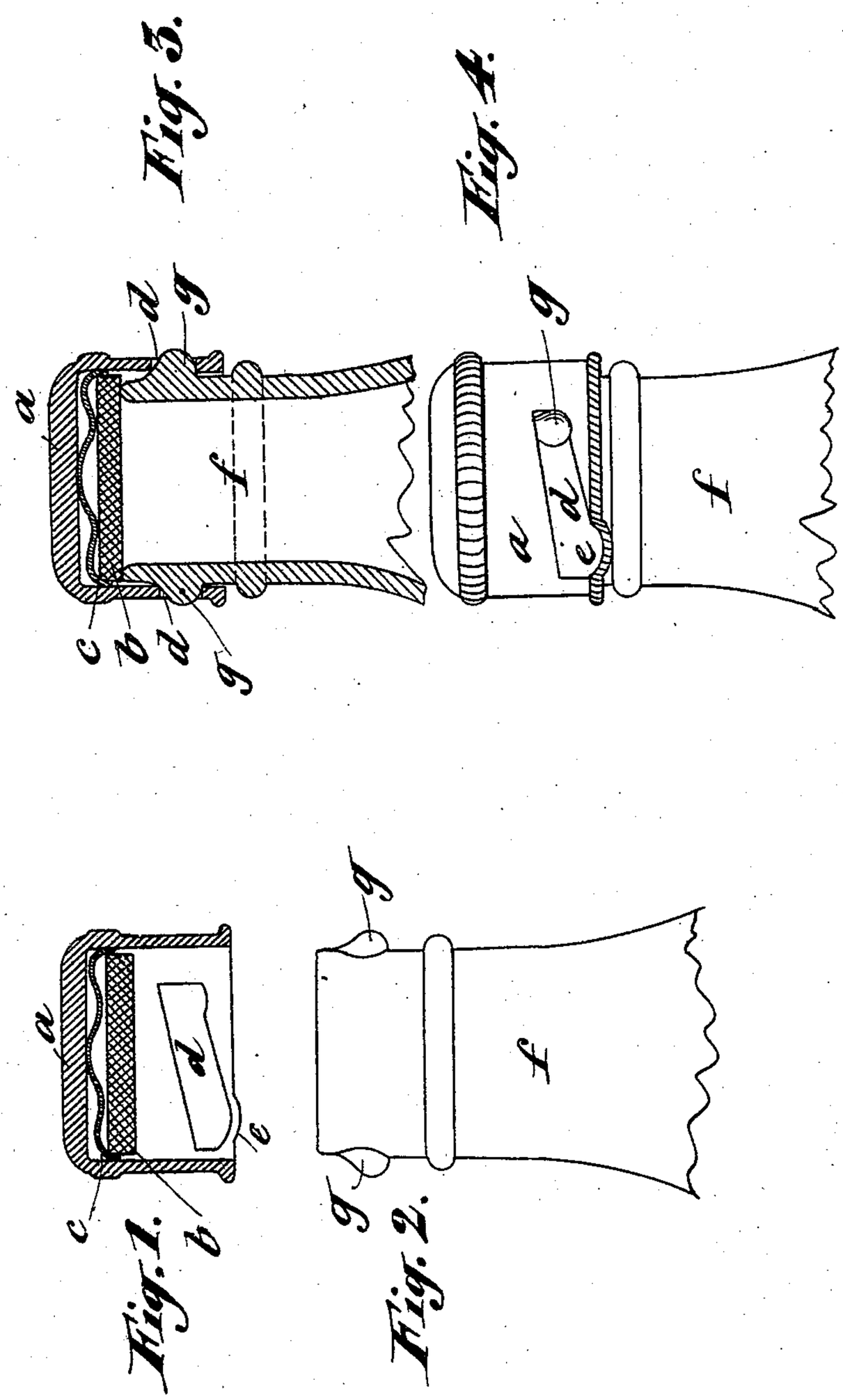

Fig. 1.

