

A. A. JOHNSON.
NON-REFILLABLE BOTTLE.
APPLICATION FILED AUG. 10, 1908.

915,441.

Patented Mar. 16, 1909.

Fig. 1.

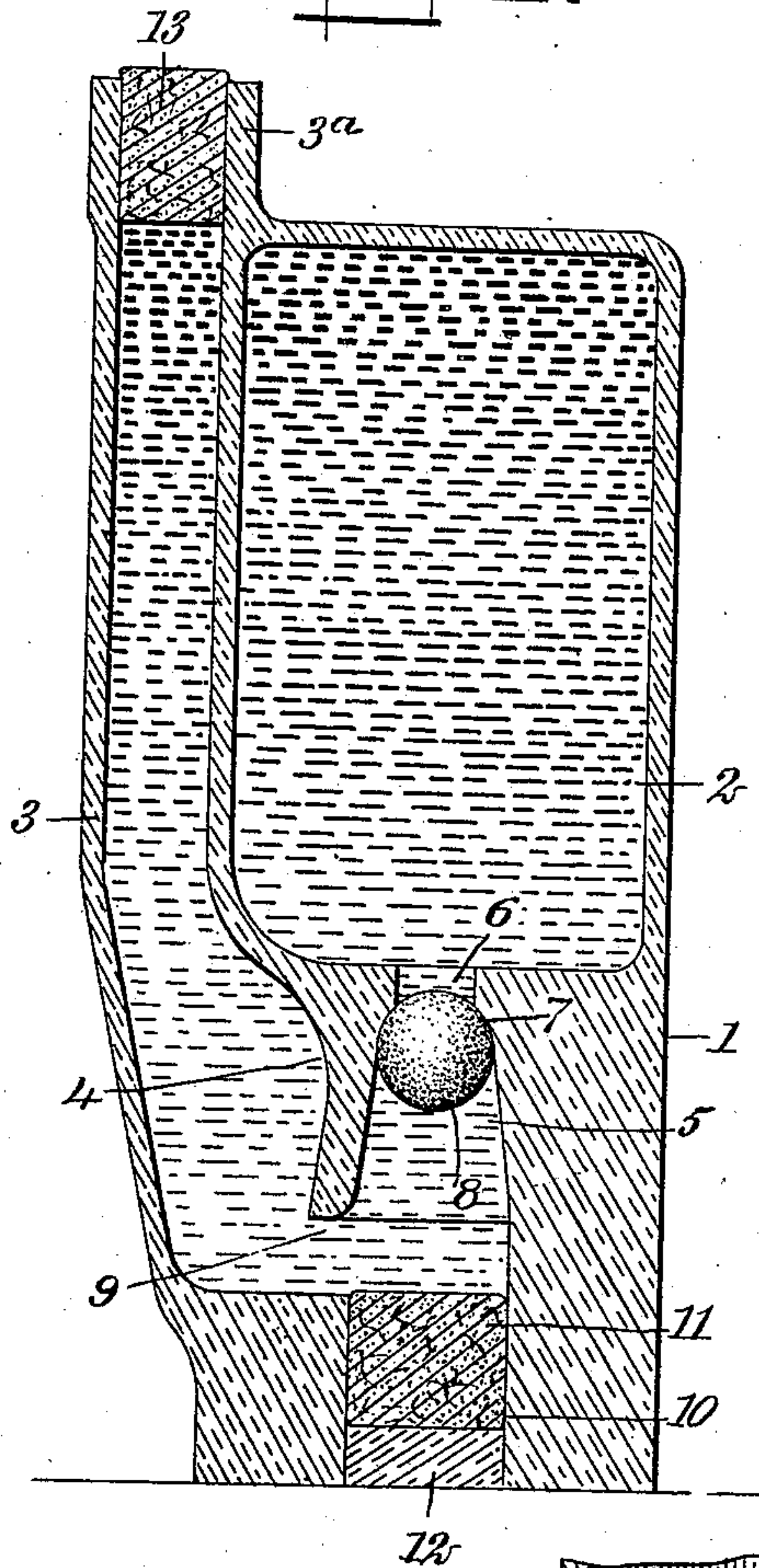


Fig. 2.

