

(No Model.)

R. M. SEIBEL & D. C. McCARROLL.
BOTTLE.

No. 594,970.

Patented Dec. 7, 1897.

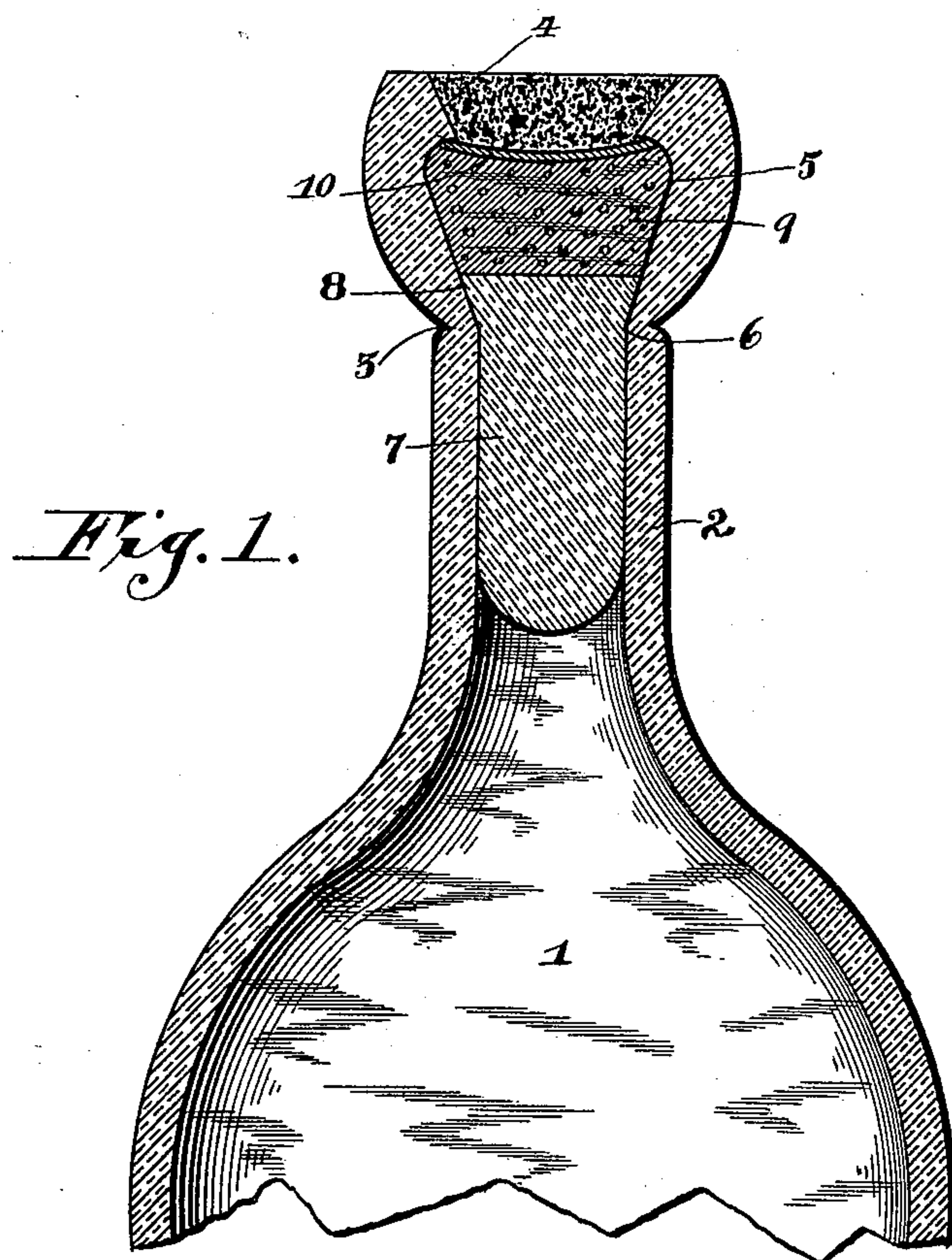


Fig. 2.

