

Feb. 21, 1933.

R. A. TAYLOR

1,898,646

DISPLAY BOX

Original Filed Dec. 10, 1929

3 Sheets-Sheet 1

Fig. 1.

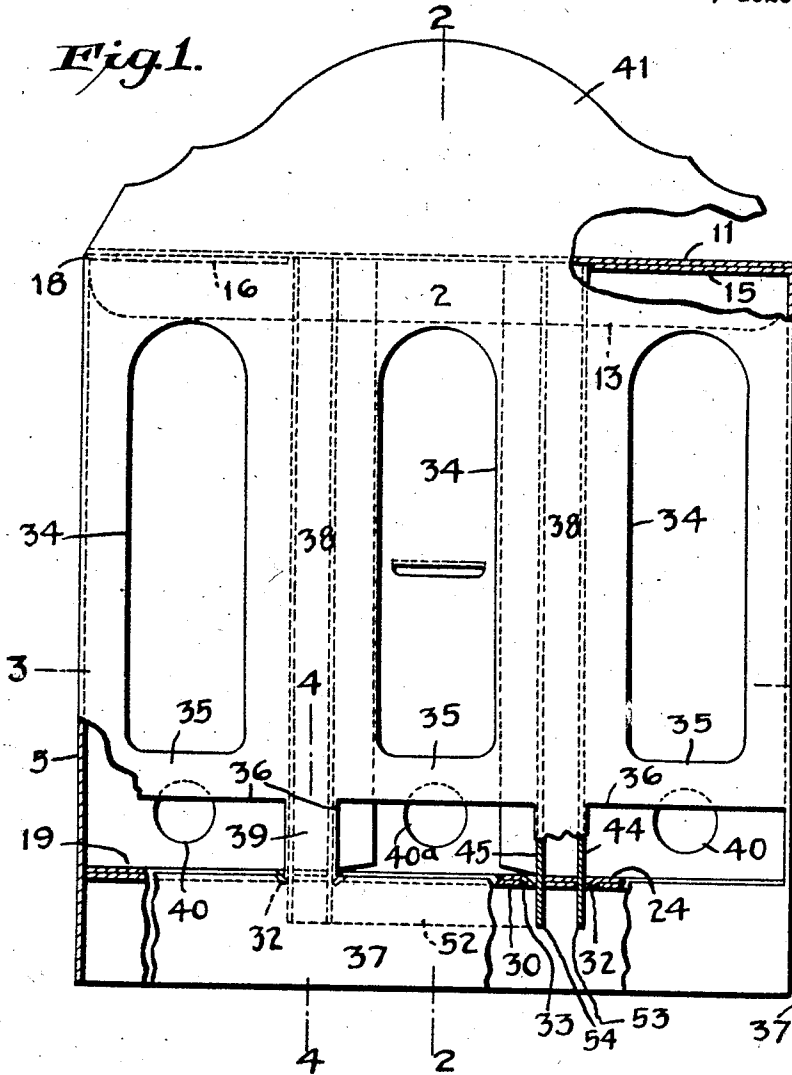


Fig. 2.

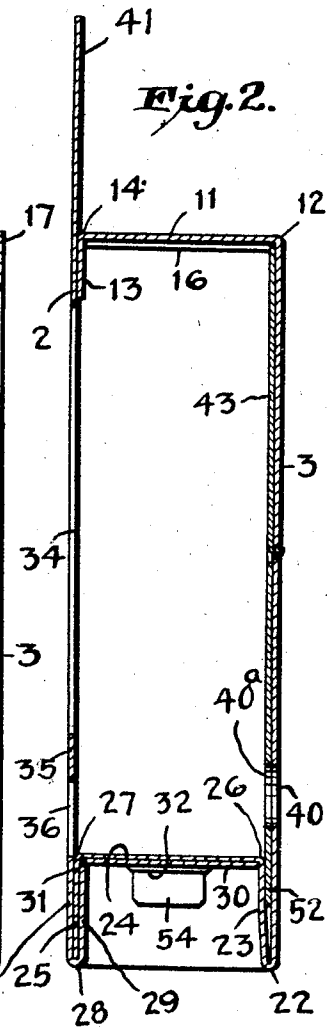


Fig. 3.

