

E. W. WHEELLOCK.
BOTTLE CLOSURE.
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898,615.

Patented Sept. 15, 1908.

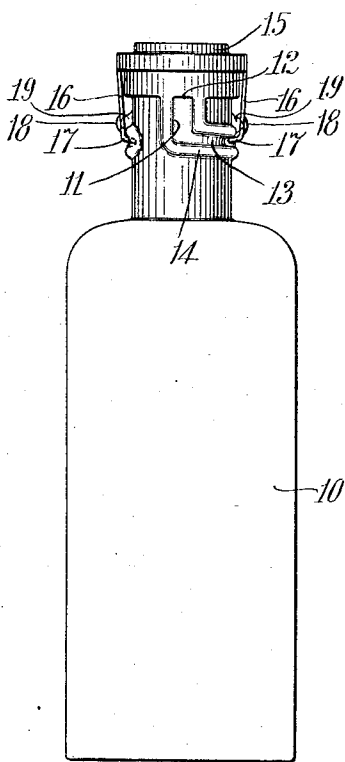


Fig. 1.

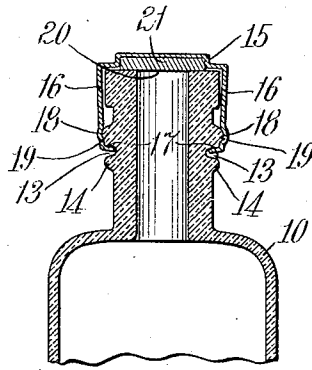


Fig. 3.

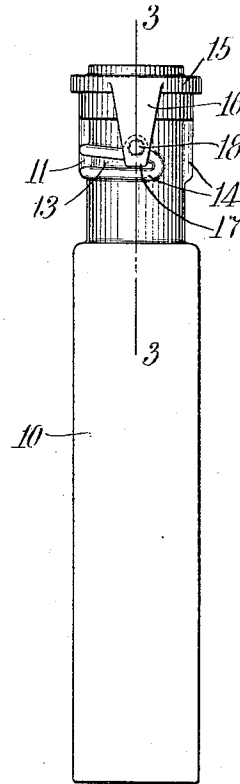


Fig. 2.

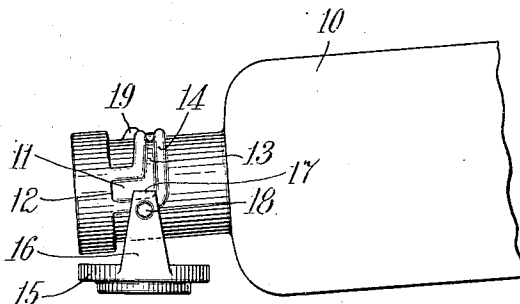


Fig. 4.

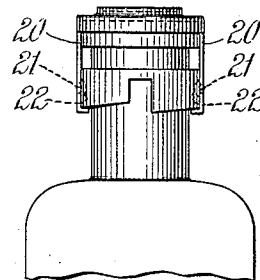


Fig. 5.

Witnesses.

Franklin E. Low
Sydney E. Taft.

Inventor:

Etta W. Wheelock
By her attorney, Charles S. Gooding.

UNITED STATES PATENT OFFICE.

ETTA W. WHELOCK, OF ARLINGTON, MASSACHUSETTS.

BOTTLE-CLOSURE.

No. 898,615.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ETTA W. WHELOCK, a citizen of the United States, residing at Arlington, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Bottle-Closures, of which the following is a specification.

This invention relates to improvements in bottle closures, and the object is to provide a closure for bottles, jars and the like which shall be simple in construction, easily operated, and which will tightly close the outlet orifice of the bottle to prevent the escape of fluid, and the object is further to provide a bottle closure which is permanently attached to the bottle so that it can not be misplaced or lost.

The invention consists in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the appended claims.

Referring to the drawings: Figure 1 is a front elevation of a bottle and closure therefor constructed in accordance with my invention. Fig. 2 is a side elevation of the same viewed from the right of Fig. 1. Fig. 3 is a section, partly broken away, taken on line 3—3 of Fig. 2. Fig. 4 is a front elevation of the bottle with the closure or cap removed from the mouth or outlet orifice of the bottle in position to permit the contents to be decanted. Fig. 5 is a front elevation, partly broken away, of a modified form of my invention in which the rib below the helical shoulder is omitted.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, referring now to Figs. 1 to 4, inclusive, 10 is a bottle provided with two grooves 11, 11 extending longitudinally thereof and arranged diametrically opposite each other, the upper ends 12, 12 of said grooves being preferably closed. Two oppositely arranged circumferential grooves 13, 13 which are preferably slightly helical in form communicate with the grooves 11, 11, respectively, and in practice I prefer to provide ribs or beads 14, 14 extending around the grooves 11 and the grooves 13. A cap 15 preferably formed of metal is provided with two arms 16, 16 having projections 17, 17 located in the grooves 13, 13, respectively. The arms 16, 16 are provided with depressions 18, 18, respectively, in which, as seen particularly in Fig. 3, are located projections 19, 19 formed on the bottle 10, said projec-

tions acting to hold the cap 15 against rotation when said cap covers the orifice 20 of the bottle 10. A resilient member 21 which may be formed of cork, rubber or other suitable material is secured to the cap 15 and is adapted to bear against the mouth of the bottle normally to prevent leakage of fluid therefrom and to prevent evaporation of the contents thereof.

