

Oct. 7, 1947.

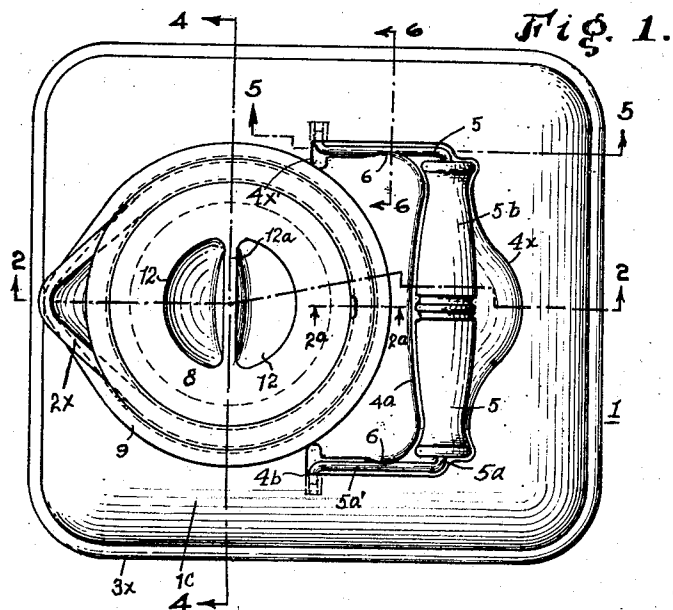
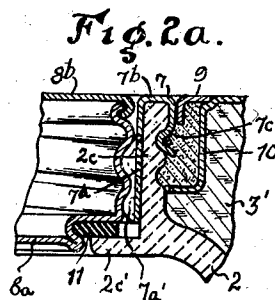
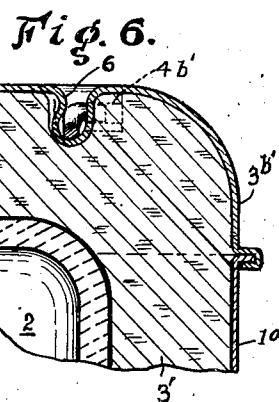
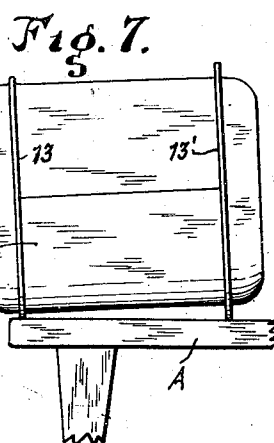
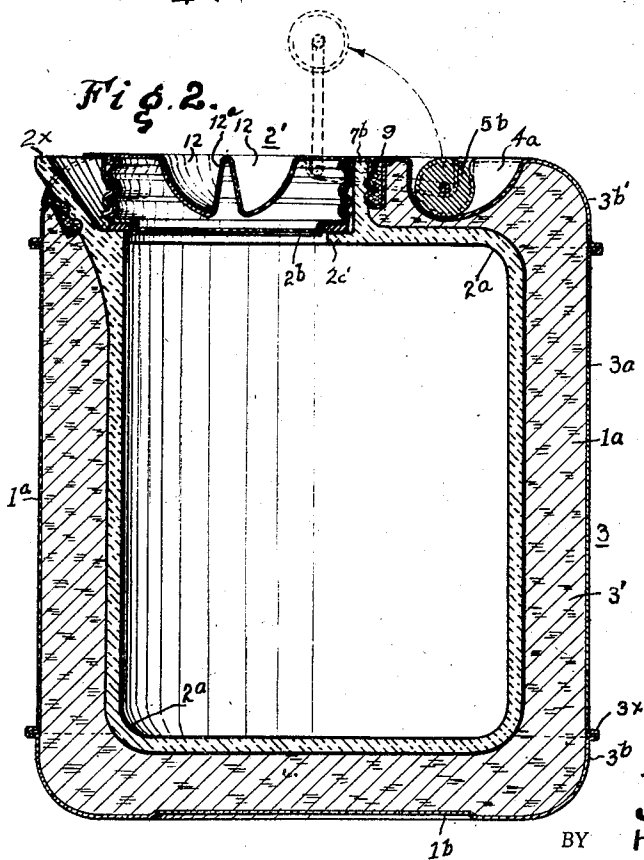
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2,428,588

