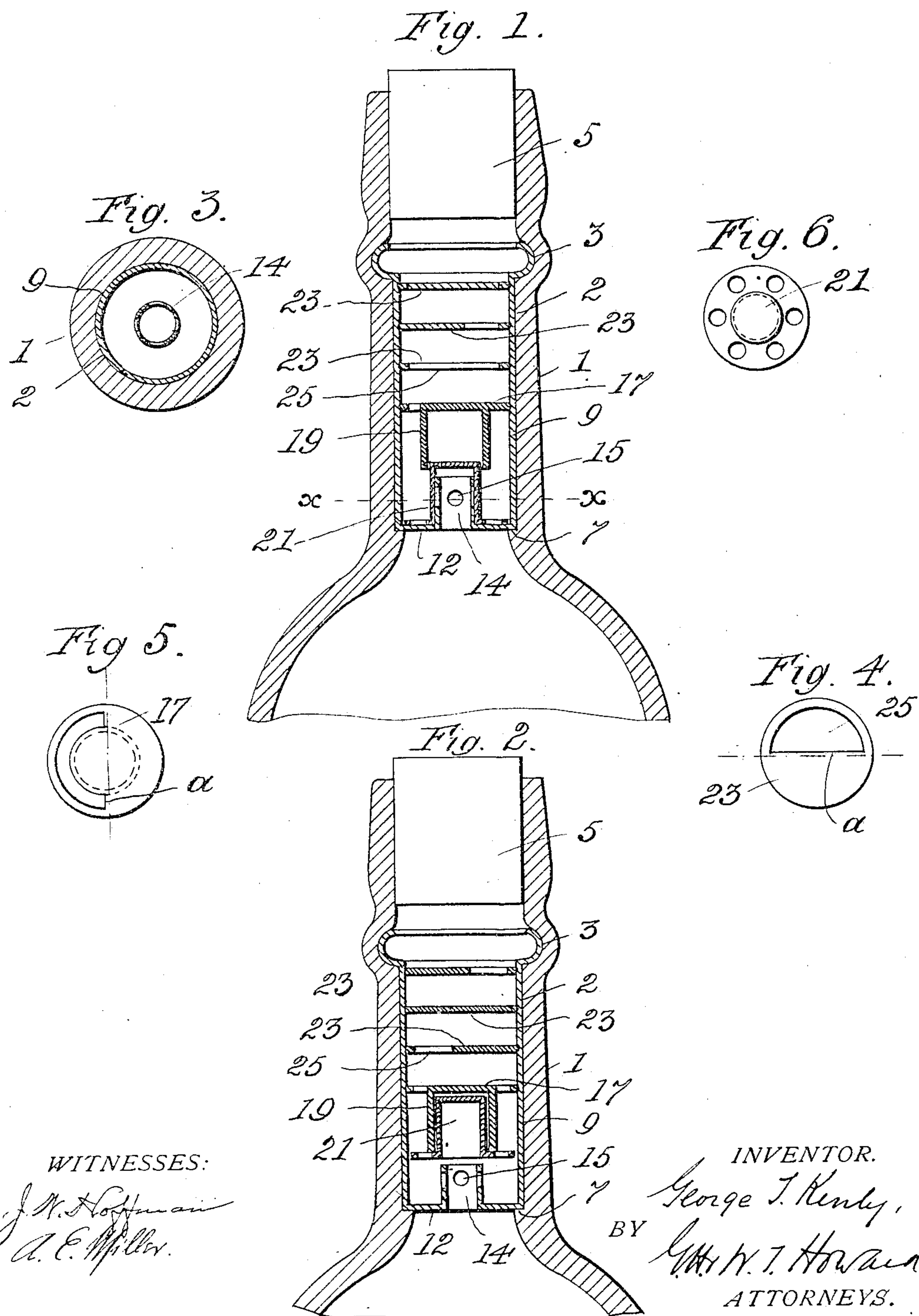


G. T. KENLY.
NON-REFILLABLE BOTTLE.
APPLICATION FILED SEPT. 20, 1904.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE T. KENLY, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-THIRD TO FRANCIS V. MOALE AND ONE-THIRD TO CHARLES L. FORBES, OF BALTIMORE, MARYLAND.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 787,188, dated April 11, 1905.

Application filed September 20, 1904. Serial No. 225,179.

To all whom it may concern:

Be it known that I, GEORGE T. KENLY, of Lake Montebello, in the city of Baltimore and State of Maryland, have invented certain Improvements in Non-Refillable Bottles, of which the following is a specification.

