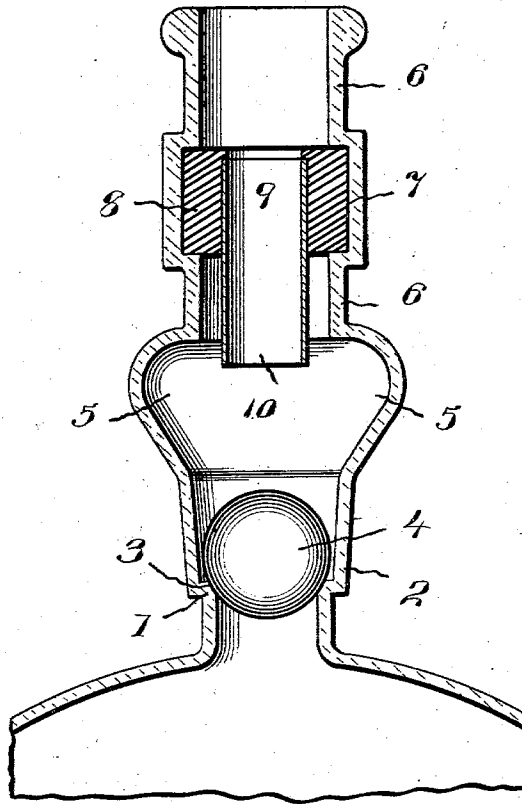


No. 752,495.

PATENTED FEB. 16, 1904.

D. J. WILKINS.
NON-REFILLABLE BOTTLE.
APPLICATION FILED OCT. 24, 1903.

NO MODEL.



David J. Wilkins. ^{Inventor}

Witnesses

F. W. Riley.
Jessie A. Long

By *Victor J. Evans*
Attorney

UNITED STATES PATENT OFFICE.

DAVID J. WILKINS, OF MUNCIE, INDIANA.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 752,495, dated February 16, 1904.

Application filed October 24, 1903. Serial No. 178,403. (No model.)

To all whom it may concern:

Be it known that I, DAVID J. WILKINS, a citizen of the United States, residing at Muncie, in the county of Delaware and State of Indiana, have invented new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

My invention relates to new and useful improvements in non-refillable bottles; and its object is to provide a device of this character having a novel valve therein, whereby the refilling of the bottle is prevented subsequent to the discharge of the original contents therefrom.

The invention consists in providing a bottle having a neck of peculiar construction, which is shaped to form a valve-chamber, in which is located a ball-valve which is normally seated by gravity over the inlet to the bottle. Arranged within the neck is a bottle-engaging disk, from which depends an outlet-tube.

The invention also consists in the further novel construction and combination of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawing, which is a section through the neck of a bottle having my improved valve therein.

Referring to the drawing by numerals of reference, 1 is the neck of a bottle having an enlarged substantially cylindrical portion 2, within which is formed a shoulder 3, which is arranged at the lower end of said extension and forms a seat for a ball 4. Projecting from the outer end of the extension 2 is an enlarged dome-shaped portion 5, having a cylindrical neck 6 projecting therefrom, with a groove 7 in its inner face at a point between its ends. This groove is adapted to receive an expansible disk 8, formed of rubber or any other suitable material, and this disk has a passage 9 therethrough, which is smaller in diameter than the diameter of the ball 4, and secured within this passage 9 and projecting into the outer end of the dome 5 is a tube 10, formed of any suitable material.

After the bottle has been filled the ball 4 is placed in position within the extension 2, and the disk 8 is then forced downward into the neck 6 until the same expands into the groove 7. A cork or other suitable closure

is then placed within the outer end of the neck. When it is desired to remove the contents of the bottle, the closure is extracted from the neck and the bottle is inverted, so as to cause the ball 4 to roll into the enlarged dome 5 and allow the liquid to flow outward through the tube 10 and passage 9. When, however, the bottle is placed in an upright position for refilling, the ball 4 will be seated by gravity upon the shoulder 3 and will prevent the admission of liquid through the bottle.

It will be seen that the device is extremely simple in construction and forms an effective guard against the reuse of bottles.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without departing from the spirit or sacrificing any of the advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of my invention.

Having thus described the invention, what is claimed as new is—

1. The combination with a bottle having a neck provided with an enlarged portion forming a valve-seat, a dome integral with said enlarged portion, and a groove within the neck; of an expansible disk seated within the groove and having a passage therethrough, a tube within the passage and projecting into the dome, and a ball-valve seated within the enlarged portion of the neck.

2. A non-refillable bottle having a neck provided at a point between its ends with an enlarged portion, a dome communicating with the enlarged portion, and a groove within the neck adjacent the dome, an expansible disk within the groove and having a passage therethrough, a tube secured within the passage and projecting into the dome, and a ball-valve loosely mounted within the enlarged portion of the neck.

In testimony whereof I affix my signature in presence of two witnesses.

DAVID J. WILKINS.

Witnesses:

STRAWDER R. WATSON,
WILLIAM T. RIBBLE.