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3,285,456

INSULATED COASTER FOR GLASSES, CANS, BOTTLES OR THE LIKE

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Fig. 1

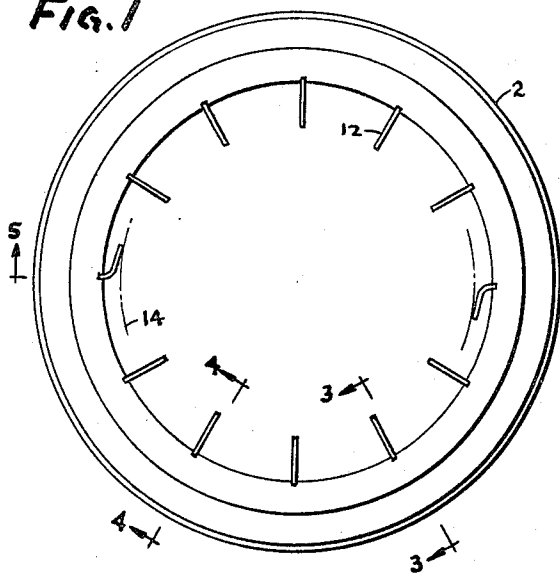


Fig. 2

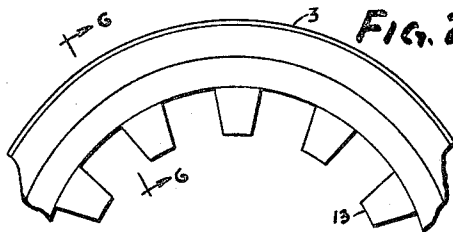


Fig. 3

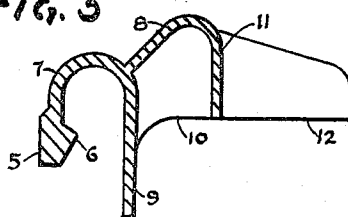


Fig. 4

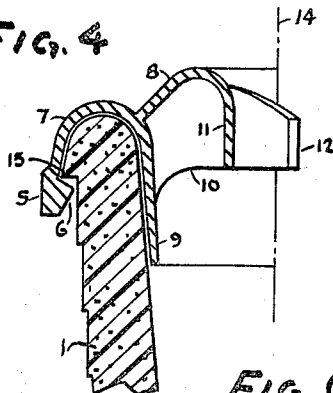


Fig. 6

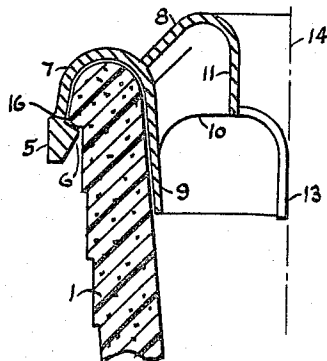
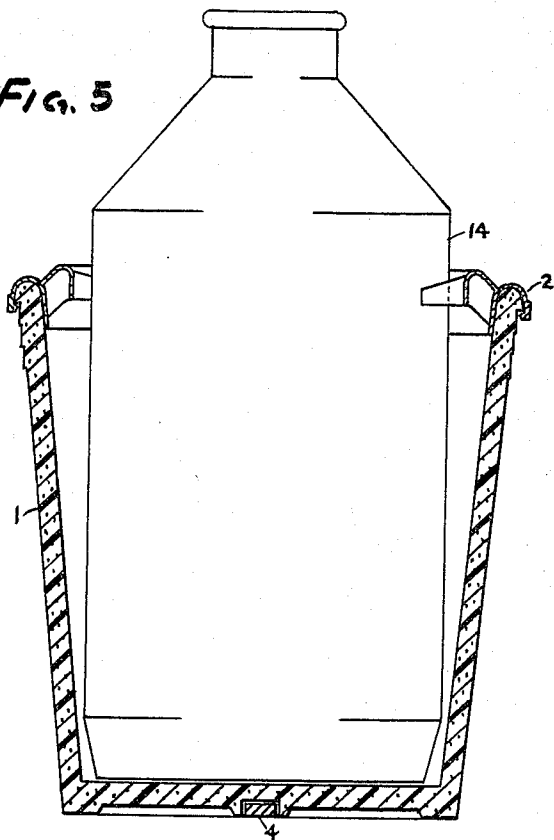


Fig. 5



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3,285,456 INSULATED COASTER FOR GLASSES, CANS, BOTTLES, OR THE LIKE

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This invention relates to coasters, and more particularly to an insulated coaster of molded expandable polystyrene combined with a cap of flexible resilient material which will automatically effect a grip with a drinking glass, can, bottle or the like, form a trap for catching condensation, and becomes a means for keeping an iced drink cold for a considerable period of time or until consumed, and, conversely, to keep a heated drink hot for a longer time than would be normal without insulation.

