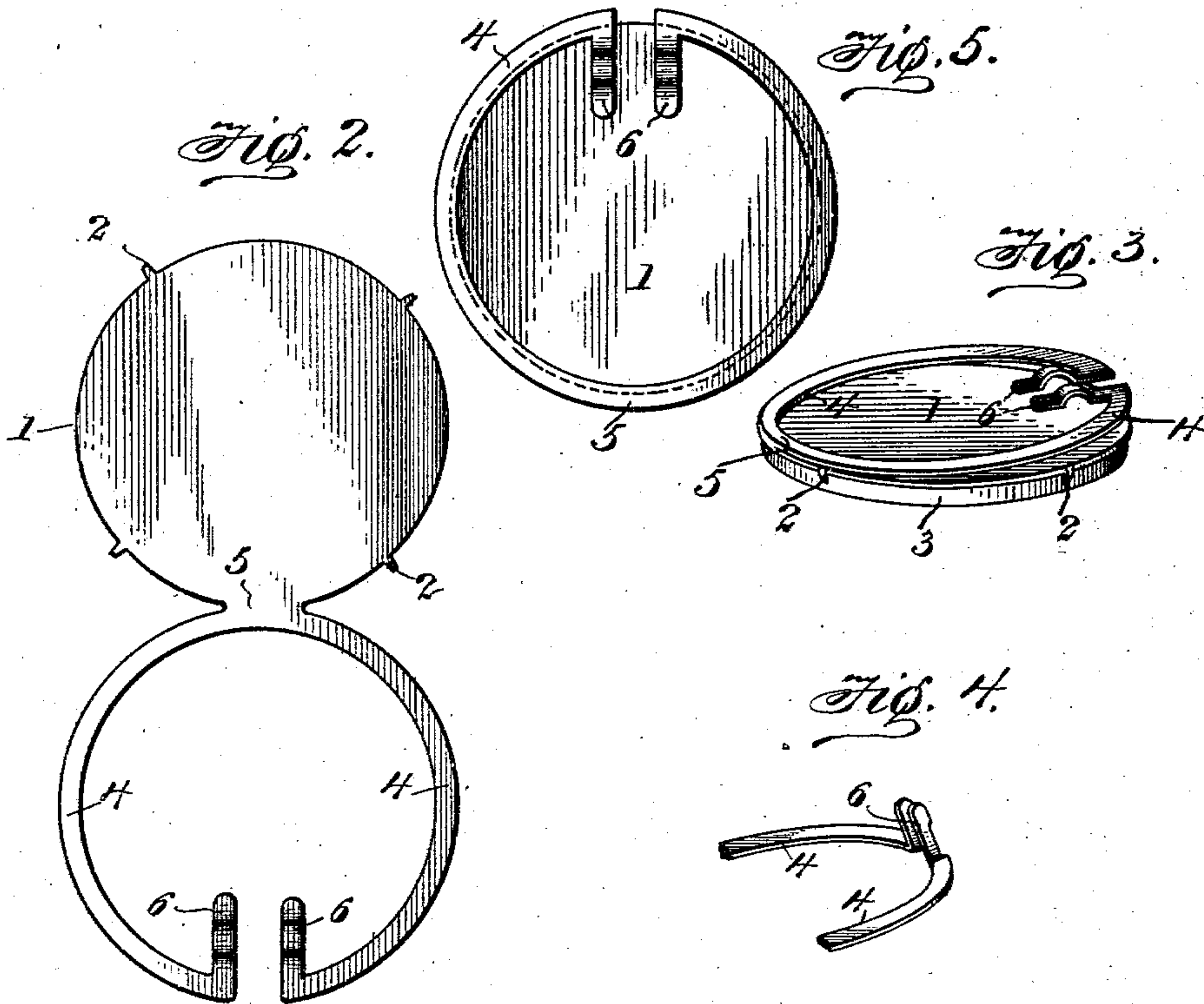
