

No. 829,626.

PATENTED AUG. 28, 1906.

T. F. BUCK,
NON-REFILLABLE BOTTLE.
APPLICATION FILED NOV. 6, 1905.

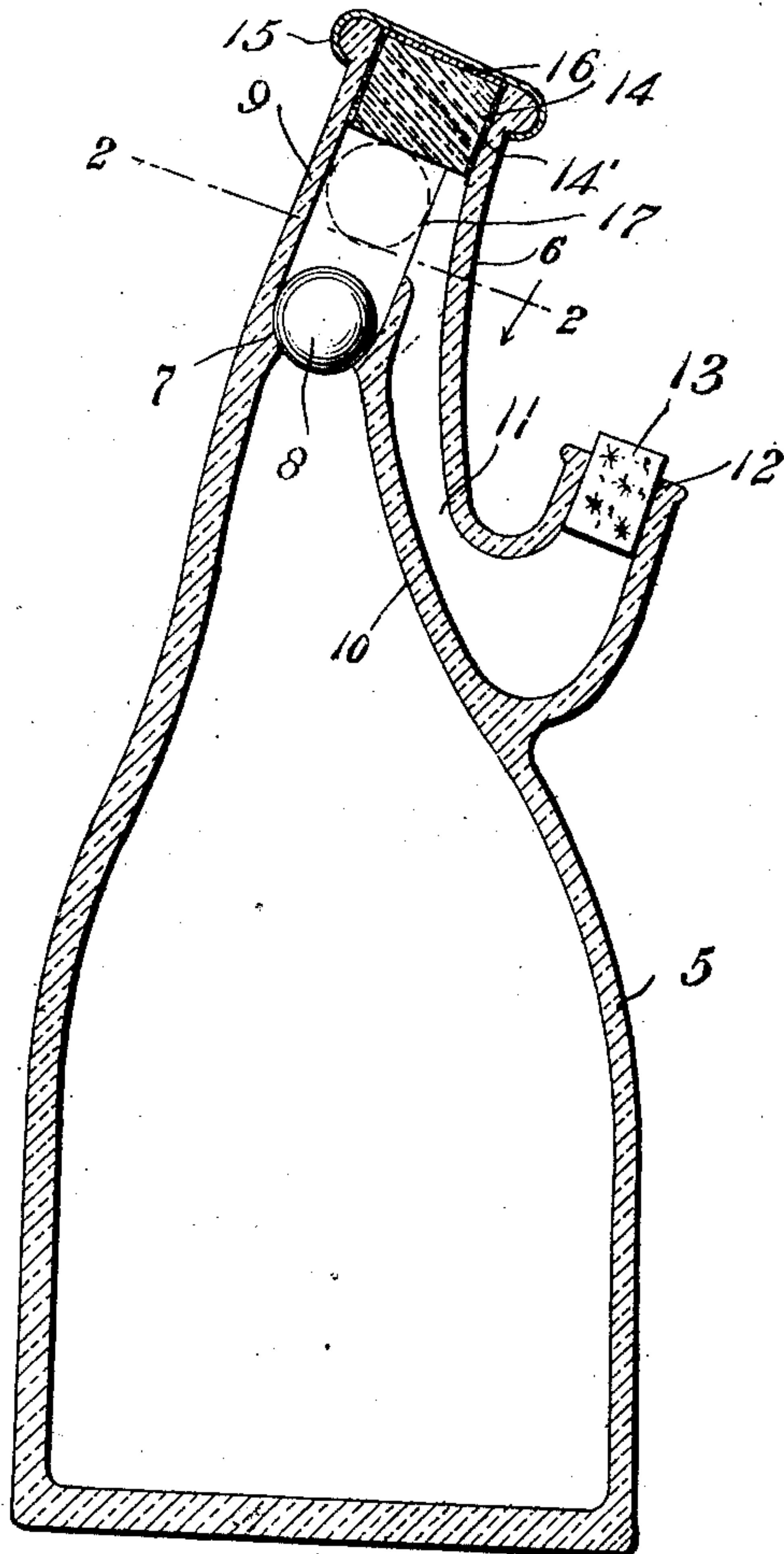


Fig. 1.

