o. s. pugerud,

BOTTLE STOPPER.
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UNITED STATES PATENT OFFICE.

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BOTTLE-STOPPER.

No. 836,782.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, OLAS. PUGERUD, a citizen of the United States, residing at New York, N. Y., have invented certain new and 5 useful Improvements in Bottle-Stoppers, of which the following is a clear, full, and exact description.

The object of this invention is to provide an improved bottle-stopping means which 1c will combine with it a means for rendering

the refilling of the bottle difficult.

In carrying out this invention I make use of a non-removable cap of materially greater diameter than the bottle-neck, the means for preventing its removal being preferably a projection or flange upon or adjacent to the mouth of the bottle and projections upon the interior of the cap, which form a restricted part of less diameter than the projection ad-20 jacent to the mouth. The skirt of the cover is preferably so located that one must pour around a corner, which is immaterial when emptying the bottle, but obstructs the refilling of the same. The cap may be made of metal 25 or glass and wedged into place or sealed in place. I prefer to provide a pouring lip or flange on the cap and on the bottle-neck or on either of them. I prefer also to form a spiral groove on the bottle-neck with which may 30 engage a projection on the cap, permitting a limited longitudinal motion of the cap relatively to the bottle upon the rotation of the cap.

In the accompanying drawings, Figure 1 is

35 vertical central section of my preferred form of improved bottle-stopping means. Fig. 2 is a vertical central section of a modified form of my invention. Fig. 3 is a similar view of a still different modification. Fig. 4 is a view 40 similar to Fig. 1, showing a metal cap; and Fig. 5 is a view showing method of pouring.

As shown in the drawings in Fig. 1, 1 is the bottle-neck having a spiral groove 2, terminating in an abutment 3. The cap 4 is shown as formed of glass and of two different internal discretions for the cap the specific or the cap t ent internal diameters, forming two chambers 5 and 6, each materially larger than that part of the bottle-neck which it incloses. cork 7, which may freely fit within the cap 50 over the bottle-mouth, is held in position thereon when the cap is in the position shown in that figure. The lower edge of the cap may be provided with a pouring lip or flange 8, extending outwardly to aid in pouring the 55 contents of the bottle. A projection or finger 9 may be formed integrally with the cap | neck. In pouring the liquid flows through

and a second finger 10 may, if desired, be cemented into place in the cap, as shown at At least one of the two projections 9 and 10, however secured, should constitute a 60 stop means for preventing entire removal of

the cap from the bottle.

In Fig. 2 I have shown the bottle-neck 21 as having an enlarged projection or flange 22 surrounding the bottle-mouth, while a non- 65 removable cap 23, having a restricted internal diameter at 24 and open at the top, is attached at 25 to a flange 26, formed on the bottle-neck, thus producing a breaking-ring between the cap and the bottle. The bottle 70 when filled has a cork 27 placed over the orifice, upon which a disk 28, preferably of glass, is forced down and sealed in position by suitable sealing means 29 between the disk 28 and upper rim of the cap. The de- 75 vice of this view, Fig. 2, before being used must be struck a sharp blow upon the cap sufficient to break the breaking-ring uniting the cap to the bottle-neck, when it can be used in the same manner as the device of Fig. 1, ex- 80 cepting that no means are shown in this view, though they are shown in Fig. 3, for tightly closing the bottle after part of the contents has been poured.

In Fig. 3 the bottle-neck 30 is formed with 85 a cup-like flange 31, into which depends the lower end 32 of the cap 33, which cap carries centrally located a cork 34 of the ordinary plug construction. The part 32 of the cap is of a restricted diameter, so that it will not 90 pass the flange 35, surrounding the bottlemouth, while the lower edge of the part 32 is formed as a flanged pouring-lip 36. The disadvantage of this bottle over that shown in Fig. 2 is that the restricted portion 32 95 must be formed after the insertion of the

cap over the bottle-neck.

