

July 21, 1959

G. E. RAJOTTE

2,895,609

UNITARY BOTTLE SUPPORT FOR SERVING TRAYS

Filed July 16, 1957

Fig. 1.

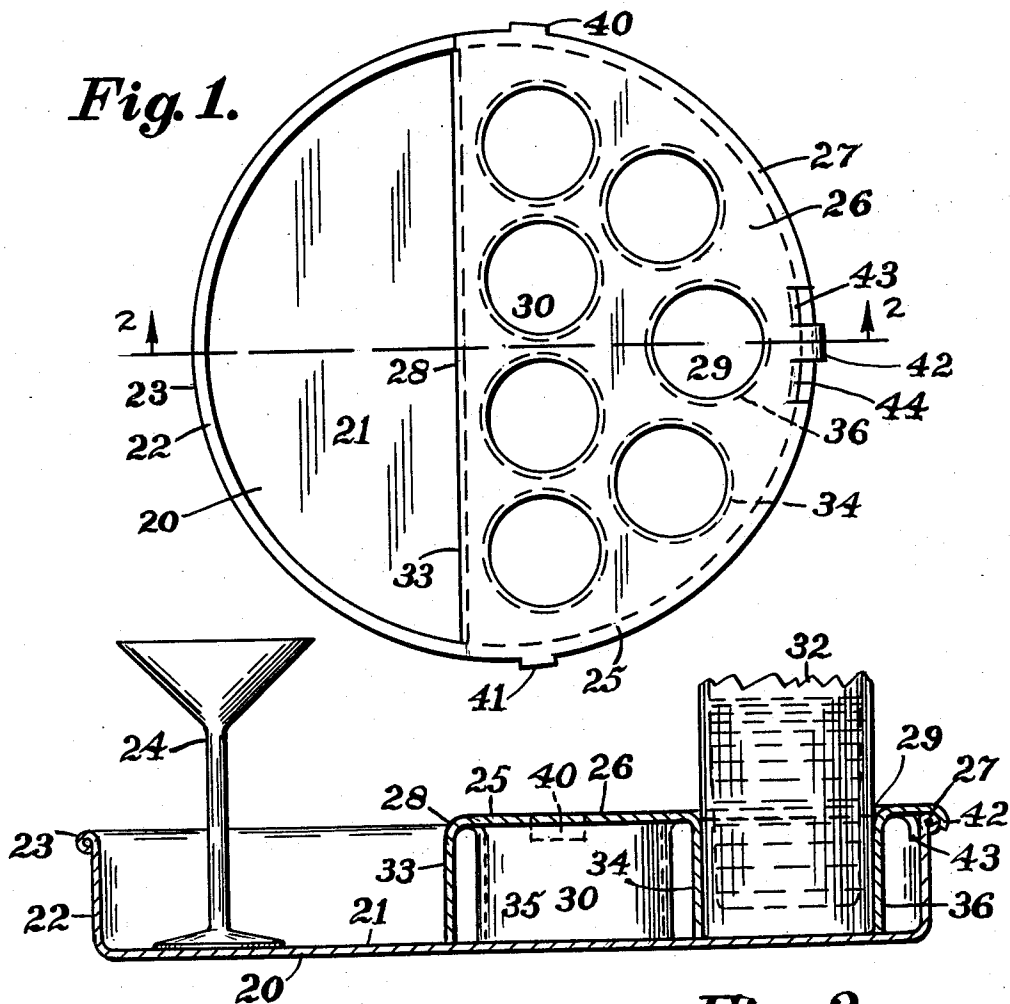


Fig. 2.

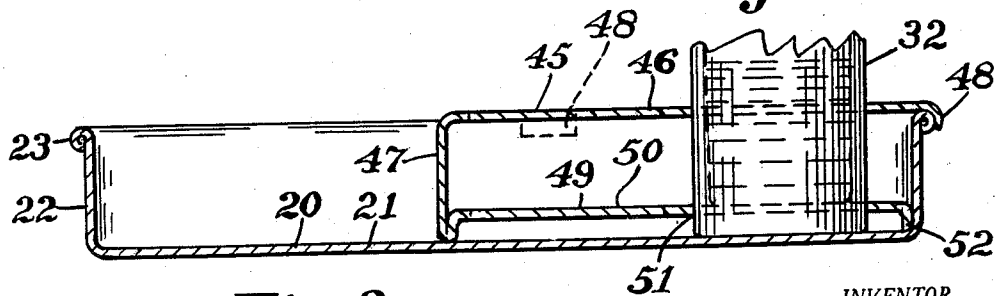


Fig. 3.