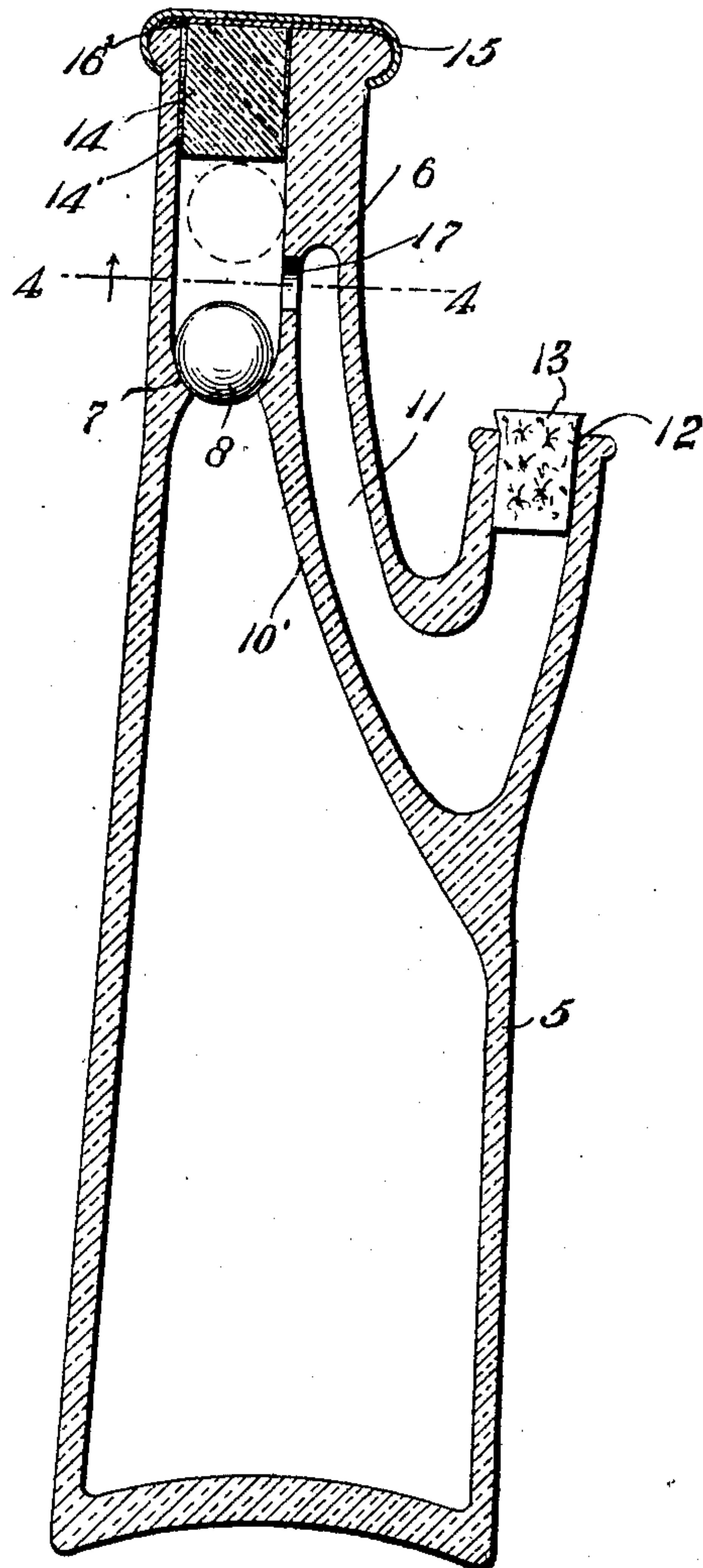


Fig. 3.

