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T. M. SHEETS

2,812,121

POURING CONTAINER WITH PROTECTIVE COVER

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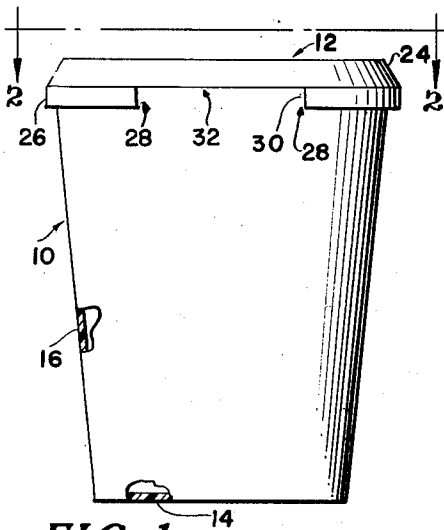


FIG. 1.

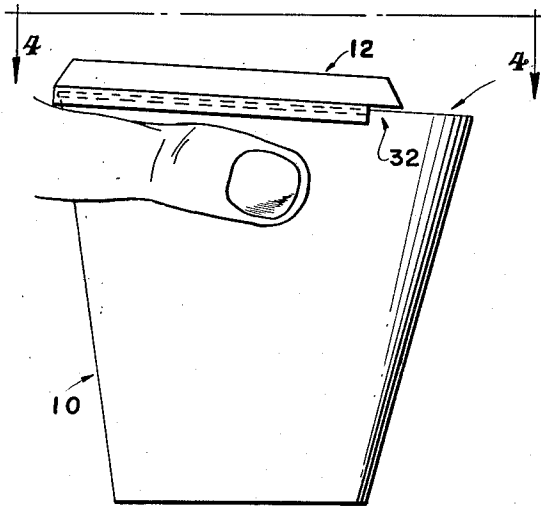


FIG. 3.

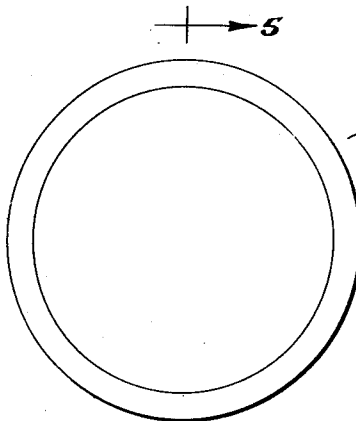


FIG. 2.

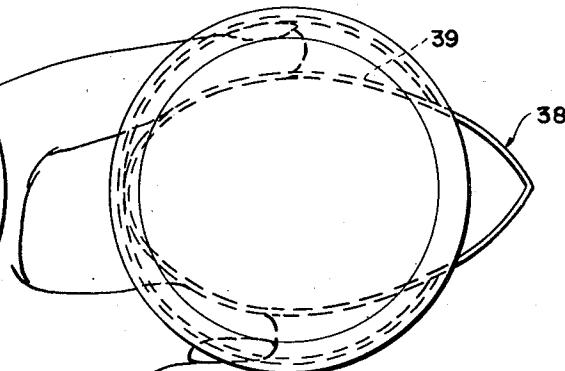


FIG. 4.

FIG. 5.

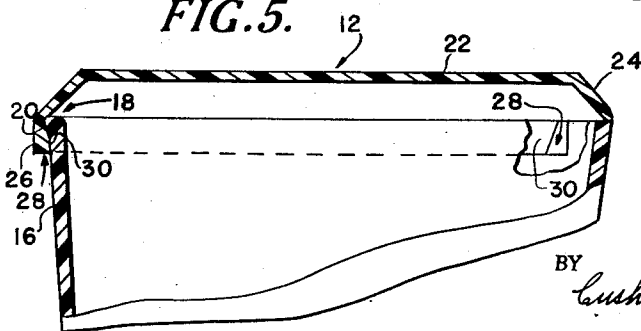
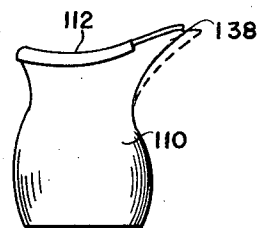


FIG. 6.



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POURING CONTAINER WITH PROTECTIVE COVER

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9 Claims. (Cl. 222—528)

This invention relates to a dispensing container for liquids, although it is within the contemplation of this invention that the container may also be used with solid materials made up of discrete particles, such as powder, sugar, and the like.

