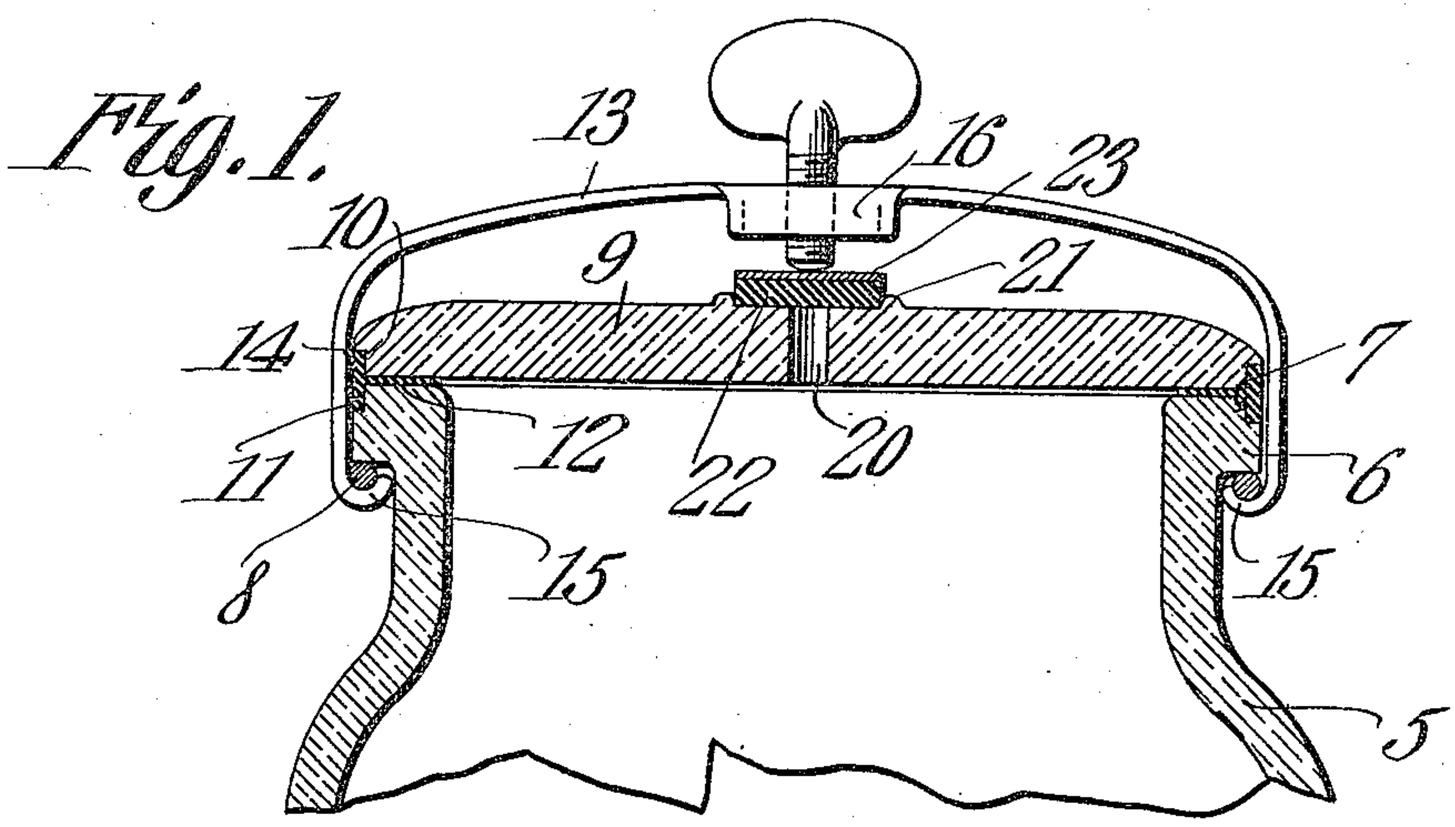
J. J. DECKER.