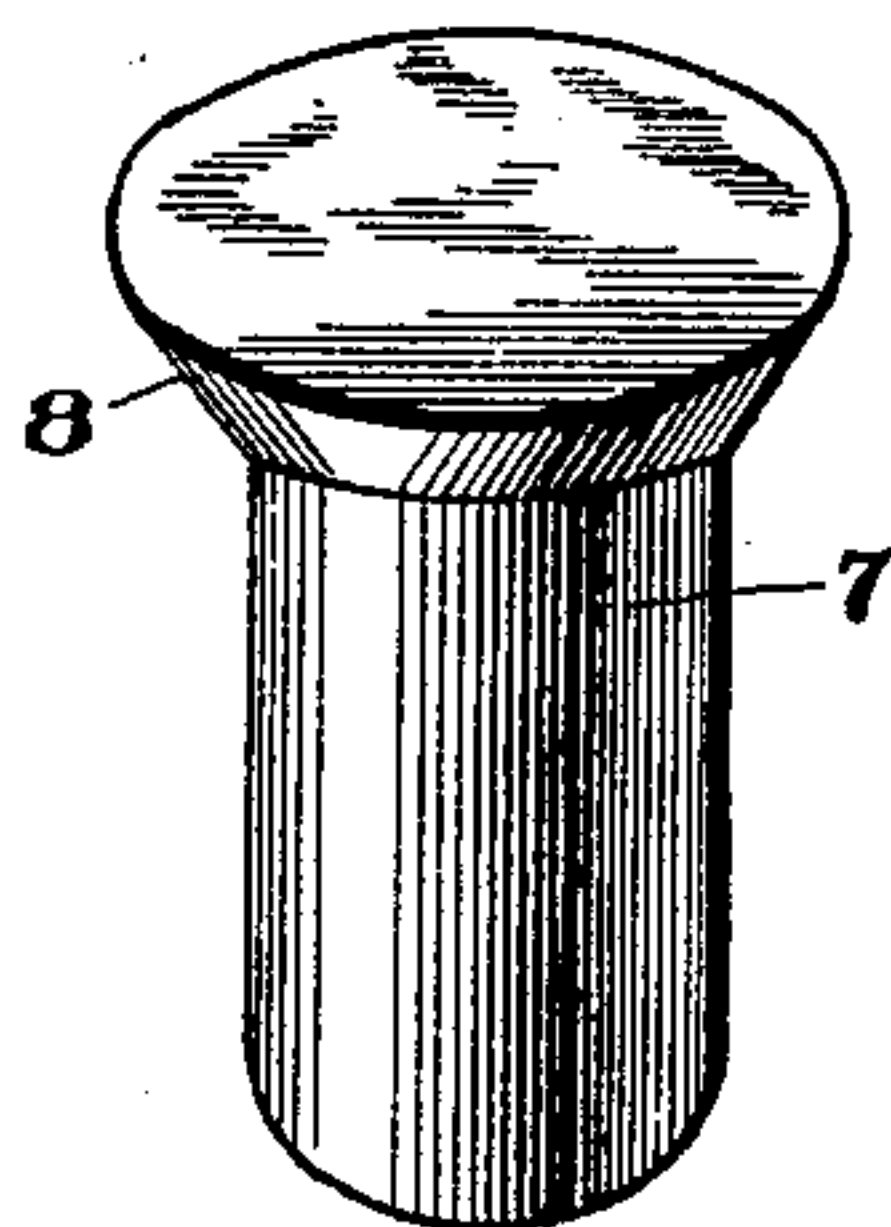
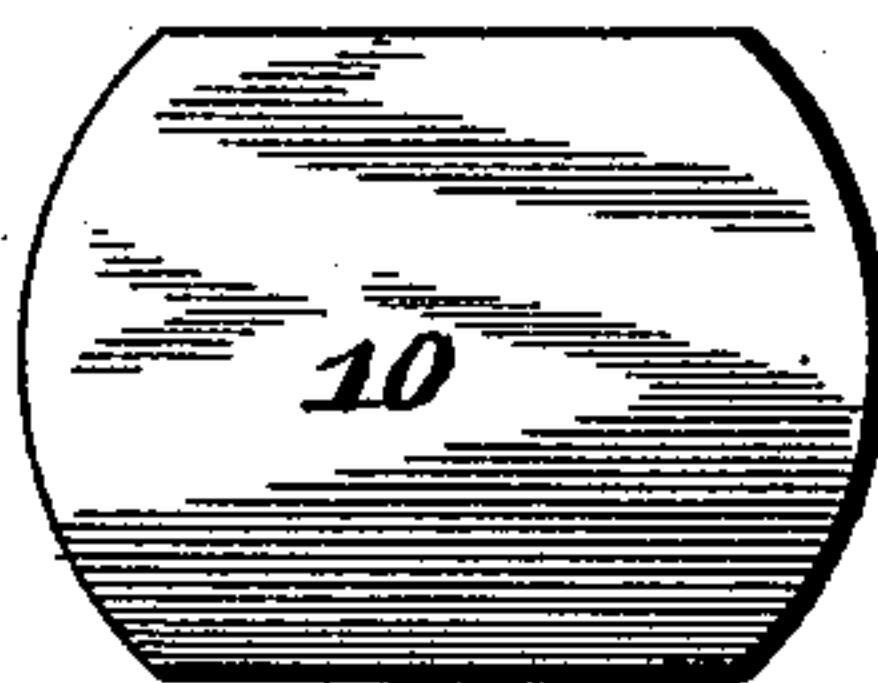


