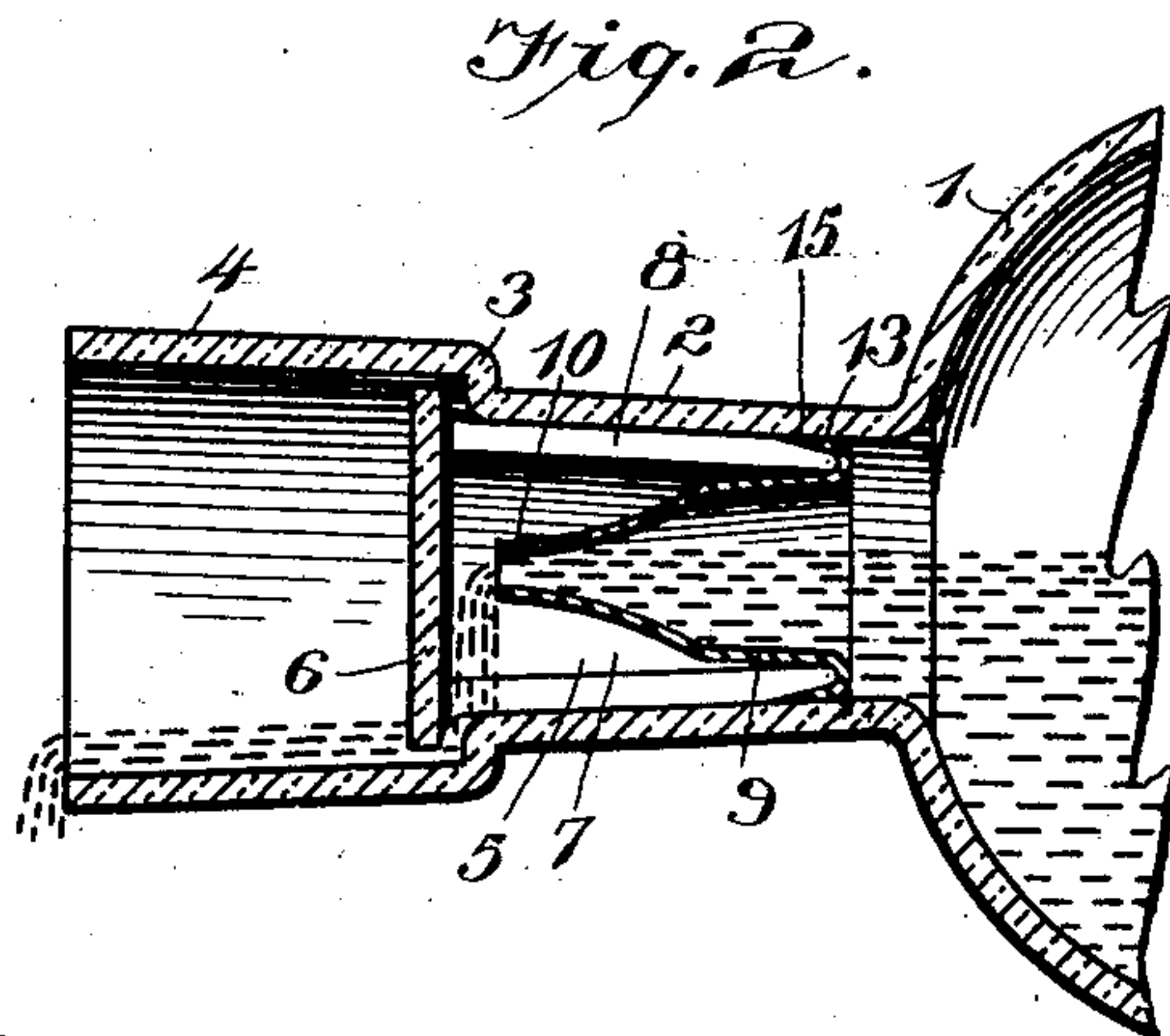
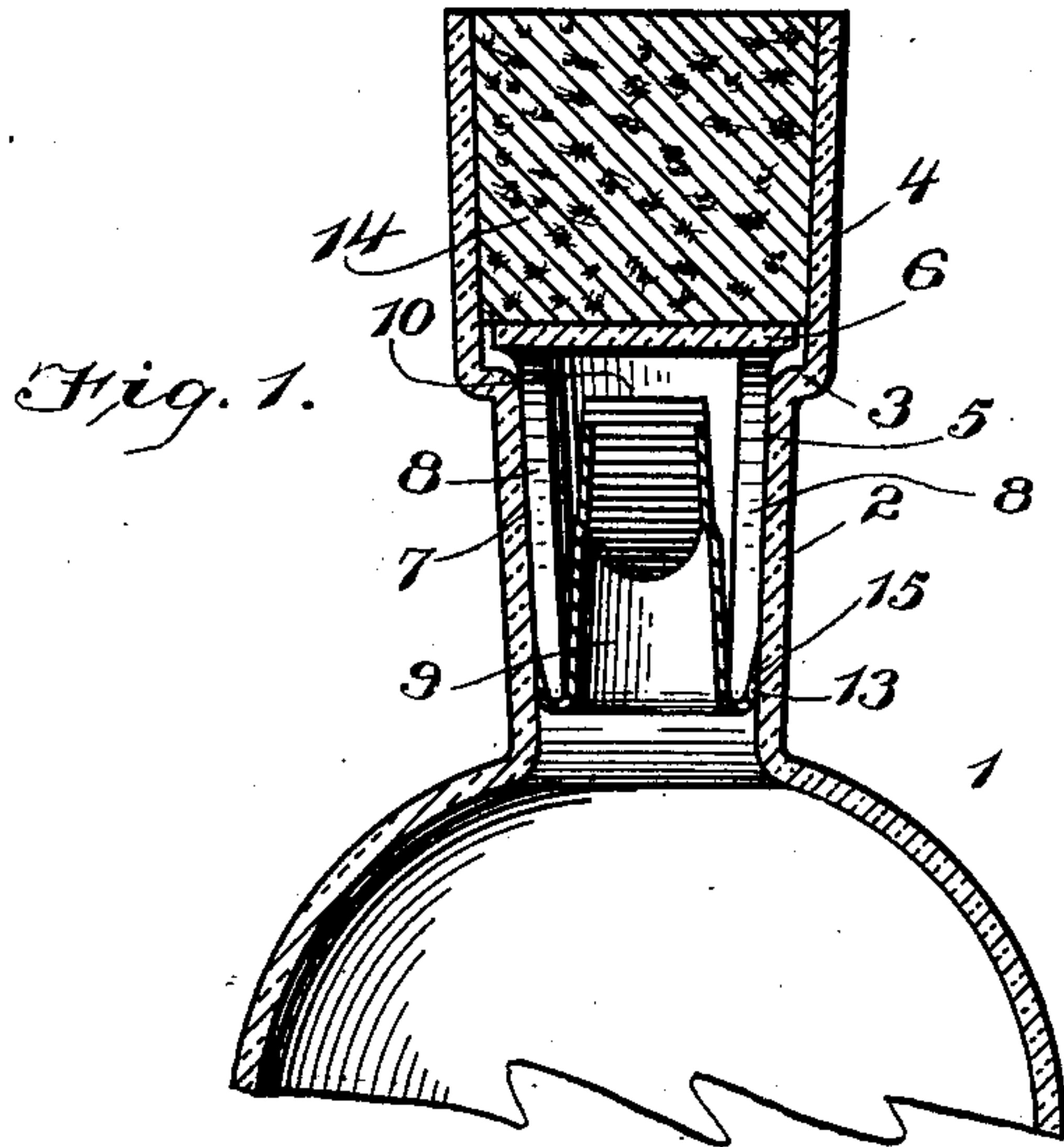


