Aug. 3, 1954 A. MOELLER 2,685,379

STOPPER BODY

Filed Sept. 13, 1950

Fig. 1.

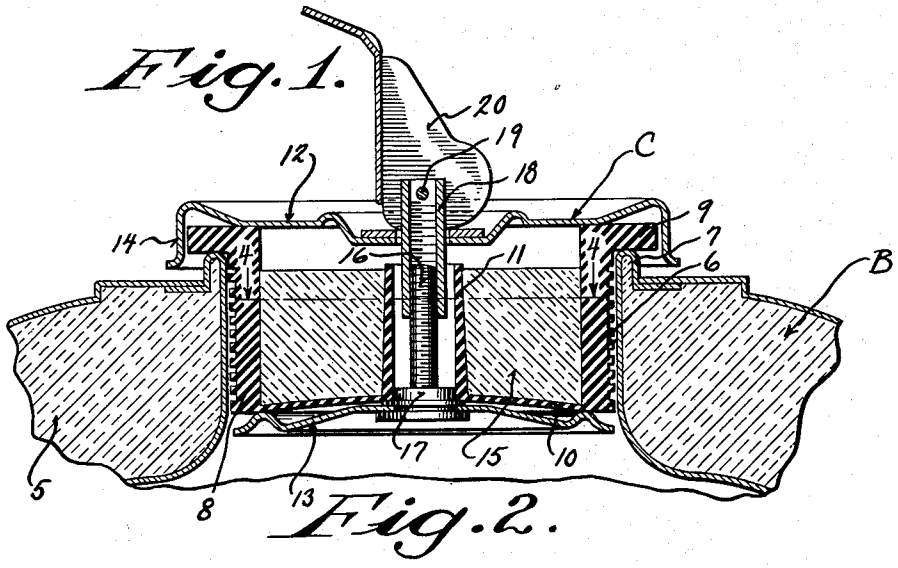


Fig. 2.

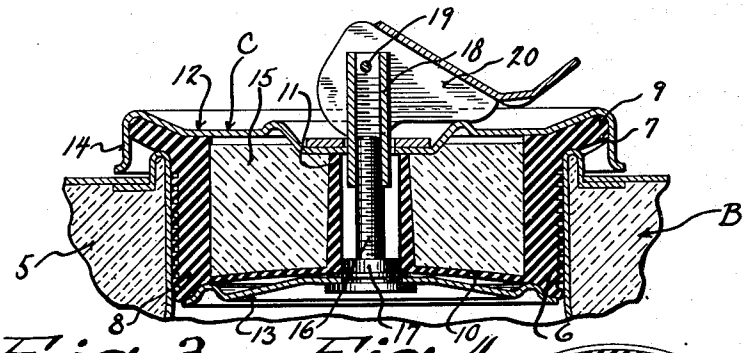
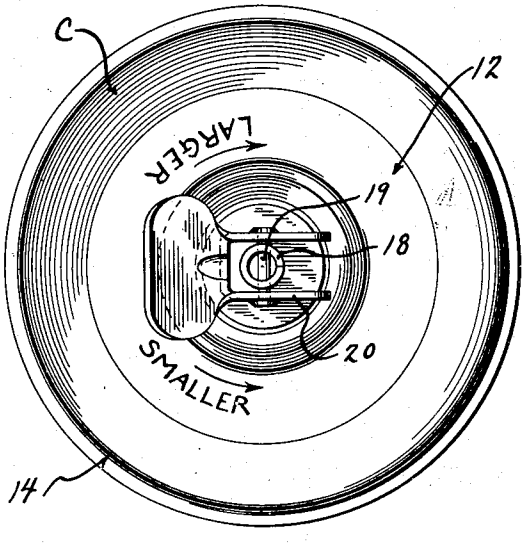
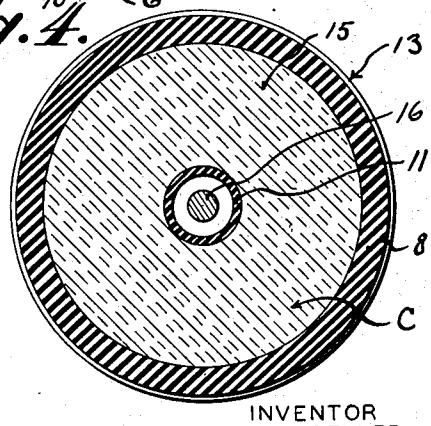


Fig. 3.

Fig. 4.





INVENTOR
AXEL MOELLER

BY

Young & Wright

ATTORNEYS

Patented Aug. 3, 1954 2,685,379

UNITED STATES PATENT OFFICE

2,685,379

STOPPER BODY

Axel Moeller, Racine, Wis., assignor to Moeller Mfg. Co., Racine, Wis., a corporation of Wisconsin

Application September 13, 1950, Serial No. 184,609

2 Claims. (Cl. 215—53)

1

This invention appertains to bottle and jar stoppers and more particularly to expansible stoppers for the mouths of picnic jugs, and is another form of my invention illustrated and claimed in my co-pending application Serial No. 184,610 filed on an even date herewith.

