

No. 611,368.

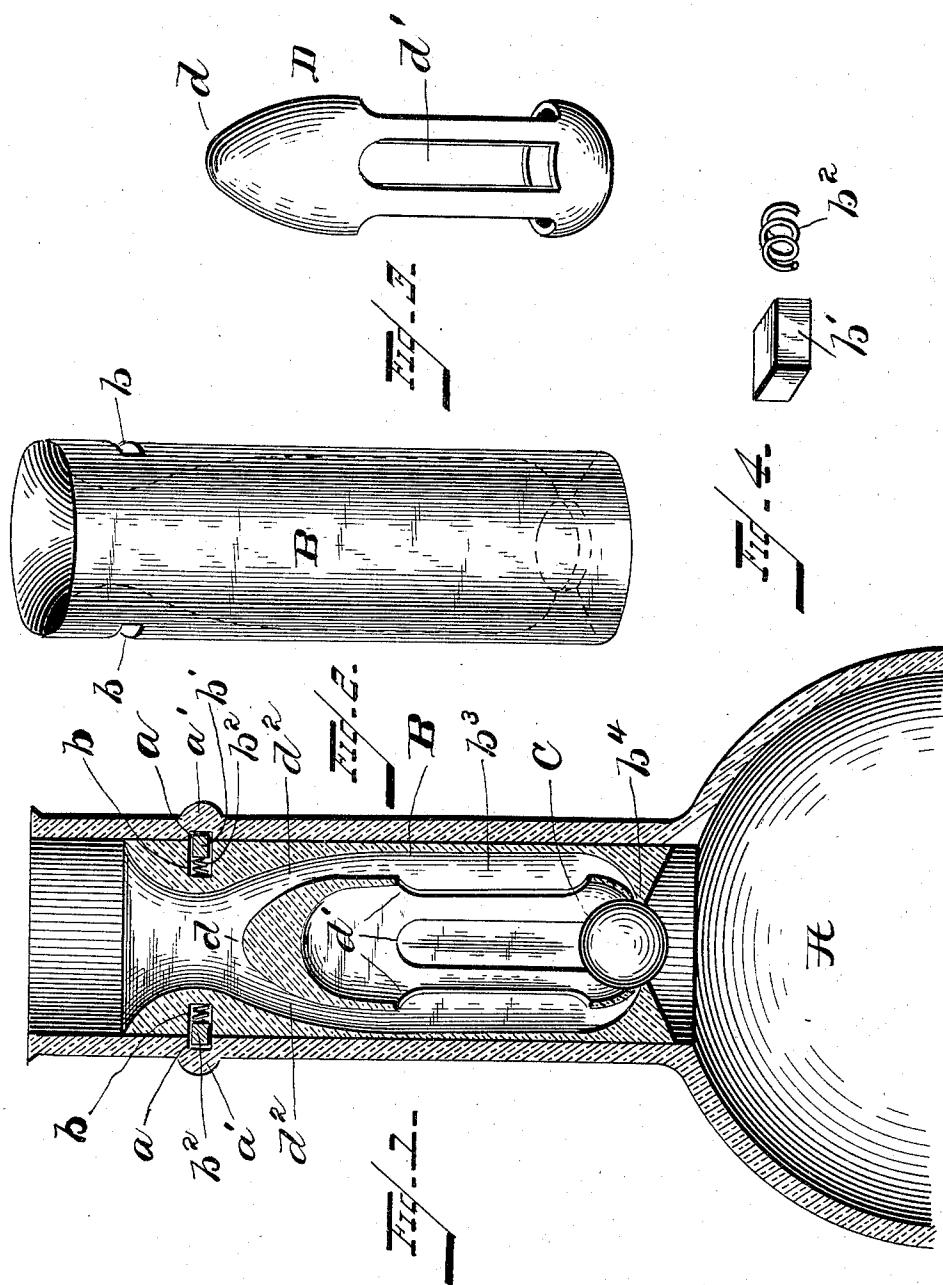
Patented Sept. 27, 1898.

J. MERIGAN.

BOTTLE.

(Application filed Nov. 16, 1896.)

(No Model.)



WITNESSES

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# UNITED STATES PATENT OFFICE.

JAMES MERIGAN, OF PHILADELPHIA, PENNSYLVANIA.

## BOTTLE.

SPECIFICATION forming part of Letters Patent No. 611,368, dated September 27, 1898.

Application filed November 16, 1896. Serial No. 612,296. (No model.)

To all whom it may concern:

Be it known that I, JAMES MERIGAN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State 5 of Pennsylvania, have invented certain new and useful Improvements in Bottles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to 10 which it appertains to make and use the same.

