United States Patent

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[54] **FOLDING DISPLAY RECEPTACLE**
4 Claims, 6 Drawing Figs.

[52] **U.S. Cl.** ..... **206/45.14,** 206/45.19, 206/46 FR, 229/14 R, 229/14 C, 229/23 R
[51] **Int. Cl.** **B65d 5/50**
[50] **Field of Search** ..... 206/45.14, 45.19, 45.31, 46 FR; 229/14 R, 14 C, 23 R, 23 A, 34 HW

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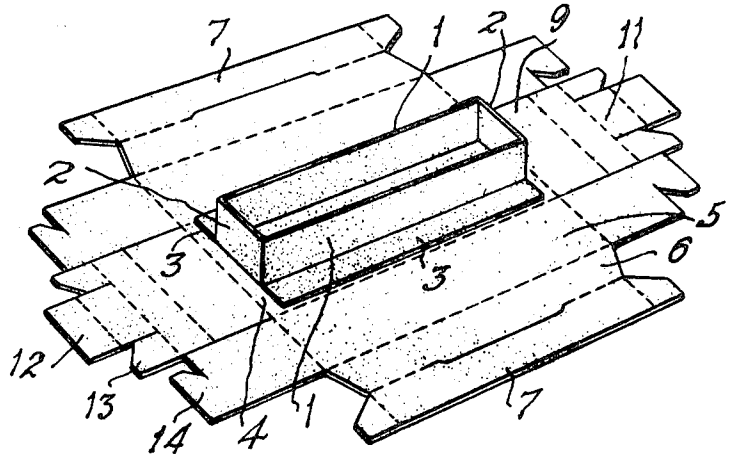
ABSTRACT: A folding paper receptacle for displaying an article comprises a blank composed of a plurality of connected sections one of which forms the bottom wall of the receptacle on which is set a reinforcing frame that has fixedly connected side and end panels of such dimensions as to provide a space between them of a length and width approximately corresponding to the length and width of said article. The other sections form the side and end walls and are folded upwardly from said bottom wall and inwardly over the corresponding side panels and end panels of said frame providing each sidewall and each end wall with an inner portion and an outer portion inside and outside the corresponding panel of said frame and connected by a top portion providing an opening for display of the article and said sidewalls and end walls are formed to interlock for enclosing and holding said walls and frame against relative displacement.