JAR OR CONTAINER

Filed July 7, 1943

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

**Fig. 3.**

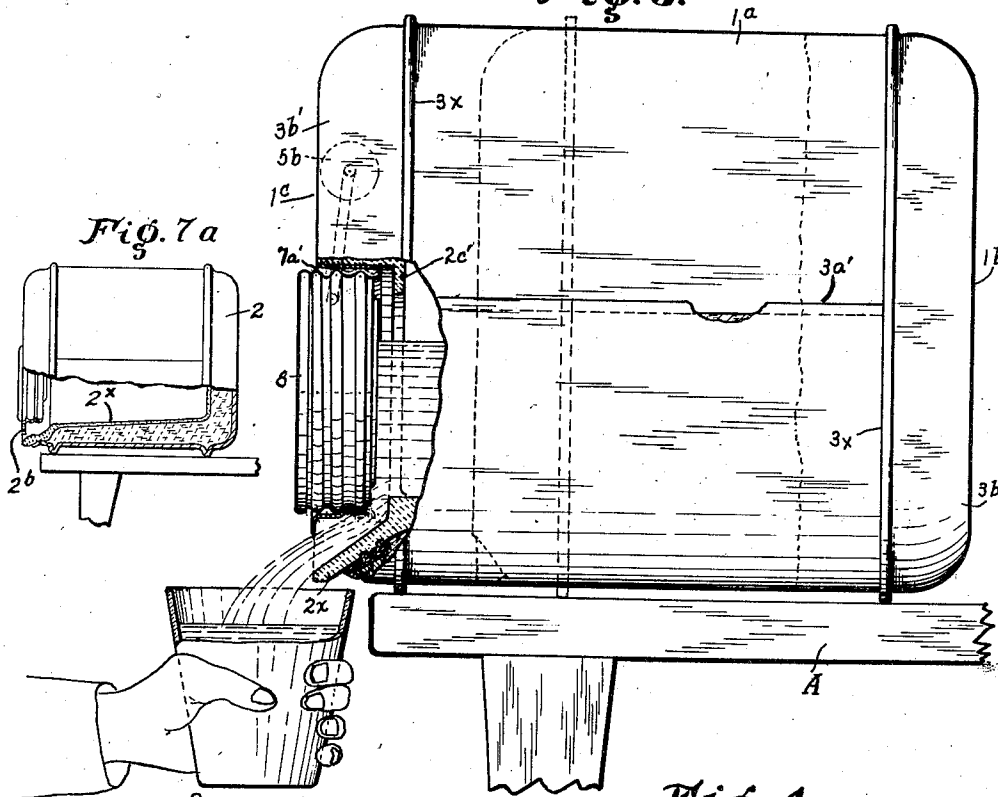


*Fig. 4.*

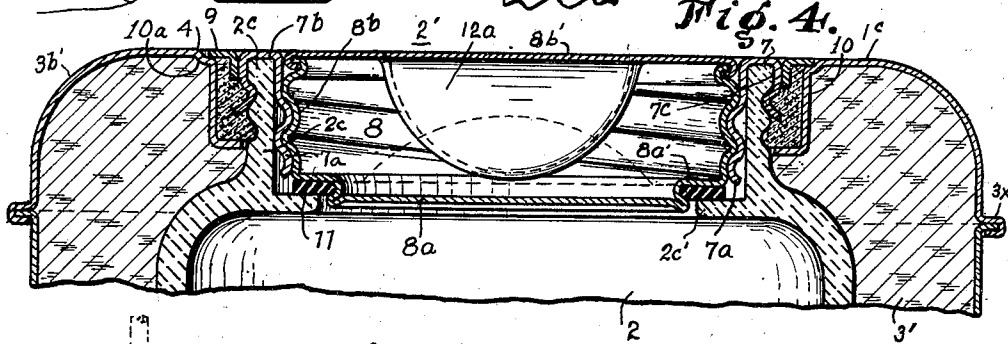
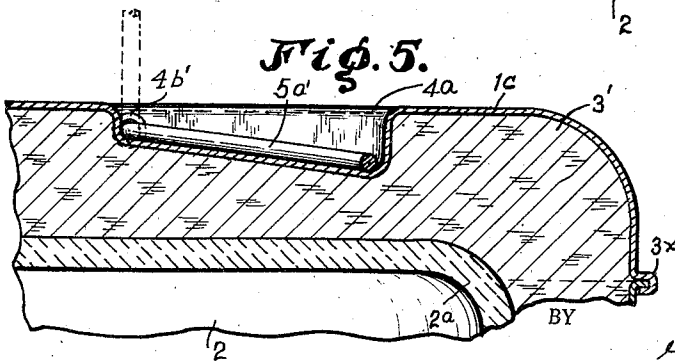


**Fig. 5.**



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## UNITED STATES PATENT OFFICE

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## JAR OR CONTAINER

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3 Claims. (Cl. 215—13)

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This invention relates to a thermal jar or container adapted to be filled with liquids and/or foods, whereby such contents may be maintained at substantially the temperature thereof when first placed in the jar or container, ready for later consumption. Jars or containers of this type are used under various conditions, but find wide use by persons at picnic parties. Jars and containers of this type, so far as our knowledge goes, have been round in cross section and provided with up-standing filling and emptying spouts or necks having exterior closures or protruding elements, a handle on the top of the jar and in some instances a pet cock on the side wall of the jar. Pet cocks are objectionable since they clog easily and are difficult to open, and where the filling opening of the jar is utilized for emptying it of liquids or semi-liquids, the jar must be bodily lifted and tilted and the device (such as a drinking cup) to be filled must be placed on a support or held by another person. Furthermore, these various protruding parts take up an undue amount of room and hence prevent ready and economical packing with other articles (boxes, pans and the like) in a car for transportation.

One object of the invention is to provide an improved jar or container of the type having a non-circular shape in cross section, whereby it may be positioned on its side on a support in position for pouring without danger of rolling off or moving into a different position.

Another object of the invention is to provide an improved jar or container of this type one side wall of which is flat, whereby the jar may be positioned on its side wall on a support and to form in its top wall adjacent said flat side wall an emptying opening, so that the contents of the jar may be discharged without bodily movement thereof.

