

No. 652,568.

Patented June 26, 1900.

J. A. PEARCE.

CLOSURE FOR BOTTLES OR SIMILAR ARTICLES.

(Application filed Feb. 28, 1900.)

(No Model.)

Fig. 1

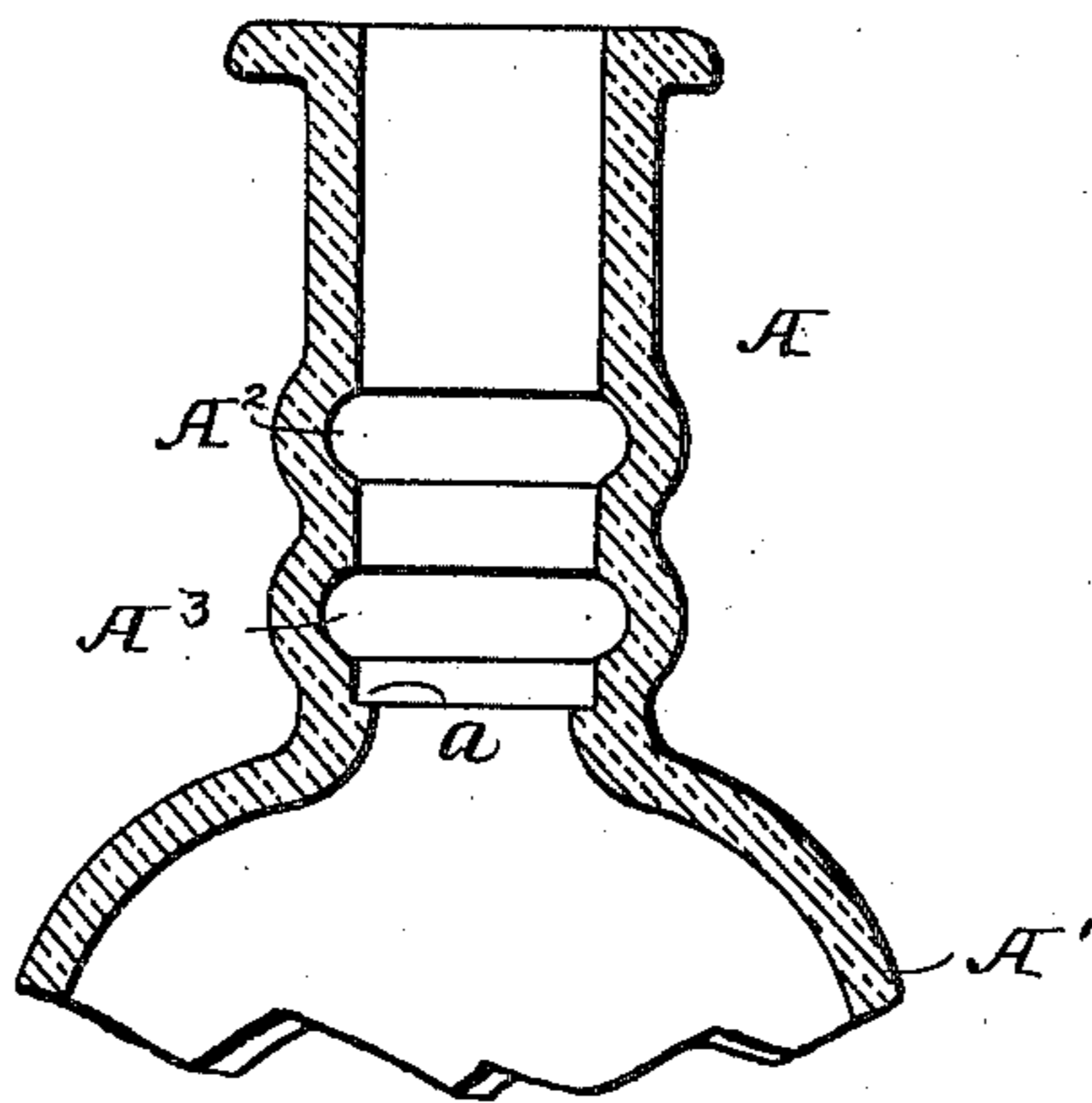


Fig. 2.

