United States Patent [19]

Chang

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[54] **COMBINATION LIQUID CONTAINER AND DRINKING STRAW**

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[73] Assignee: **First Dynamics, Inc.,** New York, N.Y.

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[52] **U.S. Cl.** ..... **220/90.2,** 215/1 A, 220/85 D, 229/7 S, 220/27, 206/217

[51] **Int. Cl.** **A47g 19/22**

[58] **Field of Search** ..... 206/217; 220/90.2, 27; 215/1 A; 229/75, 1.5 C; 222/143

[56] **References Cited**

UNITED STATES PATENTS

1,148,683	8/1915	Hothersall	220/27
1,333,297	3/1920	Eulberg	220/24 R
1,514,379	11/1924	Fleischer	229/1.5 C
3,229,847	1/1966	Fox, Jr.	220/27
3,412,901	11/1968	Izumi	229/43
3,524,566	8/1970	Parks	220/90.2

FOREIGN PATENTS OR APPLICATIONS

1,538,893	7/1968	France	220/90.2
913,009	12/1962	United Kingdom	220/265

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Attorney, Agent, or Firm—Frank Ledermann

[57] **ABSTRACT**

A liquid containing body substantially square in outline having a circumferential flange on its surrounding walls, has a first lid sealed on said flange, said first lid having an elongated recess therein dimensioned to have a U-shaped drinking straw nest therein and insulated from the container contents. Said first lid also has a puncturable depression spaced from said recess and dimensioned to permit insertion of one end of the straw to separate the walls of said depression. A preferably transparent second lid is sealed on said first lid thus dealing said recess and said depression from the outside air. An unsealed tongue at one corner of said second lid permits grasping thereof to tear back the second lid to expose the straw and the depression. The container body and said first lid are formed of a relatively stiff plastic sheet material and said second lid is formed of a thinner and more flexible plastic material.

