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2,740,545

COASTER FOR DRINKING GLASSES AND THE LIKE

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FIG. 1.

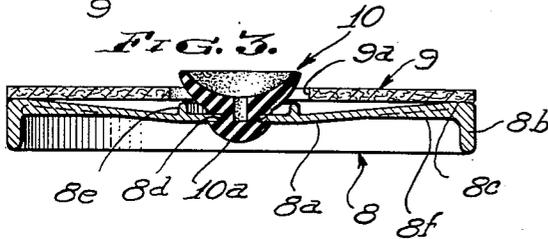
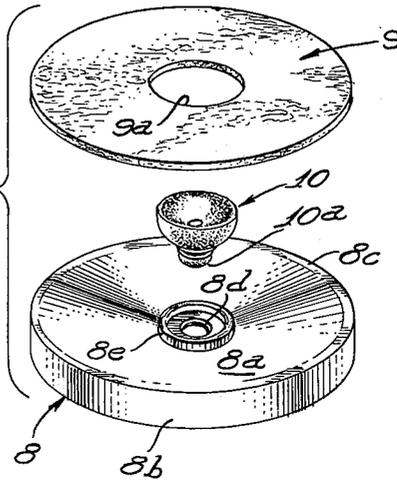
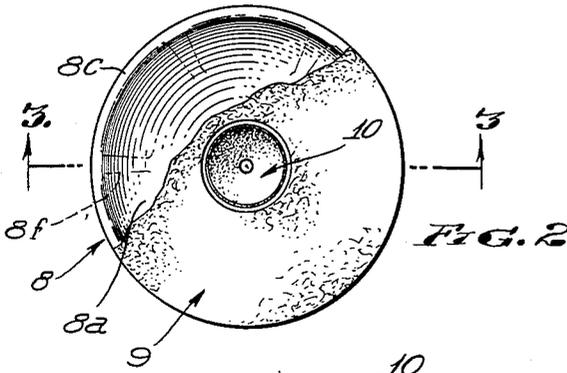


FIG. 4.

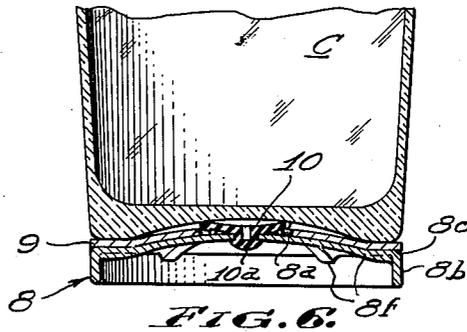
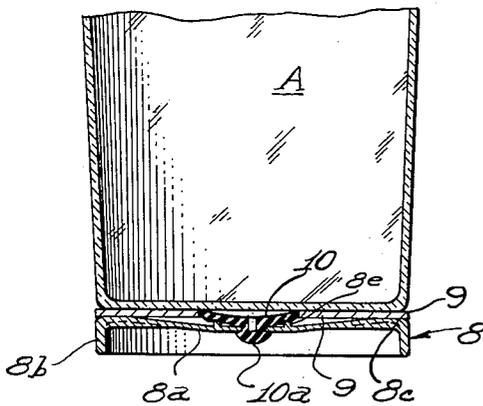


FIG. 7.

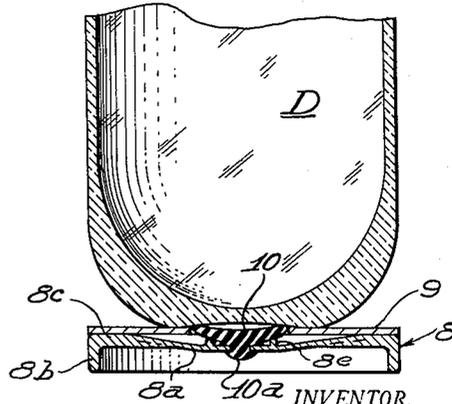
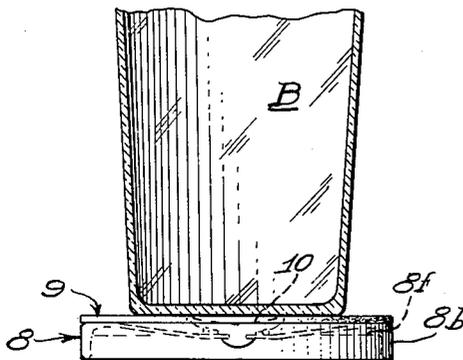