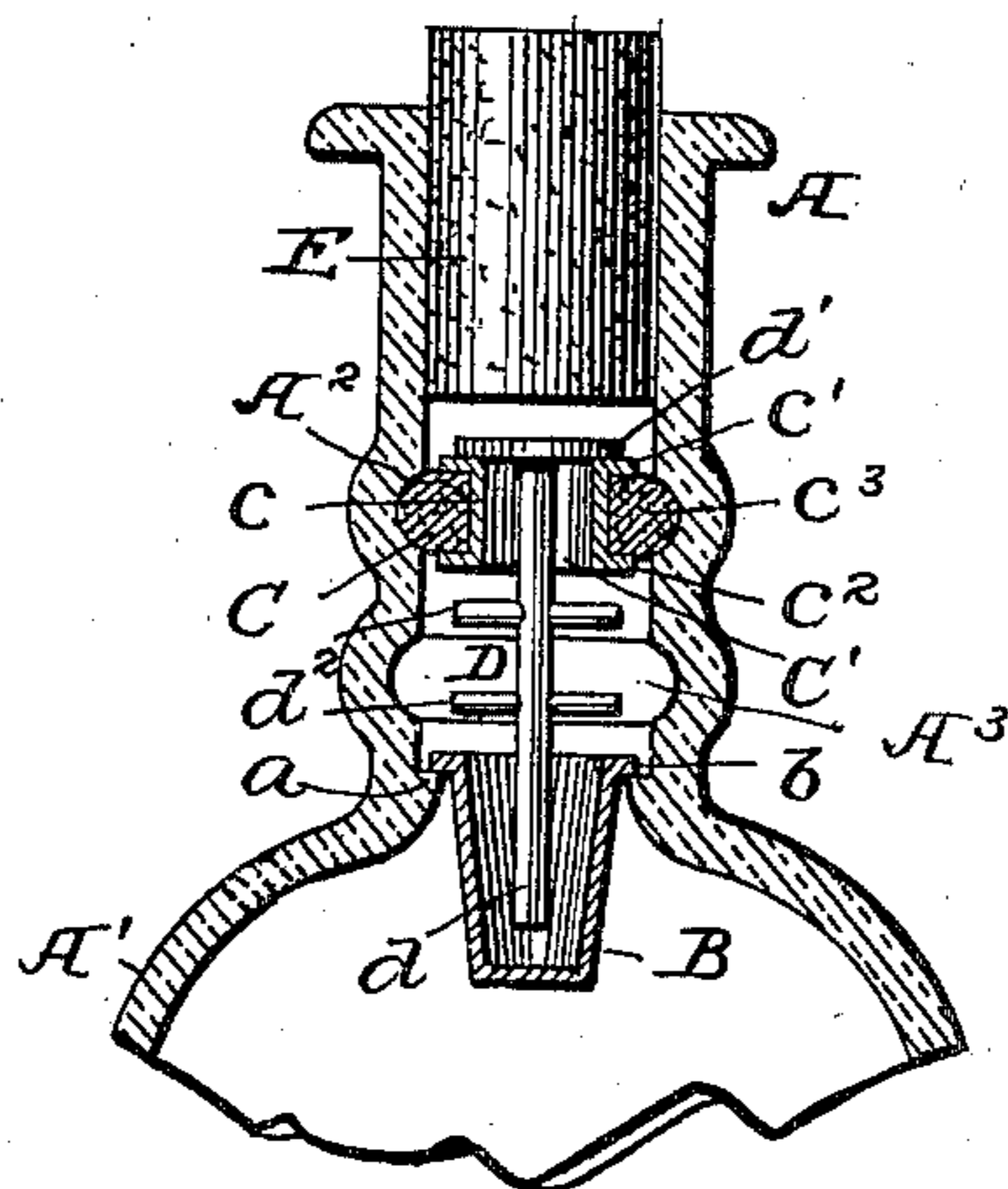
