United States Patent

Chlystun

[15] **3,690,522**

[45] **Sept. 12, 1972**

[54] **CONTAINER WITH RECLOSEABLE, COLLAPSIBLE POURING SPOUT**

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[22] Filed: **Oct. 15, 1970**

[21] Appl. No.: **81,074**

[52] **U.S. Cl.** **222/529**

[51] **Int. Cl.** **B67d 3/00**

[58] **Field of Search** 215/41, 45, 51; 220/27; 222/153, 211, 212, 464, 498, 499, 528, 529, 527, 538, 539, 541, 543, 562, 563, 572, 574

[56] **References Cited**

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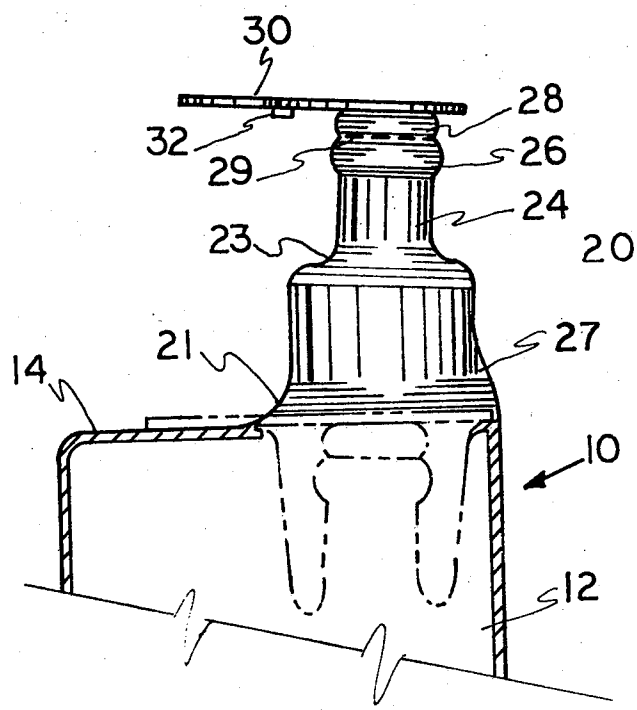
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[57] **ABSTRACT**

A container is disclosed having a collapsible pouring spout in the top portion thereof. The pouring spout may be separate from or integral with the top wall and is collapsible to a nested position through an opening in the top wall. The pouring spout has a cover means associated with the top thereof and the cover means has a member integral therewith that is removably secured to a portion of the pouring spout. A weakened tear line around the integral member permits the cover to be torn away from the top of the pouring spout at the end of the movement of the spout as it is being withdrawn to its extended position. After severing of the cover from the pouring spout, the member integral with the cover means now provides a member for friction or snapping engagement with the top of the pouring spout so as to facilitate reclosing thereof. Also, a container is disclosed having a separate withdrawal means and cover means.