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SHEET 1 OF 2

Fig. 2

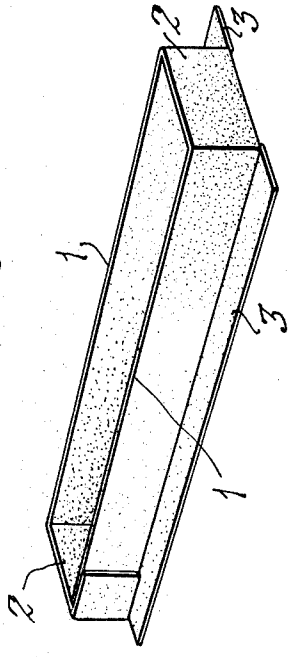


Fig. 3

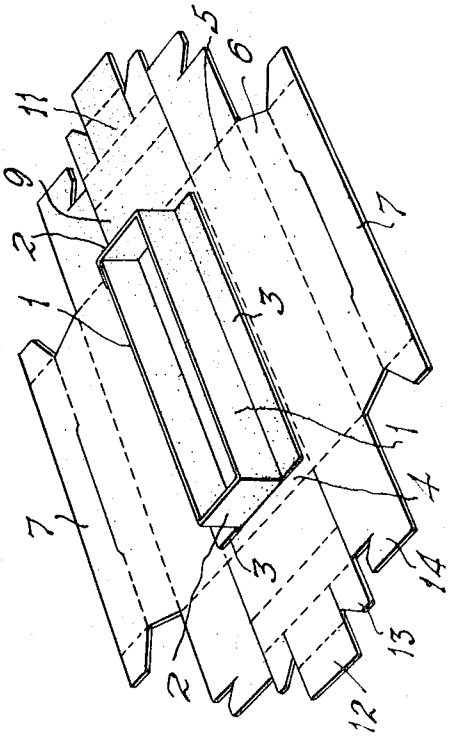
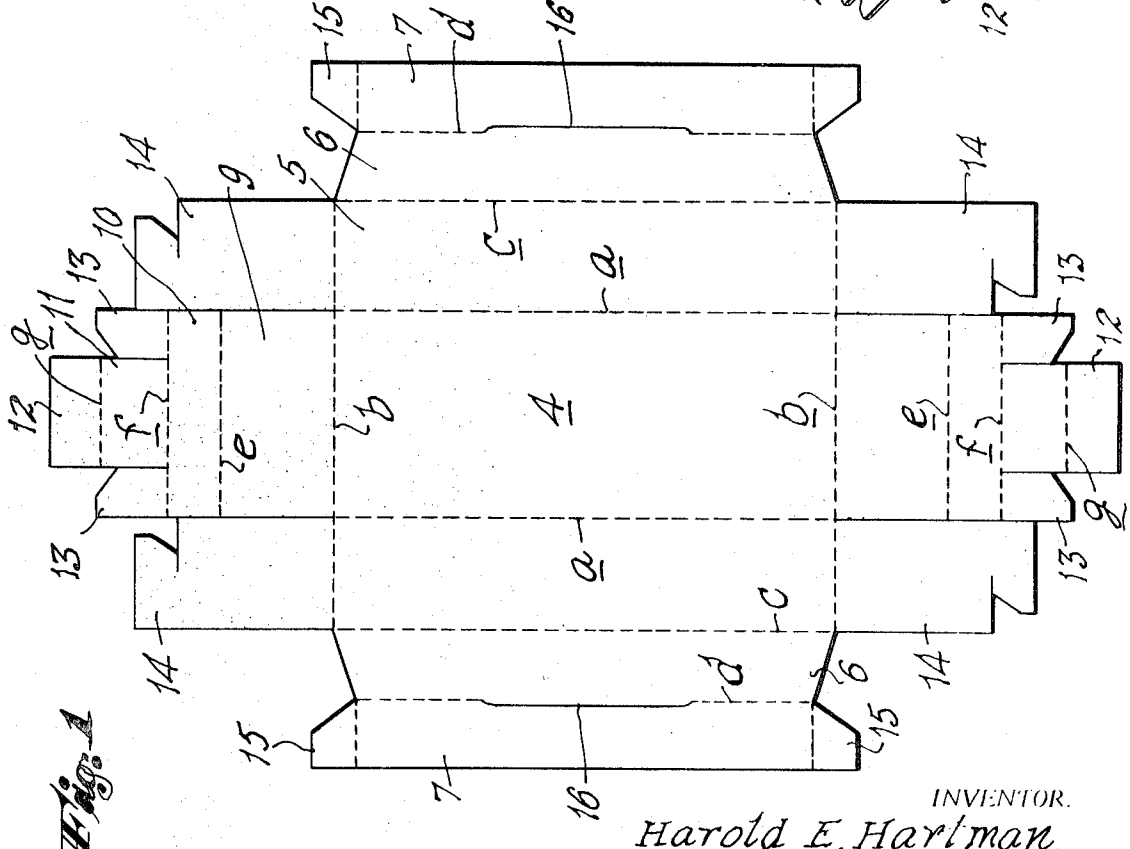


Fig. 1



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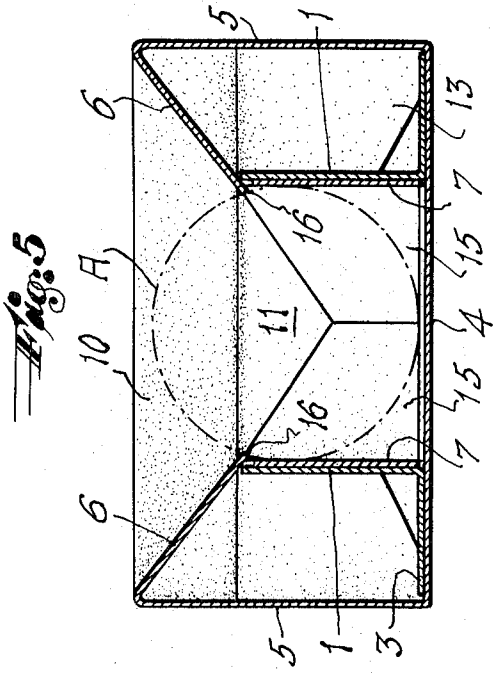

