

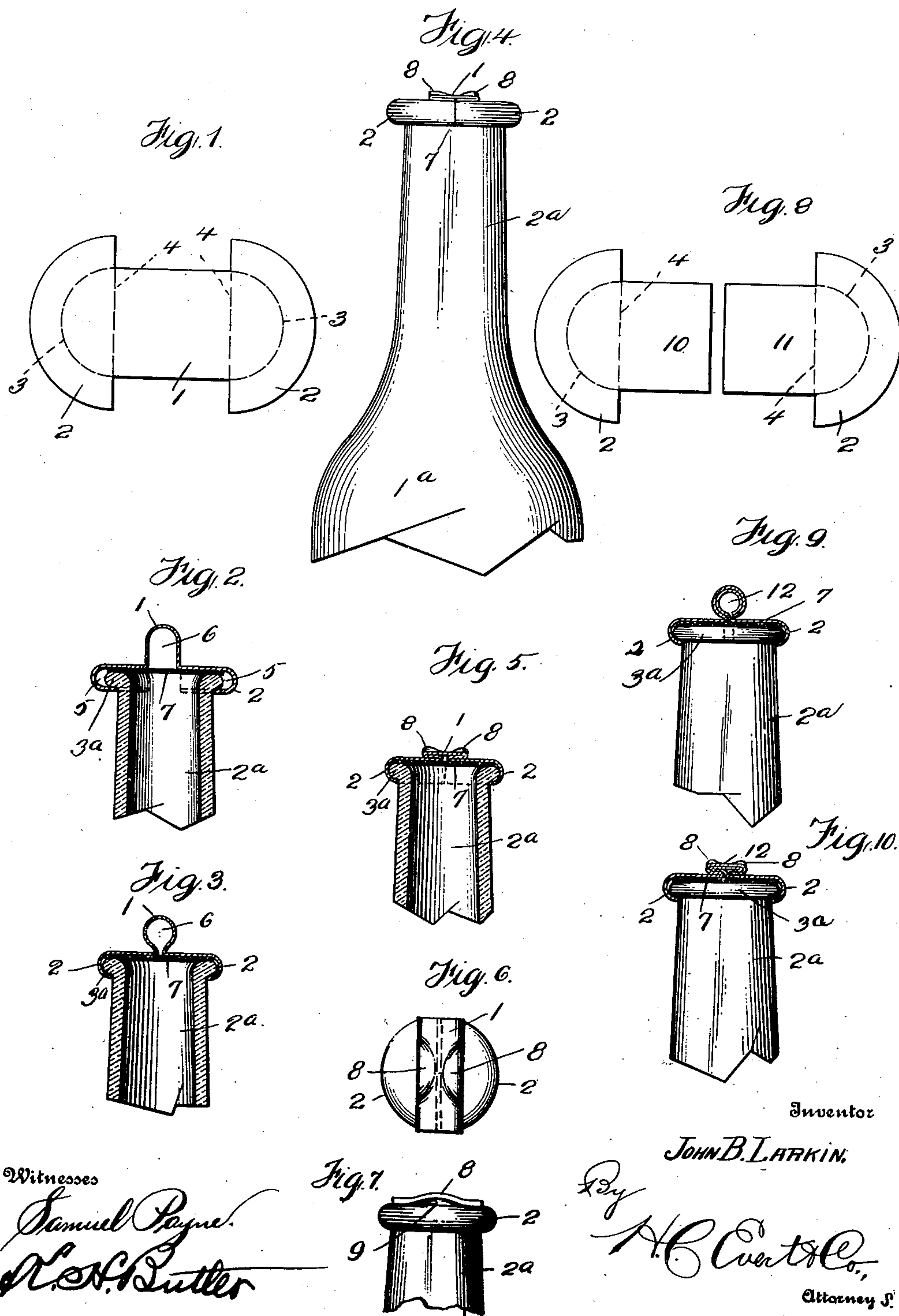
No. 896,304.

PATENTED AUG. 18, 1908.

J. B. LARKIN.

CLOSURE FOR BOTTLES, JARS, AND SIMILAR RECEPTACLES.

APPLICATION FILED OCT. 10, 1907.



