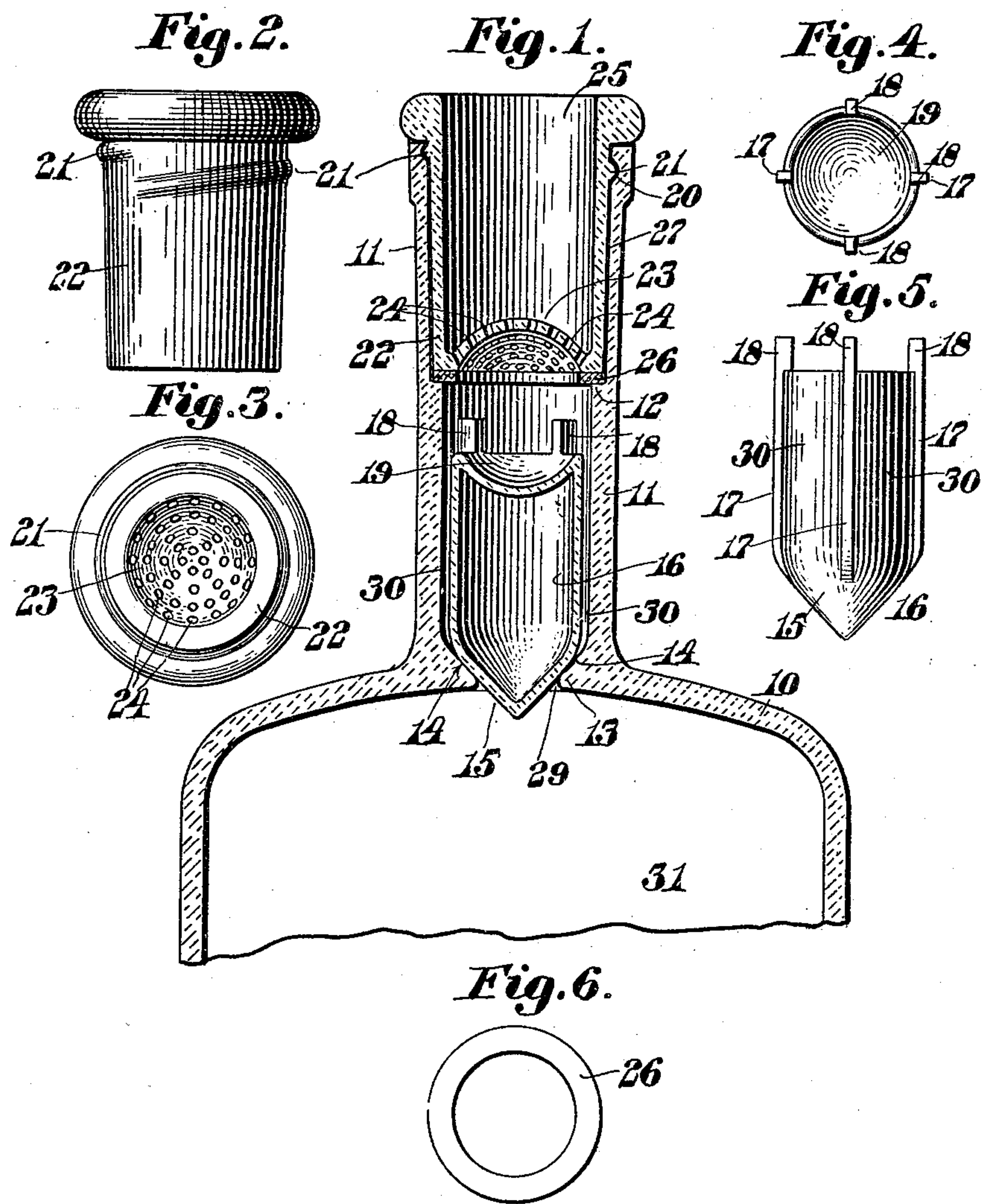


No. 819,320.

PATENTED MAY 1, 1906.

J. SPINELLI.
NON-REFILLABLE BOTTLE.
APPLICATION FILED NOV. 13, 1905.



Witnesses:
Roerell F. Hatch
Edwin T. Luce

Inventor:
John Spinelli,
by Walter E. Lombard,
Atty.

UNITED STATES PATENT OFFICE.

JOHN SPINELLI, OF CHELSEA, MASSACHUSETTS.

NON-REFILLABLE BOTTLE.

No. 819,320.

Specification of Letters Patent.

Patented May 1, 1906.

Application filed November 13, 1905. Serial No. 287,029.

To all whom it may concern:

Be it known that I, JOHN SPINELLI, a citizen of the United States of America, and a resident of Chelsea, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

This invention relates to non-refillable bottles, and has for its object the production of a device whereby a bottle once filled with a beverage cannot be used again for the purpose of dispensing another beverage without the fact being disclosed to the purchaser.

