

C. HAMMER.
CLOSURE FOR STORAGE VESSELS.
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1,237,640.

Patented Aug. 21, 1917.

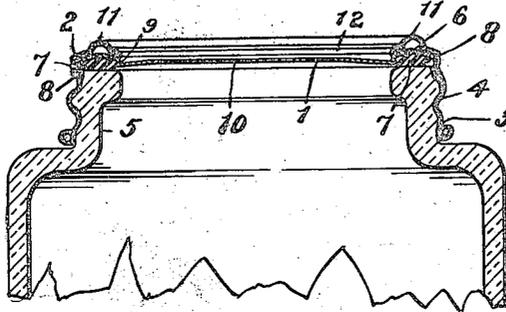


Fig. 1

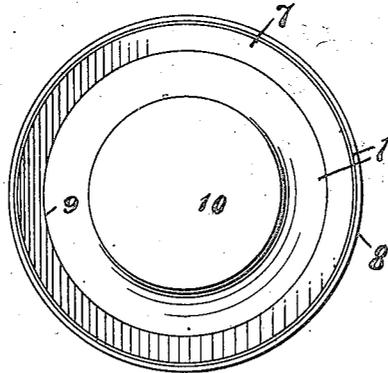


Fig. 2

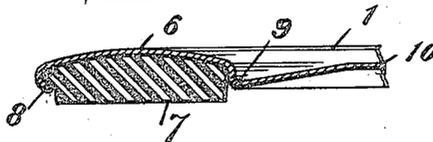


Fig. 3

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CHARLES HAMMER, OF QUEENS, NEW YORK, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO AMERICAN METAL CAP CO., OF BROOKLYN, NEW YORK.

CLOSURE FOR STORAGE VESSELS.

1,237,640.

Specification of Letters Patent. Patented Aug. 21, 1917.

Application filed March 6, 1916. Serial No. 82,433.

To all whom it may concern:

Be it known that I, CHARLES HAMMER, a citizen of the United States, and a resident of Queens, in the county of Queens and State of New York, have invented certain new and useful Improvements in Closures for Storage Vessels, of which the following is a specification.

I have invented an improvement in closures for storage vessels; and particularly closures that can be made by stamping out of sheet metal and used for the purpose of sealing up jars and bottles.

The object of my invention is to provide a cap or closure of the kind just mentioned which is constituted of a plurality of cooperating and interfitting parts, so designed that they can each be applied to the vessel with despatch; which parts will engage each other after being fitted to the vessel, in such a way that not only will the vessel be perfectly sealed, but also the cap will present a very neat and finished appearance.

A further object of my invention is to provide a cap consisting of a plurality of parts, preferably two in number; one of which is in the form of a substantially flat disk having packing or a washer secured to one face; and the other of which is threaded to enable the same to be screwed in place upon a jar or bottle and press the said disk with its packing tightly against the mouth of the jar; whereby the possibility of leakage will be eliminated.

The above and other objects and advantages of my invention will appear from the following description taken in connection with the accompanying drawings. However, the disclosure herein sets forth but one embodiment of my invention, and other constructions may be adopted that are similar in effect and of such a nature as to fall within the meaning of the terms in which the appended claim is expressed. On the drawings:

Figure 1 is a sectional view taken transversely through a preferred form of my improved closure, and a jar or bottle on which the same is used.

Fig. 2 is a bottom plan of a disk, showing the central part of my cap, having packing secured to its inner face; and

Fig. 3 is a section taken through a part of this disk in order to show the manner in

which the packing and disk are made fast to each other.

On the drawings the same numerals of reference are used to indicate the same parts on all the views.

The numeral 1 indicates the disk or central portion of my closure, and 2 a fastening ring adapted to engage this disk and secure the same in place on a storage vessel. This fastening ring is provided with a flange 3, the lower edge of which is strengthened by curling or beading over the same outward; and between the bead and the top of the flange I form one or more threads 4 designed to engage similar threads on the outside of the neck 5 of a storage vessel, such as a jar or bottle.

