April 16, 1935. F. C. STEGMAN 1,998,147

BOTTLE CARTON

Filed July 9, 1934

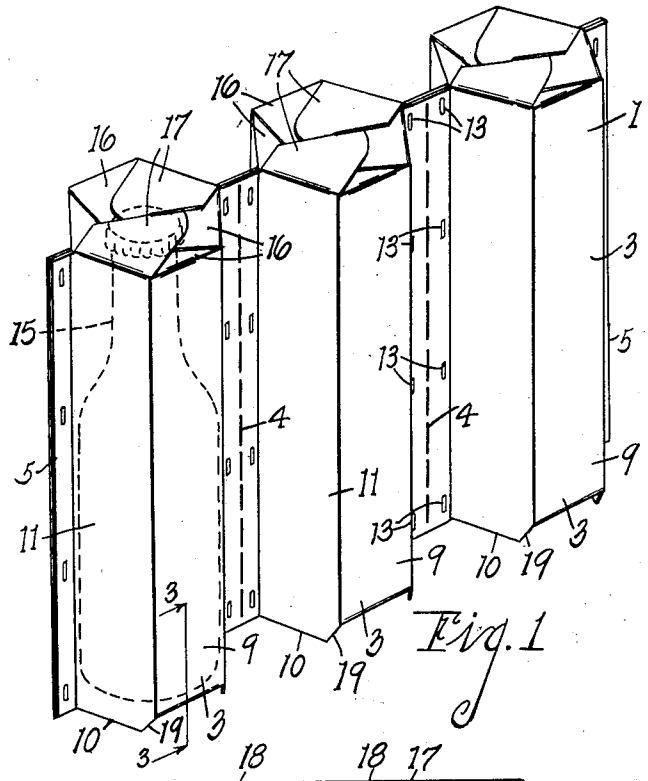


Fig. 1

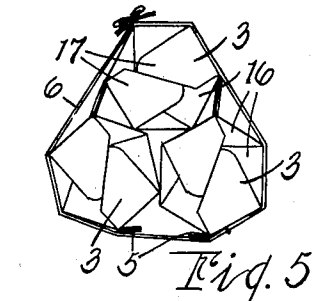


Fig. 5

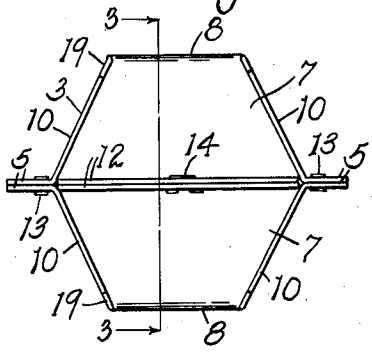


Fig. 2

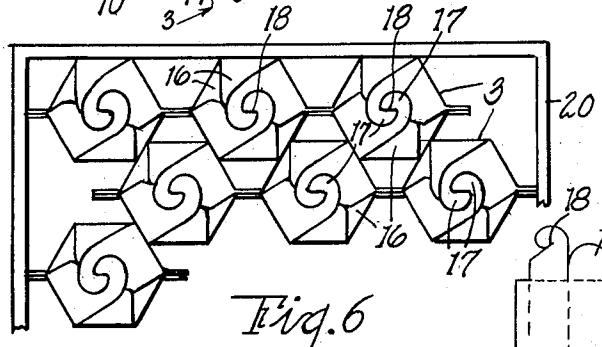


Fig. 6

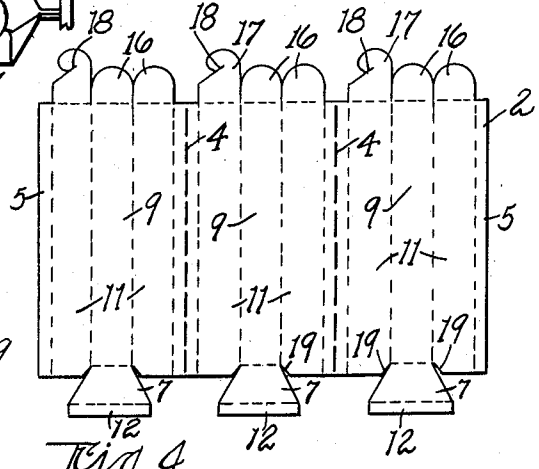


Fig. 4

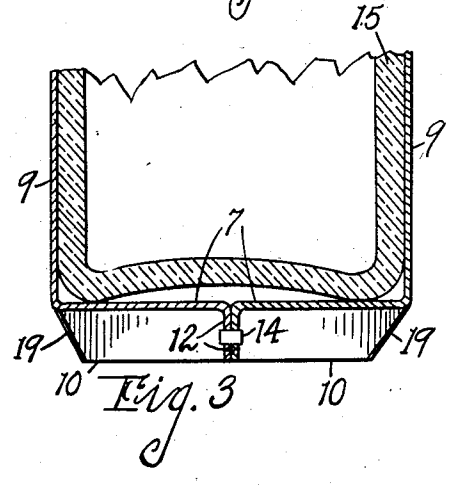


Fig. 3

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UNITED STATES PATENT OFFICE

1,998,147

BOTTLE CARTON

Frank C. Stegman, Mishawaka, Ind.

