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BEVERAGE BOTTLE RECEPTACLE

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2 Sheets-Sheet 1

FIG. 1

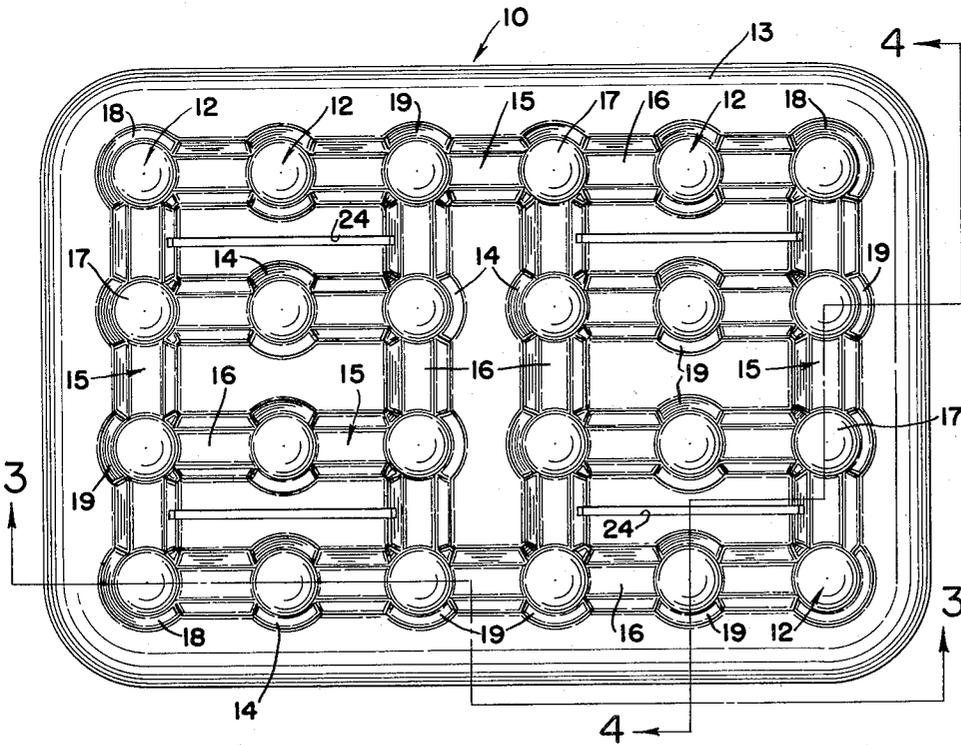
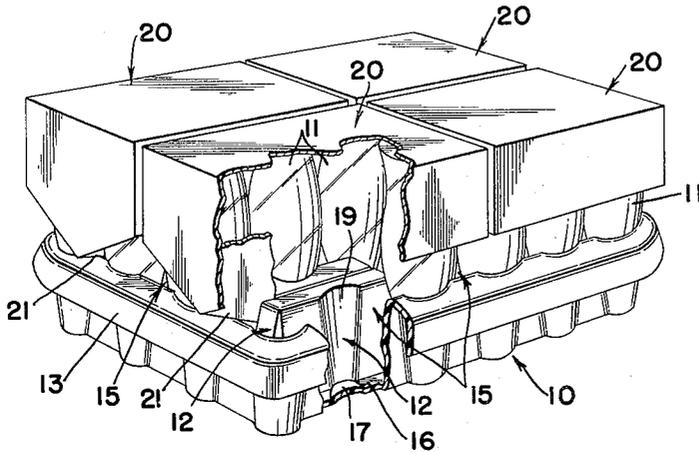


FIG. 2

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**BEVERAGE BOTTLE RECEPTACLE**

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 7 Claims. (Cl. 220-102)

The invention relates generally to receptacles for handling and transporting a plurality of beverage bottles, and more particularly an improved receptacle for transporting a case of beverage bottles, filled or empty, to and from a retail store or place of sale to the consumer.

Common receptacles used for transporting beverage bottles to and from retail stores comprise open wood crates or cases. These wood cases are intended for re-use, and consist of a rectangular wood frame having hand holes and usually a slatted bottom, with partitions of wood or metal forming compartments for either 24 individual bottles or for 4 of the familiar "6-pack" paper cartons to be carried by the customer. Such wood cases have a number of disadvantages including excessive weight, failure to nest, danger from protruding nails and sharp-edge metal reinforcing straps, sharp edges and splinters, tendency to warp, crush or split, and tendency toward bottle breakage due to lack of resilience or too loosely held bottles.

When the wood cases are made to carry four 6-pack cartons, any leakage flows through an entire stack of cases and ruins the paper 6-pack cartons below. Moreover, empty bottles returned without the 6-pack cartons are not individually held, and are apt to rattle and break in transport.