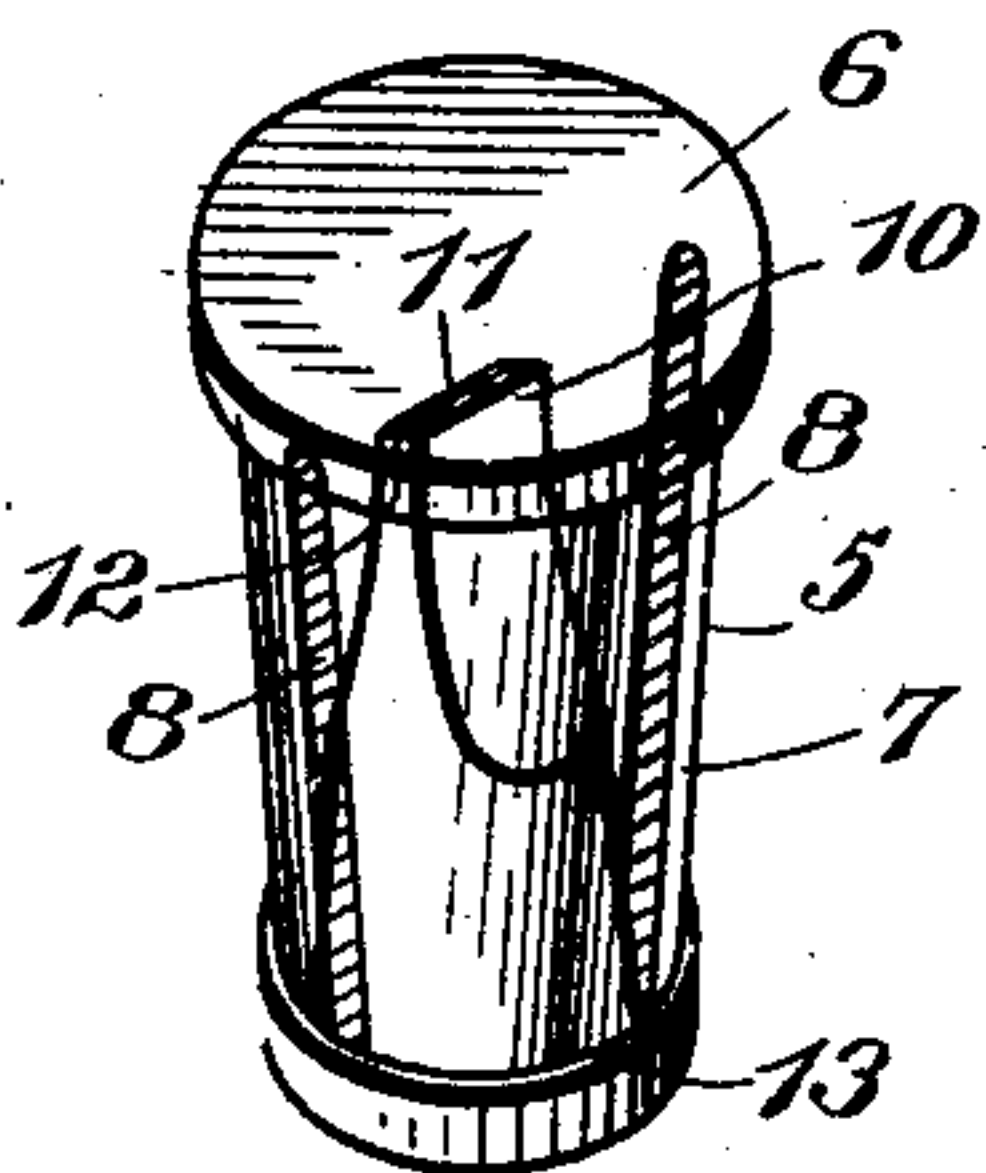
No. 862,393.

