543 CROSS REFERENCE Search Roo

Sept. 17, 1935. J. M. HOTHERSALL 2,015,015

CONTAINER

Filed Sept. 8, 1933

Fig. 1

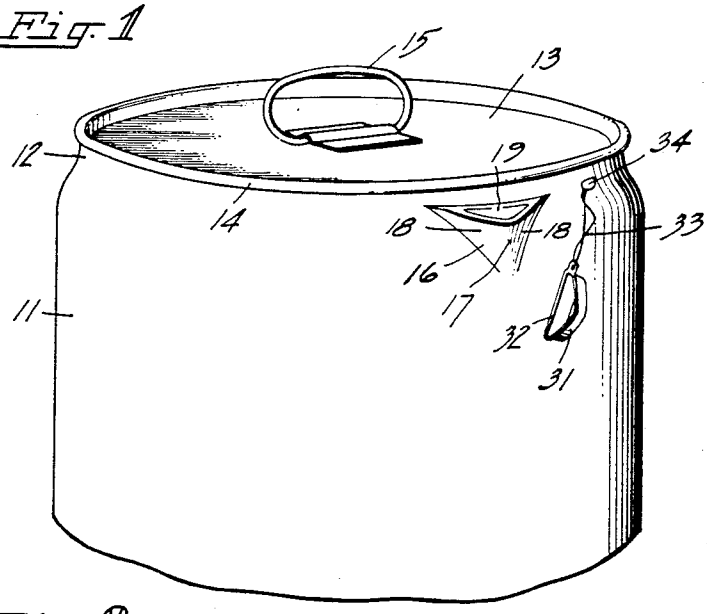


Fig. 4

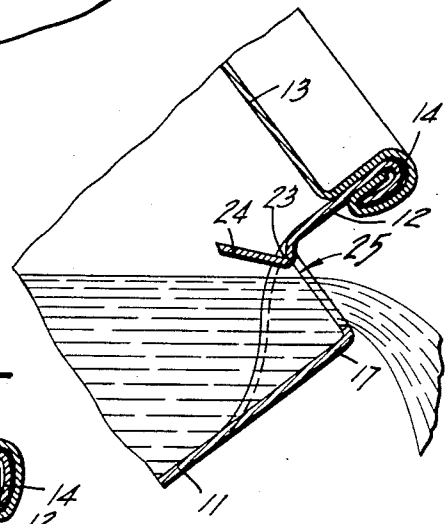


Fig. 3

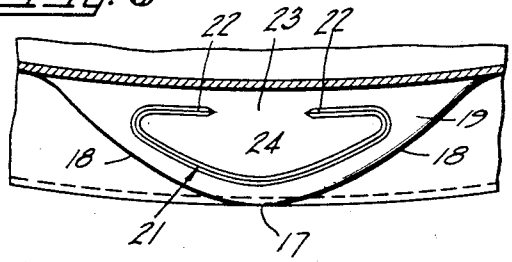


Fig. 2

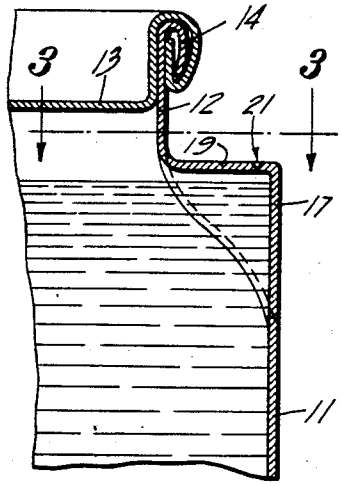
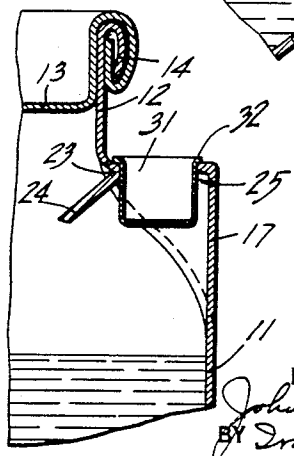


Fig. 5



INVENTOR
John M. Hothersall
BY Ivan W. Thornburgh
Charles H. Chase
ATTORNEYS

Patented Sept. 17, 1935 2,015,015

UNITED STATES PATENT OFFICE

2,015,015

CONTAINER

John M. Hothersall, Brooklyn, N. Y., assignor to American Can Company, New York, N. Y., a corporation of New Jersey

Application September 8, 1933, Serial No. 688,679

8 Claims. (Cl. 221—11)

The present invention relates to liquid containers or cans and has as an object the provision of pouring spout elements associated with the can walls and which function for pouring only after the can walls adjacent such elements are punctured or opened to the end that the cans may be closed and sealed by the usual closure members which remain in place and undisturbed in full sealing position during and following the dispensing of the can contents, thus providing easier opening and better pouring characteristics for the cans.