Fig. 5

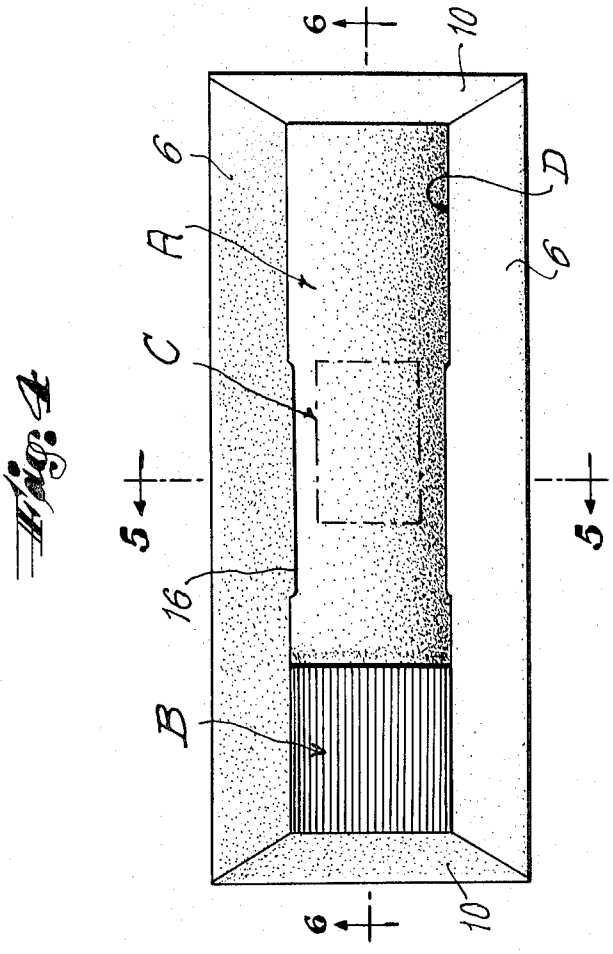

Fig. 4

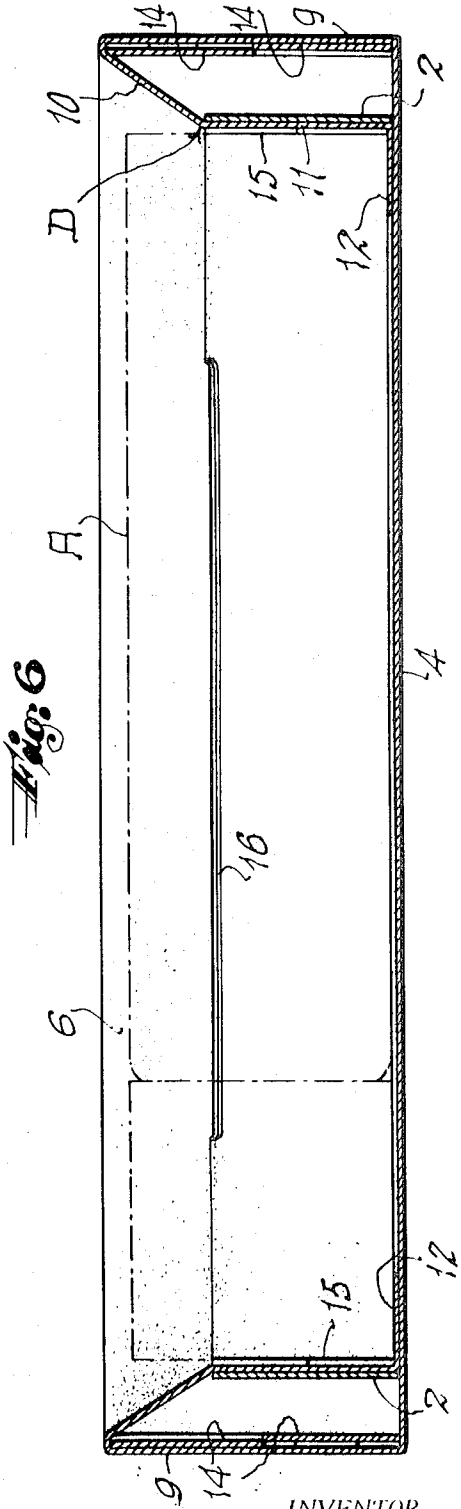

Fig. 6

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FOLDING DISPLAY RECEPTACLE

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to receptacles which include a folded blank of heavy paper, cardboard or similar material for holding and displaying articles.