The objects of the present invention are to provide a coaster, with a magnetic base, of two separable members, i.e., an insulative main body and a flexible and resilient plastic cap, whereby the parts may be quickly and easily assembled and locked together, to provide such an insulated coaster structure with inwardly directed blades or vanes which will be deflected sideways and/or downward upon insertion of a drinking glass, can or bottle to form gripping means, thereby holding the glass or the like securely within the insulated coaster structure and with an inner ring which cooperates to contain and hold water or moisture that has drained into the coaster and prevent same from spilling therefrom.

In accomplishing these and other objects of the present invention, I have provided improved details of structure, the preferred forms of which are illustrated in the accompanying drawings, wherein:

FIG. 1 is a plan view showing the general arrangement of the cap or top assembly with the vanes or blades 12 in vertical position and showing the sideways deflection caused when a glass 14 or the like is inserted therein.

FIG. 2 is a partial plan view of another embodiment showing the blades or vanes 13 in horizontal position.

FIG. 3 is an enlarged sectional view through the cap or top ring taken on the line 3-3, FIG. 1.

FIG. 4 is an enlarged sectional view through the top portion of the assembled coaster taken on the line 4-4, FIG. 1.

FIG. 5 is a cross-sectional view through the assembled coaster taken on the line 5-5, FIG. 1.

FIG. 6 is an enlarged sectional view through the top portion of the assembled coaster taken on the line 6-6, FIG. 2.

Referring more in detail to the drawings:

The coaster consists of a cup-like main body 1, molded or otherwise made of flexible resilient material having insulative qualities, having a bottom wall, with an Alnico magnet 4 embedded or recessed therein, and a circular side wall extending upward from the bottom wall and terminating in a beaded edge 16 or an inverted ledge 15 of increased thickness defining an open upper end of the cup-like body member 1, which engages the cap member 2 as later described.

The cap member 2 is preferably formed of flexible resilient plastic or the like, and has an annular ring 5 of thickened cross-section with a sloping and inwardly projecting ledge 6 located on the inner surface of said annular ring 5. The outer cap wall 7 is joined to the annular ring 5, extends upward, then inward around a smooth radius and thence downward to become the middle or intermediate wall 9, said configuration forming a locking rim to engage the upper edge of the main body 1. Wall 8 is attached to the upper and inner surface of the aforesaid locking rim, extends inward and upward, around a smooth radius, and then downward to form a vertical

cylinder wall 11, said configuration forming a liquid-retaining chamber when the coaster is positioned in degrees of inversion, and a plurality of web members 10 are molded and join wall 11, wall 8 and the upper portion of wall 9 together to reinforce and impart a certain degree of rigidity to the vertical cylinder wall 11. A plurality of inwardly directed blades or vanes, shown as vertical 12 and horizontal 13, are positioned around and attached to the inner surface of the vertical wall 11. It is intended to use the best combination of blades or vanes to adequately secure the glass, bottle or can within the coaster, whether this necessitates all vertical, all horizontal, a combination thereof, or some, as yet, undetermined angle between the vertical and horizontal positions as shown in the drawings.

It is assumed that these coasters may be used in automobiles and rested on reasonably flat metallic surfaces having magnetic properties, thus it is also the object of the present invention to provide a coaster with an Alnico or other permanent magnet 4 embedded or recessed into the base thereof to hold the coaster on a reasonably flat metallic surface having magnetic properties and thus resist movement of the coaster due to vibration or sliding due to abrupt changes in direction of the vehicle while in motion.

The cross-sectional view of FIG. 3 shows a cross-section of the molded cap member 2 in a state of rest, as molded, and before insertion on the main body 1. It will be seen in FIG. 4 that application of the cap member 2 to the main body 1 causes the annular ring 5 to stretch or dilate slightly causing a ring stress to be introduced into the annular ring 5. When the internal projection 6 is forced down slightly below the inverted ledge 15 located on the upper edge of the main body 1, the resilient properties of the material of the cap member 2 cause contraction of the annular ring 5 toward the original and smaller diameter thereof, and causes a snug fit around the perimeter of the upper edge of the main body 1. It will also be seen that wall 9 is deflected inward slightly, due to the inwardly tapering inner wide wall of the main member 1, effecting a tight seal between wall 9 and the cup body adjacent thereto.

