

No. 725,283

PATENTED APR. 14, 1903.

L. D. PARKS.
NON-REFILLABLE BOTTLE.
APPLICATION FILED JULY 31, 1902.

NO MODEL.

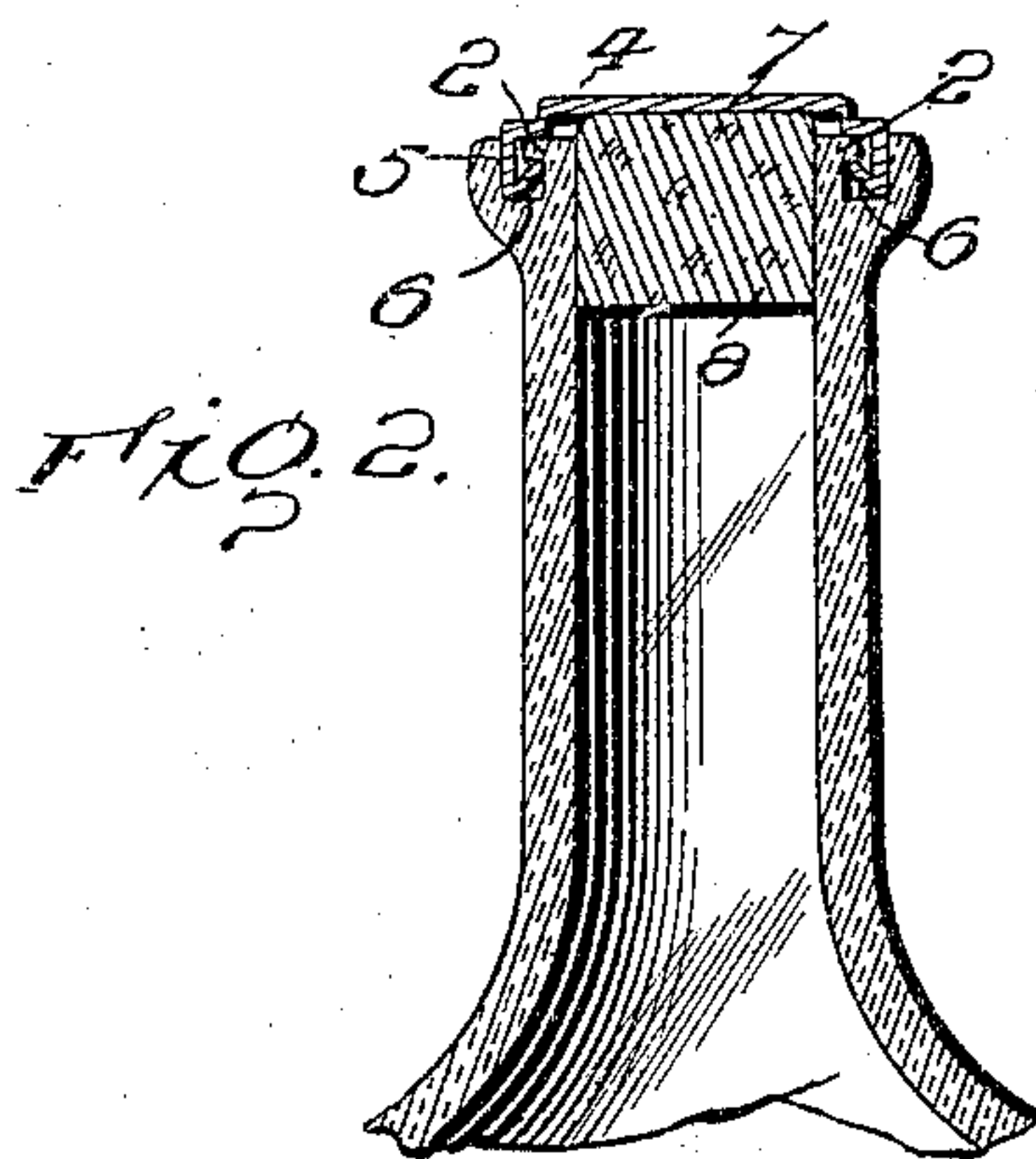
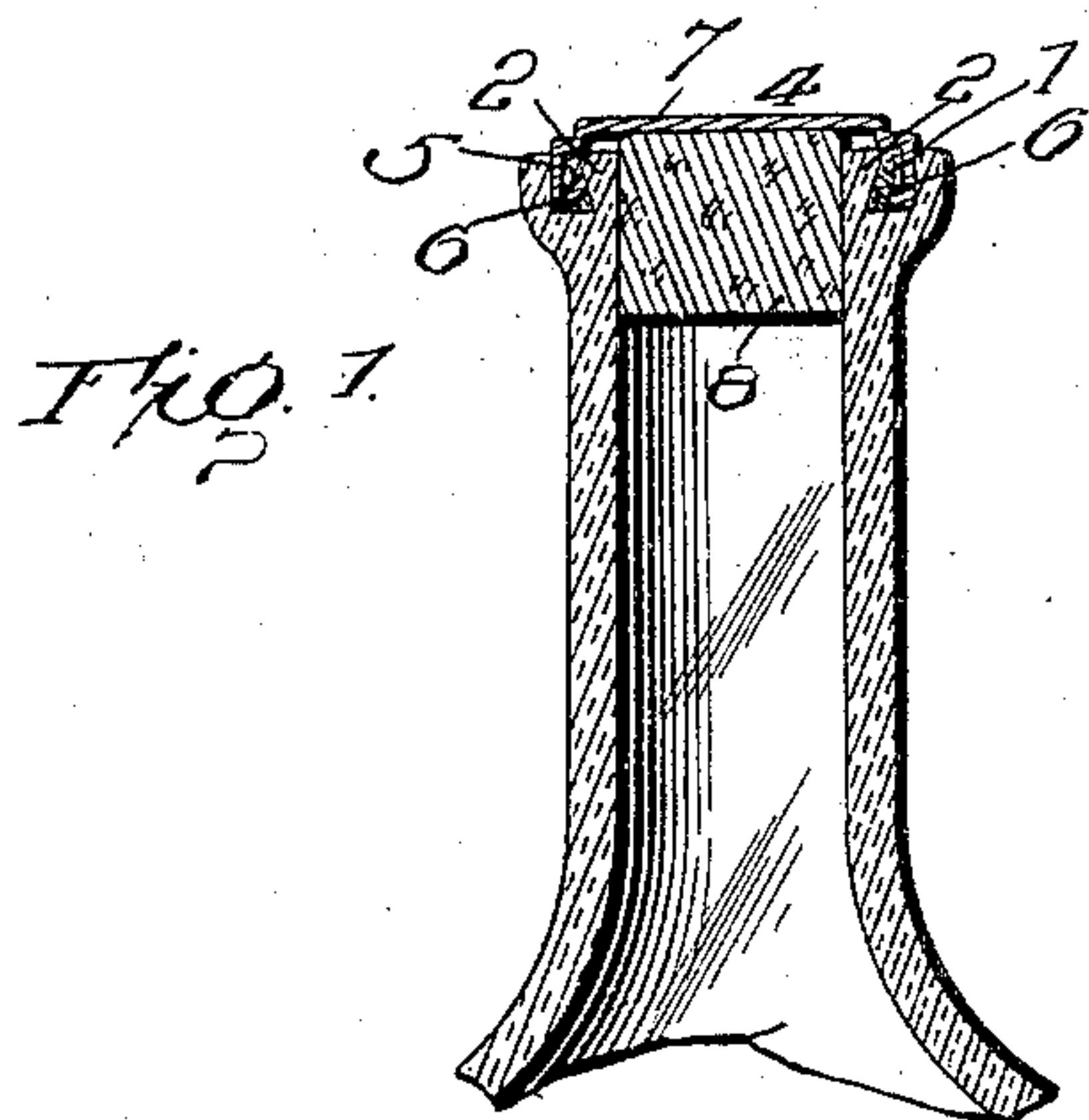


FIG. 3.