This invention relates to improvements in antirefilling bottles; and it consists of certain novel constructions, combinations, and arrangements of parts, all of which will be 15 hereinafter more particularly set forth and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 represents a central vertical section through a bottle embodying my invention, the stopper being in 20 its locked position within the neck of said bottle. Fig. 2 represents an enlarged detail perspective view of my improved stopper. Fig. 3 represents an enlarged detail perspective view of the valve canopy or guard, and 25 Fig. 4 represents an enlarged detail perspective view of one of the locking-flanges and its spring.

A in the drawings represents the bottle 30 proper; B, my improved stopper; C, the valve, and D the valve guard or canopy. Said bottle A may be of any desired construction and material and is provided in its neck with recesses a, arranged upon diametrically opposite 35 sides. Said neck is provided externally with enlargements a', that coincide in position with the recesses a, so as to strengthen the neck of the bottle at these points. The said stopper B is provided with external recesses b, each 40 of which is adapted to receive a movable plunger b' and a coil-spring b''. The said springs are arranged behind said plungers, so as to normally force the same outward and cause them to engage the recesses a when the stopper 45 is applied in the neck of the bottle, and thus lock the stopper in position. The said stopper is provided with a central vertical passage b<sup>3</sup>, contracted at its lower end to form a valve-seat b<sup>4</sup>, and at its upper end to permit 50 sufficient thickness of the walls to provide for the recesses b. The valve C is preferably of spherical formation and is seated upon the

seat b<sup>4</sup>. This valve is protected from any interference or tampering from above by the guard or canopy D. This canopy is hollow 55 and is provided with an upper conical end d and a plurality of vertical slots d', the space between the upper end of said canopy and the adjacent portion of the sleeve B forming the outlet-passage d<sup>2</sup>. 60

The upper head or portion d of the guard D is somewhat conical or pointed, so as to act as a valve whose seat is an inturned portion or swell of the sleeve, so that when the bottle is overturned the guard leaves the seat at the 65 bottom of the sleeve B, carrying the valve with it, and slides toward the mouth of the bottle, when its head or portion d seats itself on said swell, thus closing the bottle and preventing the latter from being refilled when 70 in inverted condition.

When the bottle is in normal upright condition, the valve C occupies the seat b<sup>4</sup>, thus closing the bottle, it being noticed that the perforation in the bottom of the guard is only 75 sufficiently large to allow a portion of the valve to pass through the same and so reach the said seat b<sup>4</sup>, while, however, preventing said valve from escaping at all times from the guard. 80

It will be observed from the foregoing description that when the liquid is placed in the bottle A and the stopper forced down into locked position it can be readily removed from the bottle by simply tipping the same, 85 thus causing the spherical valve C to roll forward into the upper end of the guard D and uncover the outlet from said bottle. Should an attempt be made to refill the bottle, the said spherical valve C will immediately become seated upon its seat b<sup>4</sup> and thus effectively prevent the ingress of the liquid. It will also be observed that the said spherical valve C is fully protected from any interference from without by means of my improved 90 canopy or guard D. While this canopy fully protects said valves, it does not in any manner interfere with the egress of the liquid from the bottle through the slots d' and passage b<sup>3</sup>. After the stopper B has once been 100 applied in the neck of the bottle it is impossible to withdraw the same, as the plungers b' snap into the recesses a and thus effectively secure said stopper.

In practice I preferably construct the several parts of my improved stopper of glass, so that they will not be injured by the contents of the bottle or affect the same by becoming 5 saturated with its flavor or odor.

In the manufacture of my improved bottle-stopper the guard D is preferably inserted into the stopper from below before the valve-seat is formed.

10 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

15 1. Valve-seats in the interior of the neck of a bottle at opposite places, and a sliding guard within said neck having a loose valve in the bottom thereof, and a valve-head on the upper end thereof, the loose valve being adapted for the lower seat in said neck and the valve-head for the upper seat therein.

20 2. In a non-refillable bottle, a sleeve within the neck thereof, having valve-seats in opposite portions and means for securing said sleeve to said neck, in combination with a

sliding guard having a valve-head at its top, a perforation in its bottom, and openings in 25 its sides, and a valve in said guard, said valve being adapted to pass through said perforation and be placed on the lower seat of said sleeve, and said head being adapted to be placed on the upper seat thereof.

3. In a non-refillable bottle, a guard having a valve-head thereon at top and a perforation in the bottom, and a valve in said guard adapted to pass partly through said perforation, said valve-head being adapted for a seat 35 in the upper portion of said neck and said valve being adapted for a seat in the lower portion thereof while partly occupying said perforation.

In testimony whereof I have signed this 40 specification in the presence of two subscribing witnesses.

JAMES MERIGAN.

Witnesses:

JOHN A. MCARAN,  
PATRICK CONNELLY.