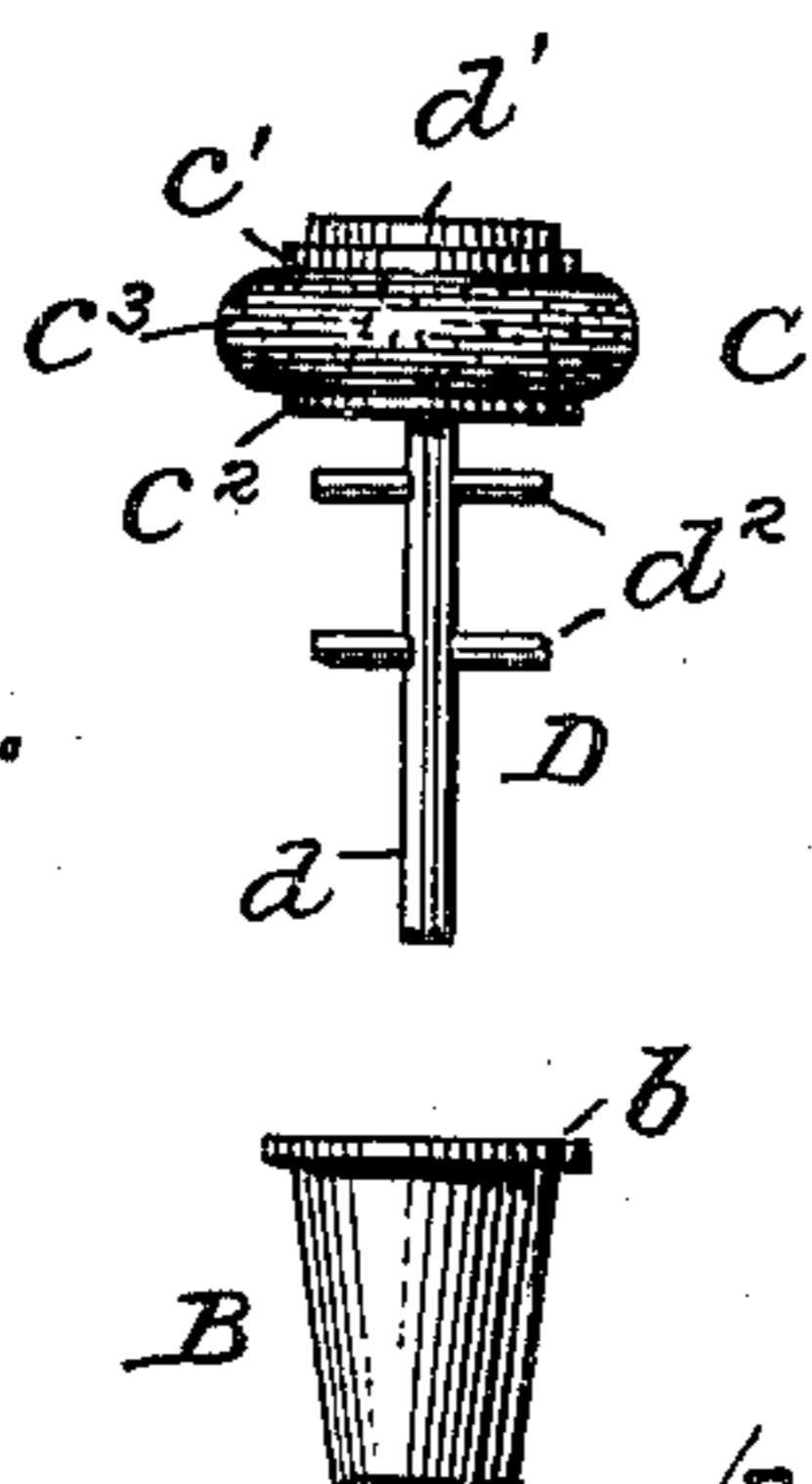