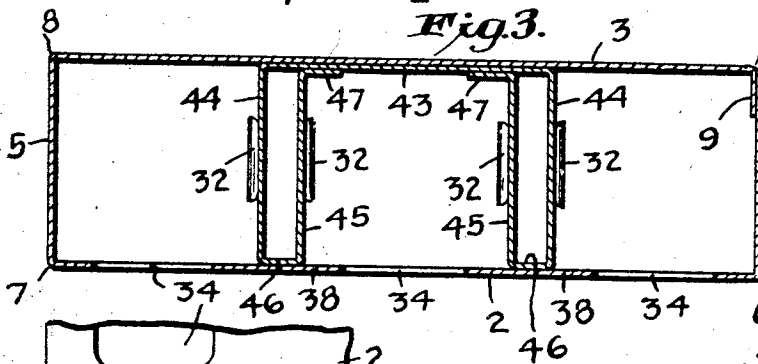


Fig. 4.

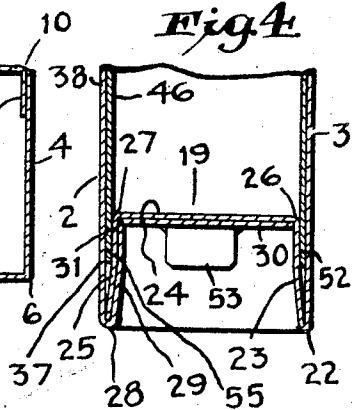
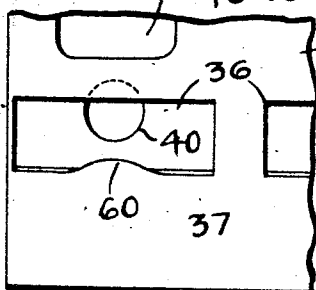


Fig. 5.



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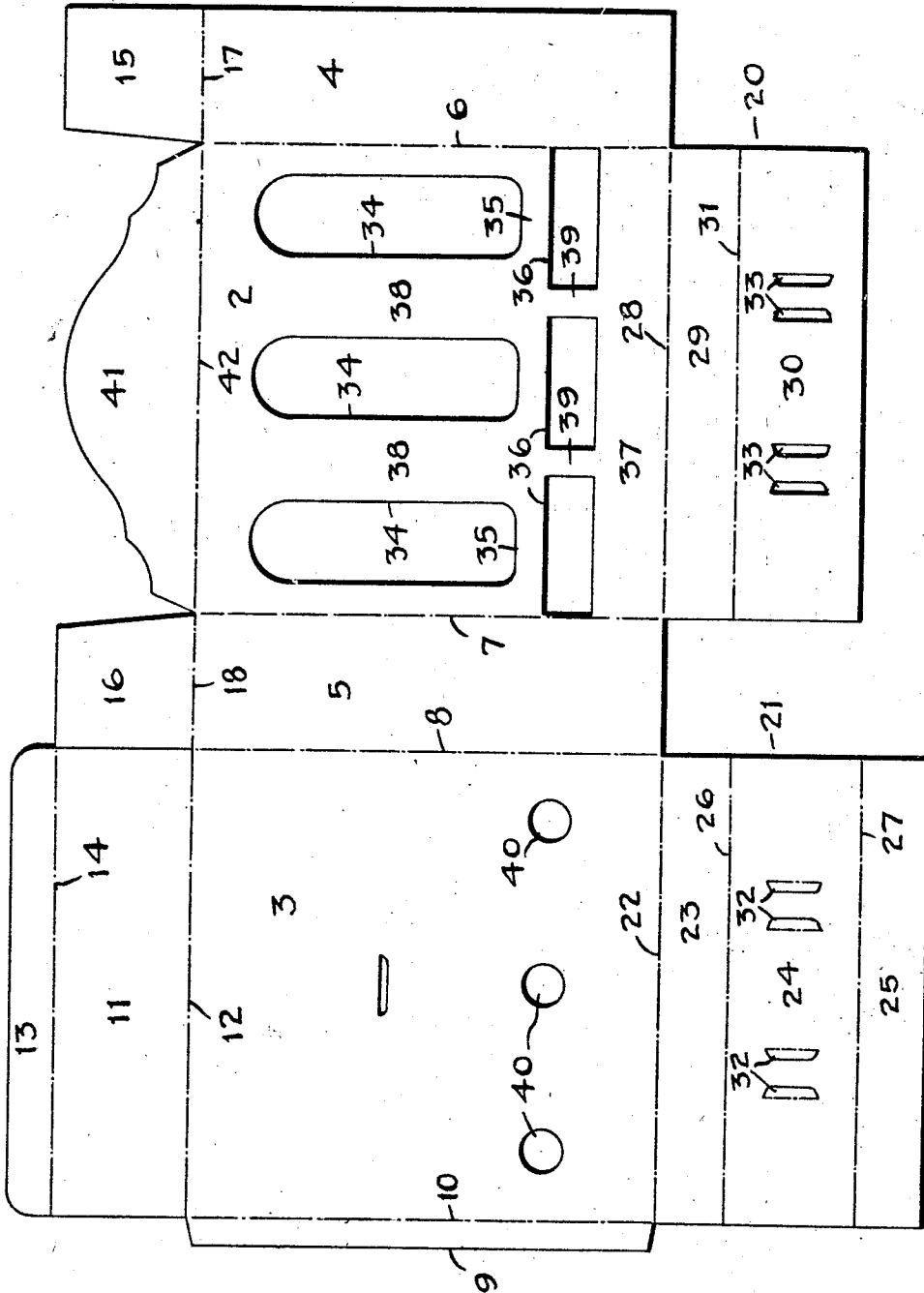
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DISPLAY BOX

