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INSULATED COASTER FOR GLASSES, CANS, BOTTLES OR THE LIKE

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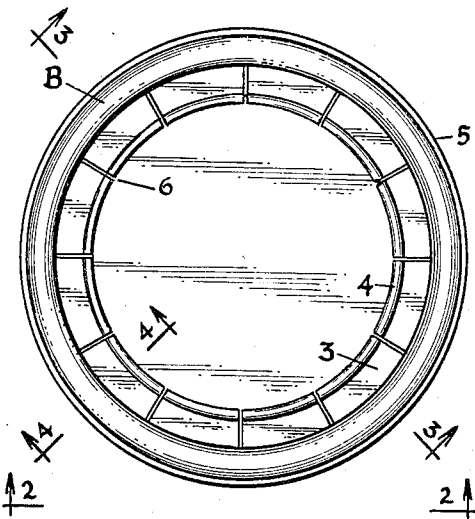


Fig. 1

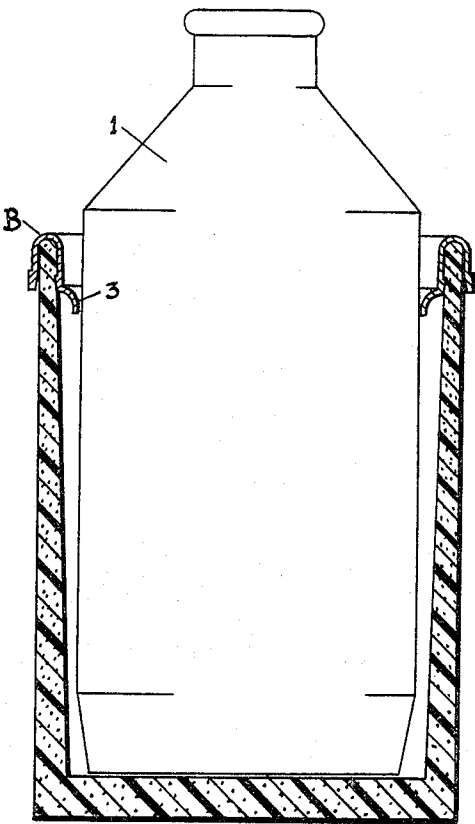


Fig. 3

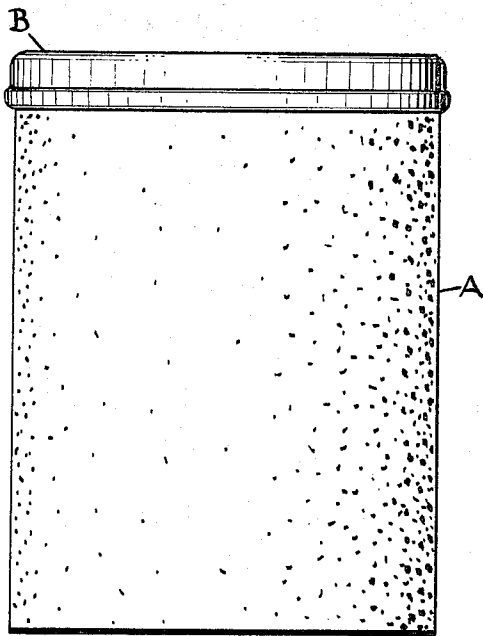


Fig. 2

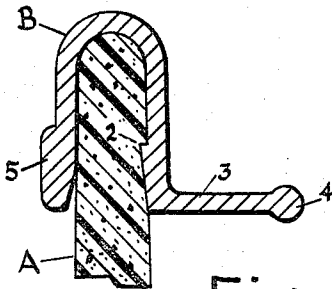


Fig. 4

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My invention consists of an insulated cup or coaster A, molded from expandable polystyrene or other insulation material, and combined with a plastic rim B, having a flexible or movable flange molded as an integral part thereof, so that a beer or soft drink can be inserted into the insulated cup or coaster, of somewhat larger diameter, and held snugly therein by the aforesaid movable flange. The movable flange 3 has a number of cuts or serrations 6, running from the inside edge of the rim toward the center of the cup or coaster, thus permitting each section of the flange 3 to be projected downward and outward along the leading edge 4. Thus, it will be seen, that within the limits of the smaller diameter of the leading edge 4 of the movable flange 3, in horizontal or normal position, and the inside diameter of the rim B, which approximates the maximum downward and outward deflection of the leading edge 4 of the movable flange 3, a regular soft-drink or beer bottle, a soft-drink or beer can, a throw-away beer bottle, a high-ball or ice tea glass, each having successively larger diameters, may be inserted into identical coasters of this design, and each bottle, can or glass will be centered in the insulated coaster A, and snugly held therein by the leading edge 4 of the movable flange 3, which has been deflected downward and outward to exactly conform with the outside diameter of the bottle, glass or can, adjacent thereto. When the bottle, glass or can is removed from the coaster A, the movable flange returns to the normal horizontal or minimum diameter position.

The purpose of this invention is to provide a low cost and reusable insulated cup or coaster, so that drinks may be inserted and firmly held therein, contained either in a glass or the original bottle or can container, and kept either hot or cold, as the case may be, until consumed. A further purpose of this invention is the protection of furniture and table tops from water marks due to condensation of moisture on the outside of cold drink containers, and protection against breakage of glasses and bottles if the coaster combination should be dropped accidentally.