The invention consists in certain novel features of construction and arrangement of parts, which will be readily understood by reference to the description of the drawings and to the claims to be hereinafter given.

Of the drawings, Figure 1 represents a section of the neck of a bottle in which this improved invention is incorporated. Figs. 2 and 3 represent, respectively, an elevation and an inverted plan of the inner neck-closure. Figs. 4 and 5 represent, respectively, a plan and an elevation of the valve, and Fig. 6 represents a plan of the cork washer interposed between the valve and the inner closure.

Similar characters designate like parts throughout the several figures of the drawings.

In the drawings, 10 represents a bottle of any well-known construction provided with a neck 11, the inner wall of which is provided with a shoulder 12. At the point where the neck 11 joins the bottle 10 the mouth is contracted, as at 13, to form an inclined valve-seat 14, with which coöperate the inclined faces 15 of the bullet-shaped valve 16. The valve 16 is made cylindrical, of thin glass, hermetically sealed, and on its outer perimeter is provided with a plurality of ribs 17, extending from the tapered end of said valve to a point beyond the opposite end thereof, thereby forming projections 18.

The upper end of the valve is provided also with a shallow recess 19. The mouth of the neck 11 is provided with a female thread 20, with which the thread 21 upon the inner glass closure 22 coöperates. The inner end of the closure 22 is concaved at 23, said concaved portion being provided with a plurality of openings 24, through which the liquid contained within the bottle is adapted to pass. These openings 24 radiate toward the recess

19. The closure 22 is hollow and open at the outer end, as at 25, and adapted to permit the insertion of an ordinary cork stopper. A washer 26, of cork, is inserted into the mouth of the neck 11 against the shoulder 12 and the closure 22 is then inserted within said mouth and secured therein against said washer.

The space between the inner wall of the neck 11 and the outer wall of the closure 22 is filled with a suitable cement 27, which when hardened will prevent the removal of said closure. When it is desired to dispense beverages from the bottle, the cork (not shown) is removed from the mouth 25 of the inner closure 22 and the bottle is inclined in such position as to permit the valve 16 to move toward said inner closure on the ribs 17, which fit the inner walls of the neck 11. The projections 18 will limit the movement of said valve toward the inner closure, the ends of said projections coming into contact with the cork washer 26 and preventing the two glasses from contacting with each other, thereby preventing injury to either.

When the valve 16 is in withdrawn position, the liquid will pass through the contracted portion 29 of the neck, through the space 30, formed by the ribs 17, the outer wall of the valve 16, and the inner walls of the neck 11, then passing between the projections 18, through the perforations or openings 24, out of the mouth 25 into the glass or other receptacle provided to receive it.

When returned to its normal position, the valve will move to close the contracted portion 29 of the mouth thereof, the inclined end 15 bearing against the inclined wall 14 of the projection 13 to close the inlet and prevent the bottle from being filled with another liquid. If the bottle is inverted and an attempt is made to force a liquid into the bottle while in such inverted position, said liquid will act upon the recessed wall 19 of the valve 16 to force it to its seat, thereby closing the contracted opening 29, the openings 24 being inclined in such a direction as to direct the liquid passing from the mouth 25, through said openings 24, into contact with the recessed bottom of said valve.

The valve 16 is made hollow, of thin material, and is hermetically sealed so as to be buoyant and float whenever immersed in liquid, so that if an attempt is made to fill the bottle when inverted in a receptacle full of liquid the valve 16 will float and rise in the inverted neck to cause the orifice 29 to be

closed and prevent the liquid passing there-
through into the main chamber 31 of the
bottle.

5 All of the parts except the cork washer 26
are made of glass, so that the liquid contained
within the bottle cannot be contaminated by
the devices used to prevent refilling.

It is believed that the invention will be
thoroughly understood without any further
10 description.

I claim—

1. The combination with a bottle provided
with a contracted mouth, of a cylindrical
valve provided with a pointed end adapted
15 to close said contracted mouth and having a
plurality of longitudinal peripheral ribs ex-
tending beyond the opposite end, a yielding
abutment for said ribs to limit the movement
of said valve toward the mouth of the bottle,

and a perforated closure permanently se- 20
cured in said mouth and holding said abut-
ment in position.

2. The combination with a bottle provided
with a contracted mouth, of a cylindrical
valve provided with a pointed end adapted 25
to close said contracted mouth and having
a plurality of longitudinal peripheral ribs, a
yielding abutment for said ribs to limit the
movement of said valve toward the mouth
of the bottle, and a perforated closure per- 30
manently secured in said mouth and holding
said abutment in position.

Signed by me at Boston, Massachusetts,
this 10th day of November, 1905.

JOHN SPINELLI.

Witnesses:

WALTER E. LOMBARD,
EDNA C. CLEVELAND.