More particularly, this invention relates to a container for liquids and powders which normally remains closed to protect the contents thereof from spilling, and from contamination, but which is so arranged as to form and define a spout for pouring the contents therefrom when such is desired. The dispensing container forming the subject of this invention is particularly adaptable for use in the temporary storage of cream, fruit juices, or other beverages, in the icebox, or other places, although it will be readily seen that it has many other uses.

Conventional containers for such liquids either have no pouring spout, or other particularly designed pouring means, or, on the contrary, have a pronounced pouring spout projecting therefrom. The former are somewhat unsatisfactory as they are hard to use, that is, pour from, without spilling, or at the very least dripping, some of the contents thereof. The latter consume an unwarranted amount of storage space in the icebox or other area in which it is kept. Moreover, such spouts are expensive to form, and, in some cases, are hard to clean, and have other disadvantages.

It is therefore an object of this invention to provide a new and improved dispensing container.

It is another object of this invention to provide a new and improved dispensing container which has an operative pouring spout and yet which will take up a minimum amount of storage space in relation to its storage capacity.

It is a further object of this invention to provide a new and improved dispensing container which is provided with means which, when desired, will define a pouring spout but which normally maintains itself in a form and shape wherein the spout does not project from the body of the container, or from beneath the cover thereof, and therefore is not open to allow spillage or to allow the contamination of the contents thereof.

It is another object of this invention to provide a new and improved dispensing container which may be formed of a flexible material which is easily cleaned and otherwise maintained.

These and other objects of this invention will be fully understood from the following detailed description of a typical preferred form and application of the invention, throughout which description reference is made to the accompanying drawings in which:

Figure 1 is a front elevational view of the container, with portions broken away, to show details of the invention;

Figure 2 is a plan view taken along lines 2—2 of Figure 1;

Figure 3 is a side elevational view illustrating the container being flexed by hand to form a pouring spout;

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Figure 4 is a plan view taken along lines 4—4 of Figure 3;

Figure 5 is an enlarged fragmentary sectional view taken along lines 5—5 of Figure 2; and

5 Figure 6 is an elevational view of another embodiment of the invention.

Referring more particularly to the drawings, the container consists of a body portion, generally indicated at 10, and a cover, generally indicated at 12. The body is, in the embodiment illustrated in the drawings, formed as a slightly tapered cylinder having bottom 14 and side 16 walls. The top edge of the lip is formed with an outwardly extending radial flange, generally indicated at 18, which has its underside 20 tapered obliquely outwardly (of the body) and upwardly. In the preferred embodiment illustrated, the flange does not continue about the entire periphery of the lip of the body portion 12 but only along approximately seven-eighths thereof and therefore terminates in ends spaced apart a distance approximately one-eighth of the perimeter of the lip portion of the body portion.

The cover 12 has a top portion 22, an outwardly and downwardly tapering side wall portion 24, and an apron 26 depending from the lower extremity of the side wall. The inner periphery of the lower edge of the apron is formed with a radially inwardly extending flange, generally indicated at 28, which has its upper surface 30 tapered obliquely inwardly (of the cover) and downwardly.

The apron 26 is congruent with the lip of the body portion, and therefore, in the preferred embodiment shown, is circular. The apron 26 is so dimensioned that the inner periphery of its flange 28 has a diameter slightly less than that of the outer periphery of the flange 18 on the body portion. Inasmuch as the body portion is formed of a resilient material, such as rubber, polyethylene, paper, or the like, when the cover 12 is oriented with the body portion 10, and pressed down thereon, the flange 28 will slip over and past the outer periphery of flange 18 and the cover will then be at least loosely engaged with the body portion. It should be observed that while in the preferred embodiment illustrated the cover 12 has a tapered side wall 24, it is within the contemplation of this invention that this portion of the cover may be omitted and that the apron 26 may be contiguous to the top 22, or any other arrangement may be used whereby some portion of the cover serves as a means to limit the extent of overlap between the apron and the lip of the body portion 10 when the cover is engaged with the body portion, so that the upper oblique surface 30 of the flange 28 is abutting the lower oblique surface 20 of the flange 18, and, further, so that there is no interference with the formation of a pouring spout in a manner which will be described.