2. The Prior Art

Receptacles made from folded blanks of heavy paper or cardboard and having openings through which are displayed articles held or packed in he receptacles, have been known for many years.

However, there remains a need for a receptacle which will withstand twisting, crushing and dropping on a hard surface without rendering the receptacle inoperative and without displacement or knocking of the article from the receptacle.

It is also desirable that the package frictionally hold the article firmly enough to discourage attempts to pilfer the article, but at the same time allow the article to be placed in and pulled out of the receptacle without tearing of the receptacle walls.

When the article is cylindrical and has a trademark or other printing thereon to be displayed through an opening in the receptacle, it is desirable that the receptacle be so constructed as to prevent accidental rotation of the article in such a way as to obscure the trademark.

SUMMARY OF THE INVENTION

A primary object of the invention is to provide a folding display receptacle which overcomes the hereinbefore outlined deficiencies of the prior art receptacles.

The invention particularly contemplates a reenforcing frame that has fixedly connected side panels and end panels which form a space between them of approximately the same dimensions as the article to be displayed and which separably sets on the bottom section of a foldable blank which has other sections foldable upwardly from the bottom section and inwardly over the side panels and end panels of the frame to provide sidewalls and end walls each comprising an inner portion and an outer portion respectively inside and outside the corresponding panel of the frame and connected by a top portion and separably interlocked together providing a recess or space between them in which the article is held and displayed by firm frictional engagement of the article with said wall portions in such a way as to permit the article to be intentionally removed without damage to the receptacle and at the same time discourage attempted pilferage of the article and allow twisting or dropping of the receptacle on a hard surface with a minimum of possibility of accidental displacement of the article from the receptacle.

BRIEF DESCRIPTION OF THE DRAWINGS

For a more complete understanding of the invention, reference should be had to the following description in conjunction with the accompanying drawings in which:

H FIG. 1 is a plan view of the blank before the same is folded to form the receptacle;

FIG. 2 is a perspective view of the reenforcing frame;

FIG. 3 is a perspective view illustrating the first step in the formation of the receptacle wherein the reenforcing frame is set on the section of the blank that forms the bottom wall of the receptacle;

FIG. 4 is a top plan view of the completed receptacle and the article held and displayed therein;

FIG. 5 is an enlarged transverse vertical sectional view on the plane of the line 5—5 of FIG. 4 with the article removed but indicated by dot and dash lines;

FIG. 6 is a longitudinal vertical sectional view on the plane of the line 6—6 of FIG. 4 with the article omitted but indicated by dot and dash lines.

DESCRIPTION OF THE PREFERRED EMBODIMENT

FIG. 1 shows a blank of heavy paper, cardboard or other suitable material, which is scored or creased to provide the several sections which form the walls of the receptacle when the blank is folded; and FIG. 2 shows the reenforcing frame which is preferably formed of one piece of similar material and comprises side panels 1 and end panels 2 fixedly connected together to provide a space between them of a length and width approximately corresponding to the length and width of the article A and opening at the top to receive the article which in this case is in the form of a cylindrical container for liquid having a removable cap B. The side panels 1 have outwardly extending flanges 3 at their lower edges to set on the bottom wall of the receptacle.

The bottom wall of the receptacle is formed by a central rectangular section 4 of the blank which is preferably longer and wider than the reenforcing frame so that said frame can be separably set on the bottom wall section with its side and end panels spaced from the corresponding side and ends of the bottom section 4 which are indicated by the folding scores or creases *a* and *b* respectively in FIG. 1.

Each sidewall and each end wall of the receptacle is folded upwardly from said bottom wall section wall over the corresponding side panels and end panels of the reenforcing frame so that each sidewall and each end wall has an inner portion and an outer portion respectively inside and outside the corresponding panels of said frame and connected by a top portion providing an opening between them through which the article can be inserted, displayed and removed.

