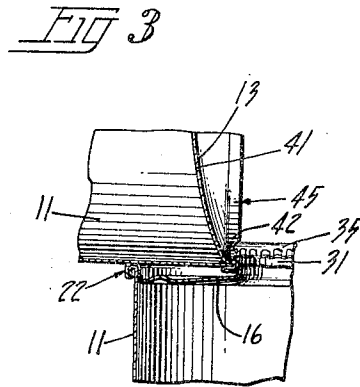
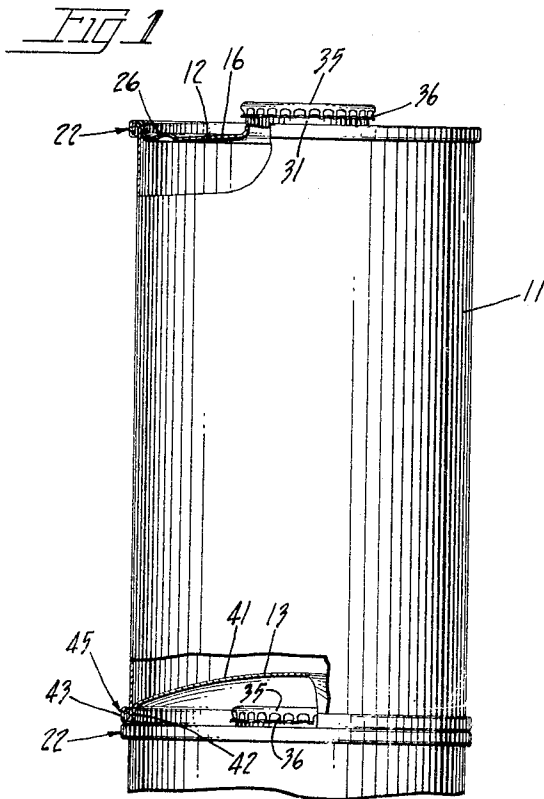
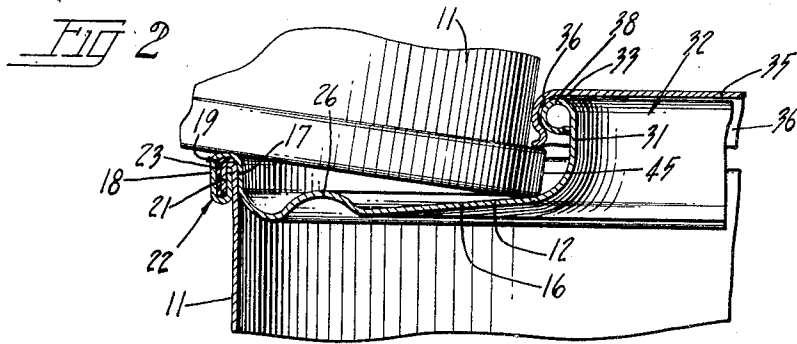


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CONTAINER

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CONTAINER

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1 Claim. (Cl. 220—1)

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The present invention relates to containers or cans for beverages, especially carbonated beverages, such as beer and the like and has particular reference to a substantially flat top can having a cap closure which may be readily removed by lever action by a can of like or similar construction.

An object, therefore, of the present invention is the provision of a beverage can having a cap closure wherein the cap is fitted onto a short dispensing nozzle which extends up from a flat top or shallow end member of the can, the entire can top assembly being designed and proportioned to combine the advantages of a flat top container with those of a nozzle top container, the assembly having a liquid tight cap closure which may be readily removed by insertion of a seam part of a similar can under the cap for prying it off the nozzle to facilitate opening the can without the use of a separate tool or other instrument.

Another object of the invention is the provision of such a can wherein either of the end seams which unite the can end members to the body may be utilized to pry off the cap to open the can, thereby obviating the necessity of providing special tools for opening the can or providing for expensive, difficult-to-produce-formations in or on the can for this purpose.

Another object is the provision of such a can wherein the cap closure is disposed in a position which permits of stacking the cans without interference of the closure with the bottom of the adjacent stacked can.

Still another object is the provision of such a can wherein the top end seam of the can to be opened is utilized as a fulcrum for the can used as the opener.

A further object is the provision of such a can which may be produced automatically on regular can making machinery, at high speed and with economy of materials.

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 drawings, discloses a preferred embodiment thereof.

Referring to the drawings:

Figure 1 is an elevational view of two containers embodying the instant invention, also in stacking position, parts of the containers being broken away;

Fig. 2 is an enlarged fragmentary detail view of the top assembly of such a container, also showing the end seam of another container in cap removing position.

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Fig. 3 is a fragmentary sectional view similar to Fig. 2, showing how one container may be opened by means of the bottom seam of the other.

As a preferred embodiment of the invention the drawings illustrate a substantially flat top sheet metal can made of tin plate or other suitable material and comprising a round or tubular body 11 (Fig. 1) having top and bottom end members 12 and 13 secured thereto. The cover or top end member 12 is formed with a shallow, countersunk panel having a substantially flat panel wall 16. This panel wall continues outwardly and merges into and is surrounded by an inner upright flange 17 (see Fig. 2) and a continuing outer flange 18, which between them set off an inverted U-shaped channel 19.