Another object of the invention is to provide an improved jar or container of this type having a non-circular shape in cross section whereby it may be positioned on its side on a support and to mount in its top wall adjacent one side of the jar combined sealing and discharging devices, constructed to permit discharge of the jar contents without removal of the sealing device, whereby filling of drinking cups and the like is facilitated and lifting and tilting of the jar is avoided.

Another object of the invention is to provide an improved jar or container of this type having a polygonal shape in cross section and flat bottom and top walls, the latter being formed with an opening and shaped to accommodate the closure for the opening and carrying handle for the jar flush with its top surface.

Another object of the invention is to provide an improved jar or container of this type of non-circular shape in cross section and having in its

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top wall adjacent one side of the jar, an opening and a spout therefor, provided with combined sealing and discharge devices and spacing devices on said side wall to permit the jar, when positioned on a support, to be moved thereon relative the edge of the support, whereby discharge of the jar contents into drinking cups and other receptacles is facilitated.

A further object of the invention is to provide an improved container which may be partially or completely emptied without bodily manipulation thereof.

A still further object of the invention is to provide an improved jar of this type wherein the outlet neck on the inner wall is protected against damage.

Other objects of the invention will be apparent to those skilled in the art to which our invention relates from the following description taken in connection with the accompanying drawings, wherein

Fig. 1 is a top plan view of a jar embodying our invention.

Fig. 2 is a section on the line 2—2 of Fig. 1.

Fig. 2a is a fragmentary section on the line 2a—2a of Fig. 1, enlarged.