In the description of the said invention which follows, reference is made to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a vertical section of the upper end of the improved non-refillable bottle, showing the same as it would appear when the bottle is erect. Fig. 2 is a similar view, except that the bottle is turned around ninety degrees and a certain valve forming a part of the apparatus shown as lifted from its seat, as it would be should the bottle be turned on its side in the act of pouring out its liquid contents. Fig. 3 is a section of Fig. 1, taken on the dotted line *x x*, except that the valve before referred to is not shown. Fig. 4 is a top view of one of a series of open or perforated baffle-disks used in the apparatus. Fig. 5 is a top view of an open or perforated plate, the lower side of which is constructed to serve as a guide for a valve hereinafter described. Fig. 6 is a top view of the said valve.

Referring now to the drawings, 1 is the neck of the bottle, and 2 its throat, in which is formed the annular groove 3, situated a little below the point reached by the ordinary cork 5. The throat 2 at a point considerably below the groove 3 is also provided with an annular shoulder 7, the office of which, together with that of the said annular groove, will hereinafter fully appear.

9 is a cylinder open at the top and furnished with a bottom 12, having an upwardly-extending central hollow cylindrical extension 14, which is open at the top and perforated at the side, the perforations being denoted by 15.

The cylinder 9, which is seated on the annular shoulder 7, is constructed of some ductile or pliable material—such, for instance, as aluminium—in order that its upper edge may be spun or otherwise set out into the

groove 3 to hold the cylinder in place, as shown in Figs. 1 and 2.

17 is a perforated circular plate (see Fig. 5, 50 which is a top view of that device,) secured in any suitable manner in the lower part of the cylinder 9, having a hollow cylindrical downward extension 19, which serves as a guide for the valve 21. This valve, which is adapted to slide vertically on the extension 14 of the cylinder-bottom 12, has a perforated flange at its lower end and is closed at the top.

In Fig. 1 the perforated flange of the valve 21 is shown as seated on the cylinder-bottom 12, and in Fig. 2 the said valve is represented elevated, so that its flange is in contact with the edge of the extension 19 of the circular plate 17.

23 23 are baffle-disks secured within the cylinder 9 between the plate 17 and the annular groove 3, and they are preferably separated a common distance from each other. The said baffle-disks have each a segmental aperture 25 therein, and they are placed in different positions one with another, as follows: The upper disk, for instance, is so placed that its aperture is at the far side in Fig. 1, the next disk below is turned around ninety degrees, while the lowest disk is turned one hundred and eighty degrees from the first. By this arrangement of the baffle-disks, any suitable number of which may be employed, there is produced a circuitous passage, which the liquid must traverse in passing from the extension 14 of the bottom 12 of the cylinder 9 to the mouth of the bottle.

By reference to Fig. 4, which, as before stated, is a top view of one of the said baffle-disks, it will be seen that the chord-line *a* of the segmental aperture 25 in the disk is above a diametrical line. With this construction when two of the disks are placed in exactly opposite positions the chord-lines lap each other, and there is no clear opening through which a straight rod could be passed, and when several of the said disks are relatively disposed, as before stated, the introduction of any instrument with the view to tampering

with the internal mechanism of the bottle is practically impossible.

In pouring out the contents of the bottle the valve is moved from its seat by the liquid, which has a free exit; but in view of the construction of the apparatus, as described, the bottle cannot be refilled when occupying any position in which it may be placed.

I claim as my invention—

10 1. In a non-refillable bottle, the combination with the neck thereof, of a tight inclosed cylinder having an outwardly-opening valve at its bottom, and a series of separated baffle-disks the same consisting of plates with open-
15 ings therein, and arranged with one disk turned circumferentially with respect to an adjacent one whereby the size of the opening as seen from the top of the disk is reduced, and with the whole series of disks, entirely
20 closed, and a circuitous passage leading to the valve produced, substantially as specified.

2. In a non-refillable bottle, the combination with the neck thereof, of a tight inclosed cylinder having an outwardly-opening valve
25 at its bottom, and a series of separated baffle-

disks the same consisting of plates with segmental openings therein, and arranged with one disk turned circumferentially with respect to an adjacent one whereby the size of the opening as seen from the top of the disk is reduced, and with the whole series of disks, entirely closed, and a circuitous passage leading to the valve produced, substantially as specified.

3. In a non-refillable bottle, the combination with the neck thereof, of a tight cylinder having a cylindrical open-top extension leading from its bottom, the same having perforations in its wall, a cylindrical valve which fits over the said cylindrical extension of the cylinder-bottom, a perforated plate situated over the valve, carrying a guide for the valve, and a series of separated baffle-disks which are placed over the said perforated plate, substantially as specified.

GEORGE T. KENLY.

Witnesses:

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