Fig. 3.



Witnesses

J. G. Hinkel

H. M. Gillman, Jr.

Inventor

John A. Pearce

by J. A. Pearce

Attorneys

# UNITED STATES PATENT OFFICE.

JOHN A. PEARCE, OF TALLAHASSEE, FLORIDA.

## CLOSURE FOR BOTTLES OR SIMILAR ARTICLES.

SPECIFICATION forming part of Letters Patent No. 652,568, dated June 26, 1900.

Application filed February 28, 1900. Serial No. 6,835. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN A. PEARCE, a citizen of the United States, residing at Tallahassee, in the county of Leon and State of Florida, have invented certain new and useful Improvements in Closures for Bottles or Similar Articles, of which the following is a specification.

My invention relates to closures for bottles and similar articles, and has for its object to provide an improved structure for this purpose; and it consists in the various features of construction and arrangement of parts, substantially as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a vertical section of the upper portion of a bottle or structure. Fig. 2 is a vertical section of a portion of a bottle or similar article with the closure applied. Fig. 3 is a detail view showing the various parts of the closure.

One of the objects of my invention is to provide a simple, cheap, and effective closure for bottles and other similar receptacles which can be readily applied and which will allow the contents thereof to be freely poured from the bottle or receptacle and which will prevent the refilling of the receptacle by unauthorized parties.

I have shown my invention as embodied in a bottle-closure; but it is apparent that it can be used for other receptacles, the parts being formed and shaped to accommodate themselves to the requirements of any particular case, without departing from the principle of the invention.

Referring to the drawings, A represents a neck of a bottle, which is provided, preferably near its point of juncture with the body A' of the bottle, with an inward projection a, forming a shoulder. Mounted in the neck and supported on the shoulder a is a hollow receptacle B, in the shape of a thimble, having a projecting flange b, and this thimble fits somewhat loosely in the neck of the bottle, and its flange b normally rests upon the projection a.

In the neck A of the bottle, above the thimble, there are formal grooves A<sup>2</sup> A<sup>3</sup>, and arranged to fit the neck and be supported in one of said grooves is a stopper C. This stopper is made in two or more parts, one of

which, as c, is of some hard material, such as glass or metal, and is provided with upper and lower flanges c' c<sup>2</sup>, and fitting in this portion between the flanges is the other portion c<sup>3</sup>, of some elastic material—such, for instance, as rubber, cork, or the like. This elastic material is in the form of a ring, and its outer surface is preferably curved to conform with the groove A<sup>2</sup>. The stopper is provided with a central opening C'. Arranged in this central opening is a valve D, comprising a stem d and having a cap d'. Passing through the stem are two pins d<sup>2</sup>. The valve may be of any suitable material, such as metal or glass, but preferably of rigid material. The upper portion of the neck of the bottle may be closed in any ordinary manner, as by the use of the ordinary cork E or any other common stopper.

In assembling the parts, the bottle having been filled with its contents, the thimble B is dropped into position with its flange b resting on the projection a. The stem of the valve is passed through the opening in the stopper C and the pins d<sup>2</sup> attached to the stem, and the stopper is forced into the neck of the bottle, its elastic portion c<sup>3</sup> being compressed until the stopper reaches the groove A<sup>2</sup>, when the elastic material expands into the groove, securing the stopper in position. This can be accomplished in any suitable manner, and after the stopper is forced into position the cork E or other device may be applied.

When it is desired to use any portion of the contents of the bottle, the cork E is withdrawn and the bottle turned over until the contents will be permitted to flow freely from the bottle, the thimble being moved out of its position on the projection a and resting on one of the pins d<sup>2</sup>, the valve D having moved outward, and there is formed a passage between the projection a and the outside of the thimble and between the stem d of the valve and the inner walls of the opening in the stopper, one of the pins d<sup>2</sup> preventing the valve being displaced from the stopper. The groove A<sup>3</sup> provides a free passage for the fluid around the projection b of the thimble B. If now an attempt is made to fill the bottle, the valve in the first place will prevent its being filled, and if any fluid should pass

the valve it will be received in the thimble and force that into its normal position, preventing the fluid entering the body A' of the bottle.

5 Having thus described the preferred construction and arrangement of my invention, what I claim is—

10 1. A closure for bottles comprising a perforated stopper having a ring of elastic material to fit a groove in the neck of the bottle, a valve mounted in an opening in the stopper and having a stem provided with two pins, one of which engages the stopper when the valve moves outwardly, and a thimble provided  
15 with a flange adapted normally to rest upon a projection in the neck of the bottle and to engage the other pin when the thimble moves outwardly, substantially as described.

2. A closure for bottles comprising a neck

having two grooves and an inward projection, 20  
a perforated stopper having an elastic ring fitting one of the grooves, a valve mounted in an opening in the stopper and having a stem provided with two pins, one of which engages the stopper when the valve moves 25  
outwardly, and a thimble having a flange adapted normally to rest on the projection in the neck and to move outwardly into position opposite the groove and engage the other pin, substantially as described. 30

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

JOHN A. PEARCE.

Witnesses:

C. A. BRYAN,  
N. E. BASSETT.