No. 652,450. Patented June 26, 1900.

I. BALAGUR.

NON-REFILLABLE BOTTLE.

(Application filed Oct. 12, 1899.)

(No Model.)

Fig. I.

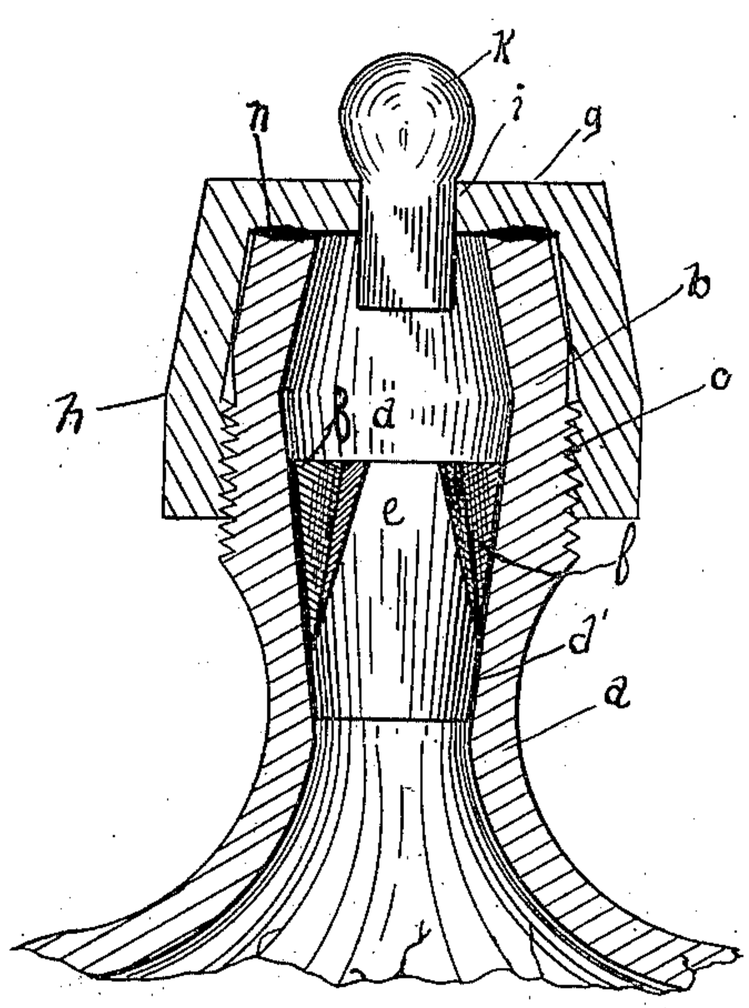
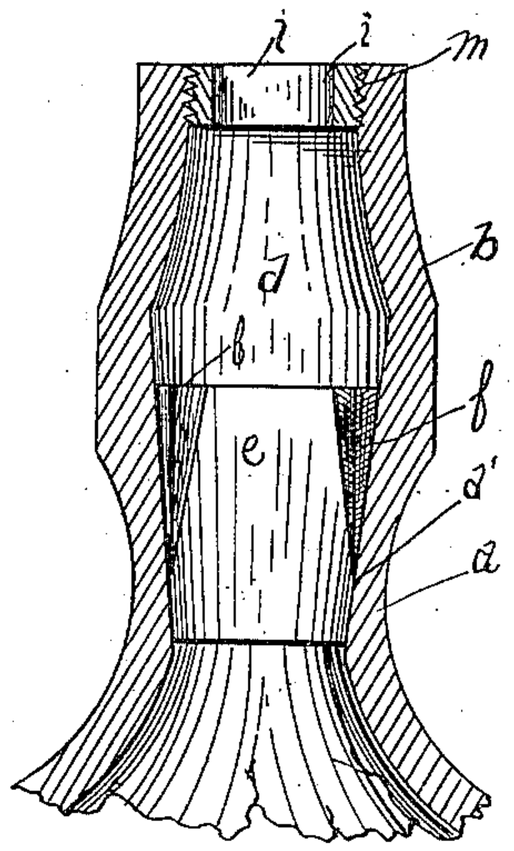


Fig. II.



