

No. 657,459.

Patented Sept. 4, 1900.

C. H. SEELIG.
BOTTLE STOPPER.

(Application filed Jan. 31, 1900.)

(No Model.)

Fig. 1.

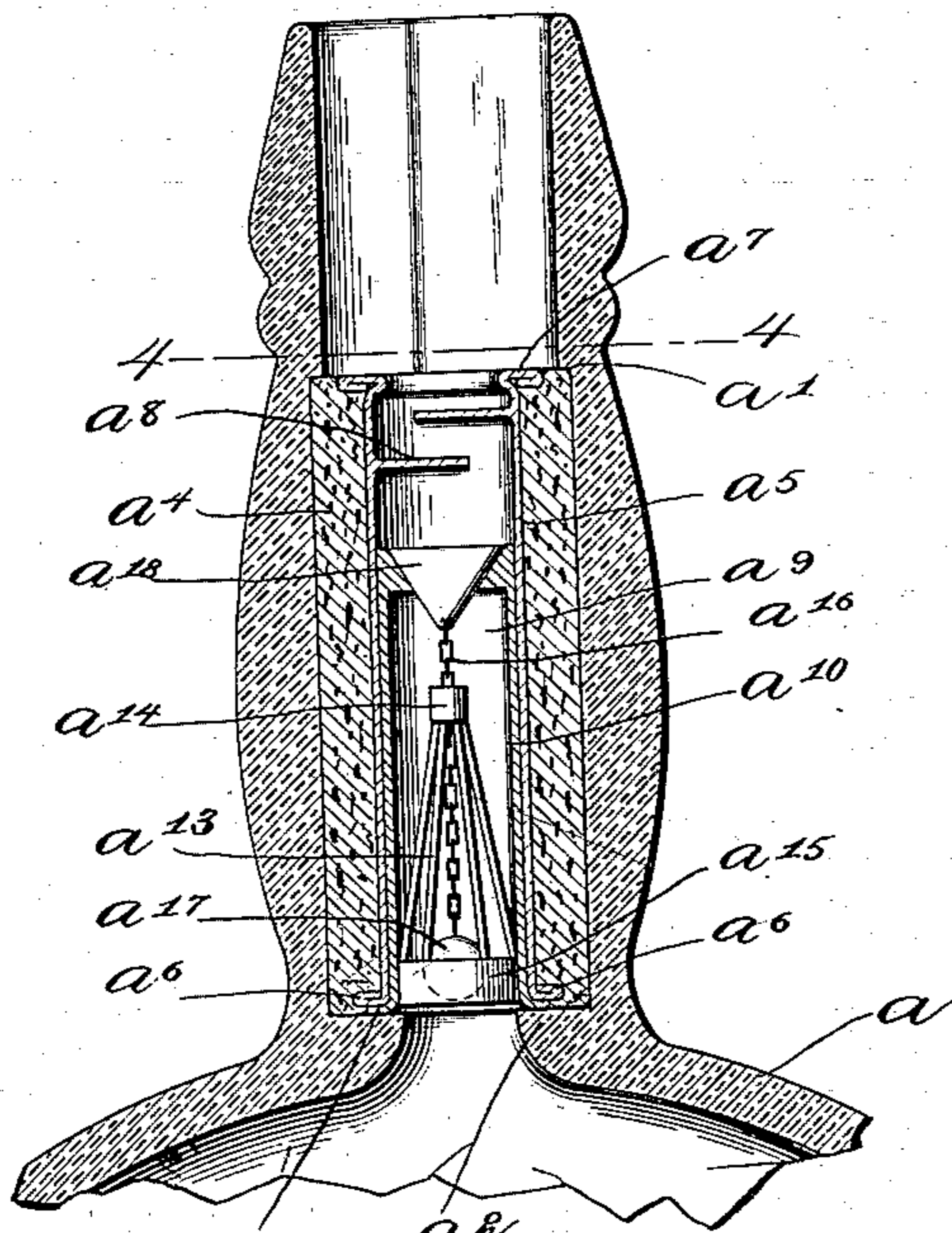


Fig. 2.