For the purposes and intended uses of the coaster, it is not necessary to disassemble the two component parts, but due to the natural curiosity of many people, the cap member 2 and the main body 1 are so arranged that these parts can be separated and reassembled many times without damage to either part.

The vane 12 in FIG. 4 is shown attached in a vertical position to the vertical cylinder wall 11 and deflected sideways due to pressure exerted from the circumference of a glass, can or bottle 14, and the vane or blade 13 in FIG. 6 is shown attached in a horizontal position to the vertical cylinder wall 11 and deflected downward due to pressure exerted by inserting a glass or the like 14 inside the coaster. It is intended to use a combination of these plural blade or vane attachments to the vertical cylinder wall 11 in order to obtain the best arrangement, within these limits, for holding the glass, can or bottle 14 securely and centered within the rigid, web reinforced, vertical cylinder wall 11. Thus, insertion of a glass, can or bottle, of varying diameters, into the coaster, will deflect the vanes or blades downward, sideways or in a combination of these directions, thus holding the glass or the like securely within the insulated coaster.

What I claim is:

1. An insulated coaster for a drinking glass, can, bottle or the like, comprising a cup-like body member having a bottom wall with a magnet embedded therein to grip and hold said insulated coaster to any ferrous or otherwise magnetic surface, and a substantially circular and outwardly tapering side wall extending upwardly from

the bottom wall, said side wall terminating in an edge defining an open upper end of the cup-like body member, a cap member having a central opening therein, means on the cap member removably engaging the upper edge of the circular side wall of the body member for retaining the cap member thereon, said cap member having an inner moisture retaining ring consisting of top and side walls with a plurality of reinforcing webs, flexible resilient means on the inner wall of the aforesaid moisture retaining ring for engaging and gripping a drinking glass, can, bottle or the like upon insertion thereof through the opening in the cap member.

2. An insulated coaster for a drinking glass, can, bottle or the like comprising a cup-like, molded, body member and having a bottom wall and a substantially circular and outwardly tapering side wall extending upward from the bottom wall, said side wall terminating in an edge of increased thickness defining an open upper end of the cup-like body member, a cap member molded of flexible and resilient material in the shape of two concentric inner and outer rings of inverted trough cross-section, each ring having an outer side wall, a top wall and an inner side wall, the inner side wall of the inner ring forming a circular opening through the cap, the side walls of the outer ring resiliently and removably engaging and embracing the inner and outer surfaces of the upper edge of the side wall of the cup-like body to retain the cap member thereon, means on the inner wall of the said inner ring member for engaging and gripping a drinking glass, can, bottle or the like upon insertion thereof through the circular opening in the cap member and to retain the glass or the like therein, said inner ring forming a liquid retaining chamber when the coaster is positioned in degrees of inversion, and a plurality of spaced web members joining the side walls of said inner ring to reinforce and maintain said inner ring spaced from the side walls of the body member.

3. A holder for a bottle or the like comprising a cup having a beaded top edge, a cap comprising an outer rim fitted to the top of the aforesaid cup, said outer rim having an inner wall, a top wall and an outer side wall with an inwardly turned edge at the periphery thereof for resiliently engaging and locking said rim over the beaded edge of the cup, an inner rim attached to the aforesaid outer rim, consisting of a continuous union, the inner rim having a wall rising inward and then downward, to form an inner wall on the inner rim, said inner rim, inner wall defining an opening, said inner rim forming a liquid retaining chamber when the holder is positioned in degrees of inversion, a plurality of flexible and resilient blades attached in an inwardly converging direction to the aforesaid inner wall of the inner rim, said blades being bendable upon insertion of a bottle or the like through the opening in the inner rim and result in a gripping action to retain the bottle or the like securely within the holder.

4. An insulated holder for a glass, can or bottle consisting of a cup-like, molded, body member having a bottom wall and a side wall extending upwardly therefrom, said side wall terminating in a saw-toothed edge of increased thickness defining the open upper end of the body member, a cap comprising an outer rim fitted to the top of the body member, said outer rim having an inner wall, a top wall and an outer side wall with an inwardly turned edge at the periphery thereof for resiliently engaging and locking said outer rim to the body member, an inner rim attached to the aforesaid outer rim, consisting of a continuous union, with the inner rim wall rising inward and then downward, forming a liquid retaining chamber when the holder is positioned in degrees of inversion, with a plurality of flexible and resilient blades attached thereto, said blades, being bendable for gripping a glass, can or bottle within the insulated holder.

