

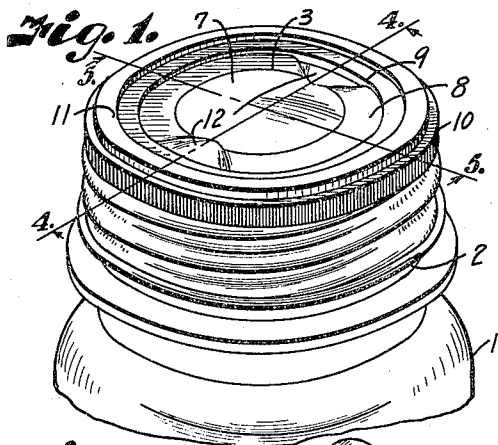
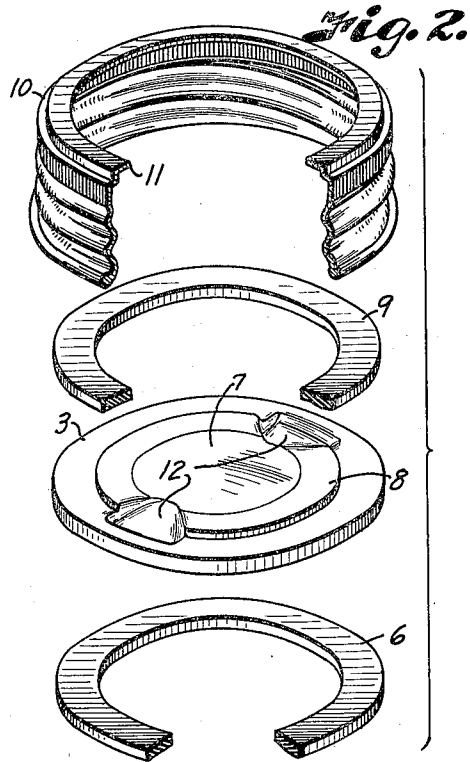
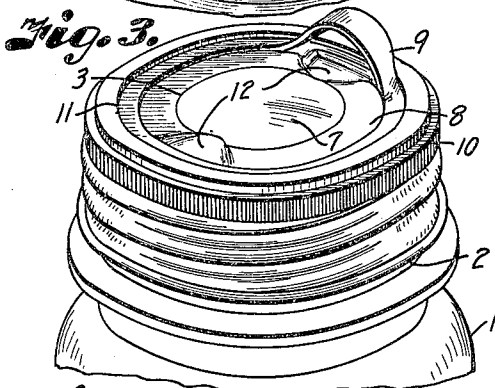
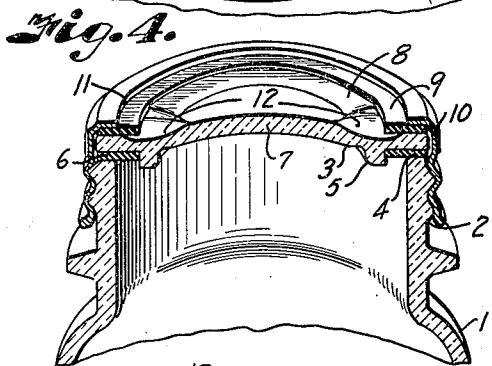
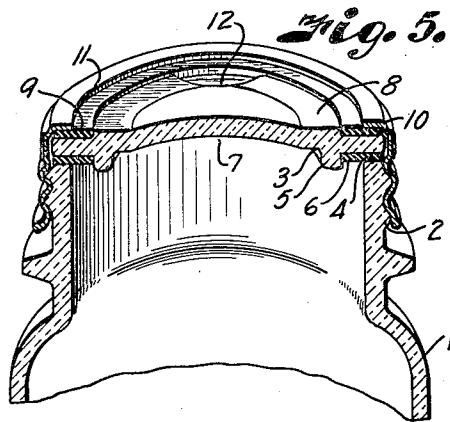
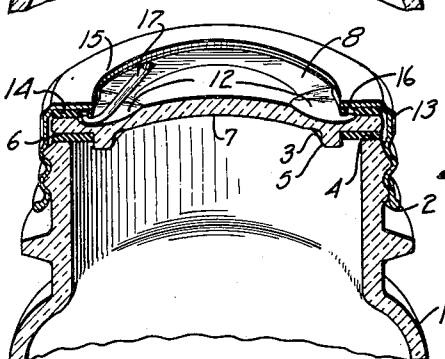
Nov. 8, 1938.

G. J. OVERMYER

2,135,834

CLOSURE FOR JARS AND THE LIKE

Filed March 25, 1936



INVENTOR
George J. Overmyer.
BY *Arthur B. Brown*
ATTORNEY

UNITED STATES PATENT OFFICE

2,135,834

CLOSURE FOR JARS AND THE LIKE

George J. Overmyer, Tulsa, Okla.