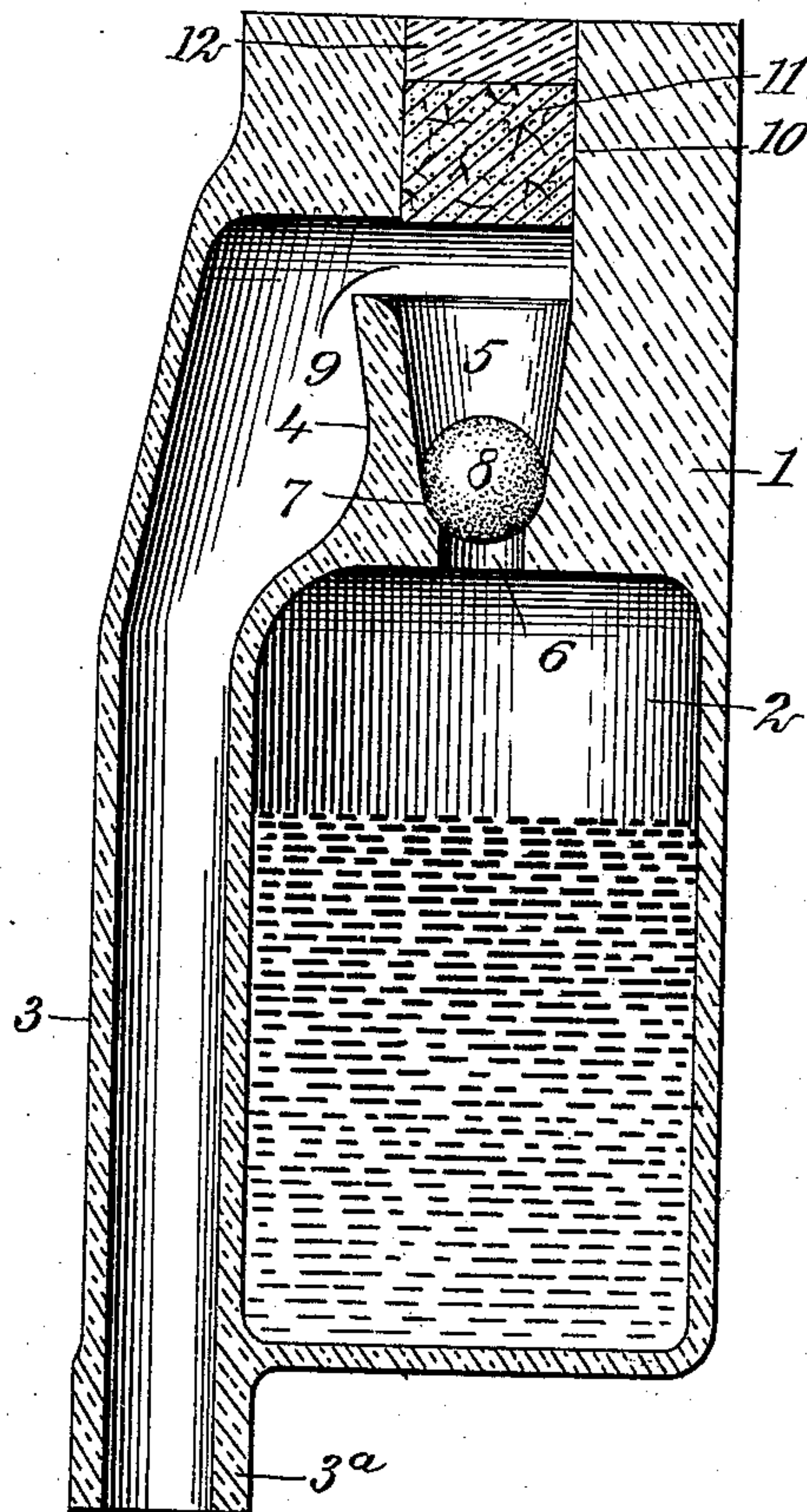