The disk 1 is substantially flat and is so shaped as to be provided on its upper face, as shown in the drawings, with a relatively low, wide circumferential rib 6; and on its lower face with a corresponding wide, shallow groove into which is disposed a packing or sealing ring 7. This packing or sealing ring is made of suitable compound and is retained in the groove in the lower or inner face of the disk 1 by turning over the outer edge of the disk against the packing 7, as indicated by the numeral 8. The turned over edge 8 of the disk will pinch or crimp the adjacent corner of the packing 7 very firmly; and the opposite corner of the packing, which lies along the inner edge of the ring 7, will be pressed against a sloping shoulder 9 formed by the inner periphery of the rib 6. Hence the packing 7 will be prevented from becoming displaced from proper position; and will be firmly held by the conformation of the disk just discussed. At the same time the substantial flatness of the disk, which it is the object of my invention to retain, is preserved; especially when the cap and disk are secured to a jar or bottle by means of the ring 2. I further insure a substantial flatness of the disk 1 by elevating the same to a slight extent from below in the middle as shown at 10.

The internal diameter of the ring 2 above mentioned is substantially the same as the internal or smaller diameter of the rib 6 and packing 7; so that when the disk 1 is placed over the mouth of the vessel 5, and the ring 2 is caused to engage the disk and secure it to the vessel by screwing the

threads 4 on the flange 3 upon the threads on the neck of the bottle or jar, the inner edge of the ring 2 will about coincide with the inner edge of the rib 6. I preferably
 5 strengthen the ring by providing the same with an annular rib or bead 11 extending over its upper or outer face; and a portion of this ring on the inside of the bead will
 10 so as to fit snugly against the top of the rib 6 adjacent the inner edge of the same. Consequently when the complete closure is fitted to the storage vessel the disk 1 appears to be perfectly flat and the shoulder
 15 along the inner edge of the rib 6 appears to be simply a continuation of the inward and downward passing edge 12 of the ring 2.

From the above it will be apparent that I have provided a cap which is exceedingly
 20 simple and can be readily affixed to a vessel and removed therefrom. When applied to a jar or bottle it will seal up the same perfectly and present a very ornamental appearance.

25 The top of the rib 6 is shown as being rounded or curved transversely, but obviously it may be flat. Moreover, the portion of the ring 2 between the rib 11 and the upper part of the flange 3 may extend
 30 downward the same as the edge 12; and this portion similarly engages the outer edge or shoulder of the rib 6. In fact this portion of the ring 2 and the edge 12 may be so
 35 shaped as to be continuations of each other; and therefore the rib 6 will be pressed down

firmly by the ring 2 along both the inner and outer edges of the rib to cause the packing to seat tightly on the top of the vessel 5 around the mouth thereof.

Having described my invention, what I 40 believe to be new and desire to secure and protect by Letters Patent of the United States is:

In a closure for a screw-top vessel, the combination with a threaded clamping ring 45 having an inwardly extending flange, of a sealing cover comprising a central disk having a comparatively wide and shallow arch portion connecting with the disk by a
 50 downward extension that forms a shoulder on the lower face of the arch, the outer edge of the arch portion being bent downwardly and inwardly to form a lateral groove facing said shoulder, and a flat ring
 55 gasket of compressible sealing material engaging the lower face of the arch portion and having its upper portion compressed between the inner wall of the shoulder and the inwardly projecting edge of the cover, to
 60 retain the gasket in the cover to project a considerable distance below the cover and prevent contact of the cover with the vessel when applied.

Signed at Brooklyn in the county of Kings and State of New York this 26th day 65 of October A. D. 1915.

CHARLES HAMMER.

Witnesses:

CHRISTIAN H. MONEY,
 WILLIAM H. BOURNE.