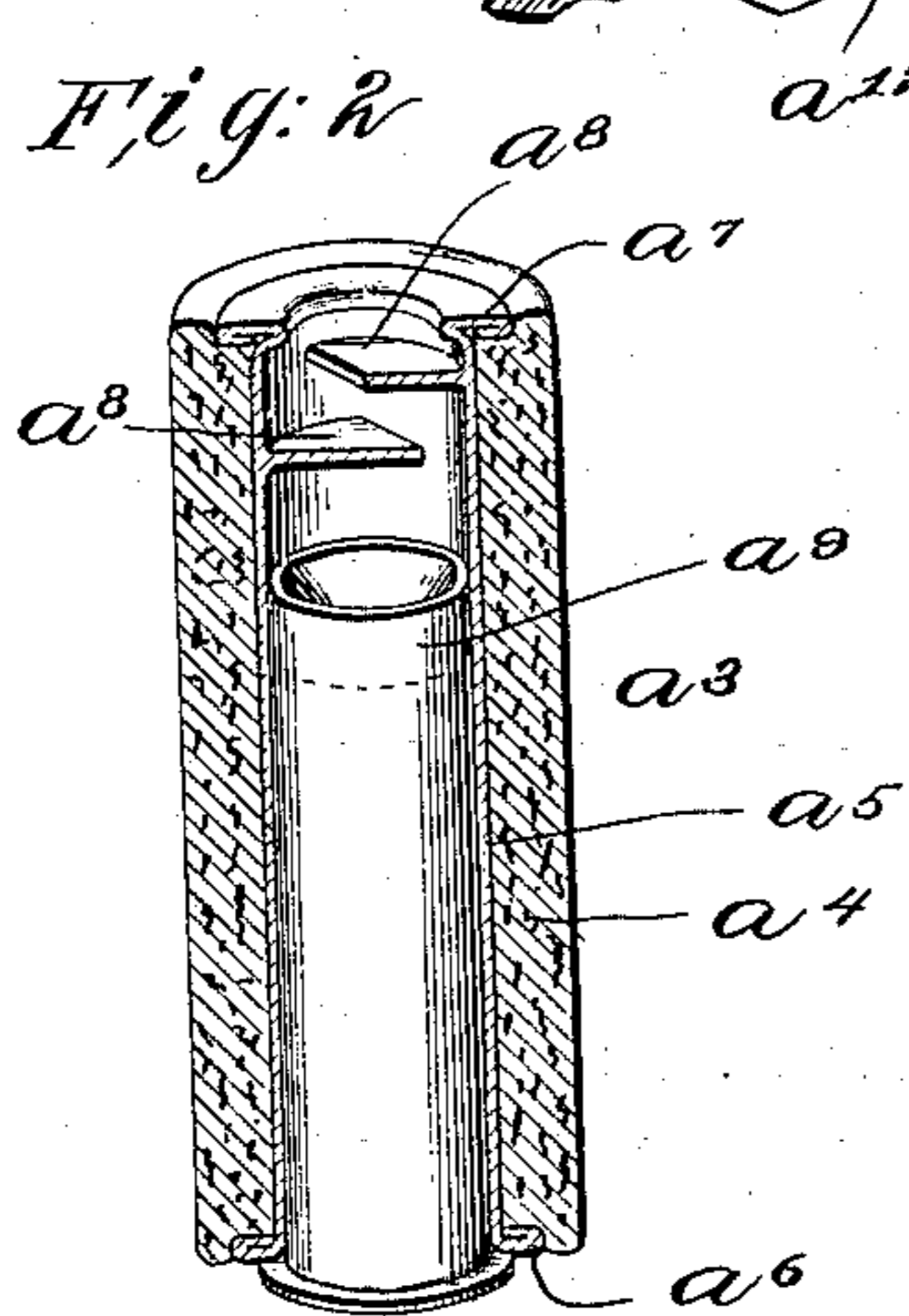


Fig. 3.