11 Claims, 11 Drawing Figures



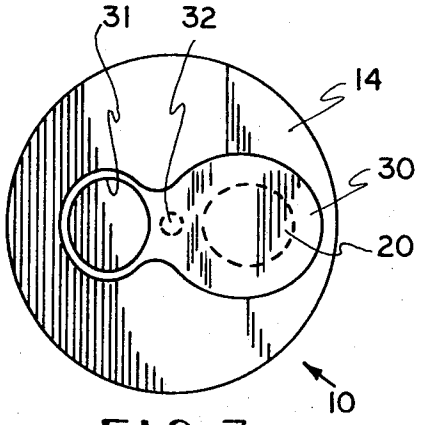


FIG. 3

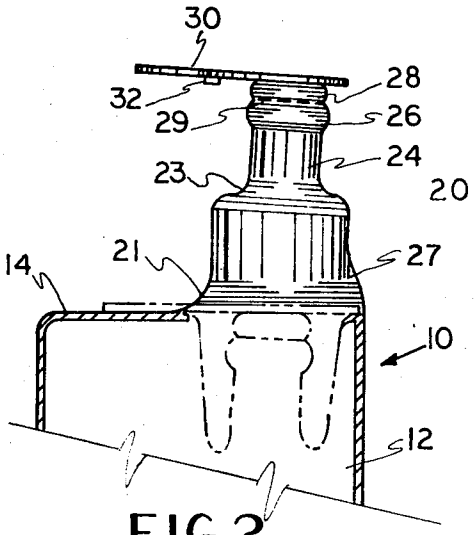


FIG. 2

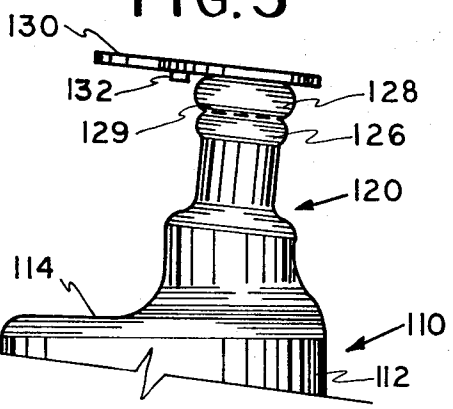


FIG. 5

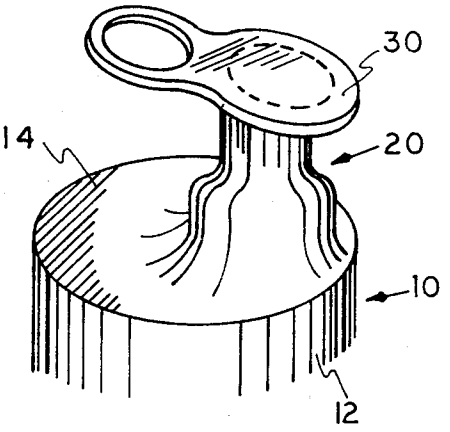


FIG. 1

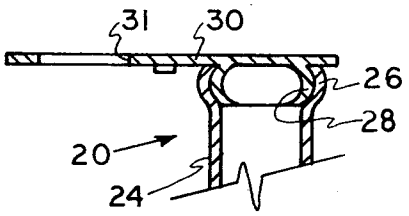


FIG. 4

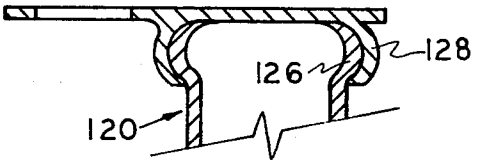


FIG. 6

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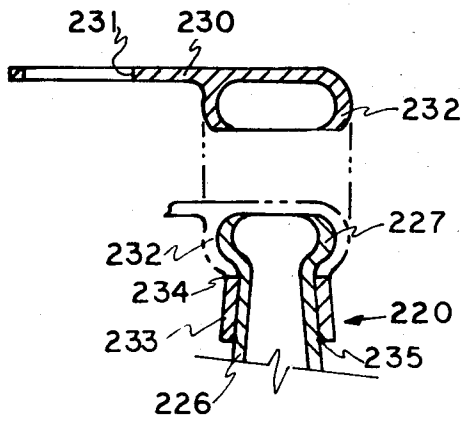


