No. 611,718.

Patented Oct. 4, 1898.

C. O. SWICKARD. NON-REFILLABLE BOTTLE.

(Application filed May 27, 1897.)

(No Model.)

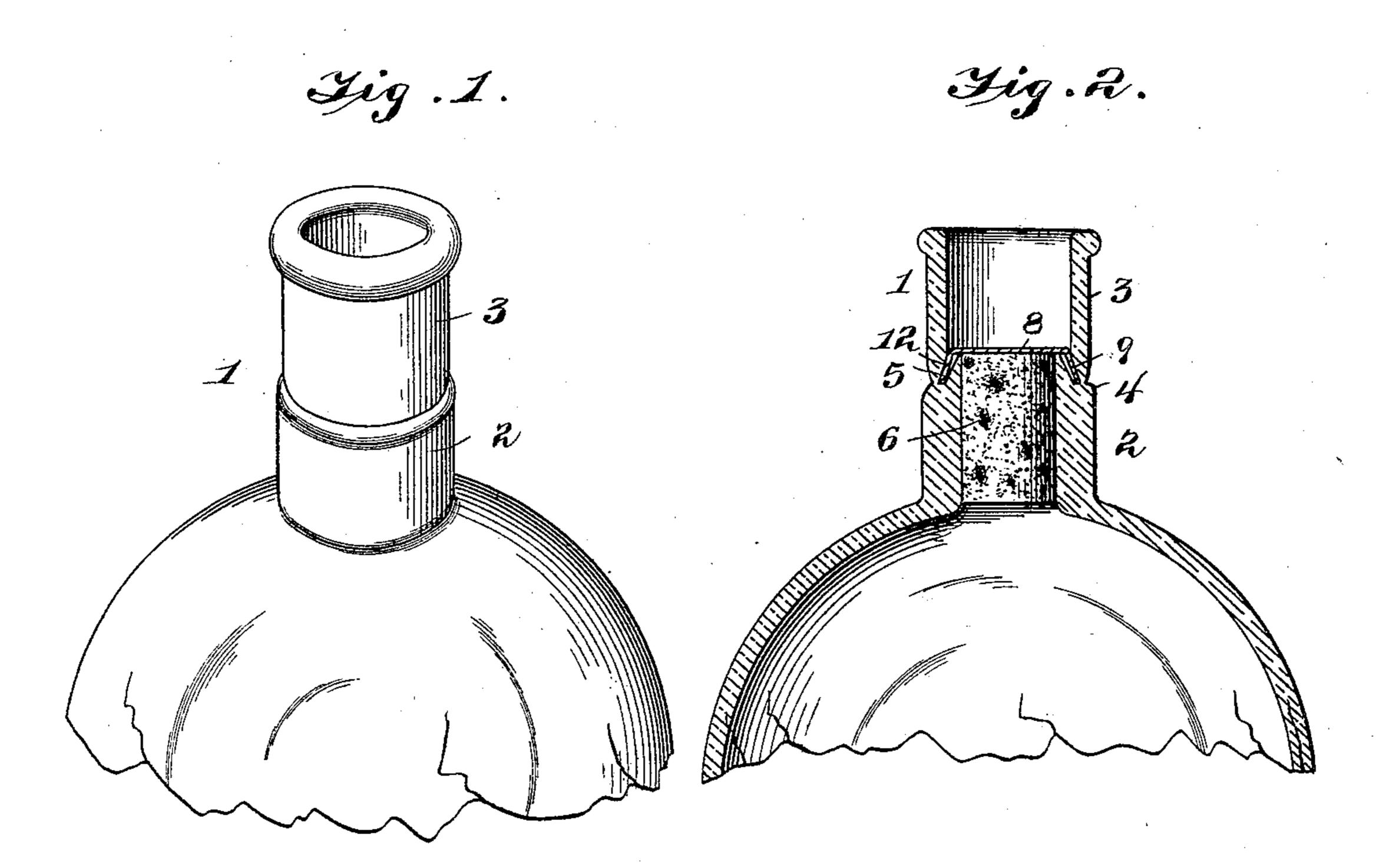
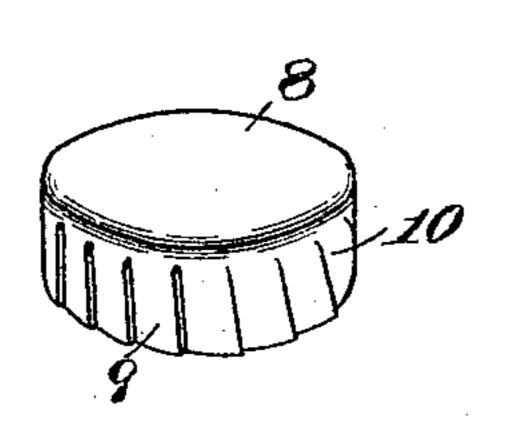


Fig. 3.



Clarence O. Swickard.