Application July 9, 1934, Serial No. 734,351

10 Claims. (Cl. 229—23)

The main objects of this invention are:

First, to provide an improved bottle carton of the type disclosed by my Patent No. 1,035,258, dated August 13, 1912, for a box or package.

Second, to provide a bottle carton which is well adapted for retail trade providing a compact and secure package.

Third, to provide in a bottle carton consisting of a longitudinal series of vertical hexagonal individual bottle-receiving cells with a shock absorbing support at the bottom of the cells for preventing damage or breakage to the bottles.

Fourth, to provide a bottle carton of this type which is simple and economical in its parts, the arrangement being such that each cell is in itself a complete structural unit even when separated from the other cells of the series.

Objects relating to details and economies of my invention will appear from the description to follow. The invention is defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is illustrated in the accompanying drawing, in which:

Fig. 1 is a perspective view of a bottle carton embodying the features of my invention, the bottle in the first cell being indicated by dotted lines.

Fig. 2 is a bottom plan view of a cell separated from the other cells of the series.

Fig. 3 is an enlarged fragmentary vertical transverse section on a line corresponding to line 3—3 of Figs. 1 and 2.

Fig. 4 is a plan view of one of the blanks in the flat.

Fig. 5 is a top plan view of the carton of three cells rolled together to form a compact bundle or package.

Fig. 6 is a fragmentary top plan view of a plurality of my cartons arranged in a case.

As shown in the drawing, 1 in general is a carton consisting of a pair of duplicate blanks 2 cut, scored, connected and set up to provide a longitudinal series of vertical hexagonal individual bottle-receiving cells 3. The blanks have vertical weakened lines 4 between the cells facilitating their separation and leaving when separated vertical laterally projecting flanges 5 at opposite angles of the cells. The flanges provide connections facilitating the rolling of the cells into a compact bundle or package as illustrated by Fig. 5, the cells being held in rolled relation by the cord 6. I have illustrated units of three cells each, but in practice each unit will preferably comprise at least six cells.

I cut and score the blanks 2 at their lower portions to provide semi-hexagonal half bottom panels 7, 7 folded inwardly at 8, 8 from opposite side walls 9, 9 of the cells in vertically spaced relation to the lower ends 10 of the other side walls 11. The bottom panels 7 have at their inner edges downturned bottom flanges 12, 12 extending between the vertical flanges 5 and providing therewith and with the lower ends 10 of the other walls a shock-absorbing support for the bottom of the cell which is in elevated position relative thereto. The lower edges of the walls are beveled at 19 to prevent the bottom panels from binding as they are folded inwardly.

The vertical and bottom flanges respectively of the cells are connected together with staples 13 and 14 so that each cell is in itself a complete structural unit even when separated from the other cells of the series.

After the bottles 15 (for example, bottles of beer or other beverages) are inserted in the cells 3, the closure flaps 16 and 17 are folded inwardly in overlapping relation to close the cells, the interlocking notches 18 on the flaps 17 being engaged to hold the flaps in place. Thus, a neat package is provided for the bottles, the carton preferably consisting of paper, box board or the like. If desired, the exterior of the carton is left plain to conceal the nature of the contents of the bottles.

In Fig. 6 I have shown a plurality of my cartons in a case 20 with the cells in nested relation, the arrangement being such that the bottles are separated from each other by the walls of the cells. This prevents breakage of the bottles in handling the case 20 in shipment.

While I have illustrated staples as the securing means, it will of course be understood that other securing means may be employed, such as glue or other suitable means.

It is to be understood that I show a carton consisting of three cells in series merely by way of example, inasmuch as the series may consist of any desired number of cells. Further, while my bottle carton is particularly designed by me for packaging beverages, it is of course not limited to bottles of any particular shape nor to the contents thereof. The shape of the cells may be made to conform with the shape of the bottles to be packaged.

I have illustrated and described my improvements in an embodiment which I have found very practical. I have not attempted to illustrate or describe other embodiments or adaptations, as it is believed this disclosure will enable

those skilled in the art to embody or adapt my improvements as may be desired.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a bottle carton of the class described, the combination of a pair of duplicate blanks cut, scored, connected and set up to provide a longitudinal series of vertical hexagonal individual bottle-receiving cells, the blanks having vertical weakened lines between the cells facilitating their separation and leaving when separated vertical laterally-projecting flanges at opposite angles of the cells, the lower portions of said blanks being cut and scored to provide semi-hexagonal half bottom panels folded inwardly from opposite side walls of the cells in vertically spaced relation to the lower ends of the other side walls, the edges of the walls adjacent said panels being bevelled to prevent binding of the panels as they are folded inwardly, said bottom panels having at their inner edges downturned bottom flanges extending between said vertical flanges and providing therewith and with the lower ends of the other walls a shock absorbing support for the bottom of the cell which is in elevated position relative thereto, and means connecting the vertical and bottom flanges respectively of the cells so that each cell is in itself a complete structural unit even when separated from the other cells of the series.