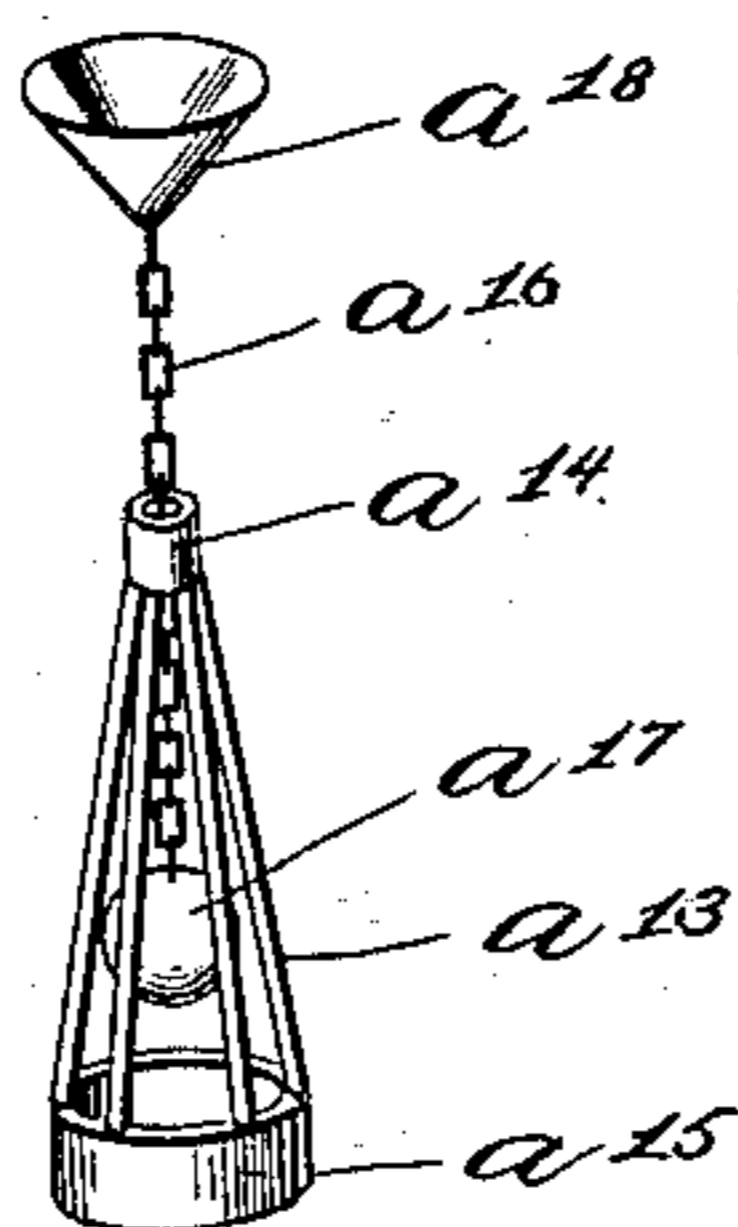
