

May 8, 1945.

H. L. CHAPMAN

2,375,467

BOTTLE CASE

Filed Jan. 17, 1942

2 Sheets-Sheet 1

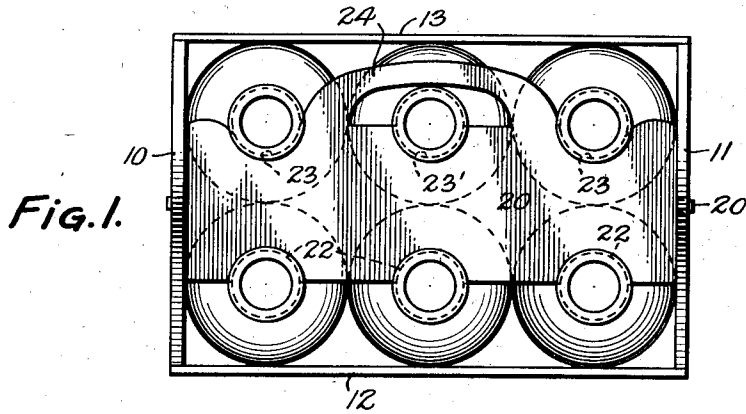


Fig. 1.

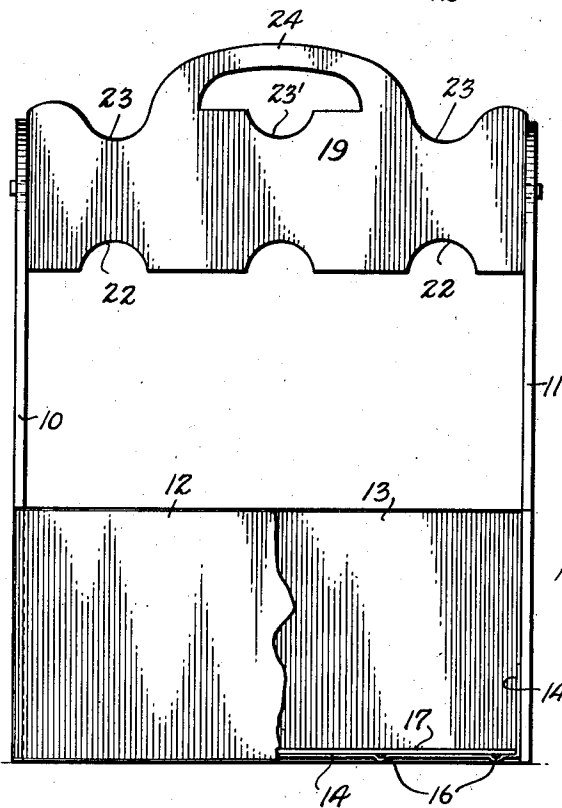


Fig. 2.

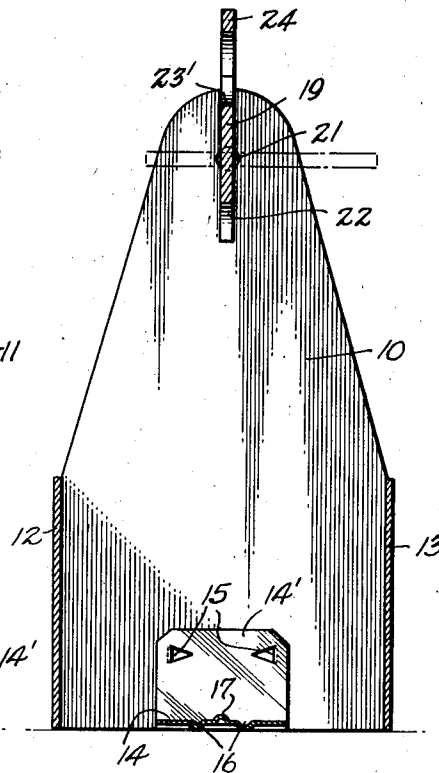


Fig. 3.

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2 Sheets-Sheet 2

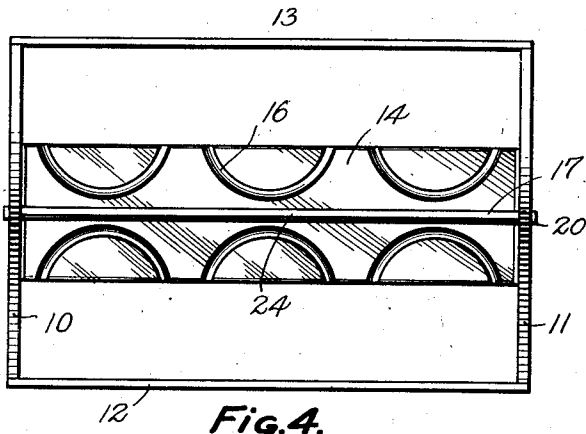


Fig. 4.