UNITED STATES PATENT OFFICE.

JOHN B. LARKIN, OF PITTSBURG, PENNSYLVANIA.

CLOSURE FOR BOTTLES, JARS, AND SIMILAR RECEPTACLES.

No. 896,304.

Specification of Letters Patent.

Patented Aug. 18, 1908.

Application filed October 10, 1907. Serial No. 396,811.

To all whom it may concern:

Be it known that I, JOHN B. LARKIN, a citizen of the United States, residing at Pittsburg, in the county of Allegheny, Pennsylvania, have invented certain new and useful Improvements in Closures for Bottles, Jars, and Similar Receptacles, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to closures for bottles, jars and similar receptacles, and more particularly to closures for bottles containing waters, carbureted beverages, and malt liquors.

15 The primary object of my invention is to provide a simple and inexpensive closure that can be easily and quickly placed in engagement with a bottle to hermetically seal the same against pressure from the inside and thereby prevent leakage of gas or liquids contained therein.

My invention aims to provide a novel closure and cushion that can be repeatedly used. This advantage presented by my invention over the well known metallic cap now universally used, resides in the fact that after the closure has been removed from the bottle, it can be easily replaced upon the bottle and used as an ordinary stopper until the entire contents of the bottle has been used. It will therefore be apparent that the stopper is not only applicable for bottles containing charged waters, carbureted beverages, and malt liquors, but can be advantageously used in connection with bottles containing high grade wines and spirituous liquors.

The invention in its broadest aspect involves two elements, namely a cushion and a metallic cap or closure.

40 The novel construction of the cap or closure permits of its use in connection with bottles of irregular or varying sizes, and in its entirety can be constructed and finished to present a neat and attractive appearance according to one's esthetic taste.

45 The preferred embodiments of my invention are illustrated in the accompanying drawings, but I desire it to be understood that the invention is susceptible to numerous changes without departing from the scope of the invention.

50 In the drawings, Figure 1 is a plan of a blank piece of metal ready to be bent to form the closure, Fig. 2 is a vertical sectional view of the closure, as applied to the neck and mouth of a bottle, Fig. 3 is a similar view

illustrating the closure as firmly embracing the neck and mouth of a bottle, Fig. 4 is a side elevation of a closure as entirely sealed upon the neck and mouth of a bottle, Fig. 5 60 is a vertical sectional view of the same, Fig. 6 is a plan view of the closure as sealed, Fig. 7 is a front elevation of the closure as sealed, Fig. 8 is a plan view of a slightly modified form of closure, Fig. 9 is a vertical sectional 65 view of the same, showing the closure as embracing the neck and mouth of a bottle, and Fig. 10 is a similar view showing the modified form of closure sealed.

In practice, I construct the closure of a 70 piece of suitable material, preferably of metal which can be cut and sheared from a suitable sheet, to conform to the desired shape prior to bending the same to engage the neck or mouth of a bottle. The closure prior to bending comprises a bridge 1 having semi-circular cap-members 2, the diameter of these semi-circular members being greater than the width of the bridge 1, whereby the edges of the semi-circular members can be bent upon 80 semi-circular lines 3 issuing from the edges of the bridge 1. Further, the closure is adapted to be bent upon the dotted lines 4, 4 whereby the bridge 1 can be used for manipulating the semi-circular members 2 of the 85 closure.

After the blank has been cut to conform to the configuration shown in Fig. 1 of the drawings, the edges of the semi-circular members 2 are reamed or bent to provide 90 semi-circular flutes 5, and the bridge 1 is bent to provide a loop 6. The closure is now in condition to be placed upon the neck and mouth of a bottle.

In order that the invention may be fully 95 understood, I have illustrated the breast 1^a of the bottle and the neck 2^a as terminating in a flare beaded mouth 3^a. Prior to placing the closure over the mouth of the bottle, I place a washer or seal 7 over the mouth of 100 the bottle, said washer or seal being made of cork, vulcanized fiber or a similar flexible and non-absorbent material.

