No. 680,750.

Patented Aug. 20, 1901.

H. J. WINTHERLICH.

JAR COVER.

(Application filed Dec. 15, 1900.)

(No Model.)

Fig. 1.

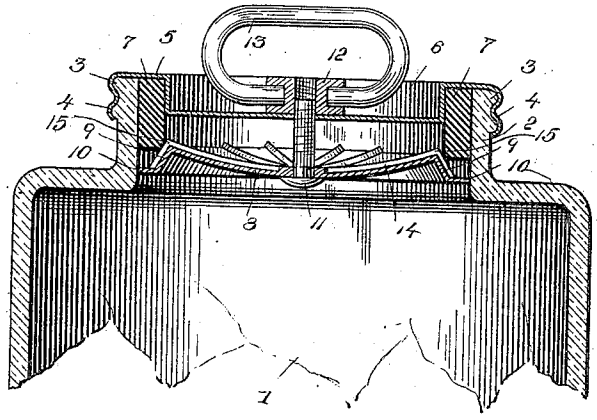


Fig. 2.

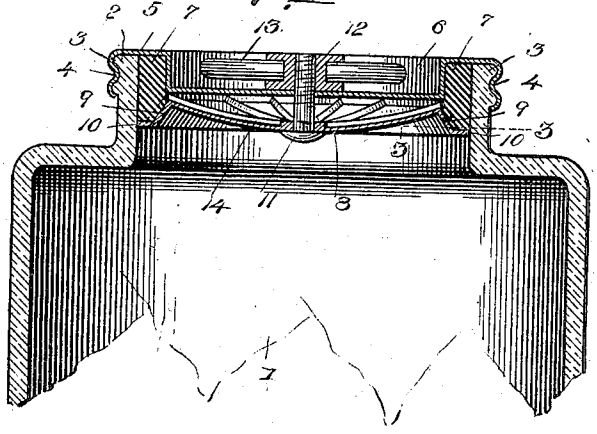
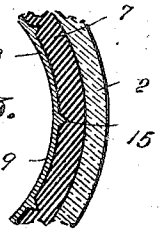


Fig. 3.



Witnesses
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Inventor
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By Victor J. Evans. Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HANS J. WINTHERLICH, OF OMAHA, NEBRASKA, ASSIGNOR OF ONE-HALF TO MICHAEL NITTLER, OF SAME PLACE.

JAR-COVER.

SPECIFICATION forming part of Letters Patent No. 680,750, dated August 20, 1901.

Application filed December 15, 1900. Serial No. 39,991. (No model.)

To all whom it may concern:

Be it known that I, HANS J. WINTHERLICH, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented new and useful Improvements in Jar-Covers, of which the following is a specification.

This invention relates to new and useful improvements in jar-closures; and its primary object is to provide a device which may be readily secured over the mouth of a jar and which is provided with means whereby the jar may be effectively sealed thereby.

With this and other objects in view the invention consists in providing a jar having a thread arranged upon the outer surface thereof adjacent to the mouth, and this thread is adapted to be engaged by an inwardly-extending flange arranged at the edge of the closure. This closure comprises a cap having a circular recessed portion at the center thereof, which is inclosed by an elastic ring, preferably formed of rubber. A concavo-convex disk is mounted below this recessed portion and is provided with an inclined flange which is adapted to bear upon the lower edge of the ring. A laterally-extending flange is arranged at the lower edge of this inclined flange and bears upon the lower edge of the ring when the disk is adjusted thereagainst. A threaded bolt is secured to the center of the disk and extends through the center of the recessed portion of the cap, and a nut is mounted upon this bolt and is provided with a bail or other suitable means whereby the same may be readily revolved. Studs are arranged upon the inclined flange of the disk and are adapted to engage the elastic strip, and thereby prevent the disk from turning when the same is being adjusted from or toward the cap.

The invention also consists in certain novel features of construction and combination of parts, which will be hereinafter fully described and claimed, and illustrated in the accompanying drawings, showing the preferred form of my invention, and in which—

Figure 1 is a central vertical section of the upper portion of a jar provided with my improved closure applied loosely. Fig. 2 is a similar view showing the position of the parts of the closure after they have been tightly closed, and Fig. 3 is a fragmentary horizontal section through the jar neck and closure.