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Fig. 6.



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DISPLAY BOX

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3 Sheets-Sheet 3

Fig. 7.

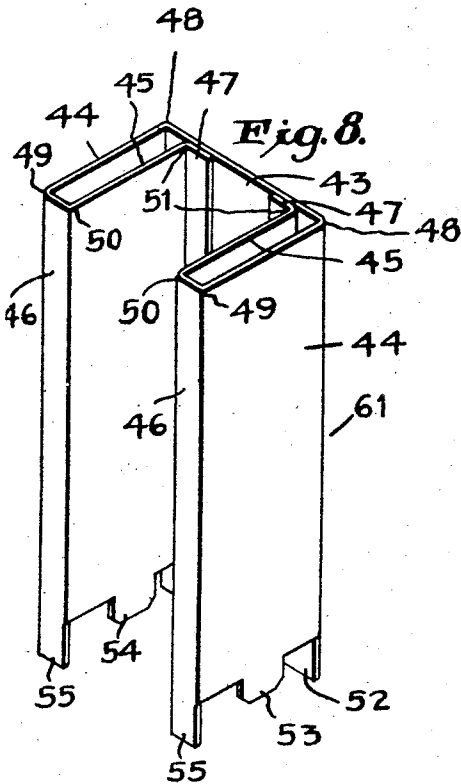
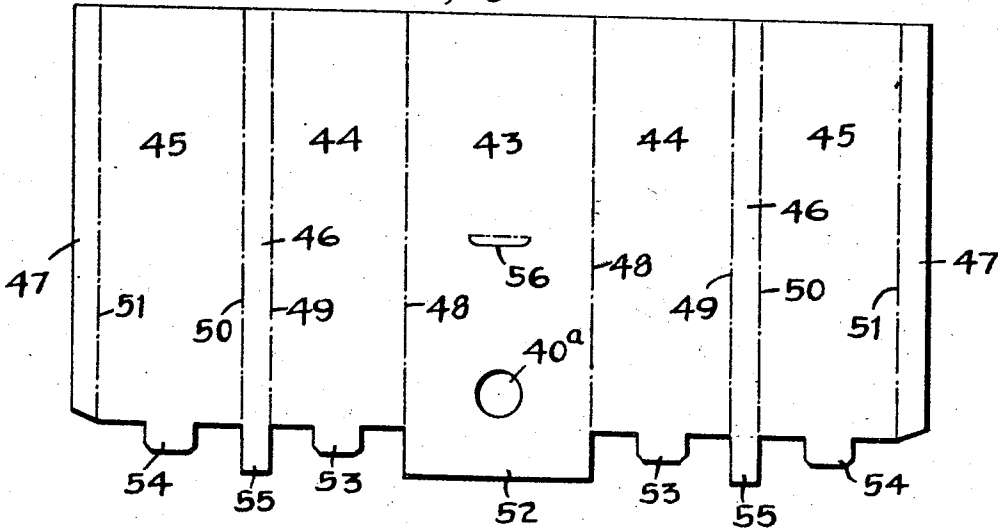
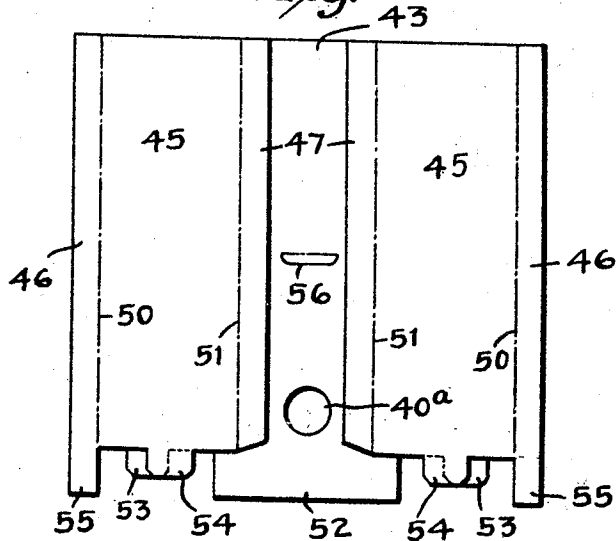


Fig. 9.



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UNITED STATES PATENT OFFICE

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DISPLAY BOX

Application filed December 10, 1929, Serial No. 413,003. Renewed July 27, 1932.

The invention relates to the art of folded cardboard boxes, and particularly to display and sales boxes or receptacles.

The general object of the invention is to provide a novel, strong and effective device of this character, which can very easily be manufactured to sell at a moderate price.

One of the objects of the invention is to provide a display and sales box providing a plurality of stack compartments and having windows for exhibiting the articles in the stacks and other openings through which the bottom articles can be removed. A further object in this connection is to facilitate the removal or delivery of articles by enabling them to be pushed out of the stacks.

Another object of the invention is to preserve as much strength as possible in the front wall of the box notwithstanding the large total cut-out area.

Another object is to provide a cushioned partition structure which possesses a high degree of strength in itself and which greatly strengthens the box as a whole and the weakened front wall in particular.