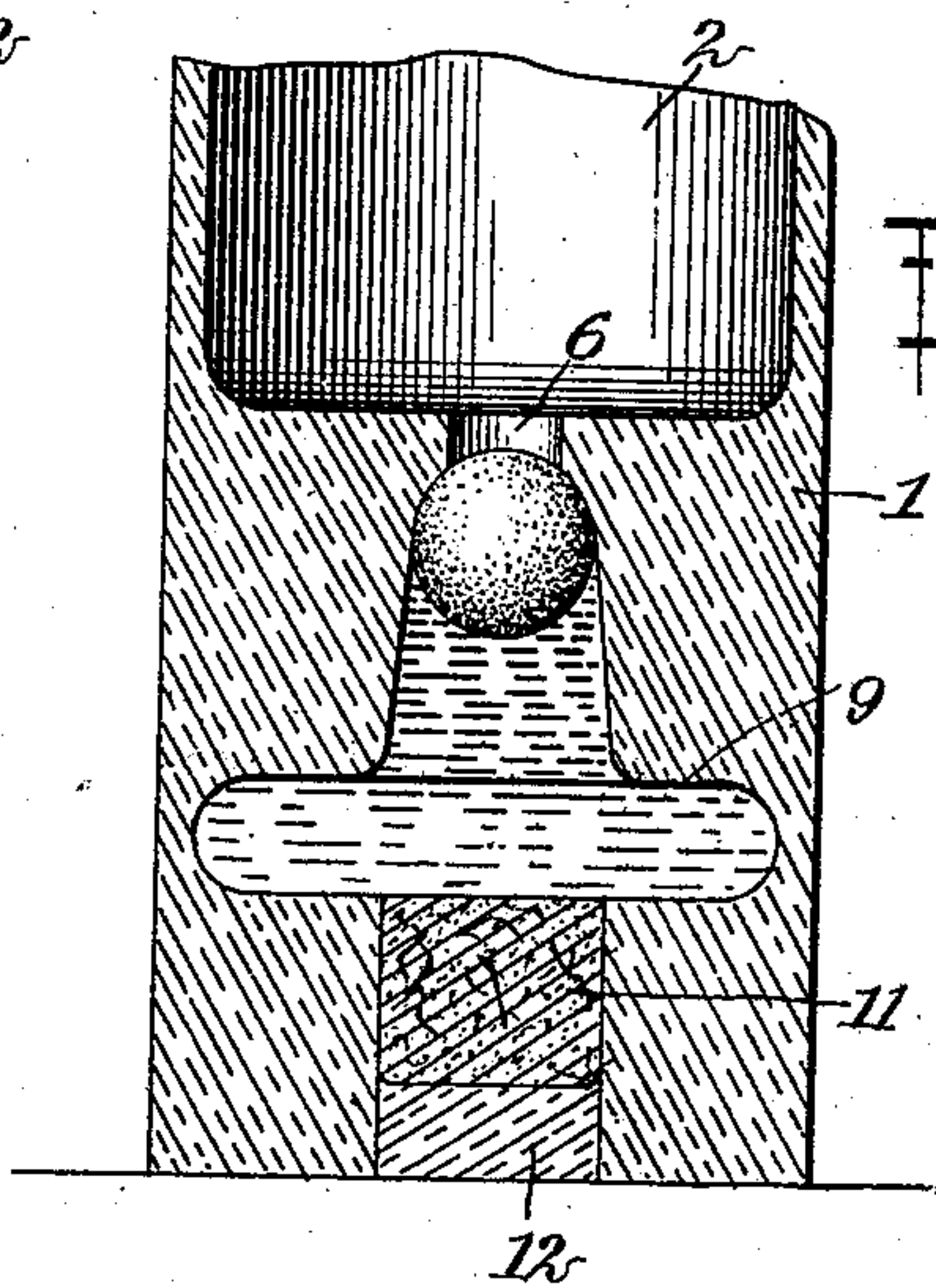