8 Claims, 8 Drawing Figures

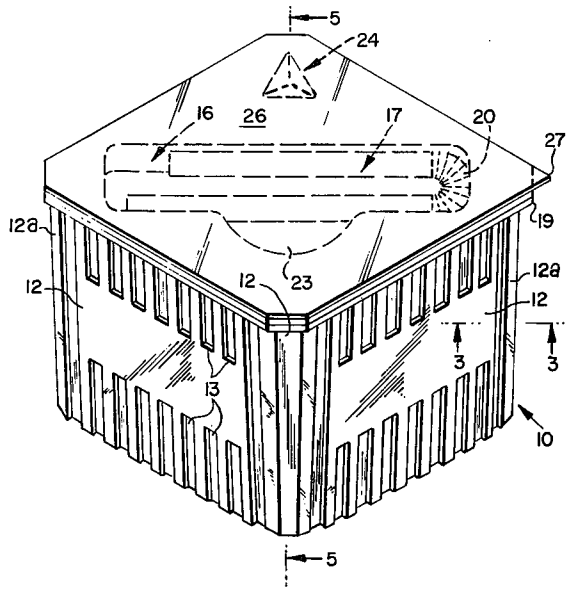


FIG.1

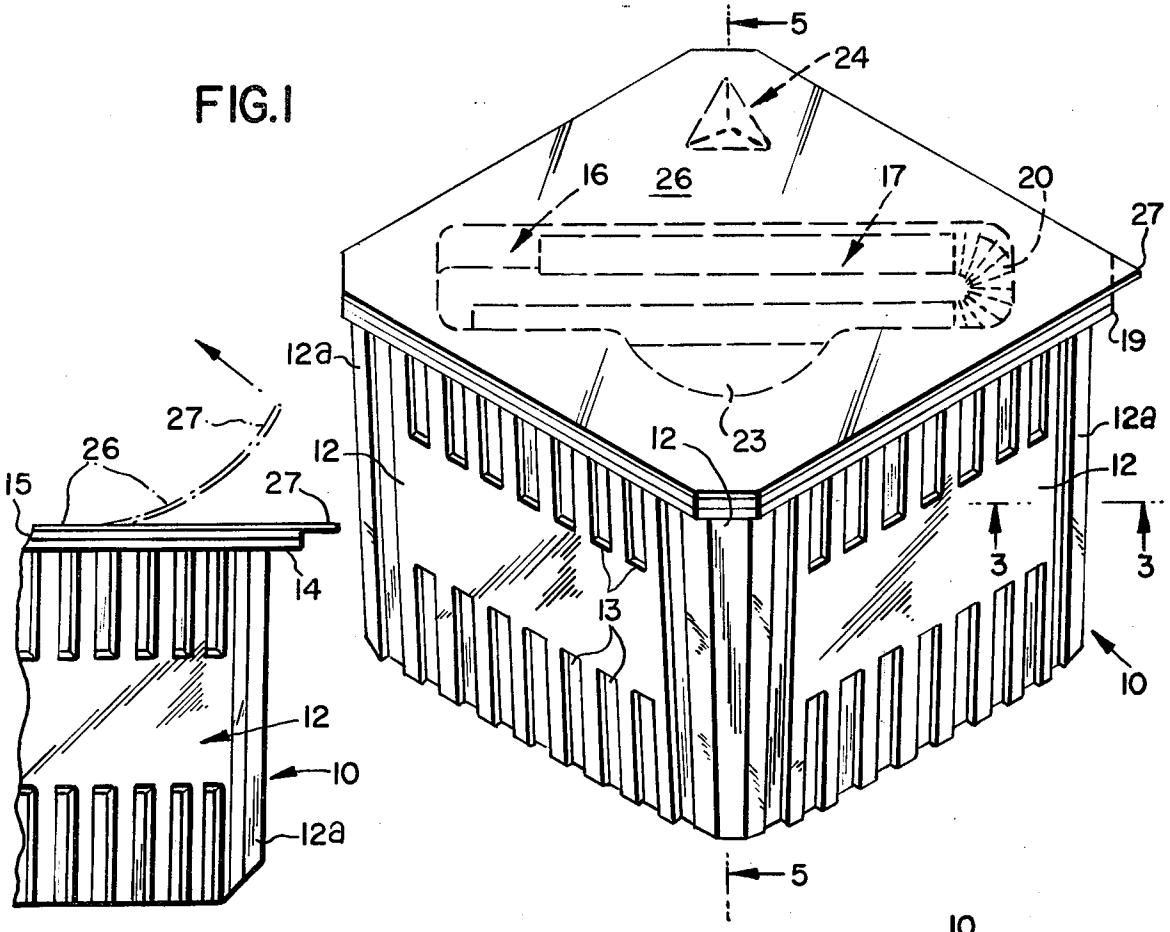


FIG.3

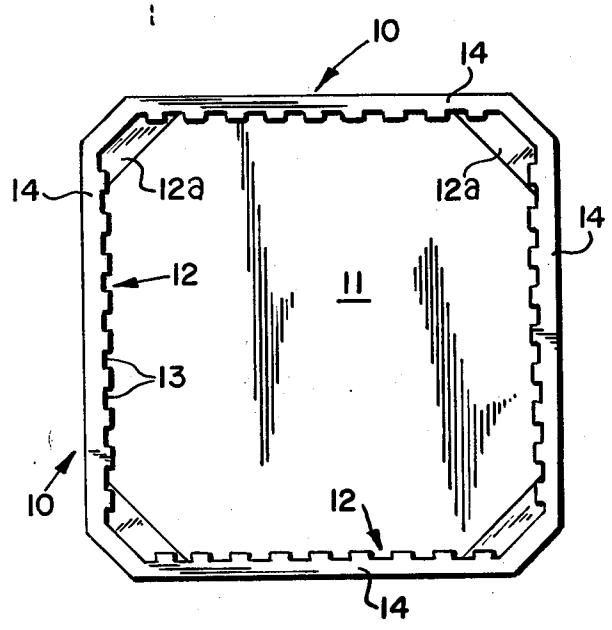


FIG.2

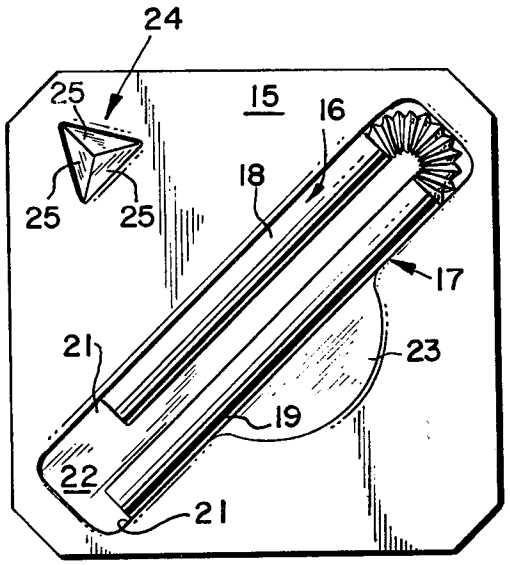
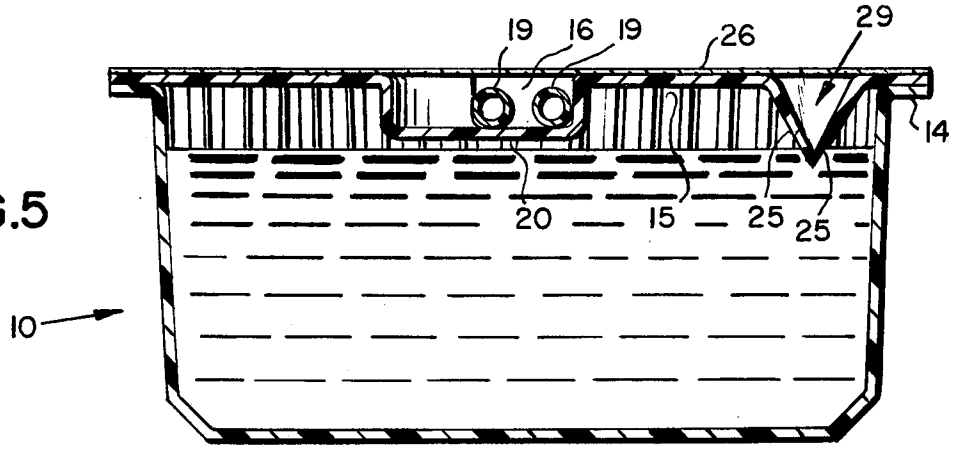


FIG.4

FIG.5



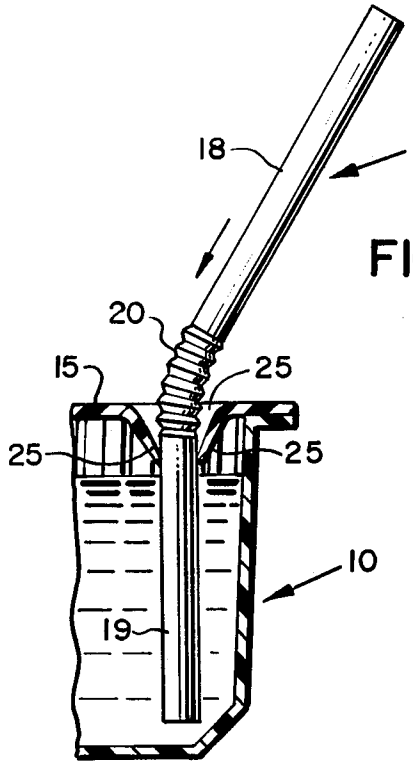


FIG.7

FIG.8

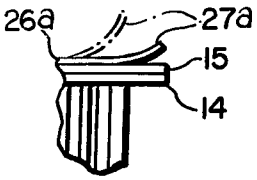
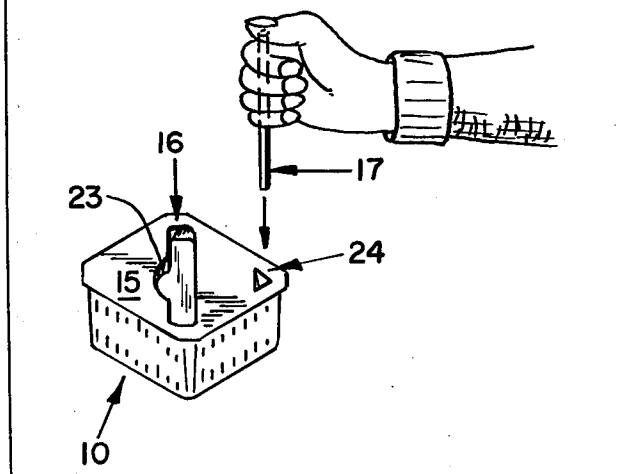


FIG.6



COMBINATION LIQUID CONTAINER AND DRINKING STRAW

Referring briefly to the accompanying drawings, FIG. **1** is a top perspective veiw of the complete instant container, showing in broken lines the straw in the straw-receiving recess and the puncturable straw-insertion depression. FIG. **2** is a top plan view of the container body per se, with both the first and second lids omitted.

FIG. **3** is a fragmentary elevational view of the complete container and showing in phantom the second lid partly torn back.

FIG. **4** is a top plan view of the first lid with a two-legged U-shaped drinking straw nesting in its recess.

FIG. **5** is a sectional view taken on the line **5**—**5** of FIG. **1.**

FIG. **6** is a view illustrating how the straw may be used to puncture the straw-insertion depression, it being assumed that the second lid, not shown, has been torn off.

