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CONTAINER WITH POURING SPOUT

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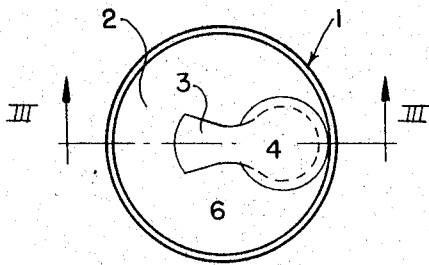


Fig. 2

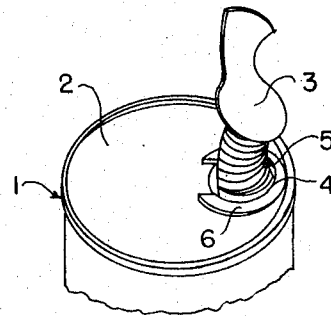


Fig. 1

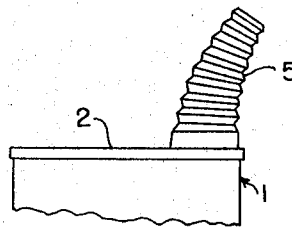


Fig. 4

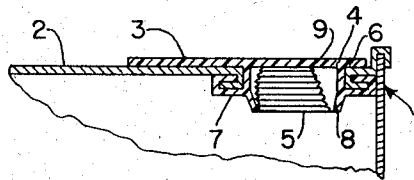


Fig. 3

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CONTAINER WITH POURING SPOUT

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1 Claim. (Cl. 222—529)

This invention relates to a container having a pouring spout and more specifically to a container having an opening means which exposes a pouring spout.

Containers having self-contained means for opening, that is to say, containers which do not require the use of any special implements such as a can opener, opening key or the like have recently been extensively adapted for use in the packaging of liquids. Such containers are commonly fashioned by the placement of a pull member or rip tag on the top of the container in a manner such as to allow for simple tearing away of a sufficient portion of the container top as to result in an opening of dimensions sufficient for emptying the contents thereof. While removing a portion of the container so as to permit evacuation of the contents thereof by means of a pouring operation is satisfactory for many purposes, it is frequently necessary to empty the contents of the container into an area which is not readily accessible or to employ special handling due to dangerous properties of the packaged material. Examples of package goods which require special devices for the removal of their liquid contents are automotive oil cans, hazardous chemicals, fuel for internal combustion engines and the like. Containers having exposed pouring spouts joined to top or side portions are well known. However, such exposed pouring spouts greatly increase the bulk of the container and result in shipping and storage problems.

It is therefore an object of this invention to provide a container equipped with a pull member or a rip tag opening device which has a pouring spout which is recessed within the container prior to actuation of the opening device.

It is an additional object of this invention to provide a container having a pull member or a rip tag opening device which carries a pouring spout for said container.

In accordance with this invention, it has now been discovered that a rip tag container may be provided with a pouring spout which is unexposed prior to actuation of the rip tag by securing an unprojected spout member and preferably a compressed spout member beneath the rip tag in a manner such that the removal of a portion of the container top by actuation of the rip tag will cause the spout member to project preferably by decompression through the opening caused by the actuation of the rip tag. The rip tag preferably serves as a liquid seal for the decompressed spout member until it is desired to pour the contents of the container. The rip tag which is detachably secured to the tip portion of the spout member may then be removed and the contents of the container exposed.

A better understanding of the invention may be had from a discussion of the drawings wherein:

FIGURE 1 is a perspective view of a can top having an actuated pull member and decompressed spout member.

FIGURE 2 is a top view of a can having an unactuated pull member.

FIGURE 3 is a fragmentary partial cross-section taken along the line III—III of FIGURE 2.

FIGURE 4 is a side view of a can having a spout member in the decompressed state with the pull member removed.

Turning to FIGURE 2 of the drawings, a can container 1 is shown having a pull member 3 secured to top can portion 2. Pull member 3 is encompassed by a weakened

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portion illustrated by the broken line 4. When pull member 3 is actuated, pull member 3 will, as illustrated in FIGURE 1, break loose along the weakened portion designated by dotted line 4 so as to form an opening in can top member 2. As illustrated in FIGURE 1, the opening formed in can top member 2 allows spout member 5 to project through the opening and remain in a projected decompressed state.