With respect to a description of the drawing, FIGURE 1 shows a plan, viewed from above, of the insulated coaster or cup A with the plastic rim and inner flange or vane assembly B attached thereto. The outside band or ledge 5 is made thicker than the balance of the rim B so that pressure may be resisted along this line to resist removal of the rim and flange or vane assembly due to upward or downward deflection of the inner flange or vanes 3. The inner flange or vane 3 is divided into a number of sections by a series of cuts or serrations 6 which run from the point of juncture or attachment of the flange 3 to the inner side of the rim B toward the vertical centerline of the cup or coaster A. Thus each section of the inner flange or vane 3 may be flexed upward or downward and the point of juncture or attachment of the flange or vane 3 to the rim B becomes a hinge or point of rotation so that the leading edge 4 moves in an arc when deflected upward or downward and thus increasing the diameter of the leading edge 4 to match the diameter of a glass, can or bottle that may be inserted therein.

FIGURE 2 is an elevation viewed from line 2-2 of FIGURE 1 and shows the overall appearance of the in-

ulated coaster with the plastic rim and inner flange or vane assembly fitted thereto.

FIGURE 3 is a cross-section viewed from line 3-3 with a throwaway bottle inserted therein to show the method of flexure of the inner flange or vane 3 which holds the bottle snugly and centered within the insulated coaster A.

FIGURE 4 is an enlarged cross-sectional view, viewed from line 4-4 of FIGURE 1, of the rim and inner flange assembly B, and showing the method of attachment to the insulated coaster A. The inner projection 2 is arranged so that the rim B may be pushed or otherwise forced downward over the rim of the insulated cup A, which is of relatively softer material, but the projection 2, being formed by inclining the line of the surface below it, acts like a ratchet and effectively resists removal of the rim B, by forcing or embedding into the expandable polystyrene material used to form or otherwise mold the cup A. Thus, no glue or other adhesive should be required to retain a firm assembly of parts A and B. The outer rim or ledge 5 is reinforced by increasing the cross-section as shown to resist the force applied on the coaster A at the point of contact with the projection 2 when the inner ledge or vane 3 is deflected upward, and at the base of the inner rim B when the ledge or vane 3 is deflected downward. The outer ledge or projection 5 is lined or sloped outward at the inner part of the base to increase the diameter slightly for ease of assembly. Vane 3 is shown in the normal or horizontal position in FIGURE 4 and is shown deflected downward in FIGURE 3 to hold a circular object with a diameter larger than that of the leading edge 4 in normal or horizontal position. The leading edge 4 may be plain as shown in FIGURE 3 or with a thickened or rounded edge as shown in FIGURE 4 since the leading edge 4 is merely a wear surface or point of application of the force applied when a can, bottle or glass is inserted into the coaster A and the vanes 3, with leading edge 4, are forced downward and outward until the leading edge 4 bears uniformly around the surface of the can, bottle or glass.

