

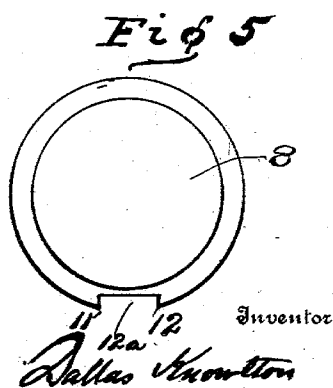
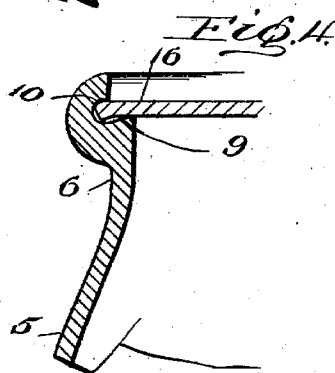
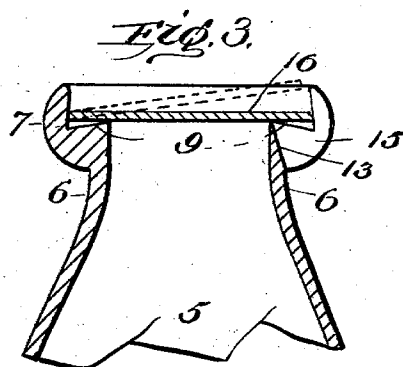
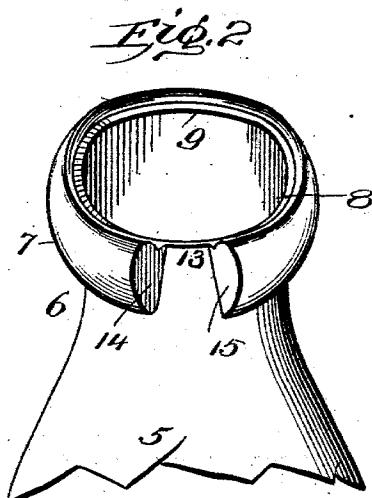
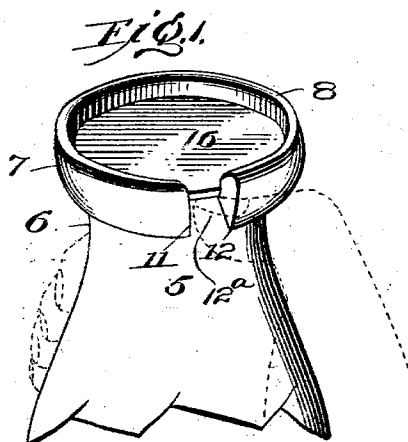
No. 720,819.

PATENTED FEB. 17, 1903.

D. KNOWLTON.
BOTTLE.

APPLICATION FILED NOV. 25, 1902.

NO MODEL.



Witnesses

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UNITED STATES PATENT OFFICE.

DALLAS KNOWLTON, OF WASHINGTON, DISTRICT OF COLUMBIA.

BOTTLE.

SPECIFICATION forming part of Letters Patent No. 720,819, dated February 17, 1903.

Application filed November 25, 1902. Serial No. 132,786. (No model.)

To all whom it may concern:

Be it known that I, DALLAS KNOWLTON, a citizen of the United States, residing at the city of Washington, in the District of Columbia, have invented certain new and useful improvements in 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.

My invention relates especially to the class of bottles or jars in which the closure or seal consists simply of a flexible disk formed of wood-pulp or like material impregnated with paraffin and which is introduced and seated with a moderate amount of pressure into the mouth and neck of the bottle to be closed. A seal-disk to be efficient in such a type of bottle has a normal diameter slightly greater than that portion of the mouth or neck holding it and is insertible therein by contractile compression and when in position is retained firmly by reason of that compression, which causes a frictional confinement of the periphery or edges of the disk, which adheres to the glass material of the bottle when thus crowded therein. While such a closing device is easily applied to effect a closure of the bottle or jar, it is a difficult one to remove by hand, and the general practice is to employ some sharp instrument to force or pry the disk from its seat in the bottle. This manner of displacement and removal is attended not only with the mutilation of the disk, but a part of the contents of the bottle is invariably spilled.

The object of my invention is to provide a construction of the neck and mouth of the bottle or jar that will adapt it to receive such a flexible sealing-disk for closing same as effectively under the essential conditions above pointed out and that will admit of the ready removal of same by simply lifting or tilting up sidewise one edge portion thereof preferably by an upward pressure of the thumb or finger nail of one of the fingers of the hand grasping the bottle. Such a movement of the disk destroys the cylindrical coincidence or register of the elastic edge of the disk with the interior seating and surface of the bottle. This movement may be effected

quickly to snap the disk off of its seat and away from the bottle, or it may be removed more carefully by picking it off by the thumb and finger.