JAR TOP FASTENER.

APPLICATION FILED MAY 25, 1909.

952,881. Patented Mar. 22, 1910.

Fig. 1.



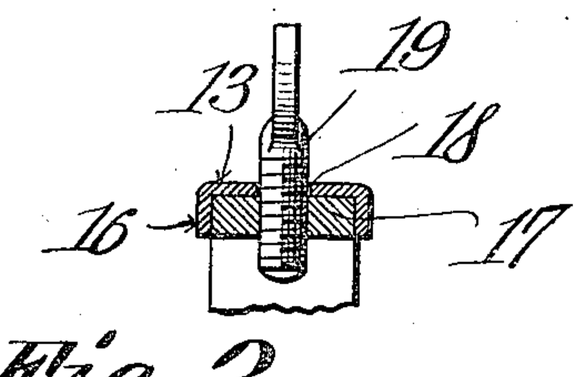


Fig. 2.

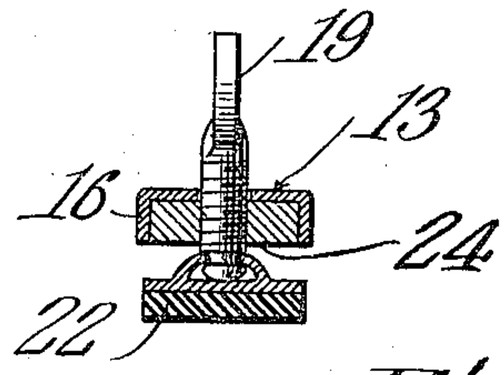


Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

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JAR-TOP FASTENER.

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To all whom it may concern:

Be it known that I, JOHN J. DECKER, a citizen of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented a new and useful Jar-Top Fastener, of which the following is a specification.

It is the object of the present invention to provide an improved construction of jar closure clamping means and the invention aims primarily to provide a device for this purpose which will not be liable to become accidentally disengaged from the jar and closure.

It is a further object of the invention to provide, in a jar closure and clamping means therefor, means whereby the jar will be vented upon removal of the clamping means.

A further object of the invention is to provide an improved means for hermetically sealing the jars with which the invention is associated, and this invention aims to provide a closure and jar so constructed as to receive an elastic packing band upon the outer periphery, so that when the food stuffs in the jars are heated during the canning or preserving operation the steam generated will escape around the band, forcing the same away from the jar and its closure to a slight degree, and after the contents of the jar have cooled, the partial vacuum formed will result in the band being drawn tightly against the jar and closure at the juncture thereof whereby to seal the jar.

In the accompanying drawings, Figure 1 is a vertical sectional view through a jar closure, and closure clamping device constructed in accordance with the present invention. Fig. 2 is a similar view but taken in a plane at right angles and showing but a portion of the closure clamping means. Fig. 3 is a view similar to Fig. 2 but illustrating a slight modification of the closure clamping means.

In the drawings, the jar is indicated in general by the reference numeral 5 and is formed upon the outer surface of its neck with a circumscribing shoulder 6 and in the said outer surface at the upper edge thereof with a rabbet 7. For a purpose to be presently explained, there is disposed upon the neck of the jar and against the under side of the shoulder 6, a metallic ring 8.

The closure for the jar is indicated by the numeral 9 and is formed around its edge with a rabbet 10 which registers with the rabbet 7 when the closure is upon the jar as is clearly illustrated in Fig. 1 of the drawings. Before disposing the closure 9 upon the mouth of the jar, there is disposed upon the said mouth an elastic sealing or packing ring having a body portion 11 seating in the rabbets 7 and 10 of the jar and closure respectively and an inwardly extending flange 12 which seats between the upper end of the jar mouth and the under side of the closure at the edge thereof as is clearly illustrated in Fig. 1 of the drawings. As the food stuff within the jar is heated and steam is generated within the jar, this steam escapes around the elastic sealing ring 11 forcing the ring outwardly from its seat in the rabbets 7 and 10, to a slight degree. On the other hand, when the contents of the jar have become cooled, the partial vacuum formed within the jar will result in the packing or sealing ring 11 being drawn firmly into the rabbets 7 and 10 and tight against the jar and closure and at the same time this vacuum will act to draw down the closure 9 thereby pressing it firmly against the inwardly extending flange 12 which fits between the closure and the upper edge of the mouth of the jar as above described.