FIG. 8

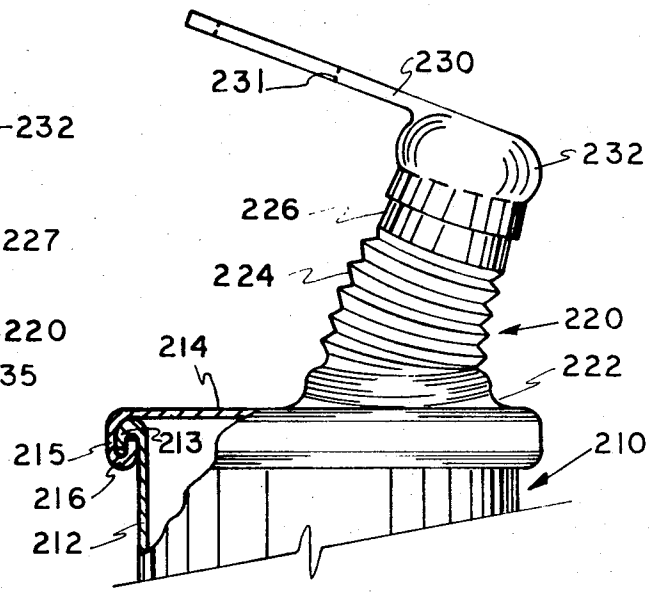


FIG. 7

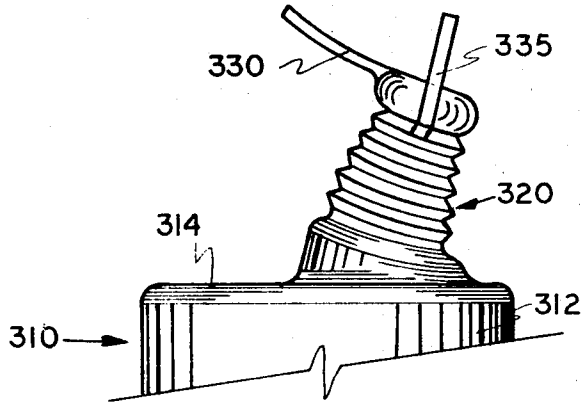


FIG. 9

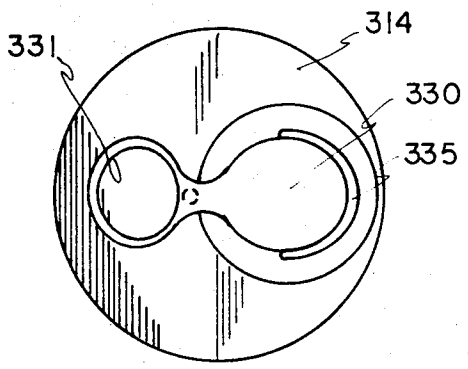


FIG. 10

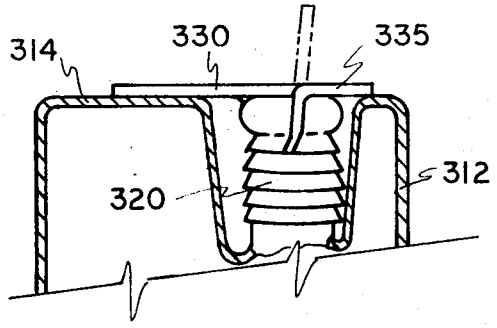


FIG. 11

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CONTAINER WITH RECLOSEABLE, COLLAPSIBLE POURING SPOUT

BACKGROUND OF THE INVENTION

Previous development of the container art, at least insofar as containers for the packaging of various and sundry liquids has progressed in the direction of providing containers with self-opening means. Further, certain of these containers are adapted with pouring spouts that are affixed to the container in some fashion to facilitate the dispensing of the contents from the container. Moreover, containers are now provided with a combined opening means and pouring spout, whereby upon lifting or disengaging the opening means from the top of the container, a pouring spout secured to the underside thereof is withdrawn from a nested position within the container. After withdrawal of the pouring spout, the opening means are removed from the pouring spout so as to permit dispensing of the contents of the container. The opening means have been taught to be threaded closures and also have been taught to be means that are secured to the top of the pouring spout which are removed by tearing at the top of the upward movement of the spout by continued movement of the opening member.

Containers such as mentioned above are intended for use in the storing and dispensing of oil, hazzardous chemicals, fuels, and other household and industrial compositions. As such, an independent opener and/or spout is no longer required for use with the type containers previously described. Moreover, while certainly these prior art containers are an advance in the art, deficiencies are still present. These deficiencies are based on the fact that once opened, the existing containers cannot be conveniently reclosed in such a manner as to prevent spilling and/or evaporation of the contents from within the container before further need at some later time.