Another object is to provide the box with a double-thickness cushion or platform bottom consisting of flaps folding one within the other inside the lower end of the box, so as to produce a very strong basal structure which braces and rigidifies the box and is self-interlocked against accidental opening under the weight of the contents.

Another object is to provide simple and advantageous means for holding the partition member in place in the box.

The embodiment of the invention described herein comprises a box part and a separate partition member, each adapted to be folded from a single flat blank and each adapted to be shipped in flat collapsed condition to the user. However, the features of the invention are applicable and useful in counter display and sales boxes, whether there be a plurality of compartments or a partition member or not.

Other objects and features of the invention will become apparent as the specification proceeds.

In the accompanying drawings forming part hereof:

Fig. 1 is a front elevation of the box and the partition member set up and assembled, portions being broken away and sectioned for clearer illustration;

Fig. 2 is a vertical section on the line 2—2 of Fig. 1;

Fig. 3 is a horizontal section on the line 3—3 of Fig. 1;

Fig. 4 is a fragmentary vertical section on the line 4—4 of Fig. 1;

Fig. 5 is a fragmentary front elevation illustrating a slight modification;

Fig. 6 is a plan view of a blank from which the box proper may be made by folding and by gluing a glue flap;

Fig. 7 is a plan view of a blank from which the partition member may be made by folding and by gluing;

Fig. 8 is a perspective view of the partition member set up; and

Fig. 9 is a plan view of the partition member in flat collapsed condition.

