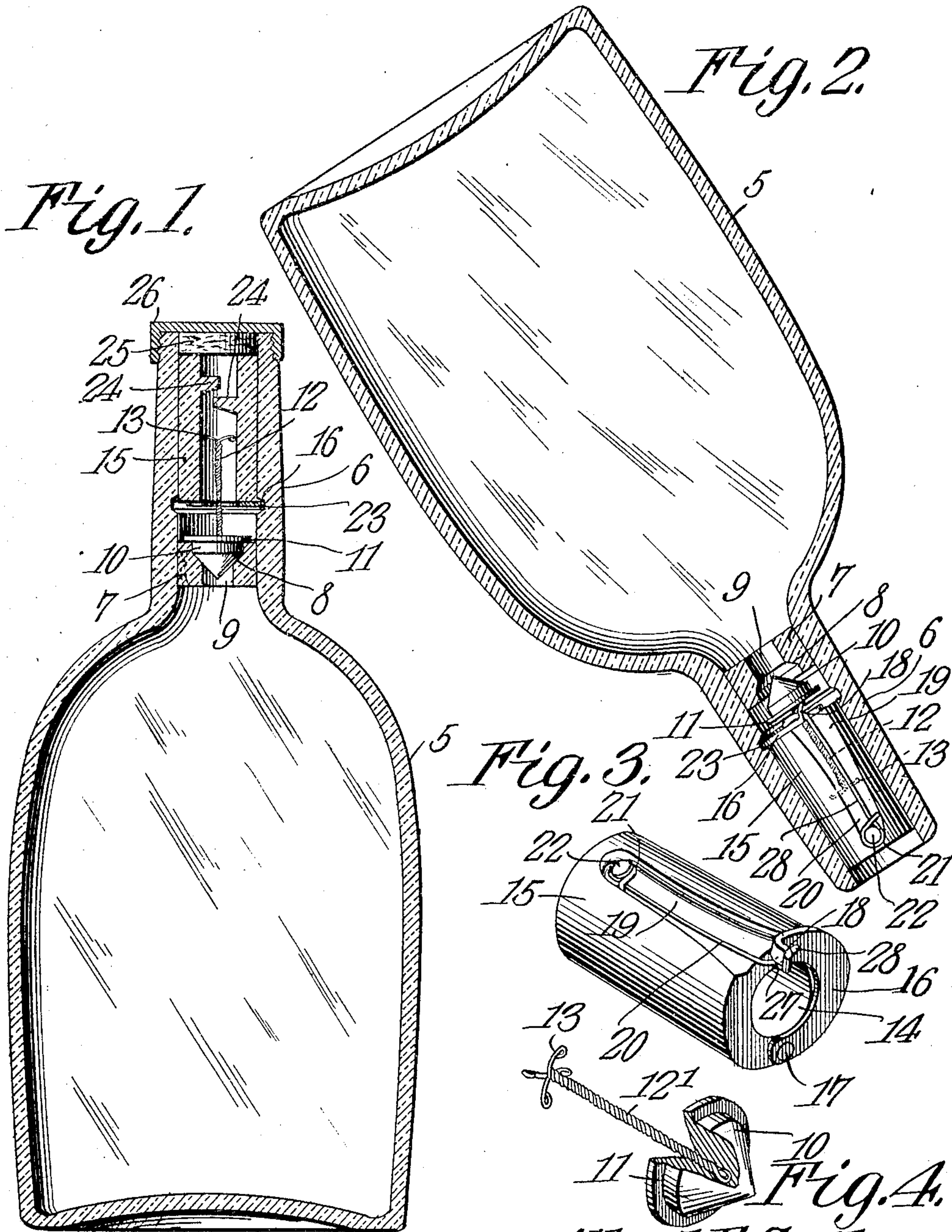


No. 869,532.

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A. E. SUTTON.
NON-REFILLABLE BOTTLE.
APPLICATION FILED FEB. 8, 1907.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ALBERT E. SUTTON, OF ELKINS, WEST VIRGINIA.

NON-REFILLABLE BOTTLE.

No. 869,532.

Specification of Letters Patent.

Patented Oct. 29, 1907.