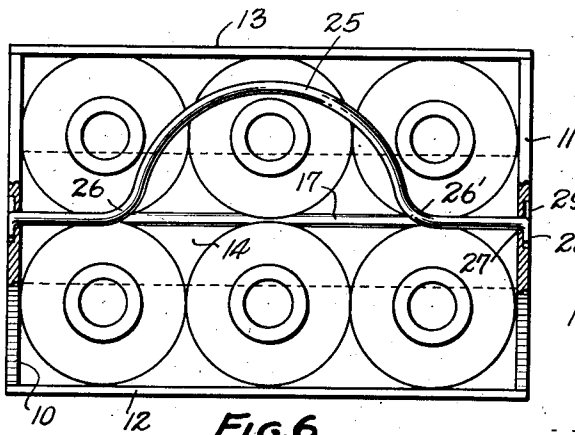


Fig. 6.

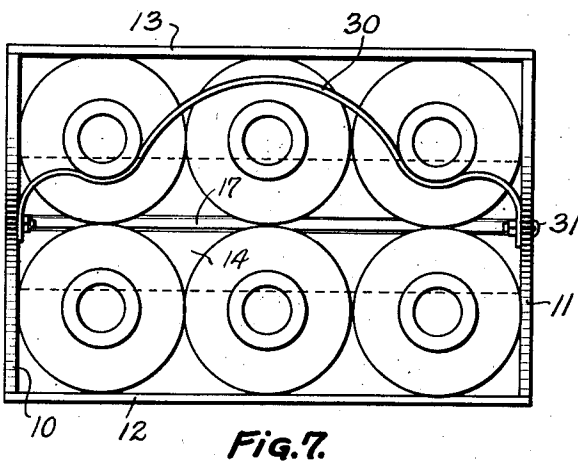


Fig. 7.

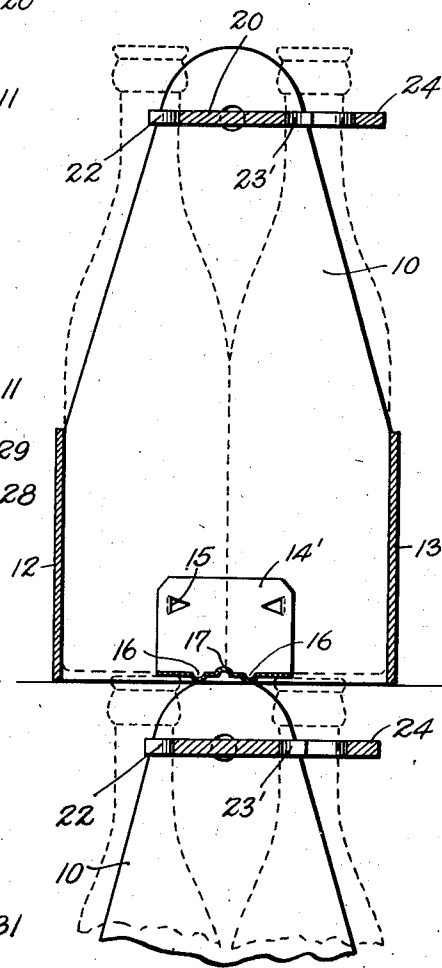


Fig. 5.

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# UNITED STATES PATENT OFFICE

2,375,467

## BOTTLE CASE

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Application January 17, 1942, Serial No. 427,165

11 Claims. (Cl. 224-48)

This invention relates to cases or carriers for bottles and analogous shaped objects, particularly cases of that type used for shipping and re-tailing beverages in lots of half-dozen, more or less, and as a convenient means for carrying the bottles.

An object of the invention is to provide a case of the type specified which will serve as a convenient carrying means and which at the same time may be packed in lots in compact form for storage and/or shipment with the bottles held in stable condition against contact and consequent rattling and danger of breakage. More specifically, the invention contemplates a carrying case for bottles having a handle which will fold down and at the same time grip the necks of the bottles and hold the latter firmly in upright position, and in conjunction therewith, the bottom of the case is provided with means for supporting the bottles in a manner such as to permit any number of cases to be stacked compactly with a minimum of danger of breakage.

Another object of the invention is to provide a shipping and carrying case for bottles which may be readily manufactured from a variety of materials, or is not restricted in its manufacture to materials which may not be available in certain localities or due to economic conditions generally.

Additional objects include simplicity, low cost manufacture and to generally improve cases of this type.