Fig. 3.



WITNESSES

E. C. [Signature]
F. D. [Signature]

INVENTOR

Arthur A. Johnson

BY *Wm. [Signature]*

ATTORNEYS

UNITED STATES PATENT OFFICE.

ARTHUR AUGUSTINE JOHNSON, OF NEW YORK, N. Y.

NON-REFILLABLE BOTTLE.

No. 915,441.

Specification of Letters Patent.

Patented March 16, 1909.

Application filed August 10, 1908. Serial No. 447,736.

To all whom it may concern:

Be it known that I, ARTHUR A. JOHNSON, a subject of the King of Great Britain, and a resident of the city of New York, Flushing, borough of Queens, in the county of Queens and State of New York, have invented a new and Improved Non-Refillable Bottle, of which the following is a full, clear, and exact description.

This invention relates to non-refillable bottles, and the object of the invention is to produce a bottle of very simple construction which can be constructed without the employment of metal parts or complicated valves, but which will operate effectively to prevent the re-filling of the bottle.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which drawings like characters of reference indicate like parts throughout the views, and in which—

Figure 1 is a vertical central section through a bottle constructed according to my invention; Fig. 2 is a view similar to Fig. 1, but showing the bottle inverted; and Fig. 3 is a vertical section through the base of the bottle and through the valve, and taken in a plane substantially at right angles to the plane of Fig. 1.

Referring more particularly to the parts, 1 represents the body of the bottle having a main chamber or reservoir 2 in which the contents of the bottle is held. This main chamber of the bottle is cylindrical in form. At one side the body of the bottle is provided with a neck or duct 3 which extends from the base thereof to the upper end of the bottle, and projects beyond the upper end of the bottle to form a pouring nipple 3^a. This neck is slightly enlarged, as indicated at 4, below which point the neck connects with a valve chamber 5 which is formed just below the main chamber 2, and connected with the main chamber through a port or opening 6. Below this port or opening 6 a seat 7 is formed for a ball valve 8, and from this seat 7 the walls of the valve chamber 5 diverge downwardly as indicated. The lower part of the valve chamber is connected through the extremity of the neck by means of a narrow slit or slot 9, which is of smaller

dimension than the ball valve 8. Under the central axis of the valve seat 7 the base of the bottle is provided with an opening 10, through which the bottle is filled and through which the valve is inserted. After the bottle has been filled and the valve has been placed in position, a cork or stopper 11 is inserted in the opening so as to close it, and this stopper is sealed in place by means of a plug 12 of glass, which is fused into the base of the bottle, or some suitable cement composition, as shown. The valve 8 is made of any light, buoyant material, such as cork or wood, or it may be hollow and formed of rubber. The nipple 3^a of the bottle is closed by a stopper 13 of any common form.

With a bottle constructed as described, it will be evident that if a portion of the contents of the neck 3 be poured out, the pressure of the fluid within the main chamber 2 will unseat the valve 8 so as to permit the quantity of fluid within the neck to be replenished.

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

1. A non-refillable bottle having a reservoir, a valve chamber formed below the same and having a seat in the upper part thereof, and a buoyant valve adapted to come upon said seat by an upward movement and retained in the valve chamber, said bottle having a duct extending down the side thereof and communicating with said valve chamber.

2. A non-refillable bottle having a reservoir, a valve chamber formed below the same and having a seat in the upper part thereof, a buoyant ball valve adapted to come upon said seat by an upward movement and retained in the valve chamber, said bottle having a neck extending down the side thereof and communicating with the valve chamber, said bottle having an opening in the base thereof under said valve chamber, and a plug fused in said opening.

3. A non-refillable bottle having a reservoir, and an opening in the lower end thereof, a valve chamber formed below said opening having a seat in the upper portion thereof, the walls of said valve chamber diverging outwardly in a downward direction, a neck passing down the side of said bottle, the wall of said valve chamber on the side adjacent to said neck having a slot therethrough open-

ing communication with said neck, and a
buoyant ball valve adapted to come upon
said seat by an upward movement and of
greater diameter than the width of said slot,
5 whereby said valve chamber retains said
valve, said bottle having a plug fused in the
base thereof retaining said valve.

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

ARTHUR AUGUSTINE JOHNSON.

Witnesses:

H. D. FORBES,

E. F. HOUGHTON.