The general operation of the bottle closure hereinbefore specifically described is as follows: Assuming the parts to be in the position shown in Figs. 1, 2 and 3, if it be desired to empty the bottle, the bottle 10 is grasped with one hand, the cap 15 is grasped with the other hand and said bottle and said cap are rotated relatively in the proper direction to cause the projections 17, 17 to travel along the grooves 13, 13 until said projections have arrived in alinement with the grooves 11, 11. The cap 15 is then drawn upwardly causing the projections 17, 17 to move from the lower ends of the grooves 11, 11 to the upper ends thereof and said cap is then rocked on said projections as pivots and finally occupies the position shown in Fig. 4. The bottle 10 may then be decanted. The operation of closing the bottle is simply a reversal of the foregoing operation and it will be seen that the final rotation of the cap 15 causing the projections 17, 17 to act on the helical grooves 13, 13 results in the cap 15 being drawn forcibly downward against the mouth of the bottle and causing the resilient member 21 to be compressed, thereby securely closing the bottle and preventing leakage or evaporation of the fluid contained therein.

Referring now to Fig. 5 wherein a modified form of my invention is illustrated, it will be seen that the ribs of the form first described located below the helical shoulders are omitted and the arms 20, 20 are provided, respectively, with projections 21, 21 arranged to enter corresponding depressions 22, 22 formed in the bottle. In other respects the construction and operation of this form of my invention is similar to that first described.

Having thus described my invention, what I claim and desire by Letters Patent to secure is:

1. In combination, a bottle having an orifice and provided with a plurality of grooves extending longitudinally thereof and provided also with a plurality of circumferential grooves communicating with said longitudinal grooves, respectively, a cap adapted to

cover said orifice, arms on said cap provided with projections located in said circumferential grooves, respectively, said cap being adapted to be rotated, whereby said projections may be moved into said longitudinal grooves, respectively, and a projection on said bottle which one of said arms is adapted to engage, whereby said cap may be held against rotation.

2. In combination, a bottle having an orifice and provided with a plurality of grooves extending longitudinally thereof and provided also with a plurality of circumferential grooves communicating with said longitudinal grooves, respectively, a cap adapted to cover said orifice, projections on said cap located in said circumferential grooves, respectively, said cap being adapted to be rotated, whereby said projections may be moved into said longitudinal grooves, respectively, a portion of said cap being provided with a depression, and a projection on said bottle adapted to enter said depression, whereby said cap may be held against rotation.

3. In combination, a bottle having an orifice and provided with two oppositely located grooves extending longitudinally thereof and having closed ends and provided also with two oppositely located circumferential grooves communicating with said longitudinal grooves, respectively, a cap adapted to cover said orifice, arms on said cap provided with projections located in said circumferential grooves, respectively, said cap being adapted to be rotated, whereby said projections may be moved into said longitudinal grooves, respectively, and a projection on said bottle which one of said arms is adapted to engage, whereby said cap may be held against rotation.

4. In combination, a bottle having an outlet orifice and provided with a plurality of grooves extending longitudinally thereof and provided also with a plurality of circumferential grooves communicating with said longitudinal grooves, respectively, a cap adapted to cover said orifice, projections on said cap located in said circumferential grooves, respectively, said cap being adapted to be rotated, whereby said projections may be moved into said longitudinal grooves, respectively, and a rounded lateral projection on said bottle which a portion of said cap is adapted to engage, whereby said cap may be held against rotation.

5. In combination, a bottle having an orifice and provided with a plurality of helical shoulders, a cap adapted to cover said orifice, projections on said cap adapted to engage said shoulders, respectively, said cap adapted to be rotated, whereby said projections may be moved longitudinally of said shoulders, and a projection on said bottle which a portion of said cap is adapted to engage, whereby said cap may be held against rotation.

6. In combination, a bottle having an orifice and provided with a plurality of helical shoulders, a cap adapted to cover said orifice, projections on said cap adapted to engage said shoulders; respectively, said cap adapted to be rotated, whereby said projections may be moved longitudinally of said shoulders, and a rounded lateral projection on said bottle which a portion of said cap is adapted to engage, whereby said cap may be held against rotation.

7. In combination, a bottle having an orifice and provided with a plurality of grooves extending longitudinally thereof and provided also with a plurality of circumferential grooves communicating with said longitudinal grooves, respectively, a cap adapted to cover said orifice, arms on said cap provided with projections located in said circumferential grooves, respectively, said cap being adapted to be rotated, whereby said projections may be moved into said longitudinal grooves, and another projection on one of said parts, the other of said parts provided with a recess with which said last named projection is adapted to engage.

8. In combination, a bottle having an orifice and provided with a plurality of helical shoulders, a cap adapted to cover said orifice, projections on said cap adapted to engage said shoulders, respectively, said cap adapted to be rotated, whereby said projections may be moved longitudinally of said shoulders, and another projection on one of said parts, the other of said parts provided with a recess with which said last named projection is adapted to engage.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ETTA W. WHELOCK.

Witnesses:

LOUIS A. JONES,
SADIE V. MCCARTHY.