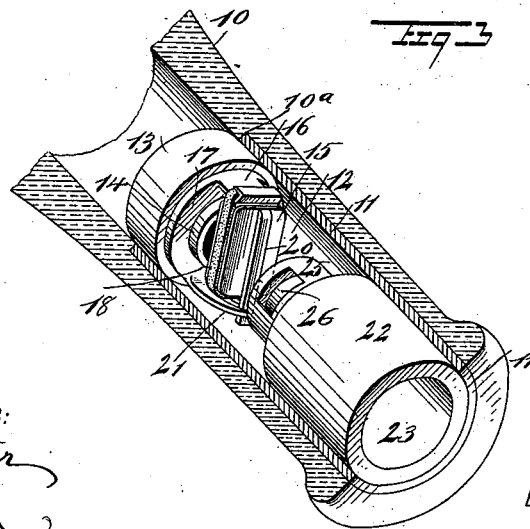
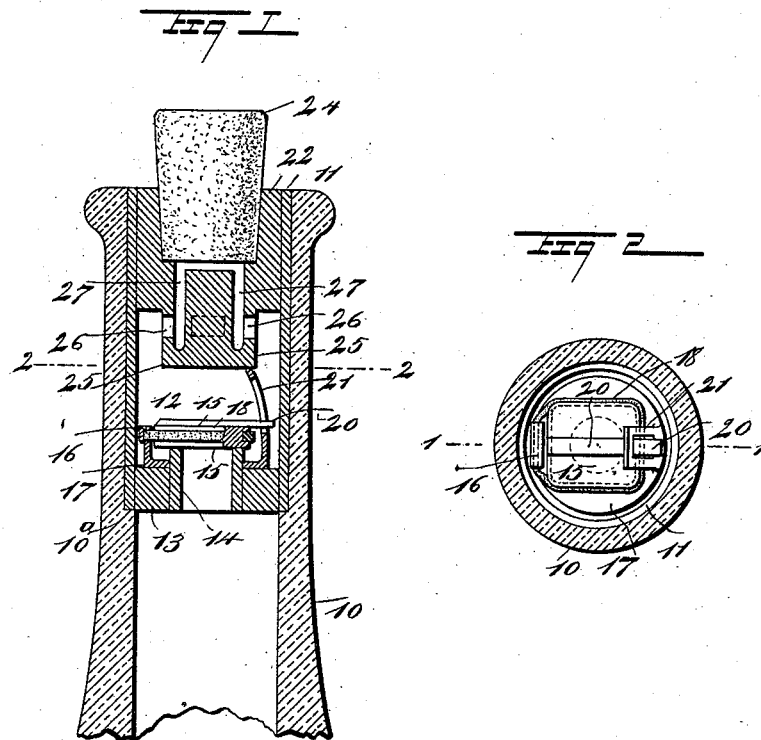


(No Model.)

L. A. PELLIS & L. STEINER.  
BOTTLE NECK.

No. 523,728.

Patented July 31, 1894.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

LEONARD A. PELLIS AND LOUIS STEINER, OF BROOKLYN, NEW YORK.

## BOTTLE-NECK.

SPECIFICATION forming part of Letters Patent No. 523,728, dated July 31, 1894.

Application filed December 7, 1893. Serial No. 493,012. (No model.)

*To all whom it may concern:*

Be it known that we, LEONARD A. PELLIS and LOUIS STEINER, both of Brooklyn, in the county of Kings and State of New York, have  
5 invented a new and Improved Bottle-Neck, of which the following is a full, clear, and exact description.

Our invention relates to improvements in bottles and particularly to the necks of bot-  
10 tles.

The object of our invention is to produce a bottle neck with a valve therein, the neck and valve being arranged in such a manner that liquid may be poured freely from the  
15 bottle, but also in such manner that no liquid can be forced into the bottle; in this way the fraudulent refilling of labeled bottles is prevented.

To this end our invention consists of a bottle neck, the construction of which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate  
25 corresponding parts in all the views.

Figure 1 is a longitudinal section, on the line 1—1 of Fig. 2, of the bottle neck embodying our invention. Fig. 2 is a sectional plan on the line 2—2 of Fig. 1; and Fig. 3 is a  
30 broken perspective view of the bottle neck with parts in section.

The bottle neck 10 may be of any usual exterior shape, and may be formed on any kind of bottle body. The neck has inserted in it  
35 a shell or bushing 11, which preferably abuts at its inner end with a shoulder 10<sup>a</sup> in the neck, and the shell is left open in the middle to form a valve chamber 12 and has, at its lower end, a collar 13 in which is a bushing  
40 14, this being placed centrally and forming a bore through which the liquid may be poured. If desired the bushing and collar may be made in a single piece. The bushing 14 projects outward above the collar, forming a seat  
45 for the flat valve 15, which is adapted to close tightly over the bushing or seat, and is at one end hinged to a clip 16 on a washer 17 which encircles the valve seat, and the valve is connected with the clip 16 by a spring band 18  
50 which embraces the valve, lying in a groove in its edge. This band is preferably of rubber, as the rubber is proof against corrosion,

but a spring may be used instead with the same working effect.

The spring band 18 has sufficient tension  
55 to hold the valve against its seat, but when the bottle is tipped up to pour liquid from it, the valve swings outward before the outflowing liquid, permitting the liquid to pass, but if the bottle is empty, or substantially so, the  
60 valve will close, even though the bottle be held with its neck lower than its body.

The valve 15 has projecting from its free edge a guide finger or stem 20, which swings in the slotted curved guide 21 projecting up-  
65 ward from one edge of the washer 17. It will be understood, however, that the guide and the clip 16 may be formed integral with the collar 13, if desired.

The upper end of the shell 11 is closed by  
70 a plug 22, which is provided with a central bore 23 through which the liquid may be poured from the bottle, and a common cork 24 may be inserted to close the bottle. The plug 22 has a reduced lower end 25 in which  
75 are side ports 26 leading to longitudinal ports 27, which connect with the bore 23, and thus a circuitous course is provided for the outflowing liquid which, however, will not impede its flow, but the construction of the plug  
80 and ports prevents any instrument from being inserted to tamper with the valve 15.

It will be of course understood that the valve attachment is inserted after the bottle is filled, and is placed in position so that it  
85 cannot be removed without breaking the bottle.

Having thus described our invention, we claim as new and desire to secure by Letters  
90 Patent—

1. The combination, with the bottle neck, of a collar held in the neck and provided with a seat on its outer side, a flat valve supported above the seat and adapted to close against the same, and a stopper plug in the outer end  
95 of the neck, the plug having a central bore extending partially through it, and side ports connecting with the bore, substantially as described.

2. The combination, with the bottle neck, of  
100 a collar in the neck having a raised valve seat on its outer side, a flat spring-pressed valve held against the seat, a guide for the valve, and a plug held in the outer end of the

neck above the valve, the plug having a central stopper bore extending partially through it, a reduced lower end, and side ports leading into the said reduced end and connecting  
5 with the bore of the plug, substantially as described.

3. The combination, with the bottle neck, of a shell held therein, a collar in the lower end of the shell, and the collar having a raised  
10 central seat, a washer encircling the seat, the washer having on one side an outwardly-extending clip and on the opposite side an outwardly-extending curved guide, a flat valve

having a spring connection with the clip and a guide stem to run in the curved guide, and 15 a plug in the outer end of the shell, the plug having at its outer end a stopper bore, its inner end reduced and side ports entering the reduced end and connecting with the bore, substantially as described.

LEONARD A. PELLIS.  
LOUIS STEINER.

Witnesses:

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