2. In a bottle carton of the class described, the combination of a pair of duplicate blanks cut, scored, connected and set up to provide a longitudinal series of vertical hexagonal individual bottle-receiving cells, the blanks having vertical weakened lines between the cells facilitating their separation and leaving when separated vertical laterally-projecting flanges at opposite angles of the cells, the lower portions of said blanks being cut and scored to provide semi-hexagonal half bottom panels folded inwardly from opposite side walls of the cells in vertically spaced relation to the lower ends of the other side walls, said bottom panels having at their inner edges downturned bottom flanges extending between said vertical flanges and providing therewith and with the lower ends of the other walls a shock absorbing support for the bottom of the cell which is in elevated position relative thereto, and means connecting the vertical and bottom flanges respectively of the cells so that each cell is in itself a complete structural unit even when separated from the other cells of the series.

3. In a bottle carton of the class described, the combination of a pair of duplicate blanks cut, scored, connected and set up to provide a longitudinal series of vertical hexagonal individual bottle-receiving cells, the blanks having vertical weakened lines between the cells facilitating their separation and leaving when separated vertical laterally-projecting flanges at opposite angles of the cells, the lower portions of said blanks being cut and scored to provide semi-hexagonal half bottom panels folded inwardly from opposite side walls of the cells in vertically spaced relation to the lower ends of the other side walls, said bottom panels having at their inner edges downturned bottom flanges, and staples connecting the vertical and bottom flanges respectively of the cells so that each cell is in itself a complete structural unit even when separated from the other cells of the series.

4. In a bottle carton of the class described, the combination of a longitudinal series of vertical hexagonal individual bottle-receiving cells, vertical weakened lines between the cells facilitating their separation and leaving when separated vertical laterally-projecting flanges at opposite angles of the cells, semi-hexagonal half bottom panels folded inwardly from opposite side walls of the cells in vertically spaced relation to the lower ends of the other side walls, said bottom panels having at their inner edges downturned bottom flanges extending between said vertical flanges and providing therewith and with the lower ends of the other walls a shock absorbing support for the bottom of the cell which is in elevated position relative thereto, and means connecting the vertical and bottom flanges respectively of the cells so that each cell is in itself a complete structural unit even when separated from the other cells of the series.

5. In a bottle carton of the class described, the combination of a longitudinal series of vertical hexagonal individual bottle-receiving cells, vertical weakened lines between the cells facilitating their separation and leaving when separated vertical laterally-projecting flanges at opposite angles of the cells, semi-hexagonal half bottom panels folded inwardly from opposite side walls of the cells in vertically-spaced relation to the lower ends of the other side walls, said bottom panels having at their inner edges downturned bottom flanges, and means connecting the vertical and bottom flanges respectively.

6. In a bottle carton of the class described, the combination of a longitudinal series of vertical individual bottle-receiving cells, vertical weakened lines between the cells facilitating their separation and leaving when separated vertical laterally-projecting flanges, half bottom panels folded inwardly from opposite side walls of the cells in vertically-spaced relation to the lower ends of the other side walls, said bottom panels having at their inner edges downturned bottom flanges, and means connecting the vertical and bottom flanges respectively.

7. In a bottle carton of the class described, the combination of a vertical hexagonal individual bottle-receiving cell, vertical laterally-projecting flanges at opposite angles of the cell, semi-hexagonal half bottom panels folded inwardly from opposite side walls of the cell in vertically-spaced relation to the lower ends of the other side walls, said bottom panels having at their inner edges downturned bottom flanges extending between said vertical flanges and providing therewith and with the lower ends of the other walls a shock absorbing support for the bottom of the cell which is in elevated position relative thereto, and means connecting the vertical and bottom flanges respectively of the cell to provide a complete structural unit.

8. In a bottle carton of the class described, the combination of a vertical individual bottle-receiving cell, vertical laterally-projecting flanges at opposite angles of the cell, half bottom panels folded inwardly from opposite side walls of the cell in vertically-spaced relation to the lower ends of the other side walls, said bottom panels having at their inner edges downturned bottom flanges, and staples connecting the vertical and bottom flanges respectively of the cell to provide a complete structural unit.

9. In a bottle carton of the class described, the combination of a vertical individual bottle-receiving cell, half bottom panels folded inwardly from opposite side walls of the cell in vertically-

spaced relation to the lower ends of the other side walls, said bottom panels having at their inner edges downturned bottom flanges, and staples connecting the bottom flanges of the cell.

10. In a bottle carton of the class described, the combination of a vertical individual bottle-receiving cell, bottom panels folded inwardly from opposite side walls of the cell in vertically-spaced relation to the lower ends of the other side walls, said bottom panels having flanges at their inner edges, and means connecting the flanges of the cell.

FRANK C. STEGMAN.