PATENTED AUG. 6, 1907.

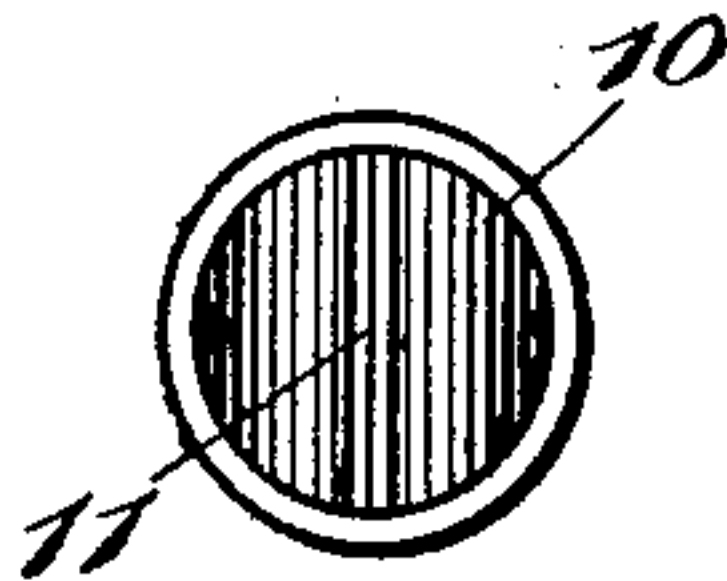
J. D. HARRISS.  
NON-REFILLABLE BOTTLE.  
APPLICATION FILED JULY 24, 1906.