FIG. **7** is a fragmentary sectional view similar to FIG. **5** but showing the straw-insertion portion punctured and the straw entered into the container body.

FIG. **8** is a fragmentary view similar to FIG. **3** but showing a modified form of the graspable tongue at a corner of the second lid.

Referring in detail to the drawings, the numeral **10** designates the container body having a flat bottom wall **11** and four upstanding side walls **12.** The juxtaposed corner portions of the walls **12,** shown at **12***a*, are flat and lie in planes at 45° angles to the side walls. To strengthen the container walls, the portions thereof between the portions **12***a* are provided with corrugations **13.** An outwardly extending circumferential flange **14** extends from the top edges of the surrounding walls **12.**

A first lid **15,** complementary in dimensions to the outer dimensions of the flange **14,** is heat sealed to the flange and has an elongated diagonal recess **16** formed therein.

A U-shaped or two-legged drinking straw **17** is shown nesting in the recess **16.** Such bendable straws, having their two end portions or legs jointed by a fluited bendable connecting portion **20,** are readily available on the market with their legs **18** and **19** normally aligned.

Both side walls of the recess **16** extend substantially upright from its flat bottom wall **22,** as shown at **21,** and the recess has a widened portion **23** on one side to form approximately a semi-circular finger-ti-insertion extension to facilitate grasping the straw to lift it from the recess.

Spaced preferably near a corner of the lid **15** other than the corners adjacent the ends of the recess **16,** is a puncturable straw-insertion depression **24.** This depression is preferably of inverted pyramidal shape having three triangular walls **25,** and it is formed by a thermal die which thins the walls **25** without separating them. Thus the depression normally remains closed but is readily puncturable upon passing an end of the straw downward thereino and through, as illustrated in FIGS. **6** and **7.**

A second or top lid **26,** formed of a flexible and relatively thin and preferably transparent plastic sheet material, has the same shape and dimensions as the first lid **15** except that one corner portion **25** extends beyond a corner portion of the flange **14,** that is, beyond a corner of the flange above a body portion **12***a*. Thus an unsealed readily graspable tongue **27** is formed on the

second lid **26** so that the latter may be readily torn away to expose the depression **24** and the straw **17.**

The vertical corrugations in the container side walls obviously strengthen such walls, and the flat corner wall portions **12***a* minimize possible damage to the container corners. The transparency of the second lid **26** makes the straw and the depression **24** visible in the marketed filled container.

An alternative graspable tongue structure as part of the top lid **26***a* is illustrated in FIG. **8.** Otherwise identical to the lid **26,** the lid **26***a* does not extend beyond the flange **14** and only a rear portion of the lid corner is sealed to the lid **15,** thus leaving a readily graspable tongue **27***a*.

What is claimed is as follows:

1. In combination, a liquid container body substantially square in outline including a bottom wall and four upstanding surrounding walls, said surrounding walls having a circumferential flange extending outward from the top edges thereof, a first lid sealed to said flange and closing said body, said first lid having an elongated diagonal recess therein and a puncturable depression therein spaced from said recess, a drinking straw nesting in said recess, a second lid sealed on said first lid and covering said first lid throughout the area of said first lid and hence sealing said recess and said depression from the outside air, said body and said first lid being formed of relatively stiff plastic sheet material, said second lid being formed of plastic sheet material which is more flexible and thinner than said relatively stiff material, said depression being a pyramidal shape and hence having triangular walls extending downward into said body, said triangular walls being thinner than the remainder of said first lid and hence readily separable upon pressing downward thereinto one end of said straw.

2. A combination according to claim **1,** said material of which said second lid is formed being transparent.

3. A combination according to claim **2,** said second lid having an unsealed corner thereof extending outward beyond the corresponding corner portions of said first lid and said flange thereby providing a readily graspable tongue.

4. A combination according to claim **2,** said second lid having a corner portion thereof extending over but not beyond the corresponding corner portions of said first lid and said flange, said corner portion of said second lid having only an inwardly extending portion thereof sealed to said corresponding corner portion of said first lid thereby providing a readily graspable tongue.

5. A combination according to claim **2,** said straw being U-shaped and consisting of two legs joined by a bendable portion.

6. A combination according to claim **5,** said recess having a width a least equal to twice the diameter of said straw, said straw having said legs thereof positioned side by side.

7. A combination according to claim **1,** said triangular walls being three in number whence said depression is triangular in cross-section.

8. A combination according to claim **1,** one of the two side walls of said recess having a widened portion between the ends thereof substantiallly semi-circular in outline.

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