The box proper is made from a blank such as that illustrated in Fig. 6. The box has broad front and rear walls 2, 3 and narrow end walls 4, 5, these reference numerals being also applied to the view of the blank, wherein the portions referred to are arranged side by side and demarked by fold lines 6, 7 and 8. A narrow flap joined with one side of wall 3 by a fold line 10 is glued to the inside of the end wall 4.

The top of the box can be completely opened for the insertion of articles into the stack compartments hereinafter described and can be closed by a top flap 11 bent from the top of the rear wall along a fold line 12 and having a terminal flap 13 bent along the line 14 for insertion inside the front wall 2, other joint-closing flaps 15 and 16 being folded at 17 and 18 from the end walls to underlie the cover flap.

The box is provided with a cushion bottom formed by flaps 20 and 21 folded inside the lower portion of the box to produce a platform or raised support for the articles.

The flap 21 is folded from the lower edge of the rear wall 3 on the fold line 22 and

includes three parts 23, 24 and 25 connected with each other by the folds 26 and 27 parallel with the fold line 22. The part 23 is folded upward against the inside of the rear wall 3, the part 24 extends horizontally to the inside of the front wall 2, thus forming the surface on which the articles rest, and the part 25 is bent down so as to lie against the inside of the front wall.

The flap 20 is bent from the lower edge of the front wall 2 on the fold line 28 and includes the parts 29 and 30 connected by a fold 31 parallel with the fold line 28. The part 29 folds upward at the inside of the front wall and at the inside of the terminal portion 25 of the flap 21, thereby clasping this portion 25, and the part 30 is disposed horizontally immediately beneath the part 19. The part 30 is of sufficient size to extend across to the part 23 and to be kept in place by friction and tension.

The construction affords a hollow base of great firmness for the loaded box when standing on a counter or when shipped in loaded condition, besides providing a cushion support for the articles, which is much desired. The bottom rims on which the box stands and by which the load is ultimately supported include two thicknesses at the rear and three thicknesses at the front. The actual raised platform on which the articles rest comprises two thicknesses. The bottom construction also firmly braces and rigidifies the box against any forces tending to collapse it by flexure of the corner folds 6, 7, 8, 10 or otherwise.

The two flaps 20 and 21, folding one within the other in the manner described, form an interlock which effectually keeps the bottom from coming open, if for instance the box is lifted when full of articles.

At two spaced regions the upper thickness 24 of the platform support is slitted to form pairs of lips 32 partly cut from the cardboard stock. Immediately beneath these lips the reinforcing and bracing thickness 30 has pairs of slots 33, the arrangement being such that the lips can be deflected downward at an inclination into the slots as shown in Fig. 1.

The front wall 2 of the box has a plurality of vertical windows 34 cut in it to exhibit the stacks of articles within. The particular box illustrated is designed to hold three stacks, and the windows are therefore three in number. Directly below the windows but separated therefrom by integral portions 35 of the front wall, openings 36 are cut. These openings are intended for the removal of articles from the bottoms of the stacks, and are as wide in the horizontal dimension as the stack compartments hereinafter described. The window openings 34 are narrower, the integral portions of the front wall at the sides of the windows serving to retain the superincumbent articles.

The lower edges of the delivery openings 36 are approximately at the same level as the top of the platform bottom 19. Beneath them there is a solid basal portion 37 of the front, and this portion is joined with the front wall regions 38 between the windows by integral connecting portions 39 which separate the openings 35 from each other. The construction is such that the front wall, and the box as a whole, are not unduly weakened notwithstanding the large amount of material removed from this wall.