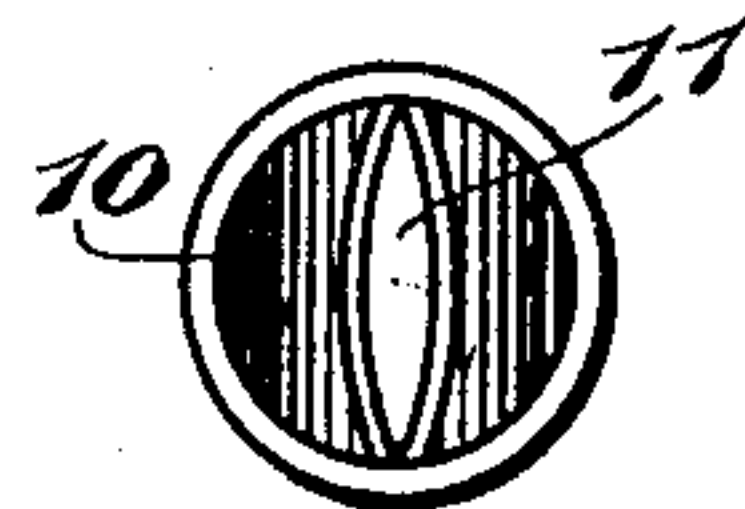
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



Witnesses

*J. P. Britt*  
*E. C. Duffey*

Inventor

*J. D. Hariss*

By

*O. E. Duffey*  
Attorney



# UNITED STATES PATENT OFFICE.

JEFFERSON D. HARRISS, OF TRAVILAH, MARYLAND, ASSIGNOR OF ONE-THIRD TO ERNEST H. DARBY, OF SENECA, MARYLAND, AND ONE-THIRD TO HATTAN A. WATERS AND CHARLES F. HOGAN, OF TRAVILAH, MARYLAND.

## NON-REFILLABLE BOTTLE.

No. 862,393.

Specification of Letters Patent.

Patented Aug. 6, 1907.

Application filed July 24, 1906. Serial No. 327,558.

*To all whom it may concern;*

Be it known that I, JEFFERSON D. HARRISS, a citizen of the United States, residing at Travilah, in the county of Montgomery and State of Maryland, have invented  
5 certain new and useful Improvements in Non-Refillable Bottles; and do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the  
10 accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to non-refillable bottles, and has for its object to provide a bottle valve arrangement  
15 which after being inserted in the neck of the bottle will not allow the bottle to be refilled, but at the same time provides for easily and quickly emptying the original contents from the bottles.

With this object in view my invention consists in  
20 the novel construction of a bottle valve, and my invention also consists in certain other novel details of construction and in combinations of parts all of which will be first fully described and afterwards specifically pointed out in the appended claims.

25 Referring to the accompanying drawing: Figure 1 is a vertical sectional view through the upper portion and neck of the bottle showing the bottle valve and parts in section. Fig. 2 is a similar view showing bottle in position of emptying contents. Fig. 3 is a perspective view of the valve guard and valve. Fig. 4 is a top  
30 plan of valve showing same in closed position, and Fig. 5 is a similar view showing valve in open position.

Like numerals of reference indicate the same parts throughout the several figures in which:

35 1 indicates a bottle which, as shown in Fig. 1, is provided with a tapering neck 2, a shoulder 3 being provided in the neck while the mouth 4 is slightly flared or tapered as shown.

Referring now particularly to Fig. 3, 5 indicates the  
40 valve guard which comprises a disk 6 and a tapered barrel 7, said guard is preferably constructed of glass but it is obvious that the same can be made of any suitable material. Extending the entire length of the barrel 7, as shown in Figs. 1, 2 and 3, are a series of  
45 slots 8.