Witnesses

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United States Patent Office.

CLARENCE O. SWICKARD, OF JACKSON CENTRE, OHIO.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 611,718, dated October 4, 1898.

Application filed May 27, 1897. Serial No. 638,463. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE O. SWICK-ARD, a citizen of the United States, residing at Jackson Centre, in the county of Shelby and 5 State of Ohio, have invented a new and useful Non-Refillable Bottle, of which the following is a specification.

The invention relates to improvements in

antirefilling bottles.

The object of the present invention is to improve the construction of antirefilling bottles and to provide a simple, inexpensive, and efficient one which when it is opened to obtain access to its original contents will be suf-15 ficiently mutilated to prevent it from afterward being used in trade for the sale of a liquid or other substance in imitation of its original contents, and thereby prevent such a fraud or the adulteration or the like of its 20 original contents.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed

25 out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of the upper portion of an antirefilling bottle constructed in accordance with this invention. Fig. 2 is a vertical sectional view 30 of the same. Fig. 3 is a detail perspective view of the expansible cap concealing and confining the cork.

Like numerals of reference designate corresponding parts in all the figures of the draw-

35 ings.

1 designates a bottle-neck, comprising a thick lower cork-receiving portion 2 and a thin upper portion 3, which is connected with the lower portion 2 by a frangible ligament 4, 40 formed by the reduction of the upper portion of the neck in thickness and also by an interior annular groove 5, and having an inclined inner face, as shown, and enabling the upper portion of the neck of the bottle to be readily severed from the lower portion by a light blow. The upper portion 3, which is frangible, has a greater interior diameter than the lower cork-receiving portion 2. The lower heavy portion 2 of the neck of the bottle is 50 adapted to receive an ordinary cork or stopper 6, and it is designed to be of sufficient |

length to receive such cork or stopper properly and no longer in order that the bottle when the upper portion of the neck is severed from the lower portion will present a muti- 55 lated appearance sufficient to prevent it from

being afterward used in trade.

The cork or stopper is confined and concealed within the lower portion of the neck of the bottle until the upper portion of the 60 neck is broken off by an expansible cap 8, constructed of suitable sheet metal and consisting of a circular top portion and an annular flange 9, provided at intervals with cuts 10, whereby when the cap is placed on the 65 shoulder 12 or upper edge of the lower portion of the neck of the bottle and a slight pressure applied the flange will be expanded against the inner inclined face of the thin connecting-ligament, and the cork or stopper is 70 confined in the lower portion 2, and access cannot be had to the same until the upper portion 3 is severed. The shoulder or upper edge 12 of the lower portion of the neck of the bottle is inclined to facilitate the spread-75 ing of the flange of the disk and is formed by the interior reduction of the upper portion 3 of the neck.

When the expansible cap is interlocked with the neck of the bottle, the split annular 80 flange is concealed within the inclined groove 5 and only the central imperforate top portion of the cap is exposed, so that it is impossible to disengage the flange from the groove without breaking the upper portion of 85 the neck.

It will be seen that the antirefilling bottle is exceedingly simple and inexpensive in construction, that it is positive and reliable in operation, and that access cannot be had to 90 its original contents until the upper portion of the neck is severed from the lower portion and the bottle sufficiently mutilated to prevent it from ever afterward being used in trade. It will also be apparent that the cap 95 is readily applied to the neck of the bottle and that no glass caused by the fracture of the frangible ligament can fall into the bottle, as the ligament is located above the cork and the break occurs before the drawing of 100 the cork.

Changes in the form, proportion, and minor

details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

1. In a non-refillable bottle, the combination of a neck comprising a thick lower portion and a thin upper portion of greater interior diameter than the lower portion, said neck being provided at the top of the lower portion with an inclined annular groove forming a frangible ligament and providing inclined faces, a cork or stopper arranged within the lower portion of the neck, and an expansible cap arranged on the upper face of the cork or stopper and interlocked with the said groove, substantially as and for the purpose described.

2. In a non-refillable bottle, the combination of a neck comprising a thick lower corkreceiving portion and a thin upper portion of greater interior diameter than the lower portion, said neck being provided at the top of the lower portion with an inclined annular groove forming a frangible ligament and providing inclined faces, a cork or stopper ar-

ranged within the lower portion of the neck, and an expansible cap arranged on the upper face of the cork or stopper and provided with a split depending annular flange concealed within the annular groove and expanded by 30 the same, whereby the cap is interlocked with the neck of the bottle, substantially as described.

3. In a non-refillable bottle, the combination of the bottle-neck provided at an intermediate point with an interior annular groove having both of its walls inclined, the portion of the neck below said groove being adapted to receive the cork, and a metallic cap having an expansible annular flange spread or 40 expanded into said groove by the act of forcing the cap into the neck on top of said cork, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 45

the presence of two witnesses.

CLARENCE O. SWICKARD.

Witnesses:

CHAS. P. VEIT, GLENDORA BUIRLEY.