The outer portions 9 of the end walls are foldable upwardly from the bottom wall section 4 along the fold lines *b* and the top portions 10 of the end walls are folded inwardly along fold lines *e*. The inner portions 11 are folded along the fold lines *f* over the edges of the corresponding end panels of the frame and into abutting relation to said end panels as best shown in FIG. 6. At the extremity of each inner portion 11 is a flap 12 foldable along line *g* into contact with the bottom wall section 4; and each end wall has two tabs 13 foldable along the line *f* from the top portion into the space between the corresponding side panel 1 of the frame and the outer portion of the sidewall of the receptacle as best shown in FIG. 5.

Before the end walls of the receptacle are folded into position the outer portions of the sidewalls are interlocked together by means of locking flaps 14 that fold inwardly along the fold line *b* and have their ends separably connected outside the end panels of the reenforcing frame as best shown in FIG. 6; and the ends of the inner portions of the sidewalls abut the inner portions of the end walls so that said inner portions of the end walls are held between the inner surfaces of the end panels of the frame and the ends of the inner portions of the end walls, and the flaps 12 are held between the lower edges of the inner portions of the sidewalls and the bottom wall as shown in FIG. 6. Preferably the inner portion 7 of each sidewall has a flap 15 at each end thereof abutting edgewise the flap of the inner portion of the other sidewall and also abutting the inner portion of the corresponding end wall.

In its completed folded position, the receptacle has an opening D for the insertion and removal of the article, the opening being of such dimensions and shape that the ends of the article tightly frictionally engage the end walls of the receptacle which are slightly yieldable as the article is pressed into the opening and are reenforced by the end panels of the reenforcing frame which are also slightly yieldable.

Also the article frictionally engages the sidewalls of the receptacle, particularly the inner wall portions 5 which are reenforced by the side panels of the reenforcing frame. Desirably lips 16 are provided at the junctions of the inner portions and the top portions of the sidewalls, for example, by slitting the blank so that said lips frictionally engage and partially overly the article in the receptacle as best shown in FIG. 2.

From the foregoing it will be seen that the blank can easily and quickly fold around the reenforcing frame and interlock so that the walls of the receptacle and the reenforcing frame are firmly held against relative displacement, and the article is firmly held and displayed by frictional engagement of the article with the wall portions in such a way as to permit the article to be intentionally removed without damage to the receptacle and at the same time discourage pilferage of the article. Also the receptacle will withstand twisting, crushing and dropping on a hard surface without rendering the receptacle inoperative and without accidental displacement or knocking of the article from the receptacle.

Furthermore, when the article has printed matter such as a trademark indicated by a rectangular C in FIG. 4, the firm frictional holding of the article will prevent it from rotating in such a way as to obscure the trademark.

I claim:

1. A folding paper display receptacle for an article comprising a reenforcing frame that has fixedly connected side panels and end panels of such dimensions as to provide a space between them of a length and width approximately corresponding to the length and width of the article and open at the top to receive the article, and a blank composed of a plurality of connected sections one of which forms the bottom of the receptacle on which said reenforcing frame is set while other sections form the side and end walls of the receptacle and are foldable upwardly from said bottom section and inwardly over the corresponding side panels and end panels of said reenforcing frame so that each sidewall and each end wall has spaced-apart inner and outer portions connected by a top portion providing an opening between them for display of the article, said outer portions of said sidewalls having separably interlocking flaps outside said end panels of the reenforcing frame, and said inner portions of said sidewalls abutting the inner surfaces of said side panels of the frame, said inner portions of the end walls being held between the inner surfaces of said end panels of the frame and the ends of said inner portions of the sidewalls and having flaps held between inner portions of the sidewalls and said bottom wall, whereby relative displacement of said walls and said frame is prevented and said article is frictionally held against displacement from the receptacle.

2. The folding paper display receptacle as defined in claim 1 wherein said inner portion of each side wall has a flap abutting the flap of the inner portion of the other sidewall and the inner portion of the corresponding end wall.

3. A folding paper display receptacle for an article as defined in claim 1 wherein said side panels of said frame have outwardly extending flanges at their lower edges abutting said bottom wall and the outer portions of said sidewalls.

4. A folding paper display receptacle for an article as defined in claim 1, wherein there are tabs extending from the top portion of each end wall and interposed between the side panels of said reenforcing frame and the outer portions of said sidewalls.

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