INVENTOR.
GEORGE E. RAJOTTE

BY

Pearson + Pearson
ATTORNEYS

1

2,895,609

UNITARY BOTTLE SUPPORT FOR SERVING TRAYS

George E. Rajotte, Manchester, N.H.

Application July 16, 1957, Serial No. 672,326

4 Claims. (Cl. 206—72)

This invention relates to an improved bottle support for serving trays.

A type of serving tray now much used for carrying bottles and glasses is formed with a circular flat bottom and an upstanding beaded side wall. The centre of gravity of the glasses, whether filled or unfilled, is relatively low and a waiter usually has no difficulty in avoiding spillage or toppling of the same. Beverage bottles, when filled, have a considerably higher centre of gravity and must not only be prevented from sliding on the tray bottom, but must also be carefully balanced to prevent upset of the bottles.

It has heretofore been proposed to provide apertured flat panels across the rim of a portion of a serving tray or at a spaced distance above the rim to prevent sliding or tipping of bottles or other beverage containers. Such a panel supported on legs above the level of the tray rim is difficult to affix to the tray and may present an awkward and cumbersome appearance. When at the level of the rim of the tray, such panels engage the bottle in only a single low plane, leaving the upper part thereof still able to tilt.

The principal object of this invention is to provide a bottle support for a serving tray which is substantially within the confines of the tray, but supports the bottle against lateral movement at the tray rim and also at the tray bottom. The two planes of engagement effectively prevent any possibility of toppling of the bottle by forming a relatively deep well with the tray bottom.

Another object of the invention is to provide a one piece bottle support for serving trays which not only supports the bottles against tipping but may be quickly detached for washing, in order that the unit be sanitary.

Still another object of the invention is to provide a bottle support with no moving parts which can be formed from a single piece of sheet material such as aluminum at low cost.

Other objects and advantages of the invention will be apparent from the description of the drawings, the claims and from the drawings in which:

Fig. 1 is a plan view of a preferred embodiment of the invention.

Fig. 2 is an enlarged side view in section on line 2—2 of Fig. 1, and

Fig. 3 is a view similar to Fig. 2 of a modification.

As shown in Figs. 1 and 2 the serving tray 20 includes a circular flat bottom 21 and an upstanding side wall 22 having a beaded rim 23. Tray 20 is usually made of one piece of sheet material and such trays are often given to retail establishments by beverage manufacturers. It will be apparent that a glass such as 24 may slide on the tray and that a filled beverage bottle may not only slide but easily topple over in the rush of serving customers in a tavern or the like.

The bottle support 25 of this invention is formed of one piece of sheet material such as aluminum and comprises a flat panel 26 preferably coextensive in area with slightly more than half the area of the tray 20 as shown.

2

The periphery 27 of panel 26 is supported on the beaded rim 23 except along the chordal fold line 28. Panel 26 extends horizontally in the plane of the rim 23 and includes a plurality of spaced, circular, bottle-receiving apertures such as 29 and 30 adapted to closely encircle a bottle such as 32. The panel 26 thus retains the bottles 32 against sliding and assists in preventing upset thereof in the plane of the tray rim.

Support 25 includes a leg 33, downturned from panel 26 along the fold line 28 and extending down to the tray bottom 21 by which it is supported. Preferably leg 33 is normal to the tray bottom 21 and extends across the central section from one side of the tray to the other, thereby strengthening the panel 26 and forming a barrier across the tray.

Additional bottle retaining means 34 is integral with support 25 for the purpose of encircling and slidably engaging the bottles 32 in a plane proximate the plane of tray bottom 21. As shown in Figs. 1 and 2, retaining means 34 comprises a plurality of cylindrical walls such as 35 and 36 depending from panel 26 under each aperture such as 29 and 30. Each cylindrical wall 35 extends down to, and is supported by, the tray bottom 21 and provides lateral support for the bottle in the manner of a deep well or recess. It should be noted that the bottles 32 are thus held upright by means entirely within the confines of the tray and by means which offers lateral support near the base of the bottle as well as intermediate thereof.

Integral clip means are also provided on support 25 in the form of a pair of oppositely disposed curved elements 40 and 41 and a third curved element 42, the latter being located between two downturned lugs 43 and 44. The sheet aluminum material of support 25 is inherently resilient whereby the curved elements 40, 41 and 42 resiliently attach on, and detach from, the beaded rim 23 when moved in a direction normal to the tray bottom. The lugs 43 and 44 engage the inner face of the rim to prevent rearward movement of the support.

