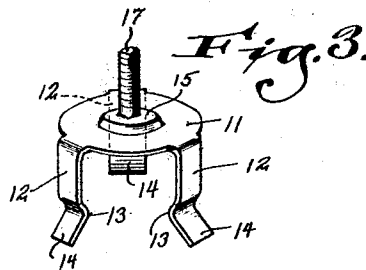
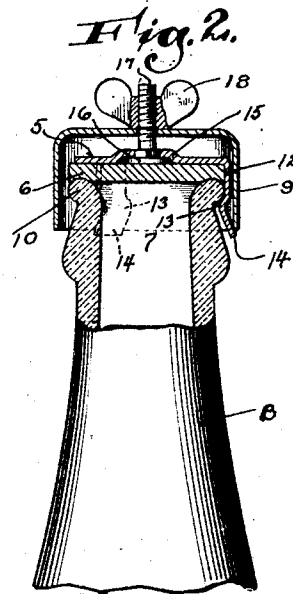
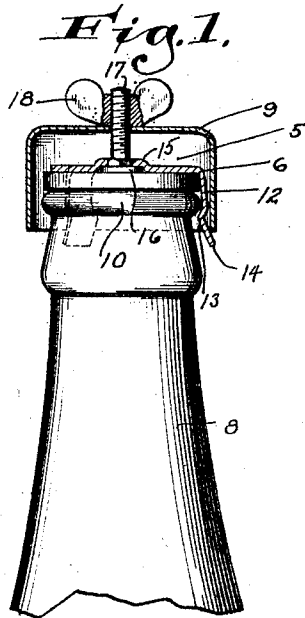


L. SIMENOWSKY.
BOTTLE CLOSURE.
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1,408,910.

Patented Mar. 7, 1922.



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UNITED STATES PATENT OFFICE.

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Specification of Letters Patent.

Patented Mar. 7, 1922.

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To all whom it may concern:

Be it known that I, LOUIS SIMENOWSKY, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Bottle Closures, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

10 This invention relates to certain new and useful improvements in closures for containers, and refers more particularly to means for hermetically sealing a bottle.

15 It is one of the objects of this invention to provide a closure for a bottle so designed that the same may be readily attached thereto to hermetically seal the same, and at the same time be capable of easy removal.

20 Another object of this invention is to provide a bottle closure for hermetically sealing a bottle and one which is capable of use an unlimited number of times.

25 It is a further object of this invention to provide a bottle closure which is formed of but a few parts, all of which are capable of being stamped from sheet metal, whereby the same may be produced at a comparatively low cost.

30 A still further object of this invention is to provide a bottle closure so constructed and designed as to maintain its hermetic seal with the bottle mouth irrespective of the pressure within the bottle.

35 With the above and other objects in view which will appear as the description proceeds, my invention resides in the novel construction, combination and arrangement of parts substantially as hereinafter described and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the hereindisclosed invention may be made as come within the scope of the claims.

45 In the accompanying drawing, I have illustrated one complete example of the physical embodiment of my invention constructed according to the best mode I have so far devised for the practical application of the principles thereof, and in which:

50 Figure 1 is a view of a portion of a bottle equipped with my improved closure, parts of the closure being broken away and in section;

55 Figure 2 is a view similar to Figure 1, a portion of the bottle being broken away and

in section and the improved closure being shown in section; and

Figure 3 is a perspective view of the bottle engaging retainer or clamp member detached.

60 Numerous devices have been designed for hermetically sealing bottles, but they have all been open to objection in that they either required expensive machinery to apply them or else, while capable of hermetically 65 sealing the bottle, would not hold when subjected to pressure from within.

Hence my improved closure is designed to be capable of instant attachment without the need of any machinery whatsoever and capable of withstanding any degree of pressure from within the bottle. This invention consists of a bottle engaging retainer or clamp member 5, a washer 6 of rubber or the like which is carried by the member 5 75 for engagement over the mouth 7 of the bottle 8, a guard or cap 9 for enclosing the member 5 and washer 6, and means for causing the retainer or clamp member to bind against the bottle neck and force the washer 80 6 into engagement with the rim 10 surrounding the mouth of the bottle.

The retainer clamp member 5 is formed from a single piece of material and has a central disc or circular portion 11 provided 85 with a plurality of depending prongs 12, the ends of which are directed inwardly, as at 13, then outwardly, as at 14, for the purpose to be later described. The central portion 11 of the member 5 is raised or bulged, as 90 at 15, and in the recess formed by said raised portion, the head 16 of a bolt 17 is positioned. The shank of the bolt 17 adjacent its head is preferably squared and the opening in the bulged portion 15 through which 95 the shank passes is correspondingly shaped to prevent the rotation of the bolt when its winged nut 18 is being placed thereon or removed therefrom.

The washer 6 is placed against the under- 100 side of the disc 11 and is held in position by the prongs 12, and also serves to retain the bolt 17 in position, see Figure 2. In practice, the member 5 is placed over the 105 mouth of the bottle, when prongs 12 will spring over the rib 10 and the shoulders or inbent portions 13 will engage behind the rib 10. With the parts in this position, the cap or guard 9 is placed thereover with the bolt 17 projecting through an aperture in 110

the top thereof and the winged nut 18 is then screwed down to force the cap over the prongs.

5 The diameter of the cap or guard 9 is less than the diameter formed by the outermost points of the ends 14 of the prong members, so that when the nut 18 is screwed down, the edge of the cap member will force the prongs inwardly and thus firmly secure the closure
10 of the bottle against removal and hermetically seal the same by firmly pressing the washer 6 against the bottle mouth.

When it is desired to remove the closure, the nut 18 is unscrewed, when the cap or
15 guard 9 will be disengaged from the prongs 14 and the entire closure may be disengaged by springing the shoulders 13 over the rib 10.

From the foregoing description taken in connection with the accompanying drawing,
20 it will be at once apparent to those skilled in the art to which an invention of this character appertains that I provide an improved form of bottle closure for positively hermetically sealing a bottle, and which may be
25 readily attached without the aid of any machinery whatsoever and which may be used an unlimited number of times.

What I claim as my invention is:

30 1. A device of the class described, comprising a retainer provided with depending prongs engageable over the top of a bottle, a washer carried by the retainer for closing

the mouth of the bottle, a cap positioned above the retainer, and means for drawing the retainer towards the cap to press the
35 prongs into engagement with the bottle and form an air tight joint between the washer and bottle mouth.

2. A device of the class described, comprising a retainer having depending prongs
40 engageable over the top of the bottle, a sealing washer carried by the retainer between said prongs, a cap member engageable over said retainer to have the peripheral edge thereof engage said prongs, and means on
45 top of the cap member for drawing said cap over the retainer to force said prongs into resilient engagement with the bottle and secure the device thereon.

3. A bottle closure, comprising a retainer
50 having depending prongs engageable over the top of a bottle, a sealing washer carried by the retainer between said prongs, a cap member extending over said retainer and engaging the prongs, a bolt connected to the
55 retainer and extending through the cap member, and a nut threaded on the bolt and positioned on top of the cap member for drawing the retainer into the cap member to force the prongs closer together and the
60 sealing means into close contact with the bottle.

In testimony whereof, I affix my signature.
LOUIS SIMENOWSKY.