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COMBINATION BOTTLE RETAINER AND HANDLE

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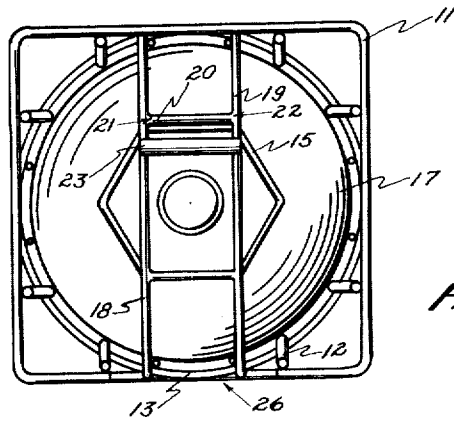


FIG. 1

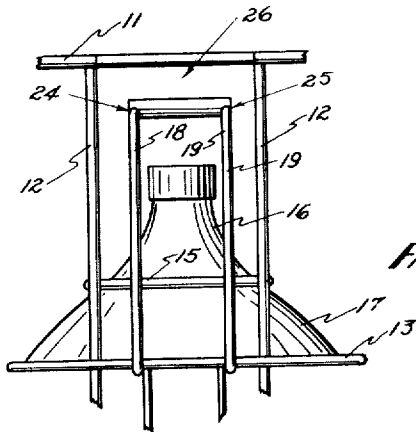


FIG. 2

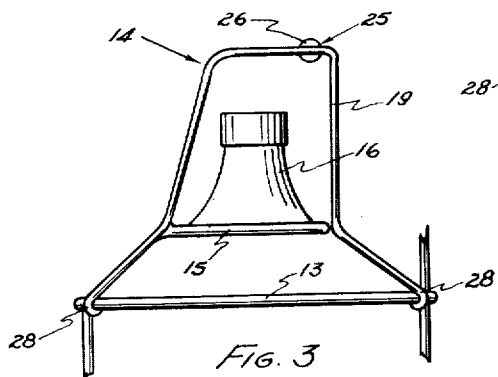


FIG. 3

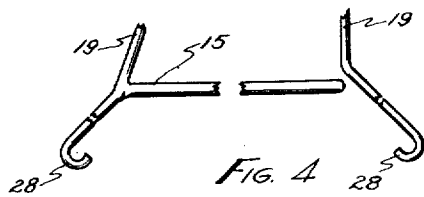


FIG. 4

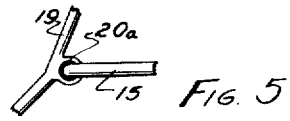


FIG. 5

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2,766,900

COMBINATION BOTTLE RETAINER AND HANDLE

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1 Claim. (Cl. 215—12)

This invention relates to an improved bottle retainer and handle combination for steel carboy crates of the rod variety.

Bottle retainers thus far developed have not been satisfactory for tightly holding the carboys down inside such crates. The retainers heretofore used have not been quick-acting for removal from such carboy crates when a bottle is to be removed or inserted. The most successful retainer to date has necessitated a resilient member in the crate construction to which the retainer may be attached (see United States Letters Patent 2,330,982 and 2,541,972), there being little or no resiliency designed into the retainer itself.

Further, no retainer yet produced has incorporated a handle feature to be used as a convenient handling and pouring means. Heretofore, handling of carboy crates of the rod variety has been accomplished by the handlers grasping the crate by the wire frame which has resulted in a considerable tipping of the crate making for awkward management of the crate and carboy.

It is therefore an object of the present invention to provide a bottle retainer with built-in resiliency which will securely hold the bottle or carboy in position.

A further object of this invention is to provide a bottle retainer having a handle located off-center from the bottle cap so as not to interfere with removal or replacement of the cap, but convenient for the handling of the crate and for pouring.

It is a further object to provide a combination retainer and handle that may be easily removed from the crate to permit insertion and removal of the bottle.

It is a still further object of the present invention to provide a handle or gripping surface of sufficient diameter as not to cut or abrade the hands as does the smaller diameter rods when the carboys or bottles are at full load.

Other objects and purposes of the invention will become apparent with reference to the following specification and drawing.

In the drawing:

Figure 1 is a plan view of a typical carboy crate upon which has been mounted a combination bottle retainer and handle.

Figure 2 is a front elevation showing the combination bottle retainer and handle in position on a bottle in a conventional type carboy crate.

Figure 3 is a side elevation showing the arrangement of the combination bottle retainer and handle upon the top of the bottle.

Figure 4 is a partial side elevation of the yoke portion of the bottle retainer and handle combination showing attachment of the yoke to the bail-like members and

Figure 5 is a partial side elevation showing a pivotal attachment of the yoke to the bail-like members.