The present invention has further improved the container art by providing a container having a collapsible pouring spout that nests within the container and may be withdrawn from within the container to a pouring position. At the end of upward extension of the pouring spout, the cover means are torn or otherwise removed from the top thereof to permit dispensing of the contents. The cover for the pouring spout, however, after removal, has integral therewith, a friction or otherwise engaging cap from the pouring spout, whereby if only a portion of the contents are needed, the pouring spout can be tightly reclosed and the contents saved for future use. In fact, the recloseable cover of the present invention even permits recollapse of the pouring spout to its original nested position.

The prior art, though teaching containers with retractable pouring spouts having opening means associated therewith, is deficient in teaching or suggesting a pouring spout having a cover therefor which, once removed, provides a resealing cap for the pouring spout. In this sense, the prior art is exemplified by Wells, U.S. Pat. No. 2,533,305; Kuss, U.S. Pat. No. 2,685,385; Rieke, U.S. Pat. No. 2,895,654; Winstead, U.S. Pat. No. 3,042,271; Chlystun, U.S. Pat. No. 3,298,577; Peace, U.S. Pat. No. 3,326,421; Booth et al, U.S. Pat. No. 3,481,515, and Kelbch, U.S. Pat. No. 3,502,246.

SUMMARY OF THE INVENTION

It is an object of the present invention to provide a container having a self-contained, self-opening, recloseable pouring spout.

A further object of the present invention is to provide an improved dispensing container for liquids having a pouring spout nested therein prior to dispensing.

Still further, another object of the present invention is to provide a container having a pouring spout associated therewith, said pouring spout having a recloseable cap removably secured thereto.

Generally speaking, the present invention relates to a container for packaging and dispensing liquids comprising side walls, a top wall secured to said side walls, a pouring spout secured to said top wall and providing access to the interior of the container therethrough, said pouring spout being collapsible to nest within said container, and cover means removably secured to said pouring spout, said cover means and said spout being adapted for friction reclosing engagement after said cover means is removed from said spout.

More specifically, the present invention relates to a container for packaging and dispensing liquids such as oil, chemicals and the like, the container being self-contained, in that, a combined cover and opening means is provided on the top of the container which, when lifted, also pulls a pouring spout from its nested position within the container to an extended pouring position. At the top of upward movement of the pouring spout, the combined opening and covering means are separated from the top of the pouring spout to permit dispensing of the contents of the container. Further, the combined opening and cover means is designed to tear away from the pouring spout at a particular predetermined location, after which, the cover means has depending therefrom a flange that will provide a friction or snap engagement with the upper end of the pouring spout so as to reclose the container.

Depending upon the desires of the manufacturer, the container of the present invention may be manufactured in such a manner that reclosing is accomplished by the flange residing within the upper end of the pouring spout; around the upper end of the pouring spout; in snap fitting engagement with a bead adjacent the upper end of the pouring spout; around the upper end of the pouring spout in friction engagement therewith, or the like.

Insofar as construction of the container of the present invention is concerned, the side walls, top wall, pouring spout and cover means may be molded as a unitary item. Additionally, the top, pouring spout and cover means may be molded separately from the side walls and affixed thereto. Likewise, the pouring spout and cover means may be manufactured separately and secured to the top wall in an opening therein, or the cover means may be molded separately from the pouring spout. As can be seen from the above, numerous variations are permissible for the construction or fabrication of the container of the present invention. When the side walls, top wall, pouring spout and cover means are molded as a single unit, the container of the present invention may be molded, then filled and a bottom wall secured thereto. Conversely, the bottom and side walls may be integral and the top wall and spout separated therefrom. The container could then be filled and capped with the top having the spout thereon. As such,

handling during manufacture and filling of the containers is limited, thus improving the overall economics of utilization of the container of the present invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an isometric view of a portion of a container according to the teachings of the present invention showing the pouring spout extended and the cover means still affixed thereto.

FIG. 2 is a side cross sectional view of a portion of a container according to the present invention showing the pouring spout.

FIG. 3 is a top plan view of a container according to the present invention.