Fig. 2.

Fig. 4.

Fig. 3.

Witnesses
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LOUIS BOUNEU, OF BRUSSELS, BELGIUM.

MEANS OR APPARATUS FOR HERMETICALLY CLOSING BOTTLES.

SPECIFICATION forming part of Letters Patent No. 574,379, dated January 5, 1897.

Application filed July 21, 1896. Serial No. 600,045. (No model.) Patented in Belgium September 11, 1895, No. 117,380, September 12, 1895, No. 117,389, and April 27, 1896, No. 121,075; in England October 10, 1895, No. 19,034; in France October 19, 1895, No. 251,077; in Luxemburg October 30, 1895, No. 2,406, and in Spain March 14, 1896, No. 18,271.

To all whom it may concern:

Be it known that I, LOUIS BOUNEU, a citizen of France, residing at Brussels, Belgium, have invented new and useful Improvements in Means or Apparatus for Hermetically Closing Bottles and Like Vessels, (for which I have obtained patents in Belgium September 11, 1895, No. 117,380, September 12, 1895, No. 117,389, and April 27, 1896, No. 121,075; in France October 19, 1895, No. 251,077, and June 6, 1896; in Great Britain October 10, 1895, No. 19,034; in Luxemburg October 30, 1895, No. 2,406, and in Spain March 14, 1896, No. 18,271,) of which the following is a specification.

Many methods of closure for bottles, jars, barrels, and other vessels or receptacles are based on the use of a cap which is secured around the opening or mouth of the vessel by rotation and pressure. To render the closure air-tight, the interior of the cap is furnished with a washer of cork, caoutchouc, or analogous elastic material; but the use of the said washer is attended by the inconvenience or defect that when it is desired to secure the cap tightly by turning it on the opening or mouth of the vessel the cork or caoutchouc, which is compressed between the circular edge or rim of the opening or mouth of the vessel and the inner face of the top of the cap, does not follow the rotation of the cap, and consequently torsion of the said washer is produced, which causes the closure to be imperfect.

The object of the present invention is to remedy the said defect; and the said invention consists in the introduction into the cap between the inner face of the top thereof and the cork or caoutchouc of a stamped metal washer, the central part of which is made slightly convex or conical, so that only the said part will be in contact with the inner face of the top of the cap. It has also a second circular convexity, and its edges may be bent down so as to form a cup, into which the cork or caoutchouc washer is introduced.

The accompanying drawings illustrate my invention as applied to a cap for closing bottles.

Figure 1 is a longitudinal section of the cap. Fig. 2 shows the neck of a bottle constructed to receive the cap Fig. 1. Fig. 3 shows in longitudinal section the cap Fig. 1 in position upon the bottle Fig. 2, and Fig. 4 is an elevation of the same.

In the figures, *a* is the cap, *b* the washer of cork, india-rubber, or other similar material, and *c* the cupped metal washer which forms the object of my invention.

f is the bottle, the neck of which is provided with projecting studs or stops *g*, that enter the grooves *d* of the cap *a*, which is then turned until the studs arrive at the upper ends of the grooves *d*.

Owing to the double convexity of the metal washer *c*, when the compressible cork washer *b* is pressed on the rim of the bottle-neck or of the mouth or opening of the vessel or receptacle by the turning of the cap *a* the said compressible washer *b* enters more or less the hollows of the metal washer *c*, and thus the edges of the compressible washer are caused to recede from the walls or inner face of the sides of the cap, both the said washers then forming, virtually, but one piece, which remains stationary on the rim of the bottle mouth or opening, while the cap turns upon the top or apex of the central convexity of the metal washer.

I claim—

In combination a cap, a washer of cork, rubber or the like and a washer of inverted-cup shape and of corrugated form fitting over the cork washer and engaging the same with its edges while its central part bears on the interior of the cap, the contact between the cap and corrugated washer allowing the cap to turn on the central part of the washer substantially as described.

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