The device shown in Fig. 4 consists of the bottle-neck 41, spiral groove 42, an abutment 43, and cork 47, all as shown in Fig. 1; but in 100 place of a glass stopper or cap I have shown a metal cap 44, having inwardly-pressed fin-gers or lugs 45 to fit the spiral groove, while a ring 46 is shown as formed on the bottle-neck to support a pouring lip or flange 48, within 105 which the pouring-lip 49 at the base of the cap may be located.

In pouring operation all of the devices shown in Figs. 1 to 4 operate substantially as shown in Fig. 5, particularly when provided 11c with the pouring-lip 48, affixed to the bottle-

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the mouth around the lower edge thereof and ' along the lower side of the cap, where it is directed by the pouring lip or flange of the cap either directly to a glass or against the pouring-flange affixed to the neck. Air may readily pass to the bottle along the under side of the top of the cap to displace the liquid to be poured. The device of Fig. 4 is particularly adapted for bottles holding toilet water, con-10 diments, and other materials which are of such a nature that but a few drops will be needed at a time, in which case the cap is only loosened slightly in position on the neck of the bottle. The difficulty in refilling a 15 bottle with such a stopper will at once be apparent.

What I claim is—

1. A bottle having a cap longitudinally movable upon the bottle-neck, means for 20 preventing its removal from said neck, comprising an inwardly-turned projection on the cap and integral therewith, said cap having a materially greater diameter in at least part of its interior forming a substantial passage 25 from the bottle-mouth to the exterior of the bottle-cap.

2. A bottle having a cap longitudinally movable upon the bottle-neck, means for preventing its removal from said neck, com-30 prising an inwardly-turned projection on the cap and integral therewith, said cap having a materially greater diameter in at least part of its interior forming a substantial passage from the bottle-mouth to the exterior of the

35 bottle-cap, and a cork between the bottle-mouth and the under side of the cap.

3. A bottle having a cap longitudinally movable upon the bottle-neck, means for preventing its removal from said neck, com-40 prising an inwardly - turned projection on the cap and integral therewith, said cap having a materially greater diameter in at least part of its interior forming a substantial passage from the bottle-mouth to the exterior of 45 the bottle-cap, and a pouring-flange adjacent to the skirt of the cap

4. A bottle having a cap longitudinally movable upon the bottle-neck, means for preventing its removal from said neck, said 50 cap having a materially greater diameter in at least part of its interior forming a substantial passage from the bottle-mouth to

the exterior of the bottle-cap, a projection on the bottle-mouth said means for preventing removal of the cap consisting of a projection 55 within the cap forming a restricted passage of less diameter than said bottle-mouth and

projection.

5 A bottle having a neck portion provided with a spiral groove terminating in an 60 abutment, a non-removable cap fitting loosely over the neck portion and having a projection engaging said groove, whereby upon rotation of the cap it may be moved to seal the bottle-neck or to leave an open pas- 65 sage between the opening of the cap and bot-

tle-neck.

6. A bottle having a neck portion provided with a spiral groove terminating in an abutment, a non-removable cap fitting 70 loosely over the neck portion and having a projection engaging said groove, whereby upon rotation of the cap it may be moved to seal the bottle-neck or to leave an open passage between the opening of the cap and bot- 75 tle-neck, and a cork between the bottlemouth and underneath side of the cap.

7. A bottle having a neck portion provided with a spiral groove terminating in an abutment, a non-removable cap fitting 80 loosely over the neck portion and having a projection engaging said groove, whereby upon rotation of the cap it may be moved to seal the bottle-neck or to leave an open passage between the opening of the cap and bot-85 tle-neck, and a pouring-lip adjacent to the

8. A bottle having a neck portion provided with a spiral groove terminating in an abutment, a non-removable cap fitting 90 loosely over the neck portion and having a projection engaging said groove, whereby upon rotation of the cap it may be moved to seal the bottle-neck or to leave an open passage between the opening of the cap and bottle- 95 neck, and a pouring-lip secured to the bottle-neck.

Signed at New York city this 5th day of April, 1906.

OLA S. PUGERUD.

Witnesses:

F. WARREN WRIGHT, BEATRICE MIRVIS.