FIG. 4 is a side cross sectional view of a portion of a pouring spout that has been reclosed after removal of the cover means therefrom.

FIG. 5 is a side view of a portion of a container according to the present invention showing the spout in an extended condition and showing another reclosure embodiment according to the present invention.

FIG. 6 is a side cross sectional view of a portion of a pouring spout shown in the reclosed condition with a cover means thereon according to the embodiment shown in FIG. 5.

FIG. 7 is a side view of a portion of a container according to the teachings of the present invention showing the pouring spout in the extended position and showing a further embodiment of the present invention.

FIG. 8 is a side cross sectional view of a portion of a pouring spout in a reclosed condition with a cover member reseated thereon according to the embodiment shown in FIG. 7.

FIG. 9 is a side view of a portion of a container showing a pouring spout in the extended position and showing a further embodiment of the present invention.

FIG. 10 is a top plan view of a container showing the embodiment of the present invention as illustrated in FIG. 9.

FIG. 11 is a side cross sectional view of a portion of a container according to the embodiment shown in FIG. 9.

DESCRIPTION OF THE SPECIFIC EMBODIMENTS

Referring to the Figures, specific embodiments of the present invention will now be described. A container generally indicated as **10** having side walls **12** and a top wall **14** is shown in FIGS. **1** through **3**. Secured to the top wall **14** is a pouring spout generally indicated as **20**. Pouring spout **20** may be integral with top wall **14** as shown in FIGS. **1** and **2** or may be secured to top wall **14** in some manner as, for example, in an opening in the fashion indicated in U.S. Pat. No. 3,298,577 to Chlystun. In any event, pouring spout **20** may be designed in any manner so long as it will nest within container **10** and can be extended to a pouring position. For example, pouring spout **20** could be designed to telescope into container **10** instead of flexing in accordion or some other fashion. For the purposes of this application, the term collapse refers to any movement or compression of spout **20** into container **10**. As shown in FIG. **1**, pouring spout **20** is comprised of a lower flexible section **22** and an upper flexible section **24**. As described hereinabove, pouring spout **20** is collapsible to nest within the container **10** as shown by way of example in phantom in FIG. **2**. Accordingly, pouring spout **20** as shown in FIG. **1**, to permit collapsing thereof, bends at areas indicated by **21** and **23** to become nested or recessed within container **10**. Adjacent the top portion of pouring spout **20**, as shown in FIG. **2**, are a pair of peripheral beads **26** and **28**, said beads being separated by a weakened wall portion **29** that serves as a tear line. A cover means **30** is secured to the upper portion of bead **28** of pouring spout **20**. As shown in FIGS. **1**, **2**, **3** and **4**, cover means **30** is integral with pouring spout **20** and has adjacent one end thereof an opening or gripping member **31** which is designed to receive a finger for lifting to open container **10**. Practically speaking, with the container in the closed position, it is desirable for cover means **30** to be secured to the top wall **14** of container **10**. Accordingly, cover means **30** is provided with a bead **32** which is provided to permit cover means **30** to be removably heat sealed to top wall **14** when the container is initially fabricated. As such, inadvertent opening of container **10** prior to use is avoided. Also, removable securing of cover means **30** to top wall **14** holds spout **20** in the collapsed position until the desired time to dispense the contents therefrom.

Upon lifting cover member **30**, heat seal **32** breaks away from top wall **14** and cover member **30** withdraws pouring spout **20** from within container **10**. At the end of the extension of pouring spout **20** outside of container **10**, pouring spout **20** breaks along tear line **29** so as to separate cover member **30** and bead or depending flange **28** from pouring spout **20**. With cover member **30** removed, the contents of container **10** may now be dispensed through pouring spout **20**. As mentioned earlier, it is often desirable to reclose a container after dispensing some, but not all the contents therefrom. According to the teachings of the present invention, pouring spout **20** may be reclosed as particularly shown in FIG. **4** by replacing cover member **30** over pouring spout **20**. Bead or flange **28** now depending from cover means **30**, is thus snap fitted into pouring spout **20** and held therein by bead **26**. Reopening of spout **20** is thereafter accomplished by again lifting cover member **30** which will overcome the holding power of bead **26** and permit bead **28** to be pulled from within bead **26** of pouring spout **20**. Container **10** is then readied for additional dispensing.