Preferably the support 25 serves to fill a major sector of the circular tray 20 and the snap clamping action of the clips 40, 41 and 42 can be eliminated if desired. In such case, the leg 33 and the lugs 43 and 44 will prevent lateral motion of the support relative to the tray especially when the finger of the operator clamps the two parts together.

A modification is shown in Fig. 3 in which a support 45 for a tray such as 20 is similar to support 25 in having an apertured panel 46, a leg 47 and clip means 48. However, the additional bottle retaining means 49 comprises a second panel 50 having bottle receiving apertures 51 and extending parallel to and spaced below panel 46. The panel 50 is bent from the leg 47, preferably in a plane slightly above the plane of the tray bottom and includes a downturned portion 52 supported on the tray bottom. Means 49 accomplishes the same purpose as means 34 in being wholly within the tray and supporting the bottles at two levels, but has the advantage that it can be stamped from a single sheet and does not require a drawing process.

It will be apparent that the device of Fig. 3 when filling a major sector of a circular tray cannot move laterally of the tray because the leg 47 prevents motion in one direction and the portion 52 prevents motion in the opposite direction. Lugs such as at 43 and 44 may thus be eliminated.

I claim:

1. In combination with a serving tray having a flat bottom and an upstanding, beaded, side wall, a unitary bottle support of sheet material, said support comprising a flat panel peripherally supported on said rim and having a plurality of spaced, circular, bottle-receiving aper-

3

tures therein and a downturned integral leg extending across the central section of said tray and supported on the flat bottom thereof; a second panel bent from said integral leg and extending parallel to, but below, said apertured panel proximate said tray bottom, said second panel having apertures in registration with the bottle receiving apertures of said flat panel and integral clip means, peripherally spaced on said flat panel for releasably engaging said beaded side wall.

2. In combination with a circular serving tray having a flat bottom and an upstanding, beaded side wall, a unitary bottle support of sheet material coextensive in area with slightly more than half the area of said tray, said support comprising a flat panel peripherally supported on said rim and having a plurality of spaced, circular, bottle-receiving apertures therein and a downturned integral leg extending across the central section of said tray beyond the diameter thereof and supported on said flat tray bottom, the opposite ends of said leg abutting on the opposite inside faces of said tray sidewall to position the support in the tray; retaining means integral with said support, encircling and slidably engaging bottles in said apertures in a plane proximate the plane of said flat bottom and integral clip means, peripherally spaced on said flat panel, for releasably engaging said beaded side wall.

3. In combination with a circular serving tray having a flat bottom and an upstanding beaded side wall, a substantially semi-circular, unitary, bottle support formed of one piece of self supporting, resilient sheet material, said support comprising a flat panel peripherally supported on said rim and having a plurality of spaced, circular, bottle-receiving apertures therein and a downturned, integral leg extending substantially diametrically across the central section of said tray for supporting said flat panel, a downturned, integral, cylindrical wall extending peripherally around each said circular aperture to a

4

plane proximate the plane of the flat bottom of said tray for encircling and slidably engaging bottles in said apertures in a plane proximate the plane of said tray bottom, and down turned, integral, clips, peripherally spaced around said flat panel, said clips being curved to resiliently snap over said beaded rim for releasably affixing said support in said tray.

4. A one piece bottle support for a circular serving tray, said support comprising a flat, substantially semi-circular, panel of self-supporting, resilient sheet material having a plurality of spaced, circular apertures therein for laterally supporting a bottle at a level intermediate of the height of the bottle; at least three integral spring clips bent from the sheet material of said panel and spaced peripherally therearound for resiliently flexing over the rim of a serving tray; integral retaining means bent from said sheet material and including a plurality of spaced, circular apertures in a plane parallel to, but spaced substantially below, the plane of said panel for laterally supporting a bottle at a level near the base of the bottle and an integral leg member bent downwardly from said sheet material along the chord of said flat panel, said leg member terminating in a plane proximate the plane of the apertures of said retaining means.

References Cited in the file of this patent

UNITED STATES PATENTS

855,565	Greenhouse	June 4, 1907
1,863,297	Comer	June 14, 1932
2,014,745	Regli	Sept. 17, 1935
2,048,695	Hasenour	July 28, 1936
2,123,257	Provost	July 12, 1938
2,237,361	Poynter	Apr. 8, 1941
2,296,028	Gribble	Sept. 15, 1942
2,695,712	Kolander	Nov. 30, 1954