The two parts of this invention consist of a cup or coaster A, molded or otherwise made from expandable polystyrene or other material with excellent insulating qualities, and a formed plastic rim and inner flange or vane assembly B. Said rim and inner flange assembly is formed with a self-locking, ratchet type, inner ring projection 2 and outward sloping reinforced outer flange or ledge 5, so that the rim B may be forced downward over the rim of the coaster A and said parts will be effectively locked together without the use of glue or other type of adhesive. The inner projection 3 of the rim B is divided into a number of equal sections by a series of cuts 6 which cross the inner horizontal flange on a line from the vertical centerline of the cup and end at the point of intersection of the inside wall of the rim B. These vanes 3 pivot around the point of juncture with the inner wall of the rim B and may be deflected either upward or downward, said movement thus rotates the leading edge 4 outward and increases the diameter of said leading edge 4. A soft drink or regular beer bottle may be inserted into the insulated coaster for glasses, cans, bottles or the like and the leading edge of the vanes 3 will be deflected downward and outward slightly and the bottle will be securely held in the coaster. Successively larger diameter containers, i.e., soft drink or beer cans, throw-away beer bottles and high ball or ice tea glasses, may be inserted therein. Each container will deflect the vanes 3 and rotate the leading edge 4 downward and outward until uniform pressure is exerted around the circumference.

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What is claimed is:

1. An insulated cup or coaster, of somewhat greater height than diameter, formed from expandable polystyrene or other insulation material, and with a plastic rim and inner horizontal flange or vane assembly fitted thereto with a ratchet type locking ring formed by inclining the lower portion of the inside vertical wall of said rim slightly away from the vertical and toward the outer wall of said rim, then bringing the line abruptly back to the vertical to form a sharp and narrow horizontal ledge, so that said outer plastic rim when forced over said insulated cup rim is resisted from being removed by said sharp and narrow horizontal ledge and also by the reinforced ledge on the external surface of the lower and outer portion of the rim which exerts pressure through the material of the insulated coaster as a tensile ring.

2. An insulated cup or coaster formed from expandable polystyrene or other insulation material and combined with a plastic rim and inner movable vane assembly, with the inner vertical surfaces of said rim inclined toward each other in such a way that the outer line intersects the vertical and continues upward, whereas the inner line is shifted abruptly back to the vertical to form a narrow ledge and then continues upward to where both vertical lines curve together to form the upper closing surface of the rim, thus the plastic rim has a slightly larger diameter at the base for ease in starting assembly of the separate parts and the above mentioned narrow and constricting ledge grips and holds the assembly as the two parts are forced together; said inner movable vanes are attached to the inner rim with the leading edge thereof forming a diameter slightly smaller, in normal horizontal position, than the diameter of the smallest glass, can or bottle to be inserted therein, so that any glass, can or bottle, with a diameter within the limits of the normal opening of the movable vanes and the fully dilated diameter of the vanes when the leading edge thereof has been rotated downward and outward to its fullest extent, may be inserted therein and held securely around the sides by pressure exerted thereon from the leading edge of the deflected vanes.

3. An insulative coaster for a drinking glass or the like

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comprising a cup-like body member of flexible resilient or insulative material and having a bottom wall and a substantially circular side wall extending upward 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 of flexible resilient material and having an outer wall with an inwardly sloping edge at the lower periphery thereof to resiliently and removably engage the outer surface of the rim of the aforesaid main body, said cap member having a curved top to conform with the curved rim section of the main body, a downwardly projected inner wall with a ratchet-shaped section molded therein to grip the inner wall of the rim of the main body, a horizontal and inwardly projected ledge attached to the lower extremity of the aforesaid downwardly projected inner wall, said inwardly projected ledge encompassing and sealing a bottle or the like inserted therein, entrapping air for effective insulation of the contents of said bottle or the like, and forming a liquid retaining chamber when the coaster is placed in degrees of inversion.

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