Fiberboard or paperboard cases have been proposed, but these have additional disadvantages including short life and durability, low strength when wet, and lack of stacking strength.

Molded cases of impregnated fiberboard, plastic and metal have also been proposed, but the draw tapers required in molding have precluded snug containment of straight-sided bottles and, to a greater degree, of 6-pack cartons.

It is an object of the present invention to provide a novel plastic beverage bottle receptacle of improved design which will overcome all of the foregoing disadvantages.

The receptacle of the present invention is molded out of suitable material with tapered individual sockets for securely holding the several bottles in inverted position so that conventional 6-pack cartons can be fitted inverted over the bottle bases and provide a flat supporting surface for stacking. The molded material eliminates warping, crushing and splitting, is light in weight and is designed to nest perfectly. Spillage is caught in each receptacle and does not touch the inverted 6-pack cartons, which can be stacked in display four at a time merely by slowly turning the case over.

Other objects of the invention include the provision of a receptacle having means for imparting resilience to the bottle sockets to reduce breakage, channels merging the bottoms of groups of bottle sockets to increase the flat bearing surface on the bottom wall of the receptacle and serving as collecting reservoirs for bottle spillage, and a cushioning handle flange extending continuously around the receptacle.

Further objects include the provision of a novel receptacle which occupies a minimum amount of space in use or nested, which exposes no jagged bottle caps, and which is easily cleaned and presents a good appearance after continued use.

These and other objects are accomplished by the novel and improved receptacle comprising the present invention, a preferred embodiment of which is shown by way of example in the accompanying drawings, and described in

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detail herein. Various modifications and changes in details of construction are comprehended within the scope of the appended claims.

Referring to the drawings:

5 FIG. 1 is a perspective view, partly broken away, of the improved molded receptacle holding four 6-packs of beverage bottles.

FIG. 2 is an enlarged plan view of the empty receptacle.

10 FIG. 3 is a side view, partly in section, as on line 3-3 of FIG. 2, with bottles in place.

10 FIG. 4 is an end view, partly in section, as on line 4-4 of FIG. 2, with bottles in place.

The improved receptacle is indicated as a whole at 10, and is generally rectangular in plan. The receptacle 10 is preferably adapted to hold twenty-four bottles 11 in inverted position and, accordingly, has twenty-four individual tapered sockets 12, one for each bottle. The sockets 12 may be arranged in four rows of six each, as shown in FIG. 2, although other arrangements and a different number of sockets could be used within the scope of the invention. The upper wall of the receptacle has a handle flange 13 curved outwardly and downwardly therefrom, preferably extending continuously around all four sides.

25 The receptacle 10 may be molded out of any suitable synthetic plastic material which will provide sufficient strength and rigidity, for example, Fiberglas-reinforced thermosets, and thermoplastics. The arcuate walls 14 of sockets 12 are formed with a taper to securely and wedgably engage the tapered sides of the bottle necks of various types of beverage bottles, such as indicated at 11, and the amount of taper is such that when molded, the receptacle is easily drawn out of the mold. Moreover, the tapered sockets enable nesting a plurality of receptacles one within the other.

35 The sockets 12 are substantially circular viewed in plan, and groups of the sockets, preferably in longitudinal and lateral rows, are connected by tapered channels 15 having flat bottom walls 16 all in the same plane. These 40 flat bottom walls 16 form a plurality of flat bearing surfaces to facilitate tiering or stacking the receptacles 10 filled with bottles and further serve to collect any bottle spillage when the receptacles are in use. As shown in FIG. 2, the upper and lower horizontal rows of sockets 12 45 and four of the vertical rows are connected to form communicating channels, and the intermediate horizontal rows are similarly connected in groups of threes, but obviously other arrangements of the connecting channels can be provided.

50 The bottom walls 17 of the sockets 12 are upwardly curved or crowned to provide cushioning or resilient supports for the bottles and absorb shocks and impact which might otherwise cause bottle breakage. The walls 17 55 abut the bottle caps of filled bottles and enter slightly into the neck openings of empty bottles. As shown, the channels 15 are preferably narrower at their bottom walls 16 than the bottom walls 17 of the sockets, which necessitates forming arcuate tapered recesses 18 in the corner walls of the channels and recesses 19 in the intermediate 60 walls, to provide the tapered arcuate walls 14 of the sockets 12.

65 Preferably, the number of sockets 12 is a multiple of six, for example, twenty-four, so that 6-pack paper cartons 20 can be applied to the bases of the bottles when positioned in inverted position in the receptacle 10, as shown in the drawings. The cartons 20 may vary somewhat in design for different bottle designs, but are conventionally constructed of paperboard and may have vertical central handle flanges 21 with hand holes 22 therein to facilitate carrying from a store by the customer. As best shown in FIGS. 2 and 4, the top wall of the receptacle 10 is provided between certain longitudinal rows of sockets 12

with longitudinal slots 24 to receive the carton handle flanges 21.