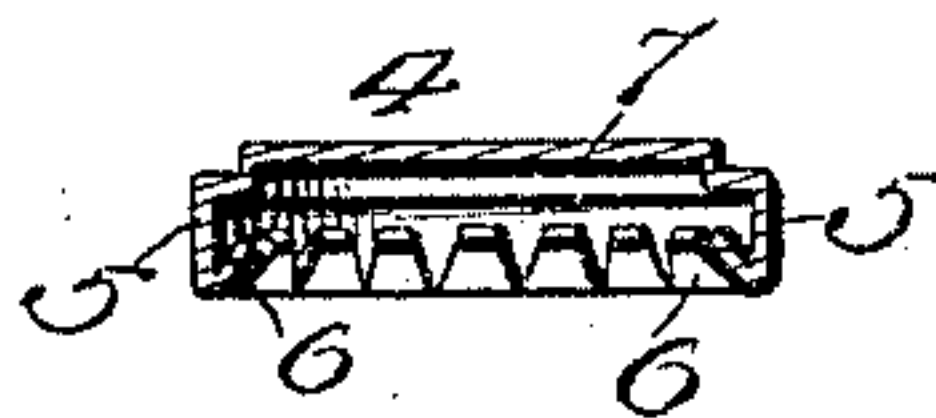


FIG. 4.

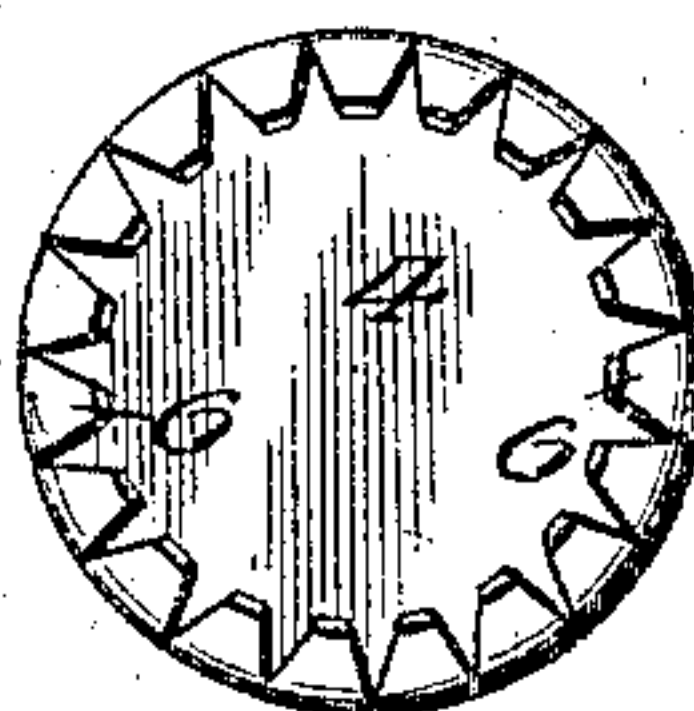


FIG. 5.