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To all whom it may concern:

Be it known that I, ALBERT E. SUTTON, a citizen of the United States, residing at Elkins, in the county of Randolph and State of West Virginia, have invented
5 a new and useful Non-Refillable Bottle, of which the following is a specification.

This invention relates to bottles and similar liquid containing vessels and has for its object to provide a bottle which cannot be refilled without breaking or
10 otherwise mutilating the same so that any attempt to fraudulently substitute an inferior grade of goods for that originally contained in the bottle will be readily detected.

A still further object of the invention is to generally
15 improve this class of devices so as to increase their utility, durability and efficiency as well as to reduce the cost of manufacture.

With these and other objects in view the invention consists in the construction and novel combination and
20 arrangement of parts hereinafter fully described, and illustrated in the accompanying drawings, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

25 In the accompanying drawings forming a part of this specification: Figure 1 is a longitudinal sectional view of a non-refillable bottle constructed in accordance with my invention. Fig. 2 is a similar view showing the bottle in inverted position. Fig. 3 is a perspective
30 view of the upper plug removed. Fig. 4 is a similar view of the valve.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved stopper or closure forming the subject
35 matter of the present invention may be used in connection with bottles, jars and similar containing vessels and by way of illustration is shown applied to a bottle of the ordinary construction in which 5 designates the body of the bottle and 6 the neck.

40 Disposed within the neck of the bottle and secured to or formed integral with the interior walls thereof is a transverse partition 7 having a conical shaped valve seat 8 and a longitudinal opening 9 communicating with said valve seat thereby to permit the discharge of
45 the contents of the bottle when the latter is inverted. Engaging the seat 8 is a correspondingly shaped valve 10 having an annular flange 11 which bears against the adjacent walls of the partition 7 and serves to sustain the weight of the valve, the latter being preferably
50 formed of lead or similar material so as to cause the same to return by gravity in engagement with its seat when the bottle is in upright position.

Extending vertically from the valve 10 and preferably embedded therein is a valve stem 12 preferably
55 formed of a plurality of intertwisted wires the terminals of which are extended laterally and bent upon them-

selves to form a plurality of radiating arms 13 which bear against the interior walls of a discharge passage 14 formed in the plug 15 and thus serve to assist in guiding the valve to its seat and preventing wobbling of the
60 same. The plug 15 which is preferably formed of glass is spaced from the partition 7 and is secured within the neck of the bottle by means of a segmental locking member 16. The segmental locking member 16 is pivotally
65 mounted at 17 on the bottom of the plug 15 and is provided with a depending lip 18 which engages the annular flange 11 of the valve and serves to space said valve from the adjacent end of the discharge passage 14 when the valve is moved to open position so that the liquid
70 in the bottle is free to flow through the discharge passage 14 to a containing vessel or other receptacle designed to receive the same.

Formed in one side of the stopper or plug 15 is a longitudinally disposed recess or depression 19 in which is seated a spring 20 one end of which is bent to form a
75 loop 21 for engagement with a stud or pin 22 while the opposite end thereof is bent laterally into engagement with the free end of the locking member 16 thereby to force said member in engagement with an annular
80 groove or recess 23 formed in the interior walls of the neck of the bottle, as shown. It will thus be seen that the spring 20 by engagement with the locking member 16 serves to hold the latter within the groove 23 and thus prevent withdrawal of the plug 15.

Extending laterally from the interior walls of the discharge passage 14 are one or more lugs or baffle plates
85 24 the object of which is to prevent an unauthorized person from introducing a wire or similar tool through the discharge passage in an attempt to lift the valve 10 and refill the bottle. The upper end of the discharge
90 passage 14 may be closed by a cork or stopper 25 and if desired a cap or plate 26 may be threaded on the exterior walls of the neck of the bottle so as to form an additional closure for the latter.

In order to introduce the plug 15 within the neck of
95 the bottle it is merely necessary to press inwardly on the free end of the segmental locking plate 16 until the outer peripheral edge of said locking member is in alignment with the exterior walls of the plug when the latter may be readily inserted within the neck of the bottle.
100 As soon as the locking member 16 registers with the annular groove 23 the spring 20 will force the locking member into engagement with the walls of said groove and thereby lock the same against accidental displacement.
105

In order to discharge the contents of the bottle it is merely necessary to invert the latter which will unseat the valve and thus allow the liquid in the bottle to flow through the valve seat and discharge passage 14 into the glass or other receptacle designed to receive the same.
110 As soon as the bottle is placed in normal position the weight of the valve will automatically reseat the same

and thus prevent an unauthorized person from refilling the bottle.