The invention consists in providing the neck of the bottle with an internal ledge or groove to provide a seat for the disk and a cut-away portion at one place (or more) on the said neck that extends inwardly from the circumference of the neck in open relation to the mouth of the bottle at a width and depth to allow of the entrance of the thumb or finger to a point where the plane of the inner wall of the cut-away portion intersects and cuts through the outer portion of the internal seat, whereby the finger or thumb may be inserted to a point below the edge or periphery of the seated disk that projects laterally outward beyond said inner wall of the cut-away portion.

Referring to the accompanying drawings, in which like numerals indicate like parts in the several figures, Figure 1 represents in perspective a view of the top portion of a bottle constructed according to my invention and provided with a seal-disk in the hand of the operator, whose thumb is in a position required for most conveniently displacing and removing said disk by snapping it off. Fig. 2 represents a like top portion of the bottle uncapped. Fig. 3 indicates the neck and mouth portions in cross-section, while Fig. 4 shows a modification of the seat construction in cross-section of a fragmentary portion of the bottle. Fig. 5 shows a top plan view of the mouth of the bottle.

Reference being had to the drawings by numeral, 5 indicates a bottle or jar, preferably made of glass, which is provided with a neck 6 and the usual thickened bead or enlarged head 7, formed to surround the mouth 8 of the bottle. The neck is provided interiorly with an annular ledge or seat 9, the base of which is preferably slightly inclined or beveled upwardly toward the center to form on its inner free edge a sharp annular contact of the smallest dimensions.

In Fig. 4 there is shown an undercut portion 10, that extends annularly in the interior of the bottle, adjacent to the ledge and connected therewith to form a space to seat the

edges of the disk, which are sprung therein. Such a seating will insure an absolutely tight joint and will permit of the bottle being turned bottom side up or vigorously shaken to destroy the layer of cream that gathers in the neck of the bottle without leakage.

The thickened bead 7 has at one place on its circumference, between the points 11 and 12, a lateral depression or cut-away portion 12^a, which is of a size to allow of the entrance of the thumb or finger to form a socket therefor and which extends inwardly to a point where its inner wall 13 intersects or cuts through the outer portion of the internal ledge and which extends some distance below the same. The side walls 14 and 15 slope or incline inwardly to a point where they merge into the inner wall 13, while the bead may be cut vertically entirely through, as shown.

From this construction it will be seen that the closing-disk 16 may be readily seated by hand in the interior of the neck of the bottle, as shown, and when seated on the ledge forms a tight joint, while the side opening or cut-away portion 12^a serves to expose the upper and lower edges of that portion of the disk adjacent to said opening in a manner to allow of its being seized both above and below on its peripheral edge by the thumb and finger or of its being tilted up sidewise and snapped off by reason of the pressure of the thumb or finger nail when said thumb or finger is introduced into the side opening, as shown in Fig. 1. It is also apparent from this construction that the sealing-disk need not be wholly removed from the mouth of the bottle, but the disk can simply be raised to a sidewise adjustment sufficient to allow of pouring the contents through the cut-away portion over the edge formed by the intersection of the inner wall with the seat, which by reason of its reduced dimensions at that point will insure a proper delivery of the contents in pouring.

Having described my invention, what I desire to claim as new and useful is—

1. A bottle or jar having a depression or cut-away portion, that extends from the circumference thereof and that terminates with an inner wall, substantially as described.

2. A bottle or jar having an external finger depression or cut-away portion that extends from the circumference in open relation to the mouth of the bottle, and that terminates with an inner wall, substantially as described.

3. A bottle or jar having a disk-receiving seat formed upon the interior of the neck thereof, and a depression cutting through from the circumference to a point where it intersects said seat.

4. A bottle or jar having a disk-receiving seat formed upon the interior of the neck thereof, and a depression cutting from the circumference through the outer portion of said seat.

5. A bottle having a thickened bead surrounding the mouth and provided interiorly with a receiving-seat, and a depression cutting through said bead and terminating in an inner wall that intersects and partially cuts through the seat in said bottle.

6. A bottle or jar having a disk-receiving ledge that is beveled upwardly and inwardly to form a sharp annular contact of small dimensions, and an annular groove arranged in relation to said ledge to form a shoulder therewith; and a depression cutting through the circumference and extending inwardly to a point where it intersects and cuts through a portion of the seating-ledge, substantially as described.

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

DALLAS KNOWLTON.

Witnesses:

JOSEPH W. BUELL,
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