Before further describing the manner of placing the closure upon a bottle, I desire to 105 call attention to the fact that the formation of the closure, *ut supra*, permits of said closure being applied to bottles of various sizes, the loop 6 allowing of the semi-circular cap-members 2 being separated sufficiently 110 to embrace a bottle having a mouth of a large diameter, also permitting of said mem-

bers being moved in close proximity to one another to embrace a bottle having a mouth of a small diameter. It is therefore apparent that a single closure will fit a number of
5 sizes of bottles.

After the washer or seal 7 has been placed in position, and the closure placed over the mouth and seal of the bottle, the sides of the bridge 1 forming the loop 6 are pressed together, as illustrated in Fig. 3 of the drawings, until the beaded edge of the bottle mouth is snugly embraced by the fluted edges of the closure. The next operation is to lock the closure upon the bottle neck, and
10 this is accomplished by pressing the loop 6 into a flattened position, thus doubling or folding the material upon itself as illustrated in Figs. 4 to 7 inclusive. This flattened or doubled position of the excess material produced by forming the loop prevents the closure from becoming accidentally displaced from the bottle, but owing to the manner in which the loop is flattened, the closure can be easily removed at any desired time.
15 In flattening the loop 6, said loop is evenly divided, that is, one half of said loop resting upon one semi-circular cap-member, and the other half of said loop resting upon the opposite semi-circular cap-member. In pressing
20 the loop into this position I allow the central portion 8 upon each side of the loop to remain in a slightly elevated position, (see Fig. 7), whereby recesses or finger tip openings are provided, permitting of the insertion of
25 the finger or thumb tips for removing the closure. It is obvious, however, that any suitable implement can be used for prying off or removing the closure.

Reference will now be had to Figs. 8 to 10 inclusive, wherein I have illustrated a modified form of closure, constructed somewhat similar to the preferred form. This modified form of closure is made in two parts, equivalent to dividing the bridge 1 of the
40 preferred form of construction. The semi-circular cap-members 2 are placed into engagement with the neck of a bottle by pressing the parts 10 and 11 of the bridge together and then bending these parts to form a loop
45 12, as illustrated in Fig. 9. The loop can then be crushed or pressed (see Fig. 10) to firmly retain the closure upon the neck of a bottle.

The modified form of closure can be made
50 with some economy of material and possibly labor, but the distinct advantage gained in either the preferred or modified form is through the use of a sufficient amount of material to draw the semi-circular cap-members of the closure over the mouth of a
55 bottle. This excess amount of material serves functionally as a lever for placing the semi-circular cap-members snugly in engagement with the mouth of a bottle. For temporarily placing the seal upon the neck of a
60

bottle, the fingers may be used for forming the loop 6 and crushing the same, but where a bottle is to be hermetically sealed, it is advisable to use a pair of pincers or a similar instrument (not shown).
70

I desire to call attention to the fact that my cap or closure differs from other caps or closures in so much that the semi-circular ends can be pressed or formed into a depending collar to fit over the neck of a bottle, before being placed on the bottle, thus avoiding the strain in the manipulation of the present practice, which often causes a bottle to break.
75

Another advantage in the novel formation of the cap or closure resides in the fact that it may be moved over the mouth of a bottle to its center, by entering the smallest diameter of the bottle into the semi-circular parts of the cap or closure at their largest diameter, thus adjusting and tightening the parts of the cap or closure, as they reach the closing line at the center of the bottle mouth, (see Figs. 2 and 3 of the drawings).
80 85

The employment of an excess amount of material in the construction of the closure allows the fluted edges of the closure to nicely adjust themselves to the shape and periphery of the neck of a bottle, and while I have not herein specified the character of the metal used in manufacturing the closure, I generally employ a pliable non-corrosive metal or a metal that can be enameled or coated to present a neat appearance. Upon the semi-circular cap-members of the closure can be printed an advertisement or the name of the contents of the bottle in connection with which the closure is used.
90 95 100

The invention as above described is susceptible to such changes as are permissible by the appended claims.
105

Having now described my invention what I claim as new, is:—

1. The combination with a bottle, of a seal fitting upon the mouth thereof, a closure for retaining said seal in engagement with said bottle, said closure comprising a piece of metal cut to provide a bridge having semi-circular cap-members, the said semi-circular cap-members being bent to embrace the neck of said bottle, and said bridge having a portion thereof between the cap-members bent to provide a loop adapted to be pressed to retain said semi-circular cap-members in engagement with the neck of said bottle.
110 115