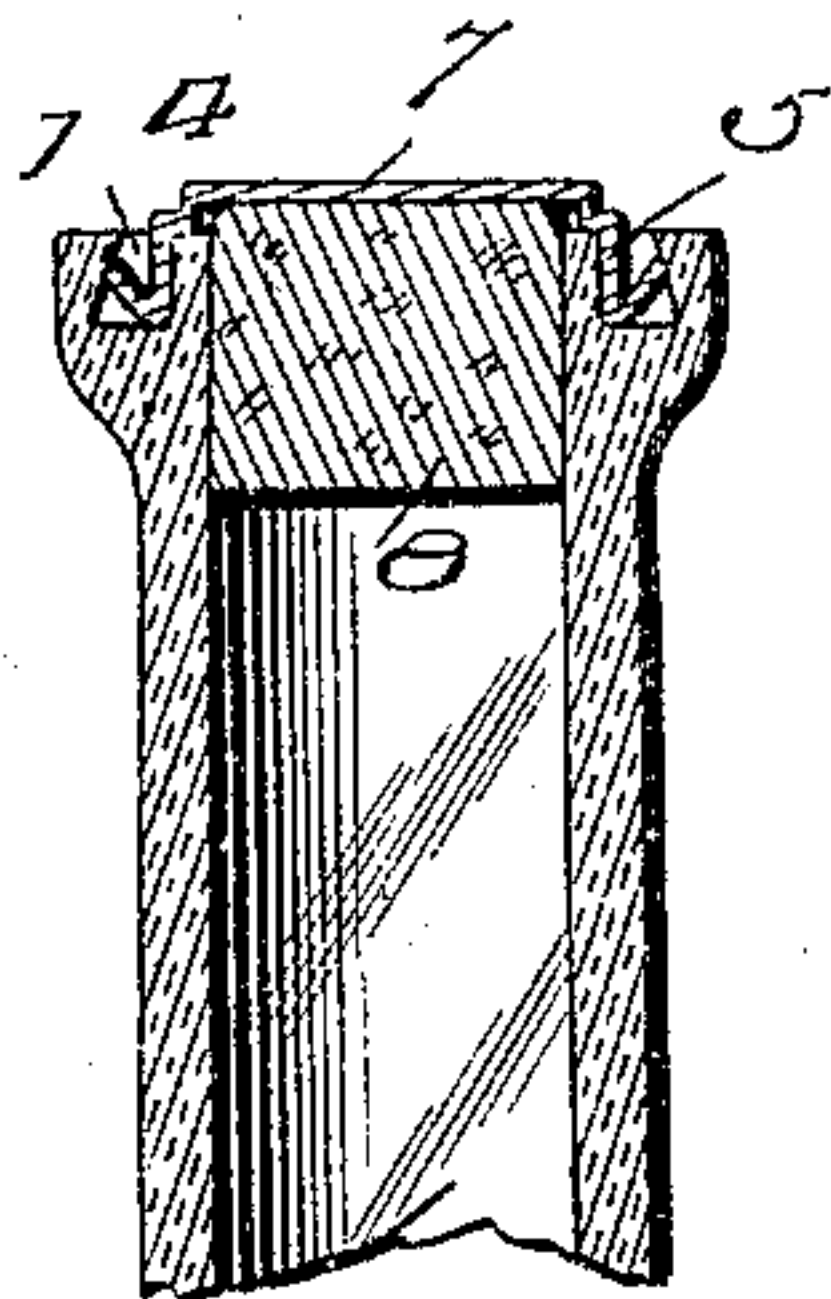


FIG. 7.