In my co-pending application, I disclosed a stopper embodying a novel expansible body and novel compression plates, and this present invention has for its primary object to provide a means for forming the expansible body, whereby a complete enclosure is provided for an insulating packing disposed in the stopper body, so that the packing will be effectively supported and whereby, fragments of the packing will be prevented from working out of the stopper and into the contents of the jug.

A further important object of the invention is to provide means whereby the insulating packing for the stopper will be substantially enclosed within the stopper body and whereby the insulation will be effectively protected from the liquid contents of the jug.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts, as will be hereinafter more specifically described and claimed, and illustrated in the accompanying drawing, in which drawing,

Figure 1 is a central vertical sectional view through the improved stopper showing the same inserted in the mouth of a jar or jug.

Figure 2 is a view similar to Figure 1, and showing the stopper in its compressed sealing position.

Figure 3 is a top plan view of the stopper.

Figure 4 is a horizontal sectional view through the stopper taken on the line 4—4 of Figure 1, looking in the direction of the arrows.

Referring to the drawing in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter C generally indicates the novel closure or stopper for a large mouthed bottle or jar B.

The bottle or jar B forms no part of the present invention and can include the usual insulated wall 5 having the enlarged entrance and pouring mouth 6. In the form of the bottle or jar B, illustrated, the same can be provided with an upstanding annular lip 7.

The closure or stopper C includes the annular resilient and compressible body 8 having formed on its upper end the outwardly extending flange 9. The lower end of the body 8 has formed integral therewith, the flexible bottom wall 10, and in accordance with the invention, the bottom wall has formed thereon the axially disposed tube or sleeve 11. This tube or sleeve 11 forms an axial opening and the upper edge of the sleeve or tube terminates below the upper edge of the body 8.

2

Top and bottom supporting and compression plates 12 and 13 are provided for the body 8. If desired, the upper plate 12 can be provided with a downturned annular skirt 14 for enclosing the flange 9 of the stopper body 8.

In some forms of stoppers, a packing or insulating material is utilized, and as clearly illustrated in the drawing, insulating material 15 is placed within the body 8 around the centrally disposed tube or sleeve 11 and the tube or sleeve 11 is utilized so as to effectively hold and support the packing material and to prevent the working of the packing material out of the stopper and into the adjusting means employed for the stopper. This adjusting means will now be described.

The bottom plate 13 is provided with a centrally disposed threaded shank 16, and this threaded shank extends axially through the sleeve or tube 11. This shank is rigidly secured to the plate 13, in any desired way, and is preferably provided with an annular seat 17 adjacent to the plate on which the lower end of the seat or tube 11 snugly engages. The upper plate 12 slidably and rotatably receives the adjusting sleeve nut 18, which is threaded on the shank or stem 16. Rockably mounted on the upper end of the sleeve nut 18 by means of a pivot pin 19, is a cam lever 20. By turning the cam lever 20, the nut can be threaded up and down on the shank 16 for initially adjusting the plates 12 and 13 toward and away from one another, and after such initial adjustment the cam lever can be swung down as shown in Figure 2 for compressing the body 8 and expanding the same radially into intimate contact with the mouth of the bottle or jug B. Upon the bringing of the plate 12 toward the plate 13 for compressing the body 8, the plate will be forced into intimate sealing contact with the upper edge of the sleeve or tube 11, as is clearly shown in Figure 2.

By providing the bottom wall 10 of the body 8, with a centrally disposed sleeve 11, the body can be centrally located on the plate 13, and a complete enclosure is provided for the insulating packing 14.

Changes is details may be made without departing from the spirit or the scope of this invention, but what I claim as new is:

1. A stopper comprising a hollow body includ-

ing a compressible annular resilient side wall, a bottom wall connected at its periphery to the lower end of the side wall, said bottom wall having an axially disposed opening, top and bottom compression plates for the body, means for adjusting the plates toward and away from one another, insulating packing disposed in said body on said bottom wall, and a centrally disposed tube carried by the bottom wall and surrounding said opening engaging and supporting the packing and forming an enclosure therefor within the said body and a sealing closure for a part of said adjusting means, when the compression plates are adjusted toward one another.

2. A stopper comprising a hollow body including a compressible annular resilient side wall, a bottom wall for said body connected to the lower end of the side wall having an axially disposed opening, top and bottom compression plates for the body, means for adjusting the plates toward and away from one another, insulating packing disposed in said body on said bottom wall, and a centrally disposed tube carried by the bottom wall and surrounding said opening engaging and supporting the packing and forming an enclosure therefor within said body and an enclosure for a part of said adjusting means, said tube terminating below the upper edge of the body and above said packing, the upper edge of said tube being engaged by the top plate for sealing the tube when said plate is moved to a lower adjusted position.

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