9 indicates the valve which is preferably constructed of soft rubber and tapered as shown, the valve being so formed that the upper end 10 thereof is flattened and a slit 11 formed therein, as shown in Fig. 3, said slit 11  
50 extending a short distance down the side of the valve to a point 12 as clearly shown in Fig. 3. The valve 9 being of soft rubber the same is secured to the barrel 7 of the guard by turning the lower portion 13 of the valve

outwardly and over the lower edge of the barrel 7, it of course being understood that the valve 9 is inserted  
55 within the barrel 7, as clearly shown in the several figures.

Referring to Fig. 1 it will be seen that a cork 14 is provided above the disk 6 of the guard. This may be any ordinary cork its purpose being simply to securely  
60 close the mouth of the bottle.

Having thus fully described the several parts of my invention its operation is as follows: In order to assemble the parts the valve 9 is inserted within the barrel 7 of the guard 5 and the lower portion 13 of said valve is  
65 turned up and over the lower edge of the barrel 7 of the guard, the guard and valve being so secured together, the whole is inserted in the neck of the bottle and as the barrel 7 is tapered in conformity to the taper of the neck 2, said barrel 7 seats itself, as shown in Figs. 70 1 and 2. In so doing, however, the lower portion 13 of the valve 9 is jammed between the barrel 7 and the neck of the bottle, as shown at 15 in Fig. 1, thus securely holding the valve in its desired position and at the same time acting as a resilient closure to prevent  
75 the contents of the bottle from passing around the outside of the valve 9 and barrel 7. The taper of the barrel and neck is of such a degree that a space is left between the edge of the disk 6 and the shoulder 3 of the neck of the bottle. It is of course understood that the  
80 valve and guard are inserted as just described after the bottle has been filled. When the valve and guard are in their seated position a suitable stopper 14 is inserted in the mouth of the bottle in order to securely close the bottle and render the same air-tight. In order to empty  
85 the bottle the cork 14 must be withdrawn in the usual manner. However, the disk 6 being preferably of glass and not presenting a sufficient purchase for the insertion of a tool to dislocate the guard and valve from the bottle neck it is quite impossible to remove the guard  
90 and valve after the same has once become firmly seated, as any strain or pull on the disk 6 sufficient to dislodge the guard and valve from the bottle neck would result in fracturing the said disk 6 thereby making it instantly apparent that the bottle had been tampered with. The  
95 cork having been withdrawn it is simply necessary to turn the bottle into position shown in Fig. 2, because to empty the contents thereof the pressure of the liquid on the interior of the valve 9 expands the slit 11 in the end 10 of the valve 9 as shown in Figs. 2 and 5, thus  
100 allowing the liquid to freely pass through said slit. The liquid after passing through the slit 11 in the valve falls upon the inside of the barrel 7 of the guard 5 and as said barrel 7 is provided with longitudinal slots 8, as shown, the liquid passes freely through said slots and  
105 passes between the shoulder 3 in the bottle neck and

the edge of periphery of the disk 6 as clearly shown in Fig. 2. Should however it be attempted to again fill the bottle after the original contents have been emptied therefrom it is obvious and apparent that the pressure 5 of a liquid upon the outside of the valve 9 would simply tend to forcibly close the slit 11 in the end 10 of the valve, thus absolutely excluding any liquid from entering the bottle 1.

10 Having thus fully described my invention what I claim as new and desire to secure by Letters Patent of the United States, is:

In a device of the character described, the combination of a bottle having a tapered neck, a valve guard compris-

ing a disk and a tapered barrel, said barrel conforming to the said taper in the bottle neck, said barrel being provided with longitudinal slots extending from the bottom 15 edge thereof to the said disk, a valve within the said barrel, said valve being resilient and flexible and having the lower portion thereof turned over the outside of the lower portion of the said barrel, said valve being provided with 20 a slit at its upper end, said slit being normally closed and disposed directly under the said disk of the valve guard, substantially as described.

In testimony whereof, I affix my signature, in presence of two witnesses.

JEFFERSON D. HARRISS.

Witnesses:

GEORGE M. HUNTER,  
HORTENSE D. HUNTER.