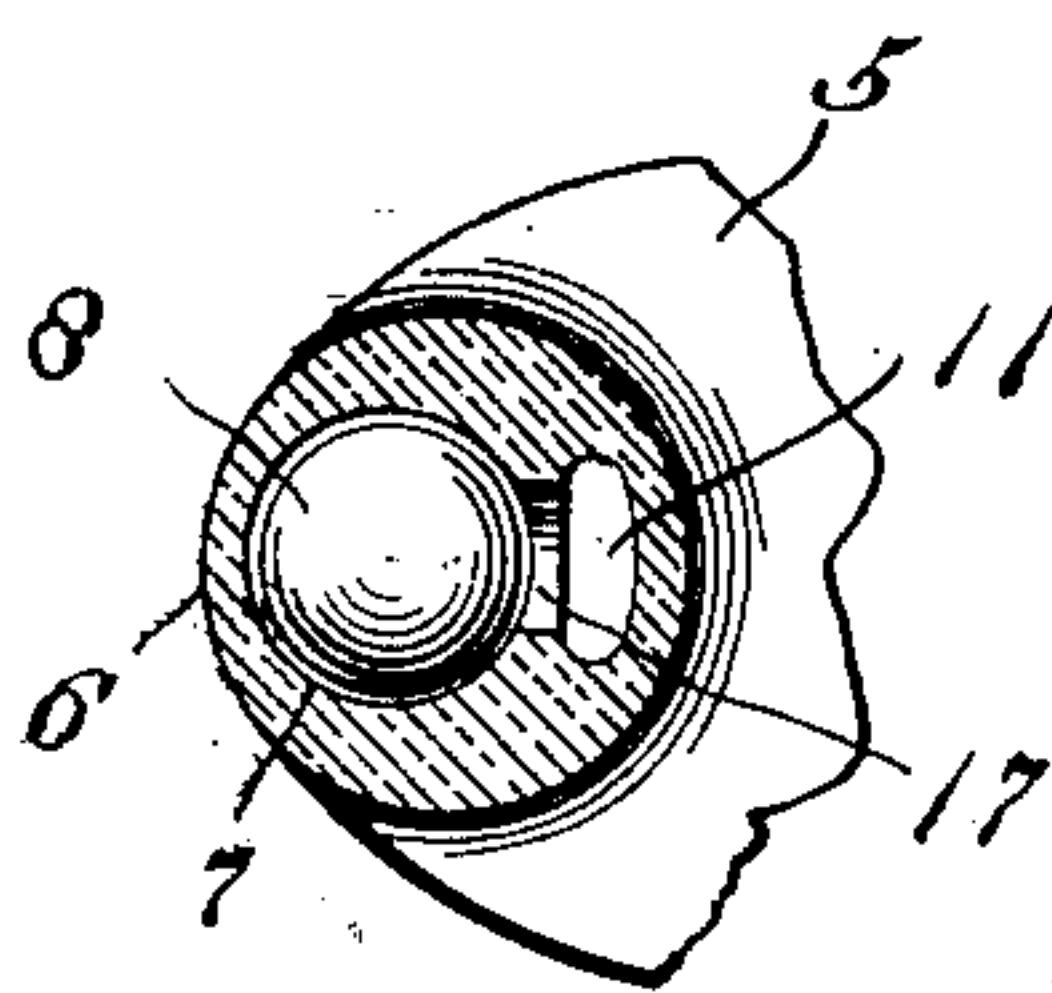


Fig. 2.