Fig. 3 is a side view, parts being broken away, showing one way of discharging the jar contents into a receptacle.

Figs. 4, 5 and 6 are fragmentary sections on the lines 4—4, 5—5 and 6—6, respectively, of Fig. 1.

Fig. 7 is a side elevation showing a modification.

Fig. 7a is a view partly in elevation and partly in section showing a different modification.

In the drawings, 1 indicates as an entirety a jar or container, adapted to be filled with liquids, semi-liquids and edibles, either in a heated or chilled condition, and comprising sides 1a, a bottom 1b and a top 1c, the sides being polygonal (preferably substantially square) in cross section; these parts consist of inner and outer members 2, 3, respectively in spaced relation, the spaces between them being filled with a suitable heat insulating material, which in itself or by reason of its cellular formation, provides a wall or walls having a low co-efficient of heat conductivity, whereby undue change in temperature of the contents placed in the jar is prevented for a relatively long period of time. In practice we prefer to use ground cork 3' as the heat insulating material.

The inner member 2 is preferably molded in any suitable manner from suitable clay material and other ingredients, whereby its walls are rigid and integrally related. By preference the inner member has a cross section similar to that of the sides 1a, to provide a maximum volumetric space therein; and in the form of construction shown the side, top and bottom of the member 2 are

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connected by rounded or curvilinear portions 2a, to facilitate cleaning of the member 2, which arrangement permits the connection of the walls of the outer member to be similarly related, the latter arrangement greatly facilitating packing of the jar with other articles and removal therefrom. The top wall of the member 2 is formed with a filling and emptying opening 2b having an outwardly extending neck 2c, for connection with combined sealing and emptying or discharge devices indicated as an entirety at 2', the opening 2b being eccentrically related to the axis of the inner member 2, so that one side of the opening 2b may be in substantially contiguous relation to one side wall of the member 2 to facilitate emptying of the jar, as later set forth. In the arrangement referred to, that side of the container 1 adjacent the opening 2b is disposed at right angles to a plane cutting the axis thereof and the axis of the container. That side of the neck 2c which is next to the side wall of the member 2 is extended laterally and outwardly to form a pouring spout 2x. The neck 2c is preferably formed integrally with the walls of the inner member. It will be obvious that the inner side wall 2x of the member 2 next to the opening 2b may be inclined from its bottom wall outwardly relative to the axis of the member, as shown in Fig. 7a, to facilitate emptying thereof when the jar is positioned as shown in Fig. 3.

The outer member 3 is preferably formed of sheet metal sections secured together in any desired manner, for example, a main section 3a, the end edges of which are connected by a lap joint 3a', and end sections 3b, 3b', shaped to fit over the bottom and top of the inner member 2, to form the bottom wall 1b and top wall 1c, respectively, of the jar, the peripheries of the sections 3b, 3b', being suitably secured to the side edges of the main section 3a by a suitable joint, preferably consisting of flanges in lapped relation forming external ribs 3x. In this arrangement, the ribs 3x extend around the sides 1a and are spaced from the bottom 1b and top 1c, and those portions of the ribs on that side wall of the jar adjacent the opening 2b are utilized to support it on the table or the like, when the jar is in pouring position (Fig. 3), with the adjacent side 1a above the table. In this arrangement of the ribs 3x, the jar 1 may be moved outwardly to position the spout beyond the side of the table when filling a glass or other receptacle or moved in the opposite direction, as shown in dotted lines in Fig. 3, without danger of the spout engaging the table. The top section 3b' is formed with an opening 4 in registry with the opening 2b and recessed at 4a to accommodate a swingable handle 5 in flush relation with the top surface of the section 3b' (see Fig. 2) when in in-operative position. The handle 5 consists of a bail 5a rotatably supporting a grip 5b between the legs 5a' thereof. The outer end portions of the bail legs 5a' are bent laterally outwardly and project into openings 4b formed in the outer side walls of the recess 4a to provide a pivotal connection for the bail with the top wall 1c. The walls of the openings 4b are preferably reinforced by nipples 4b' which may be spot welded to the inner surface of the sheet metal section 3b'. As shown, the recess 4a has a contour approximating the shape of the bail 5a, the inner side walls of the recess being expanded inwardly as shown at 6 so as to lap over the legs 5a' (see Figs. 1 and 6) to serve as a spring catch for the bail to detachably hold the handle in the recess 4a and hence

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in an in-operative position when the jar contents are being discharged (see Fig. 3).