The foregoing objects and advantages of the invention will become apparent in view of the following description taken in conjunction with the drawings, wherein:

Figure 1 is a plan view of a case or container in accordance with the invention, the case being loaded with bottles and the handle of the case being folded down in bottle-gripping position;

Fig. 2 is a view in side elevation of the case empty and with the lower part of the case broken away in part to illustrate the bottom supporting member;

Fig. 3 is a transverse section of Fig. 2;

Fig. 4 is a plan view of the case of Figs. 1 and 2 empty and with the handle removed to better illustrate the bottom supporting member;

Fig. 5 is a view in transverse section of a plurality of loaded cases in stacked condition;

Figs. 6 and 7 are views similar to Fig. 1 illustrating modified forms of handles for the case.

Referring to the drawings in detail, the case or container comprises end frame members 10

and 11 and side frame members 12 and 13, these end and side members being joined at their marginal edges by any suitable means, such as small nails or tacks to define a receptacle for the bottles.

The weight of the bottles is taken primarily by a bottom member 14 in the form of a strip of relatively thin preferably but not necessarily deformable material such as sheet metal having its opposite ends bent upwardly to provide attaching brackets 14' having triangular shaped lugs 15 punched therefrom with the pointed end of the triangle embedded in the adjacent end walls 10 or 11 of the container, note the triangular opening in Fig. 3 defined by these punched out attaching lugs. By referring to Fig. 4 it will be noted that the bottom strip 14 is formed with a series of semi-circular recesses or depressions 16 shaped to receive the bottom bead usually present on a beverage bottle, these recesses being separated by a longitudinal strengthening and spacing bead 17. When the bottles are disposed in the container with the bottom bead of each bottle in registration with the recesses 16, the tops of the bottles lie in a horizontal plane substantially flush with the top edges of the end frame members 10 and 11, note Figure 5. When loaded cases are stacked one upon the other, the tops of the bottles of the bottom case project within the areas defined by the recesses 16 of the supporting strip 14 of the upper case, permitting the bottom edges of the end frames 10 and 11 of the top case to rest directly on the upper edges of the end walls of the bottom case and take the burden of the weight but with the bottles taking part of the weight and at the same time forming a support for maintaining the cases in stacked position.

The handle of the case is constructed in a manner such as to not only coact with the bottom strip 14 and facilitate stacking but to also engage the necks of the bottles and hold the latter firmly in upright position. In its preferred form as shown in Figs. 1 to 5 inclusive, the handle member comprises a flat strip of material 19 formed with pivots 20 at its opposite ends adapted to engage in openings 21 when the upper extremities of the end frame members 10 and 11 are sprung outwardly. The opposite edges of the strip 19 are formed with recesses 22 and 23, 23' adapted to engage the necks of the bottles when the strip 20 is turned to a substantially horizontal position as indicated in Figs. 1 and 5. The central portion of the strip has its one edge extended in the form of a handle 24, the recess

23' forming part of the opening which defines the handle.

If reference is had to Fig. 1 in conjunction with Fig. 5, it will be noted that when the strip 20 is folded down, or rotated to a substantially horizontal position, the recesses 22 and 23, 23' engage the necks of the bottles and in effect clamp the latter against displacement. This is the position of the handle during shipping or storage. The carrying position is illustrated in Figs. 2 and 3. When the handle is down, it also permits the cases to be stacked one upon the other as illustrated in Fig. 5.

The case may be made from a variety of materials. In the event the cases are of a disposable carton, or are not meant to be returned to the local dealer, they may be made of cardboard. On the other hand, if a deposit is to be taken on the container and the latter is to be used over and over again, then the material should be such as to withstand sterilization without damage. If metal is not available, suitable composition may be used, the parts being capable of molding in quantities and thereafter assembled in a simple and easy manner. Wood may also be used and has been found satisfactory but should be treated to render it non-absorbent. If sheet metal is available, the parts may be readily stamped and then assembled. When the attaching means for the bottom strip 14 consists of the out-struck lugs 16 as shown in Fig. 3, then the end members should be made of wood or other material capable of receiving these lugs.

Fig. 6 shows a handle 25 which may be made of wire and is shaped to provide portions 26 and 26' coacting with the handle proper to engage the necks of the bottles when the handle is turned downwardly, the handle portion engaging the center bottle. While in this instance only part of the bottles are fully engaged by the handle, yet there is a general wedging or clamping action which tends to maintain all the bottles in stable position. The opposite ends of the handle project through openings 27 and are turned or bent at right angles to provide lugs 28 which rotate in recess or enlargements 29 of the pivot openings 27.