In the lower portion of the rear wall 3 small finger openings 40 are cut, these openings being directly behind the delivery openings 36. This feature makes it very easy to remove articles when a sale is made, since an article can be pushed or started out of a delivery opening by simply inserting the finger or a pencil in the corresponding finger opening 40. The term "finger opening" is used for convenience.

The front wall 2 is provided with a top extension 41 of suitable outline, for advertising display. A fold 42 may be provided where this extension joins the front wall, such fold if present enabling the extension to be folded over on top of the box when the package is to be shipped in a loaded condition.

The interior of the box is divided into a plurality of stack compartments by means of a separate partition member 61. In the plan of construction of this member it has been an object to brace and strengthen the box to the greatest possible extent, as well as to make the partitions strong in themselves and to cushion side thrusts exerted by the articles when the package is shipped in the loaded condition.

The member is made from the flat blank shown in Fig. 7. This blank comprises a central panel portion 43, two outer partition forming portions 44 adjoining said panel portion, two inner partition forming portions 45, two narrow portions 46 between the portions 44 and 45 and two terminal flaps 47 at the opposite ends of the blank, all of these portions being demarked by parallel fold lines 48, 49, 50 and 51. The panel portion 43 has a downward extension 52, below the lower edges of the partition portions 44 and 45. This panel portion also has a finger hole 40^a to register with the central finger hole 40 in the rear wall of the box.

The portions 44 and 45 have downwardly projecting tongues 53 and 54, respectively, and the portions 46 have tongues or downward extensions 55.

In the set-up condition of the partition member, the outer partition portions 44 are bent forward at right angles to the panel portion 43, the narrow wall portions 46 are bent inward parallel with said panel por-

tion, the inner partition portions 45 are bent back parallel with and spaced from the portions 44 to meet the panel portion 43, and the flaps 47 are glued to the face of said panel portion.

Boxed partitions are thus obtained, these partitions being strongly connected and spaced at the back by the panel 43.

The partition member is inserted downward through the open top of the box with the panel 43 against the inside of the rear wall 3. The extension 52 slips into the crevice between the rear wall and the upwardly bent portion 23 of the raised bottom structure. The extensions 55 in like manner fit frictionally into the crevice between the portion 37 of the front wall of the box and the terminal flap 25 forming an inner thickness of this part of the base of the box.

The tongues 53 and 52 are forced through the slits in the upper thickness 24 of the platform at the edges of the lips 32 and through the slots 33 in the under thickness 30. This causes the lips to assume the inclined positions shown in Fig. 1, with the result that the tongues are held frictionally and by the elasticity of the lips.

The panel 43 may be provided with a lip 56 to engage a slit 57 in the rear wall 3.

The front walls 46 of the boxed partitions are applied against the inner surface of the portions 38 and 39 of the front wall of the box which lie between the windows 34 and the delivery openings 36. In this way the cut-away front wall is given very effective support against crushing in, and the narrow connecting portions 39 are braced against injury.

The partition member when in place forms a stack compartment between the two double partitions and other stack compartments between the partitions and the end walls of the box.

When the partition member has been introduced and the compartments have been filled with the articles to be displayed and sold, the top end flaps 15 are turned over the contents and the cover flap 11 is then closed. In this condition the package can be packed with others in a shipping case, the display extension 41 being folded over on the top.

The two separate parts of the box, that is to say the box proper and the partition member, are adapted to be shipped by the folded box manufacturer in the flat state in readiness to be set up by the user concern. It will be readily understood that with the bottom and top of the box open and the flap 9 glued to the wall 4, the box proper can be collapsed flat and can be opened up like a jointed parallelogram. The top and bottom flaps can be folded flat within the general area of the collapsed walls 2, 3, 4, 5 if desired.

The flat, collapsed condition of the partition member is illustrated in Fig. 9, it being readily understandable that the fact that the flaps 47 are already glued to the panel 40 does not interfere with the portions assuming this flat condition.

Fig. 5 illustrates a modification in which the portion 37 of the front wall of the box has a slight lip 60 projecting above the general lower edge of the delivery opening 36 and above the platform 19 to keep a bottom article from protruding or coming out entirely when not intended. When the article is pushed out from behind, this low retainer will flex to permit its passage.

