E. F. HOPKINS.

CLOSURE FOR JARS, BOTTLES, AND SIMILAR ARTICLES.

APPLICATION FILED MAY 14, 1909.

984,815. Patented Feb. 21, 1911.

Fig. 1.

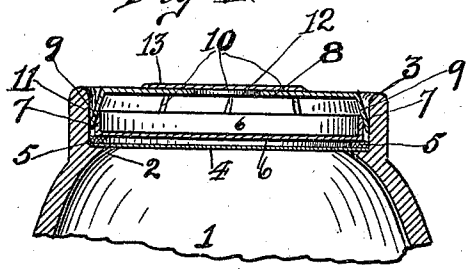


Fig. 2.

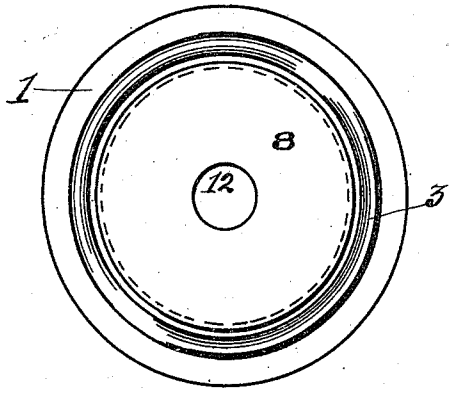


Fig. 3.

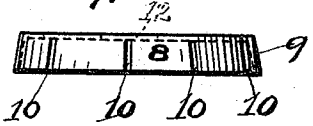
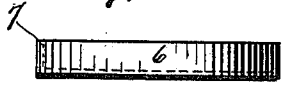


Fig. 4.



WITNESSES:

C. M. Baumeister.

O. W. Young.

INVENTOR

Egra F. Hopkins

BY

Harry Lea Dodson

ATTORNEY

UNITED STATES PATENT OFFICE.

EZRA F. HOPKINS, OF CHICAGO, ILLINOIS, ASSIGNOR TO ALBERT N. EASTMAN, OF CHICAGO, ILLINOIS.

CLOSURE FOR JARS, BOTTLES, AND SIMILAR ARTICLES.

984,815. Specification of Letters Patent. **Patented Feb. 21, 1911.**

Application filed May 14, 1909. Serial No. 495,888.

To all whom it may concern:

Be it known that I, EZRA F. HOPKINS, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented a certain new and useful Closure for Jars, Bottles, and Similar Articles.

My invention relates to that class of devices which are intended to hermetically seal the opening, and has for its object to provide a construction which cannot be dislodged by pressure from the inside of the jar, but can be easily removed from the outside, and has for its further object, to provide a closure which may be arranged so as to prevent its being opened without the fact being plainly apparent, and has for its further object to provide a closure which will permit of the sterilizing of the contents of the jar and which when sealed will remain sealed for an indefinite time.

My means of accomplishing the foregoing object may be more readily understood by having reference to the accompanying drawings, which are hereunto annexed and are a part of this specification, in which:—

Figure 1 is a vertical section of my invention, applied to the mouth of a jar or bottle, a fragment of the upper portion of the jar only being shown. Fig. 2 is a top or plan view. Figs. 3 and 4 are detail views of the members of the closure itself.

Similar reference numerals refer to similar parts throughout the entire description.

As shown in the drawing, the jar 1 is constructed with an inwardly extending shoulder 2, at a point which is located at a suitable distance from the top 3, of the side wall of the jar.

A layer 4 of paraffin paper or other suitable material for preventing the contact of the contents of the jar with the closure is provided, and above this is placed a gasket 5, preferably of rubber or any other suitable substance may be used when desired. Upon the gasket is placed the disk 6, which is provided with an upwardly extending flange 7, at its periphery. The upper member 8 is then placed in the mouth of the jar 1, the said member is constructed with a flange 9, formed at the periphery, said flange being tapered and being provided with a plurality of slots 10 to permit of its expansion. The outer wall of the flange 9 engages the inner wall 11 of the jar, while the inner wall of the said flange engages the outer wall of the flange 7 of the disk 6.

It will be obvious from the foregoing description that upon applying pressure to the top of the disk 8, it will operate to press the disk 6 tightly upon the gasket 5. The downward pressure will also serve to expand the flange 9 against the inner wall 11 of the jar 1, holding the disk 6 securely in place and sealing the jar perfectly.

It will be apparent from the foregoing description that if pressure is applied from below, that is to say from the interior of the jar 1, that instead of tending to move the closure upwardly, the only tendency will be to act as a wedge upon the flange 9, which will be expanded against the wall 11, and if sufficient pressure is applied, it will break the jar before it will push the closure out of the mouth of the jar.

When one desires to remove the closure, it is easily accomplished by inserting a tool or finger in the central opening 12, which is provided for this purpose, in the center of the disk 8, and as it is withdrawn, from the wedge, a comparatively slight effort lifts the disk 8 out of contact with the disk 6, which can then be easily removed. But, since the only way this closure can be removed is by the insertion of a tool or finger in the opening 12, it will be apparent that if the said opening is closed, the closure cannot be removed from the jar without the fact being evident. I provide for this by a label 13, over the top of the disk 8, which operates to effectively close the opening 12. As long as this label is in perfect condition, the consumer knows that the seal of the jar remains unbroken.

Where it is desired, an opening may be provided in the center of the disk 6, in which to mount a ball or other suitable sealing means, where it is desired to use the closure in connection with a vacuum.

Having described my invention what I regard as new and desire to secure by Letters Patent is:—

1. A closure comprising two telescoping flanged disks, coöperating to wedge the flange of the upper against the wall of a receptacle.

2. A receptacle having an annular interior shoulder near its mouth in combination with two telescoping flanged disks, the upper disk being adapted to force the lower

disk to its seat, the lower operating to wedge said upper one against the internal wall of the receptacle.

3. A closure comprising a plurality of telescoping flanged disks, a downward pressure upon the upper disk operating to force the lower disk to its seat, an upward pressure on the lower disk operating to expand the upper one against the internal wall of a receptacle.

4. A receptacle having an annular interior shoulder near its mouth, in combination with a closure comprising two telescoping flanged disks, there being a central opening in the upper disk, the upper disk when pressed operating to securely close the receptacle, an upward pressure upon the lower disk operating to expand the outer disk against the internal wall of the receptacle, a frangible covering closing said opening.

5. A closure comprising two telescoping flanged disks, coöperating to wedge the flange of the upper against the wall of a receptacle, there being an opening in the upper disk, said opening being closed by a wall of frangible material.

6. A receptacle having an annular interior shoulder near its mouth in combination with two telescoping flanged disks, the upper disk being adapted to force the lower disk to its seat, the lower operating to wedge said upper one against the internal wall of the receptacle, there being an opening in the upper disk, said opening being closed by a wall of frangible material.

EZRA F. HOPKINS.

Witnesses:
C. M. BAUMEISTER,
G. GOLDSMITH.