FIG. 5.



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COASTER FOR DRINKING GLASSES AND THE LIKE

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2 Claims. (Cl. 215-100.5)

This invention relates to a coaster of the type having an absorptive pad which is held against the bottom of a drinking glass or like container by means of a suction cup to prevent liquid running down the exterior of the glass or container from staining, marking or otherwise marring table tops and other finished surfaces on which such glasses or containers are usually placed.

The primary object of this invention is to provide a coaster of this type which is an improvement over coasters as heretofore provided, in point of being more readily and easily applied to and more securely held on glasses and other containers having bottoms of various sizes and configurations; in point of comparative simplicity and inexpensiveness of construction, and in point of having a novel and advantageous base on which the absorptive pad is seated and by which the suction cup is held subject to an easier and more effective application and the pad is maintained not only as an effective liquid catching element but as a stable seat for glasses having bottoms of various sizes and configurations.

Another object of my invention is to provide in a coaster such as described, a base for the pad and the vacuum cup, which may advantageously be made in one piece of the same material, for example, one of the newer plastics, to provide a diaphragm portion to support the pad as a level seat for that part of the glass or container bottom which is level, regardless of the overall contour of the bottom of the glass or container.

With the foregoing objects in view, together with such other objects and advantages as may subsequently appear, the invention resides in the parts and in the combination, construction and arrangement of parts herein-after described and claimed, and illustrated by way of example in the accompanying drawing, in which:

Fig. 1 is a top plan view of a coaster embodying the present invention, a portion of the absorptive pad being broken away to show the base on which it is mounted,

Fig. 2 is an exploded perspective view of the coaster,

Fig. 3 is an enlarged cross sectional view taken on the line 3-3 of Fig. 1,

Fig. 4 is a fragmentary sectional view showing how the coaster is applied to a glass having a flat bottom, the glass being of substantially the same diameter at the bottom thereof, as the coaster,

Fig. 5 is a sectional view similar to Fig. 4 showing the coaster applied to a glass of appreciably smaller diameter at its flat bottom, than that of the coaster,

Fig. 6 is a sectional view similar to Figs. 4 and 5, showing how the coaster is applied to a glass having a concave exterior surface centrally of the bottom thereof, and

Fig. 7 is a fragmentary vertical sectional view corresponding to Figs. 4, 5, and 6, showing how the coaster is applied to a glass having a bottom rounded about the marginal portion of its bottom and having a concavity centrally of the exterior of the bottom.

As shown in the accompanying drawing a coaster embodying the present invention generally comprises a base

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8, an annular pad 9 of absorptive material mounted atop the base, and a resilient rubber vacuum cup 10 carried by the base and disposed within the opening 9a of the annular pad so that it may readily be applied for holding the coaster on the bottom of a drinking glass or similar liquid container with the pad disposed to catch and retain liquid running down the exterior of the glass while the latter is being handled as well as when standing.