The combined sealing and emptying devices 2' comprise the following: 1 indicates an annulus preferably formed of sheet metal and consisting of an inner wall 7a, which extends into the neck 2c in close engagement to its inner wall and is suitably shaped to provide screw threads to removably receive a closure 8, and an outwardly extending wall 7b the peripheral portion of which is bent outwardly to provide a flange 7c, the wall 7b and flange 7c fitting over and seated on the end wall of the neck 2c. In this construction of the annulus, the neck 2c is protected against damage (distortion if made of metal or chipping when made of earthenware as above set forth). Also the neck 2c in turn serves to resist pressure inwardly on the sheet metal section 3b' and distortion thereof as well as loosening of the liquid tight connection between the annulus 7 and walls of the section 3b' due to screwing the closure 8 into final sealing position. The lower portion of the wall 7a within the spout 2x and the flange 7c throughout the area of spout 2x are cut away, as shown in Figs. 2 and 3, to permit flow of the contents of the jar therefrom through the spout 2x, the wall 7b being continuous and bridging the spout to reinforce the threaded portion of the wall 7a; also, the wall 7a diametrically opposite the spout 2x is embossed outwardly (that is, the screw threads in this wall are transversely mutilated) to form a channel 7a' which serves as a vent when the closure is backed-up as shown in Fig. 3, whereby discharge of the jar contents may be readily controlled. The annulus 7 is secured in position by a ring 9, which is preferably angular in cross section. The inner side of the ring 9 is seated against the flange 7c and suitably soldered thereto. The periphery of the other side of the ring 9 engages the wall of the top end section 3b' and is preferably soldered thereto. The wall of the section 3b', in which the opening 4 is formed, is preferably extended and bent downwardly and inwardly as shown at 10 to form a chamber around the neck 2c, which chamber is filled with suitable cement or a material capable of hardening to form a liquid tight seal around the neck and the outer member 3. By preference the wall 10 is off-set at 10a to accommodate the outer side of the ring 9 and the neck 2c terminates in a plane below the top surface of the top 1c so that the outer surfaces of the annulus 7 and ring 9 are flush with this surface.

The closure 8 is preferably hollow to form within it a dead-air space to retard transfer of heat to or from the jar contents. In the illustrated form of construction the closure is formed of sheet metal and comprises inner and outer members, the inner member consisting of a bottom wall 8a and a side wall 8b. The bottom wall of the member 8a is formed with an annular off-set 8a' to provide a seat for a suitable gasket 11 adapted to engage an inwardly extending flange 2c' at the inner end of the neck 2c, to seal the opening through the latter when the closure is in final position. The side wall of the off-set 8a' is expanded inwardly throughout its circumference, so as to lock the gasket 11 in its seat. The side wall 8b is shaped to provide screw threads to mesh with the threads on the wall 7a, whereby the closure may be operated to close the neck or backed-up to permit pouring of the jar contents, or entirely removed. The outer member 8b' of the closure consists of a plate having a peripheral flange crimped over the free circumferential end

of the side wall 8b and may be soldered thereto. The sheet metal plate is shaped in any suitable manner to form side by side recesses 12, the inner walls 12a therebetween being adapted to serve as a handle for turning the closure 8.

As shown in Fig. 1, the recess 4a is enlarged at 4x to facilitate raising the handle therefrom and also relieved at 4x' to permit the flexing of the legs 5a' inwardly for insertion in the openings 4b.

From the foregoing description it will be noted that when the closure 8 is screwed into sealing position with the gasket 11 in engagement with the neck flange 2c', both the opening 2b and vent 7a' are closed, but when the closure is backed-up the vent and spout are in communication with the interior of the jar and permit free flow of its contents therefrom.