In Fig. 7 the handle 30 is made of a piece of flat spring steel which may be readily bent or deformed when the handle is turned down so that it in effect wraps itself around the necks of the bottles and holds the latter in stable position. Here again, while only part of the bottles are actually engaged, yet there is a definite clamping action which prevents the displacement of the bottles. The ends of the wire handle 30 may be formed with holes and pivoted on suitable studs or screws 31.

It will be understood that certain minor changes in construction and design may be adapted without departing from the spirit or scope of the invention as defined by the appending claims.

What is claimed is:

1. A container or case for bottles and analogous shaped objects, comprising bottom, side and end frame members defining a receptacle for a plurality of upright bottles arranged in two substantially parallel rows, a flat strip of material pivotally connected to and between the upper extremities of the container at the level of the bottle necks and swingable about its pivots from an upright carrying position to a substantially horizontal position, said strip having recesses formed in the opposite edges thereof adapted to engage the necks of the bottles when the strip

is swung to substantially horizontal position and to hold the bottles against rattling and displacement in the case, said strip being formed with a cut-out portion defining a handle grip portion to facilitate carrying the case when the handle member is swung to the position with said portion uppermost.

2. A container or case for bottles and analogous shaped objects, comprising bottom, side and end frame members defining a receptacle for a plurality of upright bottles arranged in two parallel rows, said end frame members projecting upwardly and terminating at the upper extremity of the case, an elongated handle member pivotally connected at the level of the bottle necks at its opposite ends to and extending between the upper extremities of said end frame members and lying between said rows of bottles, said handle member comprising a flat strip of material swingable about its pivots from an upright carrying position to a substantially horizontal position, said strip being formed with recesses in predetermined spaced relation in opposite edges thereof adapted to register with the necks of the bottles when the handle member is turned to the substantially horizontal position and to hold the bottles against rattling and displacement in the case, one edge of said strip being extended and formed with an enlarged opening to provide a handle grip portion to facilitate carrying the case when the handle member is swung to the upright position with said edge uppermost.

3. A container or case for bottles and analogous shaped objects comprising frame members defining a receptacle for a plurality of upright bottles arranged in two substantially parallel rows, a handle having each end pivotally connected to and between upper extremities of the container at the level of the bottle necks and between said rows of bottles, said handle adapted to be swung about its pivots from an upright carrying position to a substantially horizontal position, said handle comprising a strip of relatively thin flexible material deformable to engage the necks of the bottles when the handle is swung to its substantially horizontal position and to hold the bottles against rattling and displacement in the case.

4. A container or case for bottles or analogous shaped objects comprising frame members defining a receptacle for a plurality of bottles arranged in two substantially parallel rows, a handle pivotally connected to and between the upper extremities of the container at the level of the bottle necks and between said rows of bottles, said handle adapted to be swung about its pivots from an upright carrying position to a substantially horizontal position, said handle being formed of a strip of flat spring steel adapted when swung to its substantially horizontal position to be deformed and engage the necks of one row of bottles and hold the bottles against rattling and displacement in the case.

5. A case for bottles having reduced neck portions, comprising side and end walls and a bottom wall, said bottom wall being formed with two parallel series of recesses, each recess adapted to receive the bottom of a bottle and position bottles placed in the case in two substantially parallel rows, said bottom wall being substantially flush with the bottom of the case, a handle pivotally connected to the upper extremities of the end walls and swingable about its pivots from an upright carrying position to a substantially horizontal position, the pivotal axis of the handle

being located in substantially horizontal alignment with the reduced neck portions of the bottles and midway between two rows of bottles positioned in the case, said handle lying between said bottles and being provided with edge portions curved in a manner such that when the handle is turned to the substantially horizontal position it engages the neck portions of certain of the bottles and exerts a pressure thereagainst and holds the bottles in stable position in the case, said recesses in said bottom wall being of a depth such as will cause the tops of the bottles to lie in a horizontal plane substantially flush with the tops of said end walls so that in the event one case is stacked upon another, with the handle of the lower case in the horizontal position the load is taken by both the bottles and the case.

6. A container or case for bottles and analogous shaped objects having reduced neck portions and bottom beads, comprising a frame including a bottom supporting member formed with depressions in its top surface receiving the bottom beads of bottles in the case and recesses centrally of said depressions in its under surface receiving the tops of bottles in another case on which the instant case may be stacked, end frame members extending for substantially the full height of the case, a handle pivotally connected to the upper extremities of said end frame members and swingable about its pivots from an upright carrying position to a substantially horizontal stacking position, the pivotal points of the handle being located on an axis in a horizontal plane lying within the region of the necks of the bottles, said handle being of a size and configuration to engage the necks of the bottles when it is turned to the substantially horizontal position and to hold the bottles stable in the case, the under surface of said bottom supporting member being substantially flush with the bottom of the case and said depressions in said supporting member being of a depth such as will cause the tops of the bottles in the case to lie in a horizontal plane substantially flush with the top of the case and whereby when one loaded case is stacked upon another the weight of the superimposed case is substantially equally imposed on the frame of the case on which it rests and the bottles therein when the handle of the lower case is in its substantially horizontal position.