Due to the taper of the sockets 12, the necks of bottles 11 are wedgably secured therein in inverted position, and the overall height of the receptacle can be kept to a minimum, which, together with the ability of the receptacles to nest, allows stacking the empty receptacles in a minimum amount of vertical space.

When filled and capped bottles are inserted in inverted position into the individual sockets, they are securely held for transporting without rattling or breaking, and the 6-pack cartons can be quickly applied over the bases of the bottles. The bottoms of the inverted 6-pack cartons form a broad bearing support for the bottom of a receptacle stacked above. Moreover, each receptacle catches any leakage or spillage from bottles therein below the position of the 6-pack cartons, so that they are never affected by such leakage.

The 6-pack cartons can be quickly unloaded and stacked in display four at a time and placed in position on a shelf, or the like, merely by placing the receptacle 10 on its side and slowly turning it over to place the cartons right side up and removing the receptacle. When empty bottles are returned without the 6-pack carton, they can be inserted upside down in the individual sockets of the receptacle and are securely held therein.

The handle flange 13 is accessible from all sides of the receptacle, and provides cushioning from side blows as well as extra strength around the periphery of the receptacle.

The improved receptacle is light in weight, durable, occupies a minimum amount of space, covers and protects from contact with jagged bottle caps, and does not crush or splinter in use.

What is claimed is:

1. A molded integral beverage bottle receptacle having a plurality of tapered sockets adapted for wedgably securing individual bottles in inverted position with their bases exposed, an outwardly down-turned integral handle flange extending continuously around said container, and channels connecting groups of said sockets to form flat outer bearing surfaces on the bottom of said receptacle and serving as collecting reservoirs for bottle spillage.

2. A molded integral beverage bottle receptacle having a plurality of tapered sockets adapted for wedgably securing individual bottles in inverted position with their bases exposed, each socket having an upwardly curved bottom wall to resiliently engage a bottle top secured therein, and channels connecting groups of said sockets having flat bottom walls forming flat outer bearing surfaces and serving as collecting reservoirs for bottle spillages.

3. A molded integral beverage bottle receptacle having a plurality of tapered sockets adapted for wedgably securing individual bottles in inverted position with their bases exposed, each socket having an upwardly curved

bottom wall to resiliently engage a bottle top secured therein, channels connecting groups of said sockets having flat bottom walls forming flat outer bearing surfaces and serving as collecting reservoirs for bottle spillages, and an outwardly downturned integral handle flange on the outer periphery of said container.

4. A molded beverage bottle receptacle having a multiple of six tapered sockets adapted for wedgably securing individual bottles and bottles within 6-pack cartons in inverted position with the bases of said individual bottles and said 6-pack cartons exposed, said receptacle having slots midway between parallel groups of three sockets each for receiving the handles of said 6-pack cartons fitting over said bottle bases, and a downturned handle flange extending from the periphery of said receptacle.

5. A molded beverage bottle receptacle having a multiple of six tapered sockets adapted for wedgably securing individual bottles and bottles within 6-pack cartons in inverted position with the bases of said individual bottles and said 6-pack cartons exposed, said receptacle having slots midway between parallel groups of three sockets each for receiving the handles of said 6-pack cartons fitting over said bottle bases, a downturned handle flange extending from the periphery of said receptacle, and channels connecting groups of said sockets having flat bottom walls forming flat outer bearing surfaces.

6. A molded beverage bottle receptacle having a multiple of six tapered sockets adapted for wedgably securing individual bottles in inverted position with their bases exposed, said receptacle having slots midway between parallel groups of three sockets each for receiving the handles of said 6-pack cartons fitting over said bottle bases, and a downturned handle flange extending from the periphery of said receptacle, each socket having an upwardly curved bottom wall to resiliently engage a bottle top secured therein.

7. A molded beverage bottle receptacle having a multiple of six tapered sockets adapted for wedgably securing individual bottles in inverted position with their bases exposed, said receptacle having slots midway between parallel groups of three sockets each for receiving the handles of said 6-pack cartons fitting over said bottle bases, a downturned handle flange extending from the periphery of said receptacle, and channels connecting groups of said sockets having flat bottom walls forming flat outer bearing surfaces, each socket having an upwardly curved bottom wall to resiliently engage a bottle top secured therein.

References Cited in the file of this patent

UNITED STATES PATENTS

616,737	Schuster -----	Dec. 27, 1898
1,086,859	Roberts -----	Feb. 10, 1914
2,743,030	Read -----	Apr. 24, 1956