The base 8 as here shown is circular and preferably made of a suitable light plastic or other material which is flexible and capable of formation to provide resilience and greater flexibility in at least a part thereof. More specifically the base 8 consists of a circular dish-like top 8a having an integral marginal and depending flange 8b which is thicker than the top and adapted to rest upon a table top or the like as a comparatively stable support for the top 8a. Preferably the base is preformed so that the top 8a is centrally depressed or concaved while the marginal portion 8c thereof next adjacent flange 8b remains substantially flat as an effective support for the pad 9 and the glass on which the coaster is held. This formation of the top 8a provides a diaphragm which will spring back in concave form when released after being flexed upwardly. Moreover this formation makes it possible to flex the central portion of the top 8a without distorting the flange 8b and the marginal portion 8c of the top, thereby assuring that the flange and portion 8c will provide a level and stable support for the pad 9 and glass held on the latter by means of the vacuum cup 10.

The cup 10 has a button portion 10a on its lower side which is fitted into an opening 8d in the center of the top 8a of the base. This button is dimensioned and shaped so that it may be forced thru the opening 8d and will then expand to securely hold the vacuum cup 10 on the top 8a during application and removal of the cup relative to the bottom of a glass. However, the button may forcibly be removed when it is desired to remove or replace the cup.

An annular bead 8e is formed on the upper side of the top 8a around the opening 8d and serves as a stop to limit the compression of the cup as well as a reinforcing means. In this connection it should be noted that as the top 8a is relatively thin, it is reinforced by small radial ribs 8f formed on the upper side of the outer marginal portion 8c of the top, thereby imparting desired stability to portion 8c.

It is important to note that the opening 9a in the absorptive pad 9 is of greater diameter than the vacuum cup 10. This not only makes the pad readily removable and replaceable but allows full movement of the cup relative to the pad as is essential in applying the cup to a glass in accordance with this invention. In its fully compressed condition as when holding the coaster on the bottom of a glass (see Fig. 4) the pad has slight clearance from the margin of the opening 9a in the pad, although the cup may be within said opening. When extended or not in use the cup 10 extends above the plane of the top of the pad 9 and holds the latter effectively on the base but subject to easy removal.

Altho the pad 9 is flexible and absorptive it has sufficient rigidity to extend in level position over the depressed portion of the top 8a of the base as shown in Figs. 3 and 4, but may be flexed, in flexing the top 8a to apply the cup and in some applications of the coaster, as shown in Fig. 6, will be held in flexed position against the glass, however when thus flexed the marginal portion remains level over the portion 8c of the top 8a to provide a level seat for the glass.

In applying the coaster, the vacuum cup 10 is first moistened and after placing the coaster on the bottom of the glass, the protruding button 10a beneath the top

8a is pressed upwardly to forcibly compress the cup against the bottom of the glass. A single upward push is sufficient, it being noted that the diaphragm action of the top permits of this upward pushing of the cup into proper contact with the glass to hold the coaster on the glass. On and after applying this pressure against the cup, the elastic force of the cup causes the flexible top 8a of the base to be pulled or flexed upwardly from its normally depressed position thereby securely holding the pad against the bottom of the glass. When the applying force is removed from the cup, the top 8a and cup are held under tension out of their normal position and the forces thus set up by the cup and top, serve to keep the cup in proper suction grip on the glass as well as to maintain the pad 9 in firm contact with the bottom of the glass.

Removal of the coaster is best effected by sliding it sidewise until the cup slides off the bottom of the glass.

Fig. 4 shows the coaster applied to a glass A having a flat bottom of approximately the largest diameter usually found in drinking glasses. A comparison of the positions of the flexible top 8a as shown in Figs. 3 and 4 respectively will show how the top is drawn upwardly by the suction grip and elastic contacting force of the compressed cup as shown in Fig. 4 to forcibly hold the pad against the bottom of the glass in position to catch and retain liquid running down the exterior of the glass.

It should be noted that when applied the cup is compressed (see Fig. 4) so that the top thereof is substantially coplanar with the outer marginal portion of the pad on which the marginal portion of the glass is seated altho the pad is comparatively thin. This advantageous use of comparatively thin pads is made possible by the preformed, concaved or depressed top 8a to which the cup is attached.