A further embodiment of the present invention is shown in FIGS. **5** and **6**. FIG. **5** shows a portion of a container **110** having side walls **112**, top wall **114** and pouring spout **120**. For all practical purposes, pouring spout **120** is the same as spout **20** shown in FIG. **2** with the exception that in FIG. **5**, bead **126** is smaller in diameter than bead **128**. Hence, upon upward movement of cover member **130** heat seal **132** breaks from top wall **114** and spout **120** is withdrawn from its nested position within container **110**. At the top of upward movement of pouring spout **120**, cover member **130** and bead **128** are separated therefrom along tear line **129**. Thereafter, when desirable to reclose container **110**, cover means **130** is again placed over spout **120**, whereby bead **128** spreads slightly and passes around and resides over bead **126** in a snap fitting or friction engaging relationship to reclose pouring spout **120** of container **110**.

FIGS. 7 and 8 illustrate still a further embodiment of the present invention wherein a container generally indicated as 210 is shown having side walls 212, and a top wall 214. As shown in FIG. 7, top wall 214 has a skirt 215 depending therefrom with an upturned portion 216 engaging an outwardly and downwardly depending lip 213 of side walls 212 so as to secure top wall 214 thereto. A pouring spout 220 is shown extending outwardly from the top of top wall 214 and being divided into a base section 222 and an accordion section 224. As with the pouring spout in the previous Figures, pouring spout 220 collapses to nest within container 210. As best shown in FIG. 8, the upper portion 226 of pouring spout 220 has a bead 227 around the top thereof. Additionally, cover means 230 is not integral with pouring spout 220, but is a separate component thereof. Cover means 230 is provided with a gripping means 231 and a cap portion 232. Cap portion 232 extends downwardly in annular fashion from cover means 230 and resides around pouring spout 220. Cap 232 has a skirt portion 233 depending therefrom and a weakened tear line 234 at the top of skirt portion 233. Skirt portion 233 is heat sealed or otherwise secured to the outer periphery of upper portion 226 of pouring spout 220 as indicated at 235 in FIG. 8. Once cover means 230 is removed from pouring spout 220, cover 230 assumes the appearance as shown in phantom in FIG. 8. Hence, cap 232 of cover means 230 normally resides around bead 227 of pouring spout 220. During opening of container 210, cover means 230 is grasped at gripping member 231 and lifted upwardly. Spout 220 is then withdrawn from its nested position within container 210 to its extended pour position. At the top of the extended position, cap 232 separates from skirt 233 at tear line 234 and is removed therefrom, thereby opening pouring spout 220 to permit dispensing of the contents of container 210. At the desired time thereafter, to reclose pouring spout 220, cap 232 is forced over bead 227 to again snap fit therearound.

Still a further embodiment of the present invention is shown in FIGS. 9, 10, and 11. In this embodiment, a container 310 is shown having side walls 312, and a top wall 314 having a pouring spout 320 associated therewith. Pouring spout 320 is shown in a nested position in FIG. 11. A cover member 330 is secured to the upper end of pouring spout 320 in any desired fashion as previously shown. In addition to cover member 330, pouring spout 320 also has a ring 335 secured thereto. Ring 335 is in normal position, as shown in FIG. 11, and is in a raised or lifting position in FIG. 11 in phantom. Hence, for withdrawing pouring spout 320 from its nested position within container 310, ring 335 is lifted as shown in phantom in FIG. 11 and pulled upwardly. The upward pulling on ring 335 thus withdraws pouring spout 320 from within container 310. Thereafter, once released, ring 335 again assumes the approximate 90° bend at the top of pouring spout 320 as shown in FIG. 11. As desired, after pouring spout 320 is in the extended position, cover means 330 are pulled upwardly to separate cover means 330 from pouring spout 320 and thus permit dispensing of the contents of the container therethrough. As described above, the relationship between pouring spout 320 and cover means 330 should be such that pouring spout 320 can be reclosed as desired.