The invention contemplates the manufacturing of the can in the regular manner and thereupon or at the time of manufacture pressing a pouring spout element in one side wall as a closed bulge or projection, one portion of which is adapted to be broken open to form a discharge opening, such a can being then filled, sealed and used for packaging liquids or other contents. A container utilizing a more specific application of the side wall pouring principle is disclosed in my pending application on Containers filed September 8, 1933 in the United States Patent Office, Serial Number 688,678.

An object of the invention is the provision of a necked-in or reduced top container having a part of its side wall extending up adjacent the necked-in part to provide a pouring trough or spout which, after opening, functions to direct the flow of liquid as it passes from the can.

A further object of the invention is the provision of a liquid container of the character described wherein dispensing of its contents is had through a dispensing or pouring opening and along a pouring spout element formed in the can wall, the pouring opening being temporarily closed by a removable reclosure cap after each partial dispensing of the liquid contents.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which taken in connection with the accompanying drawing, discloses a preferred embodiment thereof.

Referring to the drawing:

Figure 1 is a perspective view of the upper part of a liquid container embodying the present invention;

Fig. 2 is an enlarged fragmentary section of the pouring spout element formed in the can wall;

Fig. 3 is a sectional plan detail taken substantially along the line 3—3 in Fig. 2;

Fig. 4 is a view similar to Fig. 2 but showing the pouring spout element in use in dispensing the liquid contents after the can has been opened; and

Fig. 5 is a view similar to Fig. 4 illustrating the reclosing of the pouring opening following the use of the pouring spout element.

The present invention as exemplified by one embodiment and as illustrated in the drawing comprises a body 11 having a necked-in portion 12 adjacent its top forming a neck smaller than the body and joined to the same by a shoulder, this necked-in portion providing a smaller diameter container wall to which a cover member 13 may be suitably secured as by a double seam 14. The cover member 13 is secured in its permanent position on the fully formed can after it has been filled. A handle 15 is preferably secured on top of the cover member 13 by means of which the filled and sealed container may be easily handled and pouring of its contents facilitated.

A pouring spout element is provided in the top of the shoulder of the body wall 11 and in the present form this element takes the general shape of a triangular bulge 16 which is produced by pressing upward a part of the container wall in the region of the necked-in portion 12. This reforming of the body wall may be made on a regularly formed necked-in can and as a subsequent operation in which case it does not interfere with the regular preceding can making processes.

The bulge 16 includes a vertical wall section or corner 17 which is preferably in the same plane as and does not extend out beyond the larger diameter wall 11 and therefore entirely included in the can without enlarging it. The wall part 17 is joined by rounded connecting side walls 18 which roughly form two sides of the triangular shape mentioned, as best shown in Fig. 1.

At the upper part of the wall 17 and joining with the walls 18 there is a third, horizontal wall 19 (Figs. 1, 2 and 3) which forms a top of the bulge. Wall 19 is roughly triangular in shape and is partially cut through or weakened by score lines 21 which in large part follow the outer edge of the walls 18 of the bulge and terminate in spaced reentering ends 22 leaving an unscored portion 23 between the score lines. This arrangement of score lines outlines a removable part 24 (Figs. 3 and 4).

To open the can for the dispensing of its contents, the wall part 24 is pressed in, this action breaking the metal at the score lines and bending it along the unscored connection 23 into the posi-

tion of Fig. 4. The wall part **24** is now confined entirely inside of the container and there is thus provided a discharge opening **25** where the metal has been torn away from the wall **19**.

The dispensing or pouring position of the can is indicated in Fig. 4, the liquid contents flowing along the pouring spout element or trough corner **17**. The handle **15** is useful at such a time in lifting and tilting the can into its pouring position.