It is preferred that spout member 5 to be a unit assembly together with the housing and receptacle mounting means for the spout member. A better understanding of this construction may be had from FIGURE 3, which is a fragmentary partial cross-section taken along the line III—III of FIGURE 2. As may be seen in FIGURE 3, spout member 5, which is not shown in cross-section, is in its compressed configuration, spout member 5 being secured at its base portion to annular housing member 8 which contains a suitable upper flange member 6 and a lower flange member 7 for effecting a juncture with can top member 2. The unit assembly may easily be prepared in a single molding operation by molding spout member 5 in its decompressed state together with annular housing member 8. Spout member 5 may then be compressed and pull member 3 sealed over compressed spout member 5 by forming a juncture along the weakened portion illustrated by dotted line 4.

It should be understood that, where desired, the upper flange member 6 of housing member 8 may in itself constitute the can top member thereby eliminating the need for a lower flange member. A unit assembly wherein the flanged housing member for the spout means constitutes the can top portion is especially desirable where the medium being packaged is of a corrosive nature and a molded plastic assembly is preferred over the metallic materials commonly employed in can top members.

It is preferred that a juncture be effected between pull member 3 and spout member 5 along the periphery of the spout tip 9. Referring to FIGURE 1, it may be seen that spout member 5 will project through the opening formed by the actuation of pull member 3 without pull member 3 detaching itself from spout member 5. This feature will prevent the contents of can member 1 from spilling during actuation of pull member 3. Turning to FIGURE 4 of the drawings, can member 1 may be viewed in a condition ready for use with spout member 5 in its decompressed projected state, freed from pull member 3.

While the invention has been specifically described and illustrated with reference to round cans with flat tops equipped with compressed spout means, it should be understood that the invention is applicable to containers having a wide variety of shapes. It should also be understood that the spout means need not be a compressed spout means but may be a member such as, for instance, a hollow cone, the base of which is secured to the underside of a container top equipped with a pull member. The hollow cone may, by suitable linkage with the pull member be inverted and projected through the opening formed in the container top by actuation of the pull member.

The material employed in either the receptacle or the pull member-spout assembly may be of any of those materials well known to the packaging art. Materials which have been found to be suitable for the preparation of the container proper are steel, aluminum and combinations thereof, as well as paperboard when employed for use as side wall bodies in conjunction with metal end wall members. The pull member-spout assembly is preferably prepared from moldable plastic materials such as polyethylene, polypropylene, vinylfluoride, vinylidenechloride, polyfluoroethylene, polyesters, polyamids and compatible combinations of any of the foregoing. It will be understood by those versed in the packaging art that

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the proper selection of the polymeric material employed in the preparation of the rip tag-spout member will be determined by the chemical reactivity of the liquid being packaged, as well as by the packaging and storing temperatures to which the rip tag-spout member will be subjected.

Having thus disclosed the invention, what is claimed is:

A walled receptacle suitable for packaging liquids wherein a substantial portion of the wall may be broken away and removed from a fixed part of the wall in one outward movement, comprising a receptacle wall having an opening therein through which the contents of the receptacle is emptied, a pull member fixed to said receptacle wall through a permanently secured flange about said opening for facilitating the breaking away of said portion in said outward movement, and a compressible spout means disposed interiorly of said walled receptacle and detachably secured at the top portion of said spout means in a liquid tight seal to said pull member, said compressible spout means being secured at its base portion to an annular housing member which is permanently secured to said walled receptacle by means of a second flange member disposed exteriorly of said annular housing member and secured to said wall at said opening, said pull member being detachably secured to the exterior of

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said wall by said permanently secured flange member with a weakened portion circumscribing at least a part of the pull member to facilitate breaking away the pull member, said pull member being contiguous with said wall with one end free to be grasped, whereby actuation of said pull member will decompress and expose said spout means with said pull member still detachably secured in a liquid tight seal to said spout means.

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