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

RICHARD M. SEIBEL AND DAVID C. MCCARROLL, OF KANSAS CITY,
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BOTTLE.

SPECIFICATION forming part of Letters Patent No. 594,970, dated December 7, 1897.

Application filed December 1, 1896. Serial No. 614,107. (No model.)

To all whom it may concern:

Be it known that we, RICHARD M. SEIBEL and DAVID C. MCCARROLL, citizens of the United States, residing at Kansas City, in the
5 county of Jackson and State of Missouri, have invented certain new and useful Improvements in Bottles; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable
10 others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in non-refillable bottles, and has for its object to improve the general construction of bottles
15 and embody therein useful features whereby the same shall be rendered proof against being refilled after the original contents thereof have been removed; and, further, the invention aims to provide an improved construction of stopper adapted for use with the bot-
20 tle, so that it will be necessary in order to remove the contents to break the neck of the bottle and thereby prevent further use of the latter.

25 With these objects in view the invention consists, substantially, in the novel construction, combination, and arrangement of parts, as will be hereinafter fully illustrated, described, and claimed.

30 In the accompanying drawings, Figure 1 is a vertical sectional view of a bottle having the herein-described improvements applied thereto. Fig. 2 is a detail perspective view of the stopper, and Fig. 3 is a plan view of
35 the locking-disk.

Similar numerals of reference designate corresponding parts throughout the figures of the drawings.

Referring to the drawings, 1 designates the
40 body of a bottle, and 2 the neck thereof, said bottle being formed of any suitable material, and at a point adjacent to the upper portion of the neck the latter is contracted, as indicated by 3, so as to provide a thin portion
45 adapted to be readily fractured by a sharp blow or by the application of a suitable implement, such as a glass-cutter, for severing the same. The mouth of the bottle tapers inwardly, as at 4, and below said tapered por-
50 tion is an annular groove 5, the diameter of which is slightly greater than the diameter

of the mouth, and the lower end of said groove 5 also tapers inwardly to form a shoulder 6, for a purpose to be presently stated, the diameter of the neck 2 below said shoulder 6 being less than the diameter of the
55 mouth and obviously less than the diameter of the groove 5. Disposed in the neck 2 is a loosely-fitting stopper 7, the latter being preferably formed of glass or other material which
60 is impervious to the contents of the bottle, and the said stopper is provided at its upper end with a flange 8, the sides of which are beveled so as to conform to the taper of the groove 5, said flange 8 being adapted to rest
65 upon the tapering portion of said groove and thereby be seated upon the shoulder 6 of the neck 2. Arranged above and seated upon the stopper 7 is a compressible cork 9, the latter being formed of any suitable material—
70 such as cork, rubber, or the like—and seated upon said cork is a spring locking-disk 10, said disk being provided at its center with a depression or other suitable means whereby a die may be placed thereon for forcing the
75 disk into the mouth of the bottle.