In the drawings the same reference characters indicate the same parts of the invention.

1 is a jar or other receptacle having a neck 2, upon the outer surface of the wall of which is formed a thread 3. This thread is adapted to be engaged by a flange 4, formed at the edge of a cap 5, which is adapted to extend over the neck. A circular recessed portion 6 is formed at the center of the cap and is inclosed by an elastic ring 7, preferably formed of rubber, and which extends a considerable distance below the bottom of the recessed portion 6. A concavo-convex disk 8 is located below the recessed portion and is provided at its periphery with an annular inclined flange 9, at the lower edge of which is arranged a laterally-extending flange 10. The inclined flange is adapted to bear upon the inner surface of the ring 7 when the disk 8 is forced therebetween, and the lateral flange 10 contacts with the lower edge of said ring during this operation.

A bolt 11 is secured to the center of the disk 8 and extends through the center of the recessed portion 6. This bolt is threaded and is adapted to be engaged by a nut 12, which is provided with a bail 13 or other suitable means whereby the same may be readily revolved.

When it is desired to secure the closure to the jar, the disk 8, the ring 7, and the recessed portion 6 of the cap are inserted into the neck, and the flange 4 is placed into engagement with the thread 3 by revolving the same. The nut 12 is then turned upon the bolt 11 by means of the bail 13, and this will cause the concavo-convex disk 8 to move upward into the ring 7, forcing the same outward into contact with the inner surface of the neck, thereby sealing the jar.

In order to strengthen the disk 8, I preferably provide the same with ribs 14, which are formed upon the upper surface thereof. These ribs terminate in studs 15, which extend laterally from the disk at the upper edge of the inclined flange 9 and are adapted to

engage the rubber ring 7 to prevent the disk from revolving when the same is being adjusted from or toward the cap 5.

When the bail 13 is not in use, the same may be swung down into the recessed portion 6.

In the foregoing description I have embodied the preferred form of my invention; but I do not wish to be understood as limiting myself thereto, as I am aware that modifications may be made therein without departing from the principle or sacrificing any of the advantages of this invention, and I therefore reserve to myself the right to make such changes as fairly fall within the scope thereof.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. The combination with the neck of a receptacle; of a cap, an elastic ring secured to the cap, a disk mounted below the ring, having an inclined flange adapted to contact with said ring and spread the same laterally, studs on the disk adapted to engage the ring and prevent revolution of the disk therein, and means for adjusting the disk from or toward the cap.

2. The combination with the neck of a receptacle; of a cap, an elastic ring secured to the cap, a disk mounted below the ring, having an inclined flange adapted to engage the ring and spread the same laterally, strengthening-ribs upon the disk, studs at the ends of said ribs adapted to engage the ring and prevent revolution of the disk therein, and means for adjusting the disk from or toward the cap.

3. The combination with the neck of a receptacle having a thread thereon; of a cap adapted to engage said thread, a recessed portion at the center of the cap and extending into the neck, an elastic ring inclosing said recessed portion, a concavo-convex disk below the ring, having an inclined flange adapted to contact with the ring and spread the same laterally, ribs upon the disk, studs at the ends of the ribs adapted to engage the ring and prevent the disk from revolving therein, a bolt secured to the disk and extending through the recessed portion, a nut mounted thereon and within the recessed portion, and a bail to said nut.

4. A closure for jars and similar receptacles comprising a cap, having an annular flange, a recessed portion at the center thereof, an elastic ring inclosing the recessed portion and extending therefrom, a concavo-convex disk, having an inclined annular flange adapted to contact with the inner wall of the ring and spread said ring laterally, ribs upon the disk, studs on the disk adapted to engage the ring and prevent the disk from revolving therein, a bolt extending from the disk and into the recessed portion of the cap, a nut mounted upon the bolt, and a bail pivoted to said nut.

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

HANS J. WINTHERLICH.

Witnesses:
WM. F. WEBER,
W. G. CUNNINGHAM.