While the preferred embodiment of the invention has been described in detail, it will be understood that the invention is not limited to the form illustrated and that parts of the invention may be used without others.

I claim:

1. A cardboard counter display and sales device comprising a box having front and rear walls and end walls, said front wall having cut therein a plurality of vertical windows and beneath each of said windows a delivery opening, said delivery openings being wider than said windows, said front wall having a continuous basal portion joining the end walls beneath said delivery openings and connecting portions joining said basal portion with the areas of the front wall between the windows, a platform bottom, and partitions disposed behind said areas and connecting portions.

2. A cardboard counter display and sales device comprising a box having front and rear walls and end walls, said front wall having cut therein a plurality of vertical windows and beneath each of said windows a delivery opening, said delivery openings being wider than said windows, said front wall having a continuous basal portion joining the end walls beneath said delivery openings and connecting portions joining said basal portion with the areas of the front wall between the windows, a platform bottom, and partitions disposed behind said areas and connecting portions, said back wall having finger openings so arranged that the bottom articles resting on said bottom can be pushed out through said delivery openings.

3. A cardboard display device comprising a box having front and rear walls and end walls, in combination with a separate folded cardboard partition member comprising a panel at the inside of the rear wall and two partition members joined with said panel to divide the interior of the box into a plurality of stack compartments, each of said partitions comprising two spaced walls and a connecting wall, the latter being at the inner side of the front wall of the box.

4. A cardboard display device compris-

ing a box having front and rear walls and end walls, in combination with a separate folded cardboard partition member comprising a panel at the inside of the rear wall, two outer partition walls bent at right angles from said panel, a narrow wall bent inward from each of said two partition walls in a plane parallel with said panel, and two inner partition walls bent from said narrow walls and united to said panel.

5. A cardboard counter display device comprising a box having front and rear walls and end walls, and a platform bottom folded within the lower portion of the box, in combination with a separate cardboard partition member having extensions at the lower end to engage with said platform bottom, said partition structure comprising a panel at the inside of the rear wall, two outer partition walls bent at right angles from said panel, a narrow wall bent inward from each of said two partition walls in a plane parallel with said panel, and two inner partition walls bent from said narrow walls and united to said panel.

6. A cardboard counter display device comprising a box having front and rear walls and end walls, and a platform bottom folded within the lower portion of the box, in combination with a separate cardboard partition member comprising a panel at the inside of the rear wall, two outer partition walls bent at right angles from said panel, a narrow wall bent inward from each of said two partition walls in a plane parallel with said panel, and two inner partition walls bent from said narrow walls and united to said panel, said panel having a downward extension inserted between said platform bottom and the adjacent wall of the box.

7. A cardboard counter display device comprising a box having front and rear walls and end walls, and a platform bottom folded within the lower portion of the box, in combination with a separate cardboard partition member comprising a panel at the inside of the rear wall, two outer partition walls bent at right angles from said panel, a narrow wall bent inward from each of said two partition walls in a plane parallel with said panel, and two inner partition walls bent from said narrow walls and united to said panel, said platform bottom having openings cut therein, and said partition walls having tongues at their lower ends inserted in said openings.

8. A cardboard counter display device comprising a box having front and rear walls and end walls, and a platform bottom folded within the lower portion of the box, in combination with a separate cardboard partition member comprising a panel at the inside of the rear wall, two outer partition walls bent at right angles from said panel,

a narrow wall bent inward from each of said two partition walls in a plane parallel with said panel, and two inner partition walls bent from said narrow walls and united to said panel, said panel having a downward extension inserted between said platform bottom and the adjacent wall of the box, and said narrow walls also having extensions at their lower ends inserted between said platform bottom and the adjacent wall of the box.