The means provided for clamping the closure 9 upon the jar 5 is embodied in part in a resilient band 13 which has its end portions bent down from its body as indicated by the numeral 14 whereby to straddle the closure 9 and upper end of the mouth of the jar and the terminals of the band are overturned as at 15 to engage with and embrace diametrically opposite portions of the ring 8 which, as before stated, is supported against the under side of the shoulder 6 upon the mouth of the jar. It will be understood of course that this ring 8 may be split so that it may be applied to and removed from the jar at will, but that when in the position shown in Fig. 1 of the drawings, in which position it is engaged by the terminals of the resilient band 13, it will not only be held against disengagement from beneath the shoulder 6 but the said terminals of the band will be held firmly against lateral or longitudinal displacement. The fact will further be appreciated that this construction presents numerous advantages over the present forms of such jars in which the terminals of the band corresponding to the band 13 merely bear beneath the shoulder equiva-

lent to the shoulder 6 inasmuch as such devices frequently slip from the jars permitting of displacement of the closure and waste of the contents. The band 13 is formed intermediate of its ends and at its side edges with short flanges 16 which are bent to extend downwardly at right angles from the said portion of the band and embrace opposite sides of a nut 17 disposed therebetween and against the under side of the band at its said intermediate portion. This nut 17 has its threaded opening registering with an opening 18 which is formed through the band and through which is introduced a clamping screw 19 having threaded engagement through the nut 17 as is shown clearly in Fig. 2 of the drawings.

The jar closure 9 is formed axially with a vent opening 20 and upon its upper face and at opposite sides of the opening 20 with upstanding ribs 21. For the purpose of closing the vent opening 20, there is provided a valve disk having a lamina 22 of rubber or other suitable flexible packing material and a lamina 23 which is preferably in the nature of a metallic disk and against which bears the clamping screw 19, the disk valve being received between the ribs 21 and held by reason of such engagement against rotation and also against lateral displacement.

From the foregoing it will be readily understood that in order to firmly clamp the closure 9 upon the jar it is only necessary to tighten the clamping screw 19 and inasmuch as this screw bears at its lower end against the disk valve and forces the same against the upper face of the closure 9 in position to close the vent 20, neither the steam nor the contents of the jar can escape by way of this opening nor can air enter into the jar through this opening. It will further be understood that when it is desired to open the jar, the clamping screw 19 is first loosened whereupon to permit of displacement of the valve disk 22 from its seat between the ribs 21 upon the upper face of the closure. Furthermore, this displacement of the valve disk, admitting air into the jar through the vent opening 20, will allow the packing or sealing ring 11 to be readily removed.

In some instances it will be found desirable to have the valve disk 22 lifted by the screw 19 when the same is loosened and under such circumstances the said disk is swiveled to the lower end of the screw as illustrated in Fig. 3 of the drawings, it being understood that by this construction it will not be necessary to manually displace the valve disk after the screw has been loosened.

What is claimed is:—

In a device of the class described a container having an annular shoulder upon the outer face thereof and adjacent the mouth of the container, a closure, said closure and container having registering annular rabbets, an elastic T-shaped packing interposed between the container and closure and seated within the registering rabbets, an endless ring bearing against the shoulder upon the container, a yoke-like clamping member having hooked terminals engaging the ring, and a pressure screw extending through the clamping member for binding the closure upon the packing ring.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN J. DECKER.

Witnesses:
H. G. LITTLER,
W. S. HODGKINS.