5. A holder for a bottle or the like comprising a cup having a beaded top edge, a cap comprising an outer rim fitted to the top of the aforesaid cup, said outer rim hav-

ing an inner wall, a top wall and an outer side wall with an inwardly turned edge at the periphery thereof for resiliently engaging and locking said rim over the beaded edge of the cup, an inner ring attached to the aforesaid outer rim, said inner ring formed by a wall rising inward and then downward to form an inner wall, said inner wall defining an opening and forming a liquid retaining chamber when the holder is positioned in degrees of inversion, means on the inner wall for engaging and gripping a bottle or the like upon insertion thereof through the circular opening in the cap member to retain the bottle or the like therein.

6. An insulated holder for a drinking glass, can, bottle or the like consisting of an insulated cup having a beaded top edge and combined with a cap member comprising an outer rim fitted to the top of the aforesaid insulated cup, said outer rim having an inner wall, a top wall and an outer side wall with an inwardly turned edge at the periphery thereof for resiliently engaging and locking said rim over the beaded edge of the cup, an inner ring attached to the aforesaid outer rim, said inner ring having a vertical wall defining a circular opening through said cap member, means on the inner surface of the wall of said inner ring for engaging and gripping a drinking glass, can, bottle or the like upon insertion thereof through the aforesaid circular opening and to retain the glass or the like therein, said inner ring cooperating to form a liquid retaining chamber when the insulated holder is positioned in degrees of inversion.

7. An insulated coaster for a drinking glass, can, bottle or the like comprising a cup-like, molded, body member and having a bottom wall and a substantially circular and outwardly tapering side wall extending upward from the bottom wall, said side wall terminating in an edge of increased thickness defining an open upper end of the cup-like body member, a cap member molded of flexible and resilient material and comprising an outer rim fitted to the top of the aforesaid insulated coaster, said outer rim having an inner wall, a top wall and an outer side wall with an inwardly turned edge at the periphery thereof for resiliently engaging and locking said rim over the upper edge of the side wall of the cup-like body member, an inner ring attached to the aforesaid outer rim, said inner ring having a vertical wall defining a circular opening through said cap member, means on the inner surface of the wall of said inner ring for engaging and gripping a drinking glass, can, bottle or the like upon insertion thereof through the aforesaid circular opening and to retain the bottle or the like therein, said inner ring cooperating to form a liquid retaining chamber when the insulated coaster is positioned in degrees of inversion.

8. An insulated coaster for a drinking glass, can, bottle or the like comprising a cup-like body member of insulative material and having a bottom wall, with a permanent magnet recessed therein to grip and hold the coaster to any ferrous or otherwise magnetic surface, and a substantially circular side wall extending upward from the bottom wall to the rim, said rim being formed by continuing the inner surface of the cup upward and outward along a smooth radius line, flaring the line of the rim outward and downward and abruptly back along a horizontal line to join the cup-like body member, forming a sharp inverted ledge on the rim thereof, a cap member of flexible resilient material having an outer side wall with an inwardly projected ledge at the lower periphery thereof resiliently and removably engaging the aforesaid inverted ledge on the rim of the cup-like body member, an inner ring having a top wall and vertical side walls, reinforcing means resiliently interconnecting said side walls, said inner ring defining a circular opening therethrough, means on the inner surface of the inner wall of said inner ring for engaging and gripping a drinking glass, can, bottle or the like upon insertion thereof through the aforesaid circular opening and to retain the glass or the like therein, said

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inner ring cooperating to form a liquid retaining chamber when the insulated coaster is positioned in degrees of inversion.

9. A drinking glass or bottle holder comprising a cup having side walls terminating in a bead-like edge of increased thickness defining the open end thereof, a cap comprising an outer rim of inverted trough cross-section and having an outer side wall with an inwardly projected edge at the periphery thereof to removably engage the bead-like edge of the cup, an inner rim having a wall, tapering upwardly and inwardly from the outer rim, said inner rim terminating in a downwardly extending inner wall, said inner rim forming a liquid retaining chamber, a plurality of flexible and resiliently formed blades attached to said inner wall, said blades, being bendable to engage and hold a drinking glass or bottle inserted therethrough.