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UNITED STATES PATENT OFFICE.

ISRAEL BALAGUR, OF ATLANTA, GEORGIA.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 652,450, dated June 26, 1900.

Application filed October 12, 1899. Serial No. 733,423. (No model.)

To all whom it may concern:

Be it known that I, ISRAEL BALAGUR, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Non-Refillable Bottles; and I do hereby 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.

The object of my invention is to provide a stopping means for the necks of bottles and the like which may be applied to a bottle after it has been filled, which will allow a ready outflow of liquid from the bottle, and which will prevent its being refilled; and with this object in view I have constructed a device of this nature which is described in this specification, shown in the accompanying drawings, and in which—

Figure 1 is a vertical section of a bottle, showing my stopper in perspective. Fig. 2 is a modification showing a slightly-different form of valve-guard.

Referring now to the drawings, in operating in accordance with my invention I provide a bottle *a*, having a neck *b*, provided with exterior screw-threads *c* and having an interior passage *d*, which is of the shape of a double frustum. I also provide a frustum-shaped valve *e*, having V-shaped channels *f*, formed longitudinally thereof, the bottom walls of which are parallel, resulting in a greater depth at one end of the channel than at the other. These channels do not extend throughout the entire length of the valve, but commence at the point adjacent its smaller end and continue throughout the remainder of its length. The valve *e* is of such a size and shape as to conform to the lower portion *d'* of the passage *d*, in which it is placed.

Mounted upon the neck of the bottle is a cap *g*, which is countersunk upon its under side to form a flange *h*, which is interiorly threaded to conform to the threads on the bottle-neck, upon which it is placed after the bottle is filled and after the valve *e* has been put in its position in the passage *d'*.

Passing through the center of the cap *g* is a vertical perforation *i*, which is of slightly-less diameter than that of the adjacent end of the valve *e* and into which a suitable cork or other stopper *k* is placed to render the bottle air-tight.

In Fig. 2 I have shown a construction in which a collar *l* is employed instead of the cap *g*, which said collar is provided with external screw-threads *m* to engage similar threads on the interior of the bottle-neck, into which it is placed after the valve *e* has been adjusted. This collar *l* is also provided with a vertical perforation *i*, corresponding to that of the cap *g* and into which a suitable cork may be placed.

In operating in accordance with my invention I proceed as follows: The bottle is first filled as desired, after which the valve *e* is dropped into place in the bottle-neck small end down. A coating of cement, which is shown at *n* in the drawings, is then applied to the interior of the cap *g*, after which it is screwed into place upon the neck of the bottle. A stopper *k* is then adjusted, whereupon the bottle is ready for shipment. If the collar *l* is used in place of the cap *g*, a similar coating of cement is applied to its exterior before it is inserted, and after it has been in position for a short while the cement will become hardened, which will prevent its withdrawal. This will also be the case with the cement upon the interior of the cap *g*. In removing the contents from the bottle the stopper *k* is removed, after which it is inverted, which will cause the liquid to pass outwardly around the valve *e*, through the channels *f*, and through the perforation *i* into a vessel placed for that purpose.

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

A device of the class described comprising a bottle having a partly-cylindrical and partly-conical passage in the neck thereof, a frustum-shaped valve loosely mounted within the passage, V-shaped channels in the periphery of the valve and extending from its larger end to a point adjacent its smaller end, the bottom walls of which channels are parallel, a cap mounted upon the neck of the bottle having a depending flange provided

with interior screw-threads to engage corresponding threads on the bottle-neck, a perforation in the guard of slightly-less diameter than that of the adjacent end of the valve and a plastic material placed between the meeting edges of the guard and the bottle-neck to secure the two in engagement.

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

ISRAEL BALAGUR.

Witnesses:
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