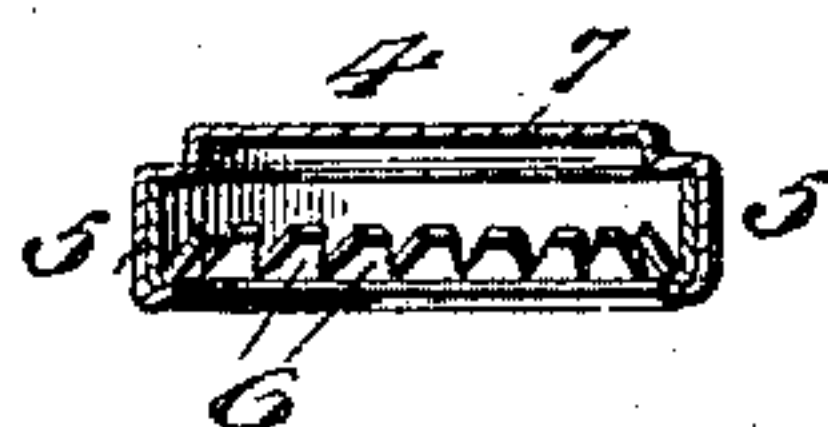
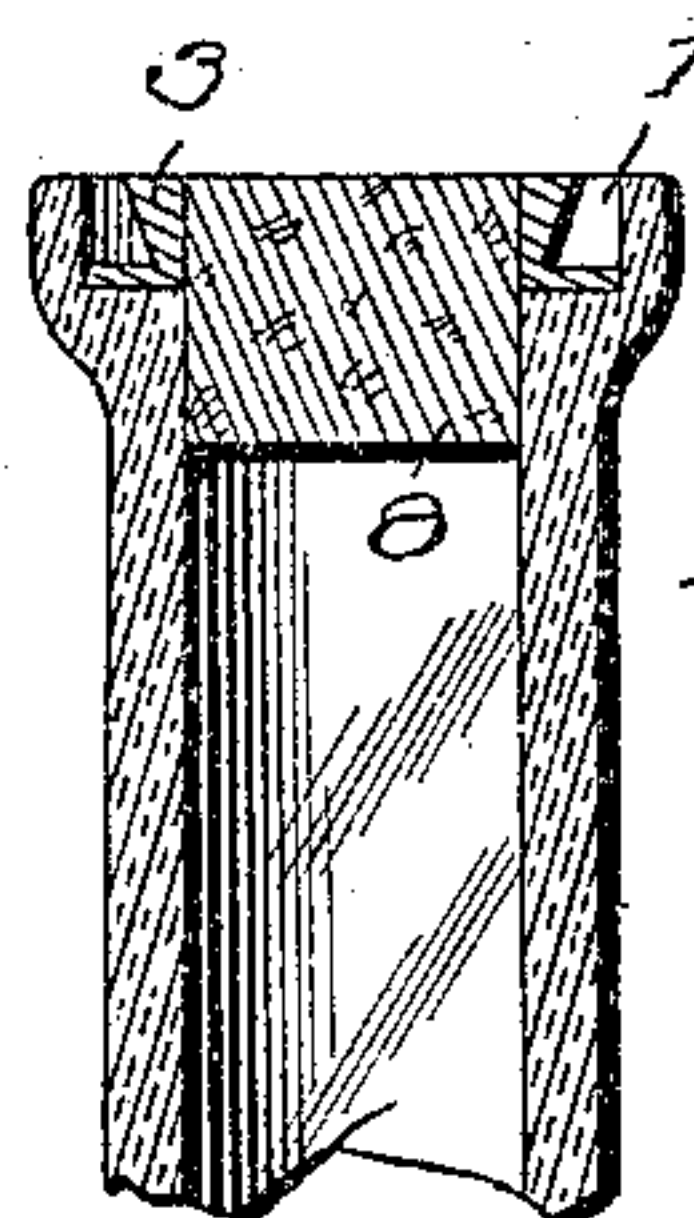


FIG. 6.



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Witnesses

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UNITED STATES PATENT OFFICE.

LEONARD D. PARKS, OF GATESVILLE, TEXAS, ASSIGNOR OF ONE-HALF TO
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NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 725,283, dated April 14, 1903.

Application filed July 31, 1902. Serial No. 117,879. (No model.)

To all whom it may concern:

Be it known that I, LEONARD D. PARKS, a citizen of the United States, residing at Gatesville, in the county of Coryell and State of Texas, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

This invention provides a closure for bottles, jugs, jars, and like receptacles which when properly fitted to place cannot be removed without being mutilated or destroyed, thereby providing a means whereby one may readily determine whether the original package or seal has been tampered with.

In practicing the invention the bottle or like receptacle is provided with a groove opening upward through its end, the upper portion of the groove being contracted to provide a locking-shoulder for cooperation with a locking-flange or projections of a rimmed cap closing the said bottle or receptacle.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and drawings hereto attached.

While the essential and characteristic features of the invention are susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a vertical central section of the upper portion of a bottle, showing the application of the invention. Fig. 2 is a view, similar to Fig. 1, of a modification. Fig. 3 is a transverse section of the cap forming the locking seal or closure. Fig. 4 is a view of the parts shown in Fig. 3 inverted. Fig. 5 is a sectional detail of a further modification. Fig. 6 is still another modification. Fig. 7 is also a modification.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The neck or upper portion of the bottle or receptacle is provided with a groove 1, opening upward therefrom and contracted at its upper end to provide an interlocking shoulder 2 for a purpose presently to be explained.