2. The combination with a bottle, and a seal closing the mouth thereof, of a closure adapted to fit over the mouth of said bottle, said closure comprising a piece of metal cut to provide a bridge having semi-circular cap-members bent to embrace the neck of said bottle, the said bridge between the cap-members thereof being bent to provide a loop adapted to be pressed to retain said closure upon the neck of said bottle.
120 125

3. The combination with a bottle, and a
130

seal closing the mouth of said bottle, of a metallic closure fitting upon said bottle and embracing the neck thereof, said closure comprising a bridge with cap-members embracing the neck of said bottle, said bridge between the cap-members thereof being bent and pressed to retain said closure in engagement with said bottle.

4. The combination with a bottle, of a closure adapted to fit upon the neck thereof, said closure comprising a bridge having semi-circular cap-members bent to embrace the neck of said bottle, said bridge between the cap-members being bent and pressed to retain said cap-members in engagement with said bottle.

5. The combination with a bottle, of a closure adapted to fit over the mouth thereof, said closure comprising a bridge having semi-circular cap-members bent to embrace the neck of said bottle, said bridge between the semi-circular cap-members being bent to retain said cap-members in engagement with said bottle, and to provide finger tip recesses.

6. A closure for bottles embodying a seal, a piece of metal bent to provide a bridge having semi-circular cap-members, said cap-members being reamed for embracing the neck of a bottle, said bridge intermediate of said cap-members being bent to provide a loop adapted to be pressed to retain said seal in said closure, and finger recesses for opening said closure.

7. A closure embodying a seal, a piece of metal bent to embrace said seal, said piece of metal comprising a bridge having bent cap-members, said bridge intermediate of said cap-members being bent and pressed to lock said closure.

8. A closure for bottles comprising a piece of metal cut to provide a bridge having semi-circular cap-members adapted to be reamed, said bridge intermediate of said cap-members being bent to draw said reamed members in close proximity to one another, and pressed to lock said members in said drawn position.

9. A closure for bottles comprising a piece of metal cut and bent to provide a loop having reamed semi-circular cap-members, said loop being pressed to retain said cap-members in close proximity to one another.

10. A bottle closure formed from pliable metal and comprising two substantially semi-circular members crimped to engage a bottle neck, and a bridge member integral at its ends with the semi-circular members and

of a length to permit its being looped to draw the semi-circular members towards each other to clamp them on a bottle neck.

11. A bottle closure formed from pliable material and comprising two substantially semi-circular cap-members and a bridge member of less width than the greatest diameter of the cap-members, the bridge member connected at its ends to the cap-members, and being of a length to permit its being bent so as to draw the cap-members towards each other into clamping engagement with a bottle neck.

12. A bottle closure comprising two semi-circular cap-members and a bridge connecting the members of a length to provide sufficient material to be bent upon itself for drawing the cap-members into juxtaposition and securing the same upon a bottle neck.

13. A bottle closure formed from pliable metal shaped to form two spaced cap-members and a connecting bridge member, the length of the bridge member being greater than the greatest width of either cap-member whereby an excess of material is provided in the bridge member to be looped for drawing the cap-members together.

14. A bottle closure formed from pliable metal shaped to form spaced cap-members and a connecting bridge member, the bridge member being of a length to permit its being doubled upon itself to draw the cap-members towards each other.

15. A bottle closure formed from pliable material shaped to form spaced cap-members and a bridge member connecting the cap-members, the bridge member being of a length to permit the same being doubled upon itself to draw the cap members towards each other and secure the same upon a bottle neck.

16. A closure for bottles comprising a seal, a strip of metal bent to provide a loop having cap-members embracing said seal, said loop being pressed to lock the cap-members thereof in engagement with said seal.

17. A cap for bottles comprising a bridge having reamed cap-members, said bridge intermediate said reamed cap-members being bent to move said reamed cap-members in close proximity to one another.

In testimony whereof I affix my signature in the presence of two witnesses.

JOHN B. LARKIN.

Witnesses:

MAX H. SROLOVITZ,
A. J. TRIGG.