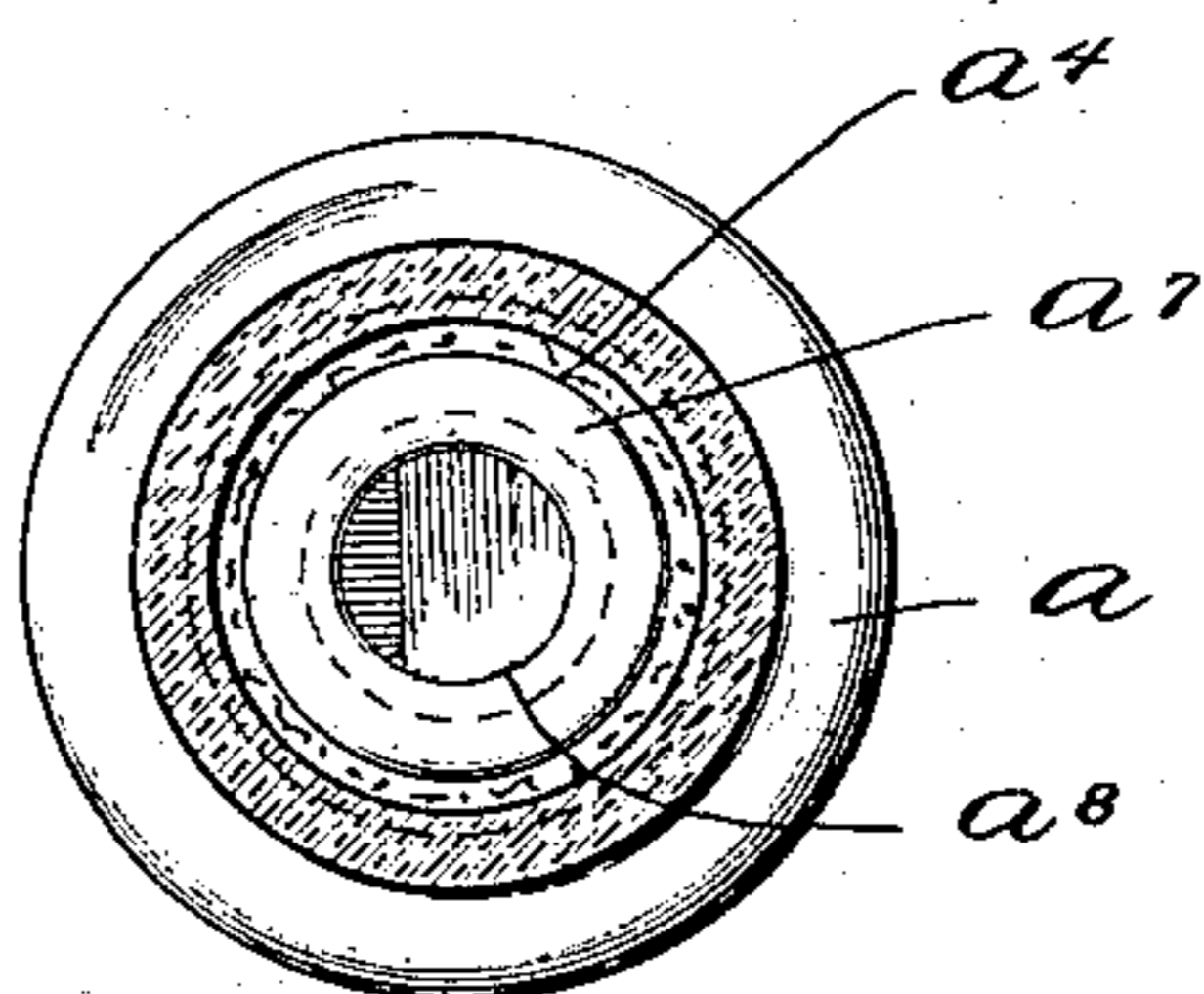