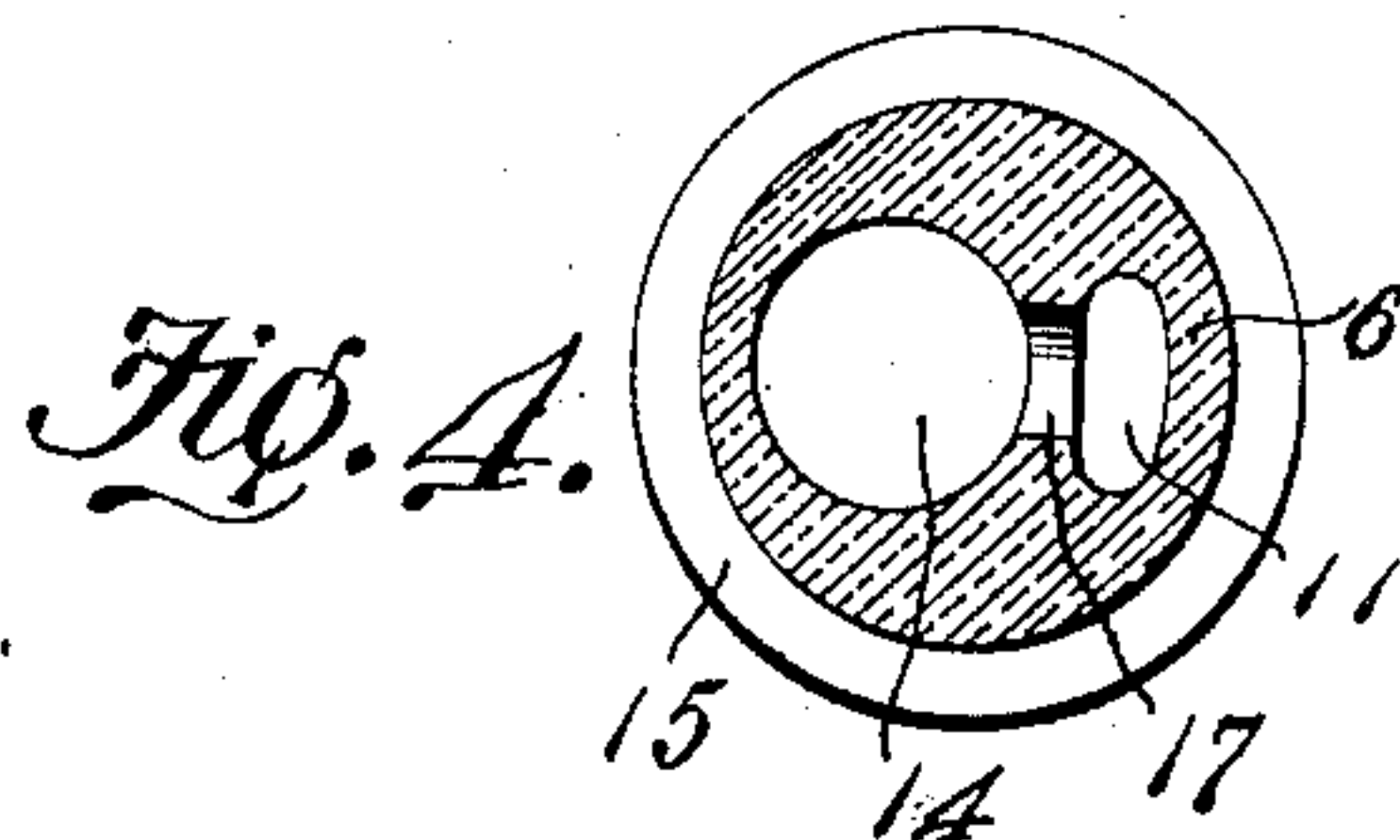


Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

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NON-REFILLABLE BOTTLE.

No. 829,626.

Specification of Letters Patent.

Patented Aug. 28, 1906.

Application filed November 6, 1905. Serial No. 286,082.

To all whom it may concern:

Be it known that I, THOMAS F. BUCK, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented a new and useful Non-Refillable Bottle, of which the following is a specification.

This invention relates to non-refillable bottles and other liquid-containing vessels, and has for its object to provide a simple, inexpensive, and efficient vessel of this character which cannot be refilled without danger of detection, thereby effectually preventing the fraudulent substitution of an inferior grade of goods for that originally contained in the bottle.

A further object of the invention is to generally improve this class of devices, so as to add to their utility and durability, as well as to reduce the cost of manufacture.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended, it being understood that various changes in form, proportions, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