It will be obvious that our form of jug or jar construction has many advantages, by having flat sides, danger of its rolling when toppled over is avoided and one side serves as a support when discharge of the contents of the jar takes place. By arranging the discharge opening adjacent one side of the jar, its entire contents may flow out. To insure complete emptying when the jar is positioned as shown in Fig. 3, a stone or block may be inserted under that end of the jar adjacent its bottom 1b, the effect of which is to tilt that wall adjacent the spout 2x. By providing the opening 2b with vented sealing and emptying devices so that communication is established between the interior of the jar and the spout when the closure is backed-up, the contents may be discharged into a glass or other receptacle without danger of waste and the disadvantages incident thereto. By backing-up the closure a greater or lesser distance the rate of flow of the jar contents may be readily controlled. In carrying out these operations, bodily manipulation of the jar is avoided.

Fig. 7 illustrates a modified form of construction having ribs 13, 13', around the sides 1a of the jar or container 1' and spaced from the top and bottom thereof, respectively, but wherein the rib 13' extends outwardly from the sides 1a a greater distance than that of the rib 13. Accordingly when the jar is positioned for emptying as shown, the wall next to the emptying opening is inclined to facilitate flow of the jar contents as well as complete discharge thereof.

To those skilled in the art to which our invention relates many changes in construction and widely differing embodiments and applications of the invention will be apparent without departing from the spirit and scope thereof. Our disclosures and the description herein are purely illustrative and not intended to be in any sense limiting.

What we claim is:

1. A thermal container having bottom, top and side walls and comprising an inner member, an outer member in spaced relation to said inner member and a filling of heat insulation material between said members, the top walls of said inner and outer members being formed with aligned openings, an outwardly extending neck on the inner member and provided at one side with a spout extending outwardly beyond said outer member, an annulus consisting of inner and outer walls fitting over and seated on the outer end of said neck, means for connecting in a liquid tight manner the outer wall of said annulus to said outer member of the container, the inner wall of said annulus being provided with screw threads and the lower portion of said inner wall within said spout being cut-away, and at a point spaced

from said spout said inner wall being embossed outwardly to form a recess extending from end to end thereof, an inwardly extending flange on said neck inwardly of the inner wall of said annulus, and an externally threaded closure fitting the inner wall of said annulus for engaging said flange to close said opening but arranged when backed-up to permit out-flow of the container contents through said cut-away to said spout and intake of air through said recess.

2. A container of the type having inner and outer walls and a medium between them to retard transfer of heat through said walls and constructed to provide a bottom, top and sides, the top being formed with an opening in eccentric relation to the axis of said container, said inner wall being provided with an outwardly extending collar in surrounding relation to said opening and the outer portion of said collar being laterally extended to form a spout, an annular wall fixedly mounted in said collar and provided with screw threads, said annular wall being formed with an opening in registry with said spout and with a longitudinal outwardly extending recess at a point spaced from said spout, an annular seat on said inner wall surrounding said opening inwardly of said annular wall, and an externally threaded closure for engaging the screw threads on said annular wall, whereby it may be tightened against said annular seat to close the said opening but arranged when backed-up to permit outflow of the container contents to and through said spout and intake of air through said recess, the side of said container adjacent said spout being adapted to be supported on a support during emptying of said container.

3. A thermal container of the type having inner and outer walls and a medium between them to retard the transfer of heat through said walls and constructed to provide a bottom, top and sides, one of said sides being flat, the top being formed with a filling and emptying opening in eccentric relation to the axis of the container and adjacent the flat side thereof, the outer end of said opening terminating flush with the outer surface of said top, combined sealing and emptying devices disposed entirely within said opening for closing it, one of said devices being movable outwardly for controlling the discharge of the container contents through said opening, said top between said opening the other sides of the container being formed with a recess, a handle pivotally mounted in the side walls of said recess and arranged to be seated therein below the top surface of said top, and means in said recess for detachably holding the handle therein.

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