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

CARL H. SEELIG, OF WATERTOWN, MASSACHUSETTS, ASSIGNOR TO HECTOR E. LYNCH, OF SAME PLACE.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 657,459, dated September 4, 1900.

Application filed January 31, 1900. Serial No. 3,400. (No model.)

To all whom it may concern:

Be it known that I, CARL H. SEELIG, a citizen of the United States, residing at Watertown, county of Middlesex, State of Massachusetts, have invented an Improvement in Bottle-Stoppers, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My present invention is an improved antirefillable bottle, my invention relating particularly to the stopper.

As is well known, attempts have been persistently made to provide a device which would automatically prevent or hinder the refilling of the bottle after it had been once emptied of the genuine liquid with which it was originally filled; but most of these enterprises have met with indifferent success. My present invention provides a self-contained stopper of a plurality of parts, which when assembled may all be inserted into the neck of a bottle provided therefor and automatically retained in proper position, said stopper having a valve of hollow conical form or funnel shape which permits the liquid to flow out of the vessel readily, but automatically seats itself and prevents the return or inflow of the liquid when it is attempted to refill the bottle or vessel.

Various constructional details are requisite to my invention, and the following description sets forth fully and clearly the preferred construction thereof, reference being had to the accompanying drawings.

In the drawings, Figure 1 is a central vertical section through a bottle-neck provided with my invention. Fig. 2 is a sectional perspective view of the stopper. Fig. 3 is a perspective view of the valve and adjacent parts. Fig. 4 is a horizontal cross-section taken on the line 4 4, Fig. 1.

It will be understood that the bottle *a*, mainly broken away in Fig. 1, may be of any shape or kind, the neck thereof being provided with upper and lower shoulders *a'* *a''*, against which the stopper *a'''* proper fits. This stopper is composed of an outer casing *a''''*, of cork, containing a lining *a'''''*, of metal or other tenacious substance, having at its ends flanges *a''''''* *a'''''''* for holding the same in proper position

on the cork. Adjacent its upper end are baffle-plates *a''''''''* or other equivalent devices for preventing a tool's being inserted for interfering with the proper action of the stopper.

At a suitable distance from the top of the stopper I provide a valve-seat *a'''''''''*, which may be fixed on the lining *a''''''''*, or it may be provided at the upper end of a tube *a''''''''''*, as shown in Fig. 1, in which case it would have a lower flange *a'''''''''''*, embracing the lower end of the stopper in order to retain it properly. Secured in the lower end is a cage or directing device *a''''''''''*, (shown in detail in Fig. 3,) where it will be seen to consist of a plurality of wires or rods connecting an upper ring *a'''''''''''* and a lower band *a''''''''''''*, this cage being provided for the purpose of receiving a chain or suspending device *a'''''''''''*, which supports a weight *a''''''''''''*, attached thereby to the lower apex end of the valve *a''''''''''''* for seating the latter and maintaining it firmly and centrally on its seat when the bottle is in proper position therefor. The valve *a''''''''''''*, which constitutes a principal novelty of my invention, is in the shape of a funnel or a hollow cone, the open flaring mouth thereof being toward the mouth of the bottle, so that as the liquid flows out it will pass readily from the apex end over the sides of the cone and flow out past the baffle-plates; but when any liquid starts to flow in the other direction or into the bottle the liquid at once flows into the hollow valve and forces the latter firmly and accurately against the valve-seat *a'''''''''''*, thereby effectually closing the latter and stopping further flow of the liquid downward into the bottle.

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

1. In an antirefillable bottle, a stopper comprising a jacket having a central tubular passage, means at the top of the passage for preventing access for interfering with the stopper, a valve-seat secured intermediately of said passage, a valve mounted in said valve-seat, said valve having a funnel shape with the open flaring mouth thereof toward the mouth of the bottle, a seating-weight suspended from the inner apex end of the valve, and a cage or directing means secured in the lower part of said passage for properly main-

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taining said suspended weight centrally below the valve when the bottle is in upright position.

2. In an antirefillable bottle, a stopper comprising a jacket having a central tubular passage, means at the top of the passage for preventing access for interfering with the stopper, a valve-seat secured intermediately of said passage, a valve mounted in said valve-seat, said valve having a funnel shape with the open flaring mouth thereof toward the mouth of the bottle, a seating-weight suspended from the inner apex end of the valve, and a cage or directing means secured in the

lower part of said passage for properly maintaining said suspended weight centrally below the valve when the bottle is in upright position, said cage having a small annular upper portion and flaring rod extending downwardly therefrom to the bottom of said tubular passage and secured in the latter. 15 20

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

CARL H. SEELIG.

Witnesses:

JOHN C. EDWARDS,
LAURA T. MANIX.