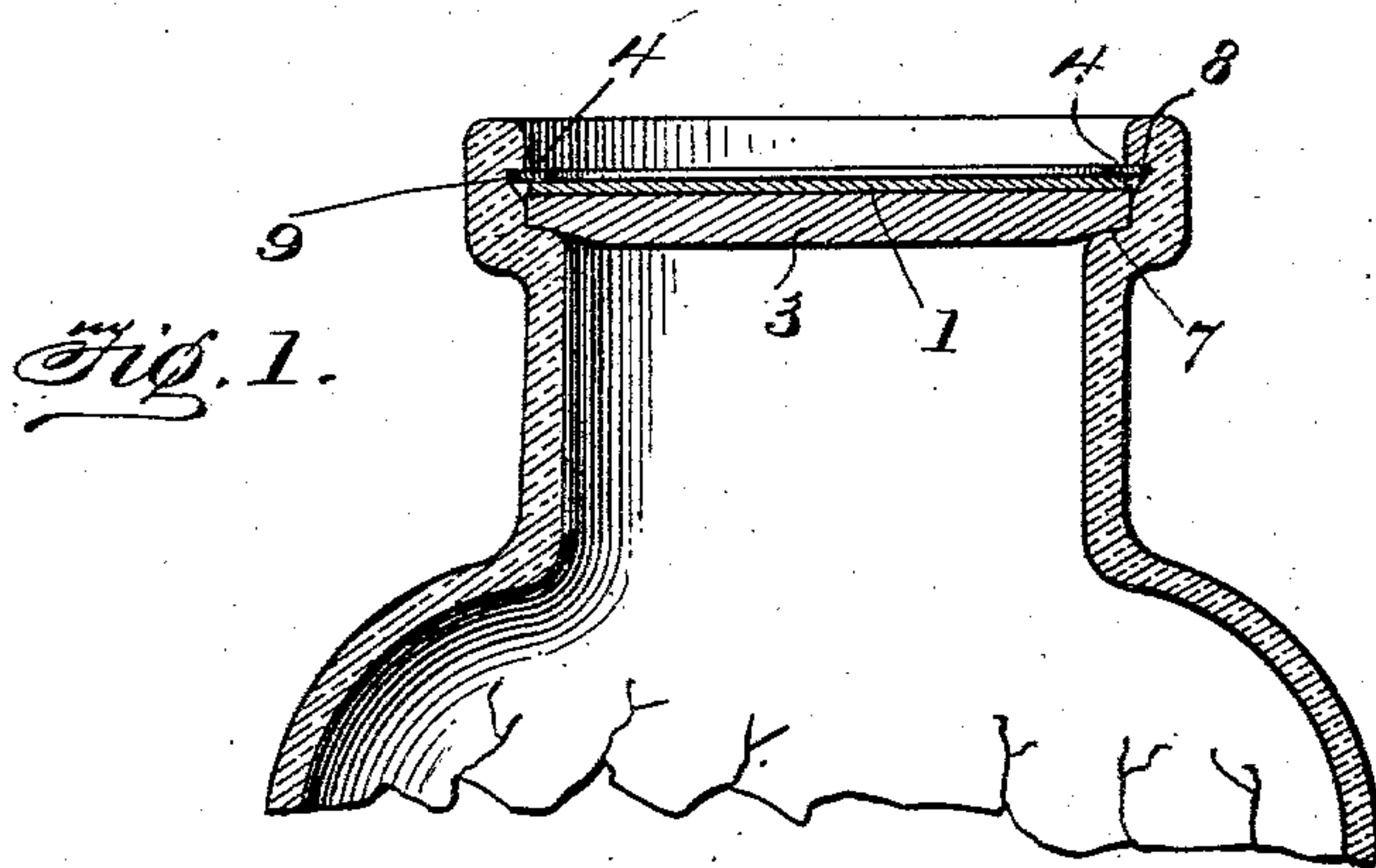


