No. 844,866. PATENTED FEB. 19, 1907.

G. N. HARDESTY.

BOTTLE.

APPLICATION FILED NOV. 10, 1906.

Fig. 1.

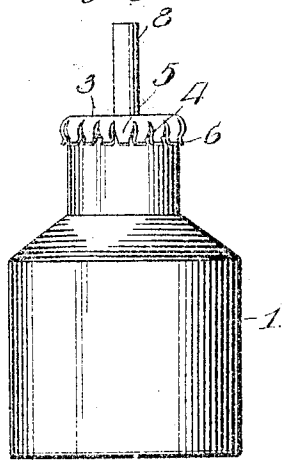
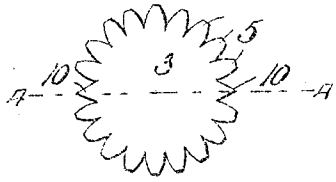


Fig. 3.



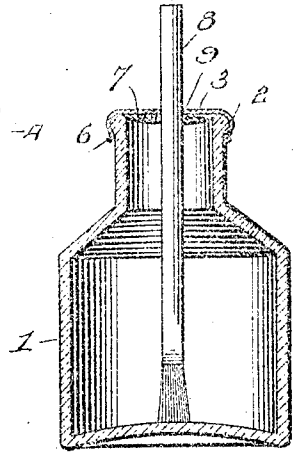
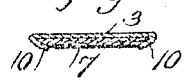


Fig. 2.

Fig. 4.



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UNITED STATES PATENT OFFICE.

GEORGE N. HARDESTY, OF BERRYVILLE, VIRGINIA.

BOTTLE.

No. 844,866. Specification of Letters Patent. Patented Feb. 19, 1907.

Application filed November 10, 1906. Serial No. 342,848.

To all whom it may concern:

Be it known that I, GEORGE N. HARDESTY, a citizen of the United States, residing at Berryville, in the county of Clarke and State of Virginia, have invented new and useful Improvements in Bottles, of which the following is a specification.

The invention relates to an improvement in bottles, and particularly to a bottle-closure designed primarily for use with mucilage-bottles.

The main object of the invention is the provision of a closure for bottles of this character which may be conveniently applied to or removed from the bottle when desired, the construction of the closure affording such a close connection with the mouth of the bottle as will protect the contents of the bottle against deterioration or evaporation.

The invention in its preferred form will be described in the following specification, reference being had particularly to the accompanying drawings, in which—

Figure 1 is an elevation showing a mucilage-bottle provided with my improved closure. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a plan of the closure developed. Fig. 4 is a transverse section of the same with the sealing-disk therein.

Referring particularly to the drawings, 1 represents a bottle designed to contain mucilage or other adhesive liquid, which bottle, so far as the details of my invention are concerned, may be in any form or of any material.

For the purpose of the present invention it is essential that the bottle-neck at the mouth end thereof be provided with an exterior annular bead 2, preferably, though not necessarily, having a rounded outer surface.

The bottle-closure of the present invention comprises a metallic disk 3, preferably of steel and of greater diameter than the diameter of the bottle-mouth. The disk is initially formed with a series of radial openings 4, extending through the peripheral edge of the disk and terminating at their inner ends to leave an unbroken portion of the disk slightly exceeding in diameter the interior diameter of the bottle-mouth. The openings 4 are preferably of V shape, with the apex toward the central point of the disk, thus providing a series of fingers 5, extending radially of the disk and of less width at their relatively free edges than at their juncture with the disk-body. In completing the formation of the closure the fingers 5 are bent downwardly to conform in curvature to the outer face of the rib 2, the extreme free ends of the fingers being bent in the reverse direction to provide lips 6, as clearly shown in Fig. 1. As the fingers are shaped to correspond with the curvature of the bead, it is obvious that when in place on the bottle said fingers will snugly fit the bead throughout its surface, the free ends of the fingers curving outwardly from the adjacent surface of the neck of the bottle and resting beneath the bead.

To the under side of the body of the disk is secured a sealing-disk 7, preferably of pasteboard treated with a thin coat of wax or paraffin, or said disk may be of cork or similar material, which is slightly convex on its relatively lower surface, as shown. Through the convex formation of the sealing-disk the peripheral edge thereof is rendered comparatively thin, so that in seating the closure upon the bottle-mouth the extreme edge of the sealing-disk overlies the inner edge of the wall of the bottle-mouth, thereby providing an effective air-tight sealing. The handle 8 of the brush for use with the contents of the bottle is preferably secured within an opening 9, passed centrally through the closure, so that said closure and brush are, in effect, a single article. In securing the sealing-disk within the closure proper I prefer that two diametrically-opposed fingers of said closure be reduced in size, as at 10, and bent beneath the surface of the disk to embrace and grip the edges of the sealing-disk, as clearly shown in Fig. 4. The sealing-disk is thus securely held in position by an integral portion of the closure proper without affecting the function of the disk or closure. In use the closure is seated upon the bottle by forcing the same downward over the bottle-mouth until the fingers engage around and beneath the bead 2, the resiliency of said fingers permitting their independent movement to a sufficient degree to permit the connection. When desiring to remove the closure, the lips 6 are utilized for lifting one or more of the fingers from an engaging relation with the bead, whereby the frictional engagement is broken and the closure may be readily lifted from the bottle-mouth.

The sealing-disk is preferably of thin steel, so that the fingers 5 snugly fit and engage the bead 2, and the inherent resiliency of said fingers will not be materially affected by the continued reuse of the closure. The sealing-disk 7 is subjected to such depression in the

use of the closure as will insure a practically air-tight connection between said disk and the bottle-mouth, thereby preventing the deterioration of the contents of the bottle by evaporation.

Having thus described the invention, what I claim is—

A closure for mucilage-bottles or the like formed with a mouth-bead, comprising a metallic disk formed with a series of radially-projecting spring-fingers, and a sealing-disk disposed in contact with the under surface of the closure, a pair of diametrically-opposed fingers being reduced in size and bent beneath the closure to engage the edge of the sealing-disk.

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

GEORGE N. HARDESTY.

Witnesses:

CORNELIUS VAN DEVENTER,

FLORENCE HARDESTY.