

UNITED STATES PATENT OFFICE.

AMEEN G. ABIZAID, OF WASHINGTON, DISTRICT OF COLUMBIA.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 763,534, dated June 28, 1904.

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To all whom it may concern:

Be it known that I, AMEEN G. ABIZAID, a citizen of the United States, residing at Washington, in the District of Columbia, have invented new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

My invention has relation to improvements in non-refillable bottles; and it consists in the novel construction, combination, and arrangement of parts of which it is composed, all as will be hereinafter more fully described, and particularly pointed out in the appended claims.

The annexed drawings, to which reference is made, fully illustrate my invention, in which—

Figure 1 represents a vertical sectional view of my improved non-refillable bottle. Fig. 2 is a detail sectional view of the disk and post. Fig. 3 is a plan view of the disk. Fig. 4 is a detail sectional view of the disk and post in modified form. Fig. 5 is a vertical sectional view of my non-refillable bottle in modified form, and Fig. 6 is a detail sectional view of the post shown in Fig. 5.

Referring by letter to the accompanying drawings, A designates the bottle or vessel designed to hold liquids, and the same is provided in its neck *a* with an interior zigzag passage *b*, which provides an indirect passage from the mouth of the bottle to the interior thereof.

Centrally arranged within the body of the bottle is a vertical post *c*, the upper end *d* of which has its bearing in the neck, as at *e*, while the lower end thereof has its bearing or seat in the bottom of the vessel, as at *f*. Within this vessel is arranged a disk B, having a central vertical opening *g* and a hub *h*, through which passes freely the post *c*, and this hub is provided with gripping spring-arms *i*, which engage notches *j* on the central post. A valve-opening *k* is arranged in the hub and disk, as shown in Figs. 1 and 5, and is provided with a valve *l*.

In Fig. 5 the central post is shown slightly modified, wherein the same is provided with a series of slots *n*, in which is pivoted a pair

of short arms *o*, that are connected to one another by a coiled spring *p*.

In Fig. 4 my device is shown in another form, the hub of the disk being recessed at *r*, and the same is provided with pawls *s*, that are pivoted at *t* to said hub, and above and below the lever end *u* of these pawls are balls *v*, which serve to keep the pawl in engagement with the notches in the central post.

Having thus described the different parts of which my improved non-refillable bottle is composed, I will now proceed to explain its operation. The disk being at the lowest notch of the post, leaving an air-space between the same and the bottom of the bottle or vessel, the liquid is poured into the mouth of the bottle and passes down the zigzag passage and into the interior or body between the disk and the top thereof, and a cork may be inserted in the mouth of the bottle. In emptying the bottle of its contents the cork is removed and the bottle tilted and the liquid passes out of the zigzag neck. At the same time the disk is following the same toward the neck or opening, and when sufficient is poured out of the vessel the spring-arms engage the notches in the post and hold the disk in place, and when the entire contents of the bottle are poured out the disk reaches the top of the interior of the vessel and is held by the spring-arms engaging the upper notch in the central post, thus completely closing the interior or neck of the vessel, thereby preventing the bottle from being again filled, as the valve is opened halfway, and if any liquid is attempted to be poured into the bottle the valve closes immediately and prevents the entrance of the liquid.

It will be seen from the above description, when taken in connection with the annexed drawings, that by my construction of a non-refillable bottle the interior cannot be tampered with, as the spring-arms cannot be reached in order to release them, and that when the bottle becomes empty it becomes worthless as a liquid-holder, and the disk being snugly fitted to the interior of the vessel the liquid is held in the main space between said disk and the top of the bottle, and a device as herein described is easily operated, durable,

not liable to get out of order, and at the same time cheap to manufacture.

What I claim, and desire to secure by Letters Patent, is—

5 1. The combination with a vessel having a zigzag interior passage in the neck thereof, of a vertical central post having its upper end bearing in the neck of the bottle and its lower end seated in the bottom of the vessel and provided with a series of notches, a disk having a
10 hub and fitting snugly the interior of the vessel and provided with spring-arms for engaging said notches, substantially as described.

15 2. The combination with a bottle, of a central fixed post having a series of notches and a movable disk having a hub and central open-

ing through which said post passes and having an air-vent opening and spring-arms arranged within the space of the hub and disk and a valve for closing said air-vent opening, 20 substantially as described.

3. The combination with a bottle, of a central post, a disk fitting snugly the interior of the vessel and slidable upon the post, catches for locking the disk against downward move- 25 ment, the said disk having an air-passage provided with a valve, substantially as described.

AMEEN G. ABIZAID.

Witnesses:

WM. H. BATES,

A. M. BUNN.