No. 740,631.

PATENTED OCT. 6, 1903.

W. S. DORMAN.
STOPPER OR CLOSURE FOR BOTTLES, JARS, &c.
APPLICATION FILED APR. 3, 1902.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

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STOPPER OR CLOSURE FOR BOTTLES, JARS, &c.

SPECIFICATION forming part of Letters Patent No. 740,631, dated October 6, 1903.

Application filed April 3, 1902. Serial No. 101,184. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. DORMAN, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Stoppers or Closures for Bottles, Jars, &c.; and I do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in closures or stoppers for jars, bottles, &c.; and the object is to provide a new and improved closure or stopper for bottles, jars, and similar vessels, as will be hereinafter fully described and the novelty thereof particularly pointed out and distinctly claimed.

It will be premised that while for general purposes the product comprises a yielding or elastic disk, a metal disk or plate secured to the elastic disk, and expanding locking members it is proposed to make the article when it is used for more transient closures, such as milk-jar covers or closures, consist of a disk of some suitable material provided with locking members integral therewith and adapted to spread apart or expand into a groove in the neck of the vessel.

I have fully and clearly illustrated the invention in the accompanying drawings, to be taken as a part hereof, and wherein—

Figure 1 is a central vertical cross-section through the upper part of a jar, showing a closure arranged in the mouth of the jar and there held by the force of the expansible locking or retaining members. Fig. 2 is a view of the cap or disk and the locking-arms distended and showing the finger-pieces. Fig. 3 is a perspective view of the completed device. Fig. 4 is a detail view of a portion of the locking-arms as formed with vertically-disposed finger-pieces. Fig. 5 is a plan view of the closure, wherein the overhang of the locking members is indicated by the dotted line.

Referring to the drawings, 1 designates a disk formed with radial lugs or prongs 2,

which are suited to be turned down and engage the side of the cork disk or cork 3 and hold it fast in place as an element of the closure in its relation to the disk 1.

4 4 designate the locking members, consisting of flat strips having integral connection to the disk 1 at 5 and are curved substantially concentric to the periphery of the disk and so arranged and disposed in relation thereto that when they are turned over on the disk they will lie flat thereon with their outer edges overhanging or reaching beyond the peripheral edge of the disk, to which their base is integrally connected. The free ends of the locking members are turned inward to form finger-pieces 6 6, standing normally with a space between them, as shown in the drawings, so as to provide room to admit of their being drawn together and be released from engagement in the mouth of the jar. It will be perceived that the locking members are flat pieces of some resilient material cut and curved coincidentally with the circumferential curvature of the disk 1 and are naturally expansive from their base connection to the disk to their free ends. This expansibility is an important feature in the utility of the closure, since when the closure is seated in the mouth of the jar the locking members will automatically spread and engage under the shoulder of the groove or seat therein and hold and lock the closure in place. It is also apparent that by moving the finger-pieces inward the locking members will be withdrawn from their engagement from their seat in the mouth of the jar, and on such releasement the closure can be lifted out by pulling on the locking members. In instances where it will cause no inconvenience or interference in packing the jars the finger-pieces 6 may be directed in vertical direction, as seen in Fig. 4 of the drawings.

In the application of the improved device the jar is formed with a shouldered annular seat 7, on which the closure rests, and in the mouth of the jar above the said shouldered seat is formed an interior annular groove 8, having a square overhanging shoulder 9, under which the locking members engage to hold the closure fast in the jar. To remove the closure, all that is necessary to do is to withdraw

the locking members from their engagement and then pull the closure out of its seat by forceful manipulation of the locking members.

To make the cap or disk with its locking members and arrange them in operative relation, I form the disk 1 by any proper means and integral therewith make the locking members and then shape them with the fingerpieces and then turn the locking members back and down flat on the disk with their outer edges substantially concentric with and overhanging or extending beyond the peripheral edge of the cap or disk, as shown and indicated in Fig. 5 of the drawings.

15 Having described my invention, what I claim is—

1. A jar-closure consisting of a stopper, a disk covering the stopper and flat locking members connected integrally at their bases

with the disk and curved concentric to the edge of the disk with their outer edges overhanging the peripheral edge of the disk. 20

2. A bottle or jar closure consisting of a disk adapted to fit within the mouth of a bottle, flat locking-arms having their bases integral with the disk and the arms lying flat on the face thereof and curved in opposite directions with their outer edges overhanging the edge of the disk and their outer ends approaching each other and formed with turned-in fingerpieces, substantially as described. 25 30

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

WILLIAM S. DORMAN.

Witnesses:

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