As best shown in Figures 1, 3 and 5, a portion of the apron 26 is cut away, as at 32, to define an apron-void extending along approximately one-eighth of the periphery of the circular cover constituting the preferred embodiment illustrated. Stated otherwise, the apron terminates in ends which are spaced apart a distance approximately one-eighth of the periphery thereof. The utility, function and purpose of this apron-void will now be described.

If the cover 12 is engaged with the body portion 10 in the manner described hereinabove, but with the cover so indexed, in relation to the body portion, so that the break in the flange 18 (which, as will be explained hereinafter, is at that section of the body portion designed to form a pouring lip or spout) and the apron-void 32 are oriented with one another, and, further, if the side walls of the body portion are compressed, by the application of inwardly directed forces to the latter in directions approximately 90° from the breaks or voids in the flange and the apron (or, stated otherwise, 90° from their centers), the upper lip of the body portion 10 will be distorted

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from its normal position and will extend itself outwardly through the apron-void 32 to define a pouring spout which is, in Figures 3 and 4, generally indicated at 38. It will be seen that this reaction will always occur when the side walls are distorted inwardly as the depending apron 26 prevents an outward distortion in the lip of the body portion in all areas except that defined by the apron-void.

It has been found that the elimination of the flange 18 in the area of the apron-void 32, and along a length not greater than the apron-void, serves in some degree to facilitate this action but it should be clear that this break in the flange is not absolutely necessary and may, if desired, be omitted. That is to say, it is within the contemplation of this invention that the flange 18 may extend about the entire periphery of the lip of the body portion 10 or the lip may be otherwise shaped to facilitate the formation of the pouring lip.

It will now be evident that the above described reaction, which results in the flexible body portion defining a pouring spout, cannot occur unless the cover contains or embodies some means to prevent the structure defining the upper edge of the apron-void 32 from reaching a position, when the cover is engaged with the body portion, below the level of the upper extremity of the lip, as otherwise the structure of the cover would interfere with that outward distention of the lip which serves to define the desired pouring spout. In the preferred embodiment, the oblique cover side wall constitutes the means which performs this function.

It should be observed and noted that in the preferred embodiment illustrated, the oblique undersurface 20 of the flange 18, and the oblique uppersurface 30 of the flange 28 contact one another when the cover 12 is engaged with the body portion 10. When the side walls are depressed inwardly so as to distend the body portion, it will be seen that certain portions of the lip of the body portion 10 (categorized in phantom by numeral 39 in Figure 4) will no longer be adjacent the apron 26 of the cover, inasmuch as the shape of the latter member, which may or may not be relatively stiff, is not affected by this action. However, those portions of the lip periphery which pass between the ends of the apron 26, together with the corresponding portions of the flange 18, will be urged by the resiliency of the body portion 10 to remain against, and in contact with, the apron flange 28. Moreover, the flange on that portion of the lip which is diametrically opposite to the apron-void will likewise be urged into fast engagement with the apron flange 28. Thus it would be seen that the cover will remain on the body portion while the body portion is defining a pouring lip, even if the entire combination is tilted or inverted.

Whenever the compressive forces on the side walls of the body portion are removed, the natural resiliency of the selected material will cause the structure to spring back to its natural relaxed state which is, as stated above in this preferred embodiment, generally circular in cross section. In other words, the pouring lip will disappear as the portion of the lip previously defining the pouring spout recedes to its original position under the cover 12.

It will now be understood that it is also within the contemplation of this invention that the body portion and its congruent cover need not be circular in cross section but could just as well be elliptical as well as a variety of other shapes as long as that portion of the lip which serves to define the pouring spout and the portions of the side wall adjacent thereto are convexly formed so that the compression of the side wall will normally urge them to adopt the generally desired shape of a pouring spout. I therefore illustrate in Figure 6, another illustrative embodiment of my invention, which has a shape similar to the overall shape of a conventional pitcher, and so formed and shaped as to provide a pouring lip which extends without the cover upon the application of compressive forces on the side portions thereof, all in accordance with

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my invention. In Figure 6, the extended configuration of the pouring lip is shown in phantom and it will therefore be clearly understood that the lip portion 138 moves from a relaxed position to an extended, and spout defining position, which is without the cover 112, when suitable forces are applied to the body portion 110.

Having described only a typical preferred form and application of my invention, and having taught how this preferred form may be modified in accordance with my invention to further serve its purpose, function and utility, I do not wish to be limited or restricted to specific details herein set forth but wish to reserve to myself any variations or modifications that may appear to those skilled in the art and falling within the scope of the following claims.