Referring more specifically to the drawing, the top frame 11, the vertical members 12, and the ring-shaped internal housing 13 of a conventional steel carboy crate are shown to illustrate the positioning and functioning

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of the combination bottle retainer and handle 14. Where the term "downwardly" is employed the term has reference to the direction toward the base of the carboy crate when the retainer is in holding position. The term "upwardly" has reference to the direction of the top of the carboy crate when the retainer is in the holding position. The material selected herein for the construction of the retainer handle combination 14 is preferably steel rod. A yoke 15 herein shown to be of generally hexagonal configuration is prepared and butt welded of such a size as to fit over the neck 16 of the bottle 17 arranged so as to simultaneously bear at six places upon the upper portion of the bottle. Other shapes of the yoke 15 may as satisfactorily be used, but the indicated hexagonal yoke 15 is a preferred embodiment. Two bail-like members 18 and 19 are provided, also of rod stock, bent so as to form a bonnet superstructure above the bottle neck 16 by parallel planes. The two bail-like members 18 and 19 are similarly positioned and spaced apart from each other by a spacer 20 made from rod stock and welded to the bail-like members 18 and 19 at points 21 and 22 so that the spacing between bail-like members 18 and 19 corresponds to the hexagonal side of the yoke 15. A handle 23 made of pipe or rod of convenient handling diameter maintains the spacing between the bail-like members 18 and 19 and is welded thereto or otherwise fixed at points 24 and 25. It will be noticed that the handle 23 is positioned so as to be offset from the center of the carboy crate to clear the neck 16 of the bottle 17 on the side opposite the pouring opening 26 in the carboy crate. The handle 23 is so positioned that its highest point is somewhat beneath the lower surface of the upper frame member 11, so that when the crates are stacked no interference will occur between the handle 23 and the crate stacked above it. The bail-like members 18 and 19 are welded to the yoke 15 where they meet the yoke 15 on the side nearest the pouring opening 26. Figure 5 shows a modification which permits pivotal mounting of the yoke 15 as by a hollow spacer 20a through which one of the hexagonal sides is passed. The bail-like members 18 and 19 continue down the sides of the bottle 17 and at their terminal ends hooks 28 engage the upper ring-shaped member 13 of the carboy crate as shown in Fig. 3.

Upon the opposite hexagonal side of the yoke 15, as shown in Fig. 3, the yoke 15 is not welded or otherwise attached to the bail-like members 18 and 19 and the spacer 20 is positioned to encounter the bottle 17 beyond the yoke 15. The bail-like members 18 and 19 continue down the sides of the bottle 17 terminating in hooks 28 which do not quite achieve engagement with the ring-shaped member 13 when the oppositely oriented hooks 28 are engaged until the bottle retainer and handle combination 14 is sprung outwardly and downwardly into positive engagement therewith. The bottle retainer and handle combination 14 is preferably formed of steel rod and may be suitably rendered corrosion resistant by a coating of enamel, porcelain, plastic, parkerized finish or the like.

Operation

A carboy crate of the steel rod type with a bottle 17 is employed and the bottle retainer and handle combination 14 is set over the neck 16 of the bottle 17 and the hooks 28 on the forward terminal ends of the bail-like members 18 and 19 are engaged over the ring-shaped upper member 13 of the carboy crate, the fixed or pivotal side of the yoke 15 disposed upon the side of the carboy crate having the pouring opening 26. The other oppositely disposed hooks 28 are forced downward and outwardly by resiliency in the bail-like members 18 and 19 until engagement is effected upon the ring-shaped member 13 of the carboy crate.

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Once attached the bottle retainer and handle combination 14 is securely held against removal by upward tension upon the structure at the handle 23 or pressure by the bottle 17 as when the crate is inverted. The more pressure upward applied to the handle 23 or the bail-like members 18 and 19, the greater the tendency urging the hooks 28 into tighter engagement with the ring-shaped member 13. The bottle retainer and handle combination 14 is so fashioned as not to extend above the frame member 11 of the carboy crate and cannot become disengaged in stacking. The four point engagement of the hooks 28 upon the ring-shaped member 13 prevents impact disengagement and yet the resiliency of the retainer and handle combination 14 permits easy removal for the insertion or removal of the bottle 17. The handle 23 being of convenient handling diameter permits ease of gripping and handling when the crates and bottles are full and is uniquely positioned so as to permit access to the bottle cap and provide a simple pouring means.

In pouring it will be noticed that the only portion of the structure exposed to possible dripping corrosive agents is the yoke 15 which is conveniently back of the neck 16 when the bottle 17 and carboy crate are tipped for pouring.

Various modifications of the described invention will be immediately apparent to persons acquainted with equipment of this type and accordingly, the hereinafter appended claim should be interpreted to cover such modi-

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fications and variations excepting as such claim by its own terms expressly requires otherwise.

I claim:

A handle and bottle retainer combination for use with a wire carboy crate adapted to hold a bottle including: a generally rectangular wire carboy crate; a bottle rested vertically in said crate; a ring-shaped member encircling said bottle below the neck of said bottle and being a part of said crate; a pair of identical bail-like members in substantially parallel planes in spaced relationship to each other and straddling the neck of said bottle; a handle offset from the vertical axis of said bottle and transversely connected to said bail-like members; hooks upon the depending ends of said bail-like members adapted to engage said ring-shaped member of said crate; and a yoke rigidly attached on one side to said bail-like members and extending to encircle the neck of said bottle and bearing against said bail-like members opposite the attachment when said hooks are lockably engaged with said ring-shaped crate member.

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