As shown in Fig. 3 the flange 8b is of such extent as to space the button portion 10a of the cup 10 above the supporting surfaces on which the coaster may be stood while attached to the bottom of a glass. Fig. 5 shows the coaster applied to a glass B having comparatively small diameter and flat bottom, and as held thereon by the cup. Fig. 6 shows the cup applied to a glass C having a concave bottom, it being noted that the cup 10 pulls the flexible top 8a upwardly and so holds it whereby the top and the pad are held in convex formation to apply and hold the pad against the bottom of the glass while, however, the glass has an even and stable seat on the level outer marginal portion of the pad. Fig. 7 shows the coaster applied to glass D of the type having a bottom which is rounded marginally and has centrally concaved portion.

It will now be apparent that my improved coaster made in one size and form may be effectively applied to drinking glasses and like containers having bottoms of various sizes and configurations and will be more securely held thereon than possible in coasters as heretofore made, by reason of the use of the flexible diaphragm top portion of the base being preformed with a concavity and supporting the flexible vacuum cup so that it may be applied to the bottom of the glass with a single upward push and consequent flexing of the top portion of the base and (2), by reason of the movement of the cup relative to the absorptive pad through the opening in the pad and the full compression of the cup within the pad opening and (3), due to the even and stable seating of the glass on the outer marginal portion of the pad which is evenly supported by the outer marginal portion 8c and the flange 8b of the top.

It should be noted that the formation of the base 8 is such that it may be inexpensively and advantageously made of the newer colorful, acid proof and stainproof plastic materials, as a comparatively thin and flexible one piece unit which is extremely light as to weight, yet strong and durable and free from hardness such as might cause scratching of finished table and like surfaces.

As the top of the pad 9 is planar and has no marginal bead or obstruction, as is also the case with the marginal portion 8c of the top 8a, may be applied to containers having bottoms of greater diameter than the coaster and is readily removable from the bottom of the container with a sliding movement which releases the vacuum cup.

While I have shown and described a specific embodiment of my invention I do not limit myself to the exact details of construction set forth, and the invention embraces such changes, modifications and equivalents of the parts and their formation and arrangement as come within the purview of the appended claims.

I claim:

1. A coaster comprising a base providing a rigid annular peripheral planar portion, a depending flange supporting said base when placed upon any horizontal surface, a resilient unitary top portion of less thickness than said annular portion and downwardly bowed and having a central opening therein; an upstanding flange around and of greater diameter than the opening in said top, said upstanding flange serving to reinforce the material of the coaster top around said opening; and a vacuum cup having a depending portion adapted to be forced through said opening to a distance less than the height of said depending flange to position the vacuum cup on said top, said vacuum cup being of greater height and diameter than said upstanding flange so that when the cup is compressed, the amount of deflection thereof is limited by the engagement of the upstanding flange therewith, the force exerted by the suction cup when in engagement with a container against which it is manually compressed being sufficient to cause flexing of the top and drawing said container firmly against the base when pressure on said cup is released.

2. A coaster comprising a base providing a rigid annular peripheral planar portion, a depending flange supporting said base when placed upon any horizontal surface, a resilient unitary top portion of less thickness than said annular portion and downwardly bowed and having a central opening therein; an upstanding flange around and of greater diameter than the opening in said top, said upstanding flange serving to reinforce the material of the coaster top around said opening; a vacuum cup having a depending portion adapted to be forced through said opening to a distance less than the height of said depending flange to position the vacuum cup on said top, said vacuum cup being of greater height and diameter than said upstanding flange so that when the cup is compressed, the amount of deflection thereof is limited by the engagement of the upstanding flange therewith, the force exerted by the suction cup when in engagement with a container against which it is manually compressed being sufficient to cause flexing of the top and drawing said container firmly against the base when pressure on said cup is released; and a flat annular absorptive pad resting on said annular peripheral planar portion of the base, the vacuum cup projecting through the central opening of said pad and preventing the pad from sliding off the top of the coaster.

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