I claim:

1. A container having bottom and side walls, at least certain portions of said side walls being flexible, and an open top; a cover for said container having a portion extending down over the exterior surface of a major peripheral portion of the lip of said container; at least a lower portion of the downwardly extending part of said cover being cut out to define an opening which is normally closed by a flexible portion of the lip of the container and through which the lip will extend to form an opening and a pouring spout when the container is flexed.

2. A dispensing container for liquids including the combination of an elongated body having bottom and side walls and an open top; said body being formed of a resilient material and having the top edge of at least one side wall portion convexly curved when the wall is in its natural relaxed state; a cover for said body, said cover being at least large enough to cover the open top of said body when the latter is in its natural relaxed state; an apron depending from said cover, said apron having an inner periphery congruent with a major portion of the periphery of the top edge of said body when the latter is in its natural relaxed state; said apron terminating in ends spaced apart to define an elongated apron-void; said apron being dimensioned as to form a snug fit with the exterior surface of the top portion of the body when the latter is in a relaxed state; said cover being fitted on the top portion of said body and so oriented that the apron-void is aligned with said convexly curved side wall portion whereby inward movement of another side wall portion will result in said convexly curved side wall portion being distended with the top edge thereof extending outward beyond the ends of said apron to define a pouring spout.

3. A dispensing container for liquids including the combination of an elongated body having bottom and side walls and an open top; said body being formed of a resilient material and having the top edge of at least one side wall portion convexly curved when the wall is in its natural relaxed state; a cover for said body, said cover being at least large enough to cover the open top of said body when the latter is in its natural relaxed state; an apron depending from said cover, said apron having an inner periphery congruent with a major portion of the periphery of the top edge of said body; said apron terminating in ends spaced apart to define an apron-void; said apron being dimensioned as to form a snug fit with the exterior surface of the top portion of the body when the latter is in its natural relaxed state; said cover being fitted on the top portion of said body and so oriented that the apron-void is aligned with said convexly curved side wall portion; means so limiting the interfit of said body and said cover as to prevent the lower edge of the structure defining the upper edge of the apron-void from ever being below the top edge of said body whereby inward movement of another side wall portion will result in said convexly curved side wall portion being distended with the top edge thereof extending outwardly between the ends of the apron to define a pouring spout.

4. The structure defined in claim 3 and further includ-

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ing interengaging means on the top edge of the body and on the inner periphery of said cover to hold said cover on the top of said body when the latter is distended from its relaxed state.

5. The structure defined in claim 4 in which the engaging means on the body comprises an outwardly extending flange and in which the engaging means on said cover comprises an inwardly extending flange, and in which body said flange terminates in ends spaced apart, the distance between the ends of the apron being at least as great as the distance between the body flange ends.

6. A dispensing container for liquids including the combination of a body and a circular cover; said body being formed of resilient material and having a generally cylindrical shape and an open top; an apron depending from said cover along a major portion of its periphery and terminating in ends spaced apart an arcuate distance constituting a minor portion of the periphery of the cover; said cover and apron being dimensioned to fit over and about the open top of said body with the apron extending downwardly along the exterior of the side wall thereof; means to maintain the cover at a level whereby the top portion of said apron is not below the level of the top edge of the side wall of the body whereby the application of an inwardly radial force to the side wall of the body along a line angularly displaced approximately 90°

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from the center of said apron will distend the body and cause the upper portion thereof to extend radially outward between the ends of said apron and beyond the periphery of said cover and to thereby define a pouring spout.

7. The structure defined in claim 6 and further including interengaging means on the top edge of the body and on the inner periphery of said cover to hold said cover on the top of said body when the latter is distended from its relaxed state.

8. The structure defined in claim 7 in which said interengaging means includes an outwardly extending flange formed on the portion of the top edge of said body which is opposite the apron and an inwardly extending flange formed on said apron, the arrangement being such that the bottom of the body flange will engage the top of the apron flange when the respective parts are assembled.

9. The structure defined in claim 7 in which the engaging means on the body comprises an outwardly extending flange and in which the engaging means on said cover comprises an inwardly extending flange, and in which body said flange terminates in ends spaced apart, the distance between the ends of the apron being at least as great as the distance between the body flange ends.

No references cited.