Insofar as materials of construction are concerned for the container and parts thereof according to the teachings of the present invention, plastic may be used exclusively or used in conjunction with metal. Insofar as the plastic is concerned, there are no critical limitations other than that the composition should be inert to the contents of the container and should possess sufficient flexibility in the pouring spout to permit collapse and withdrawal of the spout into and out of the container. Also, while certain specific embodiments have been described above, one is not restricted to the particular designs illustrated. The various types of recloseable cover means may be interchanged with the various types of collapsible spouts. Additionally, when the pouring spout is in the collapsed position with cover means affixed thereto, the cover means may rest within a depression in the top wall so as to be flush therewith or may rest on the top wall and extend thereabove.

Having described the present invention in detail, it is obvious that one skilled in the art will be able to make modifications and adaptations thereto without departing from the scope of the invention. Accordingly, the scope of the present invention should be determined by the claims appended hereto.

What is claimed is:

1. A recloseable, dispensing container comprising:
   a. at least one side wall;
   b. a top wall integral with said at least one side wall;
   c. a pouring spout integral with said top wall, said spout having a bend area adjacent said top wall, a first flexible section, a second bend area and a second section, said first section being collapsible into said container and said second section being retractable within said first section whereby said pouring spout is nestable within said container;
   d. a removable cover having an integral flange depending downwardly therefrom, said flange being integral with said spout;
   e. a weakened tear line at the junction between said flange and said spout, said cover and flange being removable from said spout at said tear line, said flange thereafter being associable with said spout to reclose same; and
   f. a pull tab integral with said cover at an upper end thereof and extending outwardly therefrom, said pull tab providing means for withdrawal of said spout to an extended position and separation of said cover and flange from said spout at the end of extension of said spout.

2. A recloseable, dispensing container as defined in claim 1 wherein said spout and said cover flange are provided with peripheral beads of different diameter, said beads providing reclosing means between said flange and said spout.

3. A recloseable, dispensing container as defined in claim 2 wherein further, said pull tab is removably secured to said top wall.

4. A recloseable, dispensing container as defined in claim 3 wherein said pull tab has a finger receiving opening adjacent an outer free end thereof.

5. A recloseable, dispensing container as defined in claim 4 comprising further, a bottom wall secured to said side walls.

6. A recloseable, dispensing container as defined in claim 5 wherein said bottom wall is metal and the remainder of the container is polyethylene.

7. A recloseable, dispensing container as defined in claim 4 wherein further separate withdrawal means are associated with said spout for withdrawal thereof.

8. A recloseable, dispensing container as defined in claim 7 wherein said separate withdrawal means are integral with said cover.

9. A recloseable, dispensing container as defined in claim 1 wherein said second section of said spout is an accordion section.

10. A recloseable, dispensing container comprising:

a. at least one side wall;

b. a top wall integral with said at least one side wall;

c. a pouring spout integral with said top wall, said pouring spout comprising a lower flexible section and an upper section, said upper section being of a smaller diameter than said lower section, said lower section being collapsible into said container and said upper section being collapsible into said lower section, whereby said spout is nestable within said container;

d. a cover with a flange depending downwardly therefrom integral with said spout at said flange;

e. a weakened tear line at the junction of said spout and said flange whereby said cover can be removed from said spout at said tear line; and

f. a pull tab integral with said cover and extending outwardly from one side thereof, said pull tab having a gripping member adjacent an outer end thereof, said pull tab further being removably secured to said top wall when said pouring spout is in an initial nested position within said container.

11. A recloseable, dispensing container as defined in claim 10 wherein said spout and said flange adjacent said weakened tear line are provided with a bead, said beads being of different diameters whereby after removal of said cover, said beads cooperate upon reclosing to secure said cover on said spout.

* * * * *