9. A cardboard counter display device comprising a box having front and rear walls and end walls, and a platform bottom folded within the lower portion of the box, in combination with a separate cardboard partition member comprising a panel at the inside of the rear wall, two outer partition walls bent at right angles from said panel, a narrow wall bent inward from each of said two partition walls in a plane parallel with said panel, and two inner partition walls bent from said narrow walls and united to said panel, said panel and said narrow walls having downward extensions inserted between said platform bottom and the broad walls of the box, said platform bottom having openings cut therein, and said partition walls having tongues at their lower ends inserted in said openings.

10. A cardboard counter display and sales device comprising a box having front and rear walls and end walls, said front wall having cut therein a plurality of vertical windows and beneath each of said windows a delivery opening, said delivery openings being wider than said windows, said front wall having a continuous basal portion joining the end walls beneath said delivery openings and connecting portions joining said basal portion with the areas of the front wall between the windows, and a platform bottom, in combination with a separate cardboard partition member comprising a panel adjacent the back wall of the box, and boxed partitions extending forward from said panel into sustaining relation to said areas and connecting portions of the front wall.

11. A cardboard counter display device comprising a box having transverse walls and end walls folded from a blank and held by a glue lap, and an interlocking platform bottom of double thickness constituted in the following manner: a flap bent upward from one of said transverse walls against the inside thereof, thence bent horizontally to form a platform portion, and thence bent downward to form a terminal flap lying against the inside of the other of said transverse walls, in combination with a flap bent upward from the latter transverse wall against the inside of said terminal flap so as to clasp this flap and bent again to form a bracing and reinforcing piece extending

horizontally beneath said platform portion to the upwardly bent portion of the first flap.

12. A cardboard counter display device comprising a box having front and rear walls and end walls, a platform bottom comprising two thicknesses of material, the upper thickness having lips cut therein and the lower thickness having slots cut beneath said lips, in combination with a separate partition member inserted into the box and having tongues on its lower edges, which tongues deflect said lips downwardly so that the tongues are held by friction and the elasticity of the lips.

13. A cardboard counter display and sales device, comprising a continuous front wall having a plurality of vertical windows cut therein, a stack compartment behind each of the vertical windows, each stack compartment having side walls spaced apart by a distance greater than the width of its vertical window and having a rear wall connected with both side walls, a bottom for each stack compartment for supporting a stack of articles, each compartment having a delivery opening with its bottom edge adjacent the bottom of the compartment so that the lowest article of the stack can be moved out of the compartment through the delivery opening.

14. A cardboard counter display and sales device, comprising a continuous front wall having a plurality of vertical windows cut therein and having its vertical edges bent rearwardly to form side walls, other vertical walls contacting with the continuous front wall between the windows and extending rearwardly to form with the rearwardly extending edges of the front wall side walls for stack compartments behind the respective windows, the side walls of each compartment being connected at their rearward ends with a back wall, a platform bottom for each compartment formed by a bent-over portion of the same blank as the front wall, each compartment having a delivery opening adjacent said platform bottom and a finger opening opposite the delivery opening so that the bottom article of a stack can be pushed through the delivery opening.

15. A cardboard counter display device comprising a box having front, rear and end walls folded from a one-sheet blank and held by a connecting lap, a flap continuous with the lower end of one wall for folding upwardly along that wall and then horizontally across the box to the opposite wall to form a platform bottom for the box, the flap having an end portion bent downwardly along said opposite wall, and another flap continuous with the lower end of said opposite wall for bending upwardly along said opposite wall and then horizontally along the under side of the platform bottom to

strengthen the bottom and hold the upwardly extending portions of the first-mentioned flap against their respective walls.

16. A cardboard counter display and sales device, comprising a container having front, rear and side walls enclosing a stack compartment, the front wall having a vertical window cut therein, a flap continuous with the lower end of one wall for folding upwardly along that wall and then horizontally across the container to the opposite wall to form a platform bottom for the stack compartment, another flap continuous with the lower end of said opposite wall for bending upwardly along said opposite wall and then horizontally along the under side of the platform bottom to strengthen the same, one of the walls having a delivery opening therein adjacent the bottom of the stack compartment in position so that an article resting on the bottom can be moved out through the delivery opening.

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