In the accompanying drawings, forming a part of this specification, Figure 1 is a longitudinal sectional view of a non-refillable bottle constructed in accordance with my invention. Fig. 2 is a transverse sectional view taken on the line 2 2 of Fig. 1. Fig. 3 is a longitudinal sectional view of a modified form of the invention, and Fig. 4 is a transverse sectional view taken on the line 4 4 of Fig. 3.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The bottle consists of a body portion 5, the reduced neck 6 of which is bent or curved laterally, so that the mouth of the bottle extends to one side of and at an angle to the longitudinal axis of the bottle, as shown. The deflected portion of the neck 6 is ground, molded, or otherwise formed with a valve-seat 7 for the reception of a ball-valve 8, which latter serves to normally close the bottle, but is capable of a limited vertical movement between the interior inclined walls 9 of the neck when the bottle is tilted, so as to permit the

free discharge of the contents of said bottle. The neck of the bottle is formed with a partition 10, defining a discharge-passage 11, one end of which communicates with the neck of the bottle, while the walls of said passage at the opposite end thereof are curved laterally and upwardly beyond the exterior walls of the neck to form a discharge-opening 12, in which is seated a cork or other closure 13. The mouth of the neck 6 is closed by a stopper 14, formed of glass, porcelain, or other vitrified material, preferably secured in position by cement or similar plastic material 14' and over which is placed a metal retaining cap or cover 15, there being a plate or disk 16, of case-hardened steel, interposed between the stopper and cap to prevent drilling through the stopper in an attempt to fraudulently refill the bottle.

In filling the bottle the liquid is introduced through the mouth of the neck 6, and after the bottle is full the valve is inserted and the bottle sealed by introducing the stopper and placing the plate 16 and cap 15 in position. When it is desired to discharge the liquid, the bottle is tilted, which causes the ball-valve to roll on the inclined walls of the neck into engagement with the stopper and in which position the liquid is free to flow through the opening 17 into the passage 11 and thence through the discharge-opening 12 when the cork has been removed from the latter. As soon as the bottle is again placed in upright position the valve will automatically reseal itself and any attempt to refill the bottle through the passage 11 will prove futile. Should the bottle be inverted and an attempt made to force the liquid under pressure through the passage 11 into the bottle, the liquid will float the valve to closed position, and thus prevent the entrance of the liquid. It will thus be seen that in order to refill the bottle the neck must either be broken or the stopper punctured by drilling, and inasmuch as the latter operation is rendered impossible by reason of the case-hardened disk any attempt to fraudulently substitute an inferior grade of goods for that originally contained in the bottle will be readily detected.

In Figs. 3 and 4 of the drawings there is illustrated a modified form of the invention in which the neck of the bottle extends in the same longitudinal plane as the body thereof, while the partition 10' merges into the walls of the neck near the mouth of the latter. In this case the case-hardened disk

16' also extends entirely across the mouth of the neck, so as to form an additional protection. It will of course be understood that the bottles may be made in different sizes and shapes and that the valve-seat may be provided with a flexible washer of rubber, leather, or other suitable material in order to insure a good seat for the valve.

Having thus described the invention, what is claimed is—

1. A bottle having a valve-seat formed in the neck thereof, a valve engaging said seat and serving to normally close the bottle, a partition arranged within the neck of the bottle and defining a discharge-passage opening through the side walls of the bottle and extending in the direction of the mouth of the neck, a closure for the discharge-opening, and a stopper seated in the mouth of said neck.

2. A bottle having the mouth of its neck inclined laterally and provided with a valve-seat, a valve engaging said seat and serving to normally close the bottle, a partition arranged within the neck of the bottle and defining a discharge-passage opening through the side walls of the bottle, a closure for said discharge-opening, and a stopper seated in the mouth of the neck.

3. A bottle having the mouth of its neck

inclined laterally beyond the longitudinal axis of the bottle and provided with a valve-seat, a ball-valve engaging the seat and serving to normally close the bottle, a partition arranged within the neck of the bottle, and defining a discharge-passage opening through the side walls of the latter, said partition terminating short of the mouth of the neck and a stopper seated in the mouth of said neck.

4. A bottle having the mouth of its neck inclined laterally and provided with a valve-seat, a valve engaging the seat and capable of a limited vertical movement between the inclined walls of the neck, a partition arranged within the neck of the bottle and defining a discharge-passage opening through the side walls of the latter, said partition terminating short of the mouth of the neck to permit the discharge of the liquid through said discharge-passage when the valve is in open position, and a stopper for closing the mouth of said neck.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

THOMAS F. BUCK. [L. S.]

Witnesses:

PATRICK POWERS, [L. S.]

FRANCIS POWERS. [L. S.]