Attention is called to the fact that the depending lip or lug 18 serves to space the valve from the adjacent end of the discharge passage 14 so as to permit the liquid to flow through said passage when the valve is in inverted position. It will also be observed that the lip 18 is provided with a shoulder 27 for engagement with the laterally extending arm 28 of the spring 20 thereby to prevent the spring from becoming accidentally detached from the locking member.

If desired the inwardly extending lugs or baffle plates 24 may be dispensed with and other suitable means substituted for preventing the insertion of a wire or tool in the neck of the bottle.

From the foregoing description it will be seen that there is provided an extremely simple, inexpensive and efficient device admirably adapted for the attainment of the ends in view.

Having thus described the invention what is claimed is:

1. A non-refillable bottle having a neck the interior walls of which are provided with a groove, a valve disposed within the neck, a plug spaced from the valve and provided with a discharge passage, a locking member pivotally mounted on the plug, and a spring bearing against the locking member for retaining the latter in engagement with the groove.

2. A non-refillable bottle having a neck, a valve disposed within the neck, a plug spaced from the valve and provided with a discharge passage, a locking member pivotally mounted on the plug at said discharge opening, and a spring for yieldably supporting the locking member in engagement with the interior walls of the neck.

3. A non-refillable bottle having a neck provided with a valve seat, a valve engaging said seat, a plug seated in the neck and spaced from the valve seat, a locking member pivotally mounted on the bottom of the plug, and a spring bearing against the locking member for yieldably supporting said member in engagement with the neck of the bottle.

4. A non-refillable bottle having a neck, a valve disposed within the neck, a plug spaced from the valve and provided with a longitudinal discharge passage, a locking member pivotally mounted on the plug at said discharge passage and provided with a depending lip for engagement with the valve when the latter is in open position, and means for yieldably supporting the locking member in engagement with the interior walls of the neck.

5. A non-refillable bottle having a neck the interior walls of which are provided with a groove, a valve seated in said neck, a plug spaced from the valve and provided with a longitudinal discharge passage, a valve stem having terminal arms bearing against the walls of the discharge passage, a locking member pivotally mounted on the bottom of the plug and a spring for yieldably supporting the locking member, in engagement with the groove.

6. A non-refillable bottle having a neck, a partition extending transversely across the neck and provided with a valve seat, there being an annular groove formed in the interior walls of the neck and spaced from the valve seat, a valve, a plug seated in the neck and provided with a longitudinal discharge passage, overlapping lugs extending inwardly from the walls of the discharge passage, and a locking member pivotally mounted on the bottom of the plug and adapted to engage the groove in the neck of the bottle, said locking member being provided with a depending lip for engagement with the valve when the latter is in open position.

7. A non-refillable bottle having a neck the interior walls of which are provided with an annular groove, a valve disposed within the neck, a plug spaced from the valve and provided with a longitudinal discharge passage, a segmental locking member pivotally mounted on the bottom of the valve and provided with a depending lip defining a stop shoulder, a spring secured to the exterior walls of the plug and having one end thereof disposed in engagement with the shoulder of the locking member for forcing the latter in contact with the walls of the annular groove.

8. A non-refillable bottle having a neck the interior walls of which are provided with an annular groove, a valve disposed within the neck of the bottle, a plug spaced from the valve and provided with a longitudinal discharge passage, the exterior walls of the plug being provided with a longitudinal seating recess, a segmental locking member pivotally mounted for lateral movement on the bottom of the plug at the discharge passage and adapted to enter the groove in the neck of the bottle, said locking member being provided with a terminal depending lip defining an annular shoulder, and a spring one end of which is seated in the recess in the plug and its opposite end bent laterally to form a lip adapted to bear against the shoulder for forcing the locking member in engagement with the groove in the neck of the bottle.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ALBERT E. SUTTON.

Witnesses:

W. H. KEIM,
G. PALMER.