10. An insulated holder for a drinking glass, can, bottle or the like, consisting of a cup-like body member having a bottom wall and a side wall extending upwardly from the bottom wall, said side wall terminating in an edge of increased thickness defining the upper end of the body member, a cap of flexible resilient material having an outer side wall with an inwardly projected edge at the periphery thereof to engage the body member, an inner rim having a wall, tapering upwardly and inwardly from said cap, said inner rim terminating in a downwardly extending inner wall, said inner rim forming a liquid retaining chamber, means on said inner wall for gripping a glass or the like centered therein.

11. A coaster for a drinking glass and the like comprising, a cup-like body member of flexible resilient material and having a bottom wall and a substantially cylindrical side wall extending upwardly from the bottom wall, said side wall terminating in an edge of increased thickness defining an open upper end of the cup-like body member, a cap member comprising an outer rim fitted to the top of the cup-like body member, said outer rim having an inner wall, a top wall and an outer side wall with an inwardly turned edge at the periphery thereof for resiliently engaging and locking said rim over the edge of increased thickness of the cup-like body member, an inner rim having a wall, tapering upwardly and inwardly from the outer rim, said inner rim terminating in a downwardly extending inner wall, said inner rim forming a liquid retaining chamber, said inner wall forming a circular opening therethrough, means on said inner wall for engaging and gripping a drinking glass and the like upon insertion thereof through the circular opening.

12. An insulated coaster for a drinking glass, can, bottle or the like comprising a cup-like, molded body member and having a bottom wall and a substantially circular side wall extending upward from the bottom wall, said side wall terminating in an edge of increased thickness defining an open upper end of the cup-like body member, a cap comprising an outer rim fitted to the top of said body member, said outer rim having an outer side wall with an inwardly turned edge at the periphery thereof for resiliently engaging and locking said rim over the outer surface of the upper edge of the side wall of the cup-like body to retain the cap member thereon, an inner rim having a wall, tapering upwardly and inwardly from the outer rim, said inner rim terminating in a downwardly extending inner wall, said inner rim forming a liquid retaining chamber, means on said inner wall for engaging and gripping a drinking glass, can, bottle or the like upon insertion thereof through the circular opening in the cap and to retain the glass or the like therein.

13. An insulated coaster for a drinking glass, can, bottle

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or the like comprising a cup-like, molded, body member having a bottom wall and a circular side wall extending upward from the bottom wall, said side wall terminating in an edge of increased thickness defining an open upper end of the cup-like body member, a cap member molded of flexible and resilient material and comprising an outer ring fitted to the top of the body member, said outer ring having a top wall and an outer side wall with an inwardly turned edge at the periphery thereof for resiliently engaging and locking said outer ring over the upper edge of the side wall of the cup-like body to retain the cap member thereon, an inner rim having a wall, tapering upwardly and inwardly from the outer rim, said inner rim terminating in a downwardly extending inner wall, said inner rim forming a liquid retaining chamber, means on the aforesaid inner rim for engaging and gripping a drinking glass, can, bottle or the like upon insertion thereof through the circular opening in the cap member and to retain the glass or the like therein.

14. An insulated coaster for a drinking glass and the like comprising a cup-like body member and having a bottom wall and a circular side wall extending upward from the bottom wall, said side wall terminating in an edge of increased thickness defining an open upper end of the cup-like body member, a cap member comprising a formed peripheral rim shaped to resiliently and removably engage and embrace the outer edge of the upper side wall of the body member, an inner rim having a wall, tapering upwardly and inwardly from the outer rim, said inner rim terminating in a downwardly extending inner wall, said inner rim forming a liquid retaining chamber, means on the inner surface of said inner wall for engaging and gripping a drinking glass and the like upon insertion thereof through the circular opening in the cap member to retain the glass or the like therein.

15. An insulated coaster for a drinking glass, can, bottle and the like comprising a cup-like body member and having a bottom wall and a circular side wall extending upward from the bottom wall, said side wall terminating in an edge of increased thickness defining an open upper end of the cup-like body member, a cap member comprising a formed peripheral rim shaped to conform with the configuration of the open upper end of the said cup-like body member and resiliently and removably engaging and embracing said upper end of said cup-like body member, an inner rim having a wall, tapering upwardly and inwardly from the outer rim, said inner rim terminating in a downwardly extending inner wall, said inner rim forming a liquid retaining chamber, and means on the aforesaid inner wall for engaging and gripping a drinking glass and the like upon insertion thereof through the circular opening in the cap member and to retain said glass and the like therein.

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