In the completed container the flanges 17, 18 of the cover member enclose the upper edge of the can body 11, the outer cover flange 18 being interfolded with a flange part 21 of the body in a double seam 22 which projects beyond the upper or outer end of the body, as best shown in Fig. 2. A lining compound 23 is preferably interposed in the channel 19 between the outer cover flange 18 and the body flange 21 and this provides an hermetic joint.

Inwardly of the double seam 22 the panel wall 16 is preferably formed with an annular reinforcing bead 26. At the middle of the cover member, the panel wall 16 is bent at an angle and formed into an integral upright annular nozzle or neck 31 which defines and surrounds a round, centrally aligned filling and dispensing opening 32 in the cover member. This nozzle 31 is preferably concentric with the top end seam 22 and extends up beyond the plane of the top edge of the end seam 22, as best shown in Fig. 2. The panel wall 16 may be substantially horizontal or as shown in Fig. 2, slightly inclined.

The annular side wall of the nozzle 31 at the top merges into an outwardly curled edge 33, which is disposed a slight, predetermined, distance above the top of the can and which defines the mouth of the nozzle. This curled edge 33 serves as a seat for a shallow cap closure 35 of the crown cap type which seals the can after it is filled. The cap closure 35 is preferably formed with a substantially flat central wall and a short depending skirt or flange 36 which is crimped under the curled edge 33 of the nozzle to hold the closure in temporary sealing position on the nozzle. A gasket 38 of lining material is preferably disposed between the closure and the curled nozzle edge to provide a hermetic joint therebetween.

When the cap closure 35 is in sealed position

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on the filled can, as clearly shown in Fig. 2, the bottom or lowermost edge of the crimped-on skirt 36 preferably is substantially in the plane or slightly above the plane of the top edge of the can top end seam 22. In this position the distance between this lowermost edge of the cap closure and the upper surface of the panel wall 16 is slightly greater than the vertical height of the end seam 22. This predetermined relation of the lowermost edge of the cap closure to the other adjacent parts of the top assembly is purposely brought about to facilitate removal of the cap closure from its nozzle by using the existing end seam parts of an identically constructed or similar can which may be designated as an opening can so that no special opening tools are required.

Hence by resting the end seam of the opening can on the top edge of the top end seam 22 and inserting the seam of the former under the lowermost edge of the cap closure 35, (as shown in Fig. 2), the cap closure may be readily pried off with little effort. It will be observed that the opening can is here used as a lever which is applied against the seam 22 as a fulcrum. If desired, the same prying effect upon the cap closure 35 may be had by fulcruming the body side wall of the opening can on the top double seam 22 and inserting the top or bottom seam of the opening can under the lowermost edge of the cap closure 35 (as shown in Fig. 3). Here again a slight pressure on the opening can will readily pry the top closure off the nozzle rim 33.

In order to provide for efficient stacking of these cans, one on top of or adjacent to the other, the bottom end member 13 preferably is formed with an inwardly curved or dome shaped panel wall 41. This panel wall merges into and is surrounded by inner and outer bottom cover flanges 42, 43 respectively, which enclose the bottom edge of the can body 11 in a manner similar to that of the top or cover end, the outer flange 43 being interfolded with a flange on the body to provide a compound lined hermetically sealed double seam 45 similar to the top end seam 22.

Thus when two cans are stacked one upon the other as shown in Fig. 1, the dome shaped bottom 41 provides a clearance space or housing for that part of the nozzle 31 and its cap closure 35 which extends above the top edge of the top end seam 22 of the supporting can. It is the bottom seam 45 (see Fig. 2) or the inner flange 42 (see Fig. 3) of the opening can which usually is utilized in prying off the cap closure 35 of a like can, although the upper seam 22 or its inner flange 41 may also be utilized for this purpose if desired. The end seams 22 and 45, when properly dimensioned thus fit the predetermined space between the edge of the cap closure 35 and the panel wall 16 to provide a variety of prying off projections for the removal of the cap closure 35. Either

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the height or thickness or both of the end seams 22 and 45 may thus be co-related to the predetermined space between the edge of the cap closure 35 and the panel wall 16 to function as prying-off means.

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.

We claim:

A substantially flat top sheet metal container having a short filling and pouring nozzle, comprising a tubular body, top and bottom end members secured to said body in projecting double seams of predetermined height, said top member having a countersunk panel wall extending inwardly from the adjacent top end seam a distance sufficient to provide an unrestricted space for the projecting seam of another like container when the latter is used as a prying instrument, a short nozzle projecting upwardly from said panel wall and terminating in a closure seat and a crown cap closure closely fitting on and secured to said closure seat, said cap closure having a depending skirt engaging under said closure seat and with its free edge turned outwardly, said free edge of said skirt being spaced above said panel wall a predetermined distance slightly greater than said seam height and lying substantially in the plane of the top edge of the can top end seam to provide entrance for and a purchase contact with the projecting seam of an opening container of like construction when the seam of the opening container is inserted in the space beneath the bottom edge of said closure skirt, the opening container being fulcrumed on the top seam of the like container being opened and functioning as a prying lever to remove the cap closure from said nozzle.

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