Application March 25, 1936, Serial No. 70,842

7 Claims. (Cl. 215—95)

This invention relates to closures for jars and the like, and more particularly to a closure of this character having a separable lid provided with means for facilitating removal of the closure from a jar.

It is well known that an extremely tight seal is required of containers, such as jars of the "Mason" and other types suitable for containing foodstuffs, in order that dust, moisture, air and other foreign elements may be effectively excluded from the interior of the jars, to thereby prevent spoilage or deterioration of the contents of the jars.

It is also well known that while a tight seal for a jar of the character stated is indispensable, difficulty is often encountered, because of the tight seal required, in removing the closure to make the contents of the jars available for use.

It is, therefore, the principal object of the present invention to provide a closure for jars and the like by use of which the desirable and customary extremely tight seal for the jars may be employed, and yet little or no difficulty encountered in opening the jars for utilization of their contents.

In accomplishing this and other objects of the invention, I have provided improved details of structure, the preferred forms of which are illustrated in the accompanying drawing, wherein:

Fig. 1 is a perspective view of my improved closure showing the manner of its application to the neck of a jar.

Fig. 2 is a detail disassembled perspective view of a jar closure embodying the features of my invention, parts of the sealing and clamping rings being broken away to better illustrate their construction.

Fig. 3 is a view similar to Fig. 1, showing the upper sealing ring in the process of being removed to loosen the clamping ring in relation to the neck of the jar.

Fig. 4 is a vertical cross-section on the line 4—4 Fig. 1, particularly illustrating application of an assembled closure embodying the features of my invention to the neck of a jar, and showing the finger depressions of the lid extending beneath the upper sealing ring for facilitating grasping same.

Fig. 5 is a vertical cross-section on the line 5—5, Fig. 1.

Fig. 6 is a vertical cross-sectional view through the central portion of a modified form of closure, wherein the flange of the clamping ring substantially covers the upper sealing ring, and showing the application of a tool to a perforation in the ring for effecting removal of the ring.

Referring more in detail to the drawing:

1 designates a conventional jar, preferably of the "Mason" type, having the usual threaded neck 2. This type of receptacle is widely used,

particularly for canning and preserving foodstuffs, one of the chief problems of which art is to seal a filled receptacle or jar in such a manner that it remains air-tight until disposal of the contents of the jar is desired.

To effect such a seal, I provide the lid or cover member 3 formed of suitable material, preferably glass, and having a diameter substantially equal to the outer diameter of the edge 4 at the open top of the neck portion of the jar 1. The bottom face of the lid 3 is provided with an annular rib 5, as shown in Fig. 4, spaced inwardly from the periphery thereof and forming a retaining wall for a compressible gasket member, for example a rubber ring 6, the ring 6 being sleeved over the outer periphery of the rib and resting on the edge 4 of the neck of the jar to seal the jar when the lid is placed thereon, in such a manner that the outer peripheries of the neck 2, ring 6 and lid 3 are in substantially vertical alignment. It is apparent that while I have shown the rib 5 as spaced from the inner periphery of the neck 2, it may be formed as a mating portion with the neck for facilitating positioning the lid on the neck of the jar.

The central body portion 7 of the lid, which is bounded by the rib 5, may also be provided with a slightly concaved surface for increasing the strength thereof, as shown in Figs. 4 and 5.

The upper face of the lid 3 has a raised portion 8, the periphery of which forms a positioning and retaining wall for a sealing ring 9, preferably similar in construction to the ring 6, which is sleeved over the portion 8 in such a manner that the peripheries of both faces of the lid 3 are provided with compressible gaskets aligning with the outside periphery of the neck of the jar.

10 designates an open top clamping ring having the usual threads for mating and engaging with the threaded neck 2 of the jar. The clamping ring 10 is also provided with an inwardly extending peripheral flange 11 engageable over a portion of the upper gasket ring 9 for causing compression thereof, when the clamping ring is screwed down on the neck of the jar, the ring 9 in turn compressing the lid 3 and ring 6 upon the upper edge 4 of the jar in order to secure the lid in sealing position.

To break the seal for removal of the closure in order to make the contents of the jar available for use, I provide the upper face of the lid 3 with finger depressions 12, which are preferably diametrically spaced, and which extend from a point within the periphery of the raised portion 8 outwardly and downwardly toward the periphery of the lid 3 to underlie a portion of the ring 9 and flange 11, in such a manner that the inner edge of the ring 9, comprising the portion over which the flange 11 does not extend, may be grasped by the fingers of a person opening the jar and

easily and quickly pulled from sealing position between the flange 11 and lid 3, as shown in Fig. 3.