A reclosure cap **31** is provided for temporarily closing the discharge opening **25** (see Figs. 1 and 5). Such a cap is formed to frictionally fit within the opening, one side of the cap engaging the bend of the pressed in part and its other sides engaging the surrounding edges of the opening. Cap **31** is preferably formed with an enlarged or flanged top **32** (Fig. 5) which prevents it being pushed through the opening and into the can. To provide against loss such a cap may be flexibly secured to the can by a wire or cord **33** engaging the can wall as at **34**.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. A metal container for liquids, having a body and a smaller neck and a rounded shoulder joining said body and neck, a cover member secured on said neck for sealing the same, and a closed pouring spout having a fracturable portion formed on and projecting above said shoulder of the body and within the lateral confines of the latter, said spout being located just below said cover member and operable for dispensing the liquid contents from the container upon opening of the fracturable portion of said pouring spout.

2. A metal container for liquids, having a shoulder and a smaller neck, and a cover member secured thereto for sealing the neck, and a pouring spout formed on the top of said shoulder of the container and located just below said cover member, said container wall forming said pouring spout having weakened score lines setting off a hingedly mounted movable part, said pouring spout being operable for dispensing the liquid contents from the container upon opening of the said movable part and swinging the same on its hinge relative to the container wall.

3. A metal container for liquids, having a cover member secured thereto for sealing the same, a pouring spout formed within the body contour of the container just below said cover member by having the metal of the body pressed upward in a bulge of substantially triangular form, the upper wall of said bulge having weakened score lines setting off a removable part and provided for opening of the container upon pressing in of the set off wall part to create a discharge opening through which the liquid of the container may be dispensed as it flows along said spout.

4. A metal container for liquids comprising, in combination, a container body having an annular shoulder portion adjacent its upper end, a cover member seamed to the upper end of said body, a pouring spout formed in the shoulder portion of the container body just below its top end, said spout being an integral upward projecting part of the wall and closed on all sides, the top side of the projected wall having weakened score lines setting off a removable wall part the removal of which creates a discharge opening through which the liquid of the container may be dispensed as it flows along said spout, and a cap adapted to frictionally engage within said discharge opening to provide a reclosure for the opened container.

5. A metal container for liquids, having a cover member secured thereto for sealing the same, the container being necked-in or reduced in diameter at its top, and a pouring spout element formed as an integral part of the container wall by the upward projection of the larger diameter wall adjacent the said reduced end and on one side of the container to produce a triangular bulge, a corner of said bulge with its adjoining walls providing a trough and pouring spout, a portion of the third wall of the bulge being set off by score lines as a removable area adapted to be pressed inward inside of the container to create a discharge opening at the end of the spout for passage of the liquid flowing therefrom.

6. A metal container for liquids, having a cover member secured thereto for sealing the same, the container being necked-in and reduced in diameter at its top cover end, a handle secured to said cover for lifting the container, and a pouring spout element formed as an integral part of the container wall adjacent its reduced end and having a flat horizontal top wall at the end thereof, a portion of said top wall being adapted for breaking away from the remaining part to open the container so that the liquid content flows from the container along the spout element when it is lifted by its handle and tilted into dispensing position.

7. A metal container for liquids, having a cover member secured thereto and sealing the same, a pouring spout formed in and as an integral part of a body wall of the container just below said cover member and within the lateral confines of said body wall, said spout being formed by pressing outwardly in a bulge the metal of the container, one wall of said spout being provided with weakened score lines spaced apart on one side to leave an unscored section and setting off a removable part and providing for opening of the container upon pressing in of the metal part defined by the score lines and bending it along its unscored section to create a discharge opening for dispensing the liquid from the container, and a cap flexibly attached to the container and adapted to be sealed in and to frictionally engage the bent removable part of said bulged wall and to project into said discharge opening to provide a reclosure for the container.

8. A tightly closed vessel having a body and a neck of reduced diameter, said neck having a filling opening and affixed thereto a closure which may be left in place, the top part of the body at the side of the neck being provided with a closed pouring spout consisting of an integral portion of the body pressed up above the main part of the body and arranged so as not to extend beyond the contour of the body, and adapted to be opened for pouring.

JOHN M. HOTHERSALL.