It will be noted that two of the opposite sides of the locking-disk 10 are trimmed, so that each will provide a continuous straight edge and thus render the diameter of said
80 disk slightly less than the diameter of the mouth, but only sufficiently less as to pass into said mouth, and when the means for forcing the disk into the mouth of the bottle is seated upon the center of said disk it is ob-
85 vious that the latter may be readily forced over the inwardly-tapering portion 4 of the mouth, and after the ends of the disk 10 have passed the lower edge of said inwardly-tapering portion the same expand beneath said
90 edge and thereby lock the cork 9 upon the stopper 7. By reason of the diameter of the disk 10 being only sufficiently less than the diameter of the mouth as to pass into the latter it will be seen that said disk cannot enter
95 the neck below the shoulder 6, and it will also be observed that after the disk 10 has become expanded within the groove 5 said disk becomes concave and thereby compresses the cork 9 upon the stopper 7, so that said stop-
100 per will be retained in such position that the flange 8 thereof will be seated upon the shoul-

der 6, the cork 9 forming a cushion for said stopper. After the disk 10 has been forced into the neck, as described, the bottle may then be sealed with any suitable substance, it of course being understood that the body 1 of the bottle has previously been filled with the desired contents, and when it is necessary to remove such contents the only possible way to accomplish such end is to sever the neck 2 at the contracted portion 3 in the manner previously described. This of course removes the mouth of the neck and disfigures the latter to such an extent that any attempt to refill the bottle will be at once detected by the appearance thereof, and while the bottle is rendered ineffective for further refilling in a commercial sense it is apparent that a cork may be pressed into the neck of the bottle and the contents thereof removed therefrom in the desired proportions.

From the foregoing description it is apparent that a form of bottle is provided which is exceedingly simple in construction and by which the ordinary construction may be employed with but slight departure therefrom. The bottle and the stopper therefor may be manufactured at a comparatively low figure and the same provide effective means for preventing fraudulent refilling thereof, whereby an inferior quality of goods being substituted for the original contents of the bottle is entirely prevented and the customer protected against adulterated goods being purchased.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In a bottle of the class described, the combination with the neck thereof, of a loosely-fitting stopper adapted to be inserted into said neck, a compressible cork arranged within said neck above the stopper, and means for compressing the cork to lock the latter upon the stopper, said cork forming a cushion for the stopper and adapted to prevent displacement of the latter from its seat, substantially as described.

2. In a bottle of the class described, the combination with the neck thereof, of a loosely-fitting stopper adapted to be inserted into said neck, a compressible cork arranged within the neck above said stopper, and a locking-disk also arranged within the neck above the cork, said locking-disk being adapted to compress the cork within the neck to lock the stopper therein, said cork forming a cushion for the stopper and adapted to re-

tain the latter upon its seat, substantially as described.

3. In a bottle of the class described, the combination with the neck thereof provided with an inner annular groove, of a loosely-fitting stopper adapted to be inserted in said neck, a compressible cork arranged within the neck and above said stopper, and a spring locking-disk also arranged within the neck and disposed above said cork, said locking-disk being adapted to engage the annular groove of the neck and compress the cork therein, whereby said cork is adapted to form a cushion for the stopper and thereby retain the same upon its seat, substantially as described.

4. In a bottle of the class described, the combination with the neck thereof provided with an interior annular groove and an exterior groove, the latter being adapted to permit the neck being fractured, of a loosely-fitting stopper adapted to be inserted into said neck, a compressible cork arranged within the neck above said stopper, and a locking-disk also arranged within the neck and disposed above said cork, said locking-disk being adapted to engage the interior annular groove of the neck and compress the cork therein, whereby said cork is adapted to form a cushion for the stopper and retain the latter upon its seat, substantially as described.

5. In a bottle of the class described, the combination with the neck thereof provided with an interior annular groove, of a loosely-fitting stopper adapted to be inserted into said neck, a compressible cork arranged within the neck above said stopper, and a compressing locking-disk also arranged within the neck above said cork, said locking-disk having two of its opposite sides formed with continuous straight edges, whereby the diameter of said disk is slightly less than the diameter of the mouth to facilitate insertion of the disk therein, said disk being adapted to compress the cork within the neck so as to form a cushion for retaining the stopper upon its seat, substantially as described.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

RICHARD M. SEIBEL.
DAVID C. MCCARROLL.

Witnesses:

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