It is apparent that with the ring 9 removed from the closure, the compression upon the clamping ring 10 and the neck 2 of the jar, caused by screw pressure of the clamping ring, is sufficiently reduced to allow easy separation thereof by unscrewing the clamping ring for permitting ready access to the contents of the jar.

In Fig. 6 I have illustrated a modified form of clamping ring 13 and upper sealing ring 14 for use in instances wherein it is desired to substantially cover the ring 14 with a flange 15 on the clamping ring 13 of greater width than the flange 14 of clamping ring 10. In this case, the assembly of the closure and the construction of the lid 3 is similar to that shown in the preferred form of invention; however, the upper sealing ring 14 is provided with perforations 16 spaced around the body of the ring in such a manner that certain of the perforations are juxtaposed over the finger depressions 12 below the flange 15. With this construction, it is desirable to compress the lower ring 6 preferably by manual pressure on the upper face of the lid 3 to reduce the compression upon the upper ring 14, a suitable tool 17 then being engageable in one of the perforations of the ring when inserted in one of the depressions 12 for effecting withdrawal thereof by drawing the ring from beneath the flange to thereby facilitate the subsequent unscrewing of the clamping ring due to the reduced compression incident to removal of the ring 14.

While I have illustrated my invention as applied to jars of threaded neck type, it is apparent that closures embodying the features of my invention may be employed with other types of receptacles.

What I claim and desire to secure by Letters Patent is:

1. A closure of the character described including a cover member having a rib on the lower face thereof and a raised portion on the upper face thereof for positioning sealing rings equidistantly from the center thereof at opposite sides of the cover member, sealing rings mounted on opposite faces of said cover member by said rib and raised portion, and a clamping member having a flange overlying the upper ring, the cover member having finger grooves in its raised portion extending beneath the inner edge of the upper ring for facilitating removal of said ring from under the flange to release compression on the lower ring.

2. In combination with a receptacle having a threaded neck, a cover member overlying said neck having compressible sealing rings on opposite edges of the upper and lower faces thereof, a clamping member having a flange engageable over said upper sealing ring and having a threaded portion engageable with said threaded neck of the receptacle for securing the cover member to the receptacle, the cover member having depressions in its upper face extending beneath said upper ring and clamping flange, said upper ring having perforations therein for receiving a tool for withdrawal of the ring from under said flange to loosen the clamping member in relation to the receptacle.

3. A closure of the character described includ-

ing a cover member, sealing rings mounted on opposite faces of the cover member, and a clamping member having a flange overlying said upper ring and having means for securing the cover member on a receptacle, the cover member having a depression in its upper face and extending beneath the inner edge of the upper sealing ring to facilitate removal of said upper ring from engagement under the flange to release compression on the lower ring when removing the closure from the receptacle.

4. A closure of the character described including a cover member, sealing rings mounted on opposite faces of the cover member, the upper ring having a tool engaging portion, and a clamping member having a flange overlying said upper ring and provided with means for anchoring the closure on the open end of a receptacle, said cover member having a depression extending beneath said tool engaging portion of the upper ring to facilitate engagement of a tool with said tool engaging portion whereby the upper ring is withdrawn from the flange of the clamping member to release compression on the lower ring.

5. A closure of the character described including a cover member, sealing rings mounted on opposite faces of the cover member, the ring on the upper face having a perforation extending through its inner marginal portion, and a clamping member having a flange overlying said upper ring and provided with means for anchoring the closure on the open end of a receptacle, said cover member having a depression extending beneath said perforation of the upper ring to facilitate engagement of a tool with said perforation whereby the upper ring is withdrawn from the flange of the clamping member to release compression on the lower ring.

6. A closure of the character described including a cover member having a central raised portion on its upper face spaced inwardly from the outer periphery thereof, a sealing ring mounted under said cover member, a sealing ring mounted on the upper surface of the cover member and having its inner periphery engaging the periphery of the central raised portion, and a clamping member having a flange overlying said upper sealing ring and having means for securing the cover member on a receptacle, said cover member having a depression in said central raised portion to facilitate removal of said upper ring from engagement under the flange to release compression on the lower ring when removing the closure from the receptacle.

7. A closure of the character described including a cover member, sealing rings, means on said cover member for engaging the inner periphery of the rings to center said rings on the top and bottom faces thereof, and a clamping ring having means respectively engageable with the ring on said top face of the cover member and an open end of a receptacle for securing said cover member to said receptacle to seal same, the centering means for the ring on the top face of said cover member having a depression extending under the inner edge of said ring for facilitating removal of the ring thereon from engagement with said clamping ring to loosen the clamping ring in relation to the receptacle.

GEORGE J. OVERMYER.