In the construction shown in Fig. 2 the walls of the groove are parallel, and an annular shoulder 2 projects outward from the inner wall. In the construction shown in Fig. 1 the inner wall of the groove is upwardly and outwardly inclined or diverged, whereas in the construction shown in Fig. 5 the outer wall of the groove is upwardly and inwardly diverged. The groove may have any cross-sectional outline so long as its upper portion is contracted to provide an interlocking shoulder. The groove is preferably formed in the material of which the bottle, jar, or other receptacle is formed and may be blown therein, pressed, or otherwise formed, as may be found most economical and practicable. In the construction shown in Fig. 6 one of the walls of the groove, preferably the inner wall, is formed of a metal ring or band 3, secured in a depression or rabbeted portion at the upper end of the neck of the bottle or receptacle. The ring or band 3 is preferably fused to the glass or other material forming the receptacle. However, it may be secured in any way. The ring or band 3 is of approximately L-form in cross-section, the basal or horizontal wing or flange providing ample surface for firm securement of the part 3 to the receptacle.

The locking-cap 4, forming the seal or closure, is rimmed, as shown at 5, and a flange 6 extends upward from the lower edge of the rim at an angle either inward or outward to engage under the shoulder 2 and interlock therewith. It is preferred to have the flange 6 serrated or toothed, as shown most clearly in Fig. 4, thereby admitting of the teeth or separated parts yielding more readily to pass by the shoulder 2 and spring outward, so as to interlock therewith and prevent withdrawal of the cap, seal, or closure after being pressed home with the rim 5 entered in the groove 1. Another advantage results from having the flange 6 serrated or toothed in the provision of spaces for the passage of a cement or sealing substance when employed to fill the groove 1 and cement the parts 5 and 6 of the cap therein. The central portion of the cap is raised or pressed upward to form a shoulder 7 to facilitate the severance of the raised portion of the cap from the peripheral por-

tion when it is required to gain access to the contents of the bottle or package. It is preferred to make the shoulder 7 exceedingly thin, whereby it may be easily cut by means of a knife or other instrument.

The cap 4 may be formed of any material, aluminium being preferred, since it precludes the soldering or the ready attachment of the metal portion of the cap to the peripheral portion after said parts have once been separated. When the rim 5 is pressed into the groove 1, the interlocking portion 6 is compressed, and when the shoulder 2 is cleared the part 6 springs outward thereunder and interlocking therewith prevents removal of the cap, thereby rendering it necessary to cut the raised portion of the cap from the peripheral portion when it is required to gain access to the contents of the receptacle. The accustomed stopper 8 may be employed to close the neck of the bottle, although this is not essential. To give additional security, it is contemplated to fill the groove 1 with any cementing substance which will set and become hard, thereby securing the parts 5 and 6 within the groove by cementation in addition to the interlocking feature between the shoulder 2 and part 6.

As herein stated, after a bottle or package has been sealed in accordance with this invention it cannot be opened without cutting, marring, or mutilating the cap, thereby rendering detection certain in the event of the package being tampered with.

In the modification shown in Fig. 7 the interlocking portion 6 is made separate from the cap, but rigidly secured thereto. This construction admits of having the cap of one metal and the interlocking portion of another.

The advantage derived from the above is that the cap proper may be made of a light metal, such as aluminium above mentioned, and the locking part 6 of some metal possess-

ing much rigidity and at the same time great spring or resilient properties—namely, steel or the like.

Having thus described the invention, what is claimed as new is—

1. A bottle or like package provided with an upwardly-opening groove in its upper end, the walls of said groove being contracted at the upper portion thereof, and a cap having a rim to enter said groove and interlock with a wall thereof, substantially as set forth.

2. A bottle or receptacle having a groove opening upward through its top portion, the walls of said groove being contracted at the upper portions thereof, and a cap having a rim to enter said groove and having a spring interlocking portion extended from the lower edge of the rim to engage under the projecting portion of the wall of said groove resulting in contraction thereof, substantially as set forth.

3. A bottle or receptacle having an upwardly-extended groove in its top portion contracted at the upper portions of the walls thereof, and a cap having a rim to enter said groove and having a series of tooth-shaped projections extended upwardly from the lower edge of said rim to interlock with the contracting wall of the groove, substantially as specified.

4. A bottle or package provided in its upper end with a groove, and a cap having a rim secured in said groove and having its middle portion raised or pressed upward to form a shoulder to facilitate severance of the central portion of the cap when opening the package, substantially as described.

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

LEONARD D. PARKS. [L. S.]

Witnesses:

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