7. A container or case for bottles and analogous shaped objects having reduced neck portions and bottom projections and recesses, comprising a frame including a bottom supporting member formed with depressions in its top surface receiving the bottom projections of the bottles in the case and recesses in its under surface receiving the tops of bottles in another case on which the instant case may be stacked, oppositely disposed upwardly projecting frame members extending for substantially the full height of the case, a handle pivotally connected to the upper extremities of said latter frame members and swingable about its pivots from an upright carrying position to a substantially horizontal stacking position, the pivotal points of the handle being located on a horizontal axis within the region of the necks of the bottles, said handle being of a size and configuration to engage the necks of the bottles when it is turned to the substantially horizontal position and to hold the bottles stable in the case, the under surface of said bottom-supporting member being substantially flush with the bottom of the case and said

depressions in said supporting member being of a depth such as will cause the tops of the bottles in the case to lie in a horizontal plane substantially flush with the tops of said oppositely-disposed frame members and whereby when one loaded case is stacked upon another the weight of the superimposed case is substantially equally imposed on the frame of the case on which it rests and the bottles therein when the handle of the lower case is in its substantially horizontal position.

8. A container or case for two substantially parallel rows of bottles and analogous shaped objects having reduced neck portions and bottom beads, comprising a frame including a bottom-supporting member formed with rows of depressions in its top surface receiving the bottom beads of the two rows of bottles in the case and recesses centrally of said depressions in its under surface receiving the tops of bottles in another case on which the instant case may be stacked, oppositely-disposed upwardly-projecting frame members extending for substantially the full height of the case, a handle pivotally connected to the upper extremities of said latter frame members, the pivotal points of the handle being located centrally of the oppositely disposed upwardly extending frame members on a horizontal axis between the two rows of bottles and within the region of the necks of the bottles, said handle swingable about its pivots from an upright carrying position to a substantially horizontal stacking position, said handle being of a size and configuration such that when it is turned to the substantially horizontal position it engages between the two rows of bottle necks in the case and exerts pressure on said necks and holds the bottles stable in the case, the under surface of said bottom-supporting member being substantially flush with the bottom of the case and said depressions in said supporting member being of a depth such as will cause the tops of the bottles in the case to lie in a horizontal plane substantially flush with the top of the frame and whereby when one loaded case is stacked upon another the weight of the superimposed case is substantially equally imposed on the frame of the case on which it rests and the bottles therein when the handle of the lower case is in the substantially horizontal position.

9. A container or case for bottles and analogous-shaped objects comprising a bottom frame member and upwardly projecting substantially oppositely disposed side and end frame members defining a receptacle for a plurality of bottles arranged in two substantially parallel rows, a handle pivotally connected to and between the upper extremities of said end frame members, said handle swingable about its pivots from an upright carrying position to a substantially horizontal position, the pivotal points of said handle lying in a horizontal plane within the region of and between the necks of the bottles, said handle being shaped in a manner such as to pass between the necks of certain of the bottles and exert pressure on said necks and hold the bottles stable in the case, said handle when in an upright position lying in a plane substantially intermediate the two rows of bottles.

10. A container or case for bottles and analogous-shaped objects, comprising a bottom member and upwardly projecting side and end frame members defining a receptacle for the bottles, a handle in the form of a flat strip of material pivotally connected to and between said end

frame members, said handle strip being swingable about its pivots from an upright carrying position to a substantially horizontal position, the pivotal points of the handle lying in a horizontal plane within the region of the necks of the bottles, said handle having a series of recesses formed in the opposite edges thereof arranged to frictionally engage the necks of the bottles when the handle is turned to the substantially horizontal position and to hold the bottles against rattling and displacement in the case.

11. A container or case for bottles and analogous-shaped objects comprising a bottom-supporting member and upwardly-extending side

and end frame members defining a receptacle for the bottles, a bottle-engaging member pivotally connected to and between said end frame members, said engaging member being swingable about its pivots from an upright position where it is adapted for use as a handle to a substantially horizontal position and so constructed that when it is swung to its substantially horizontal position, it engages between the upper extremities of two or more of the bottles and holds the bottles against rattling and displacement in the case.

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