United States Patent

Dolas

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[45] **Sept. 19, 1972**

[54] ADVERTISING AND DISPLAY DEVICE

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[21] Appl. No.: **147,832**

[52] **U.S. Cl.** **211/135,** 248/174, 312/259

[51] **Int. Cl.**.....**A47f 5/00**

[58] **Field of Search**.....211/135, 149, 72, 178, 60; 248/174; 312/259; 108/115

[56] **References Cited**

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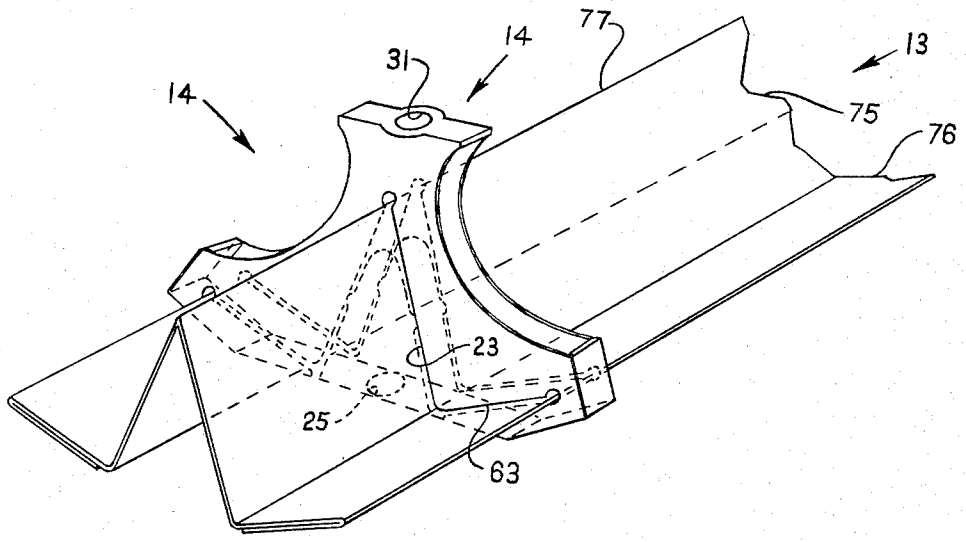
Primary Examiner—Nile C. Byers, Jr.

Attorney—Gregg, Hendricson & Caplan

[57] **ABSTRACT**

Display device of folded, die-cut paperboard construction having base members, poles supported thereby, shelf members supported by poles with up-tilted shelves, and brace members straddling shelf members and bracing same, the poles extending through junctions of shelf members and brace members. Also, pole support of die-cut paperboard construction with bottom and a plurality of foldable side members with overlapping tongues penetrated by a pole resting on bottom.

8 Claims, 24 Drawing Figures



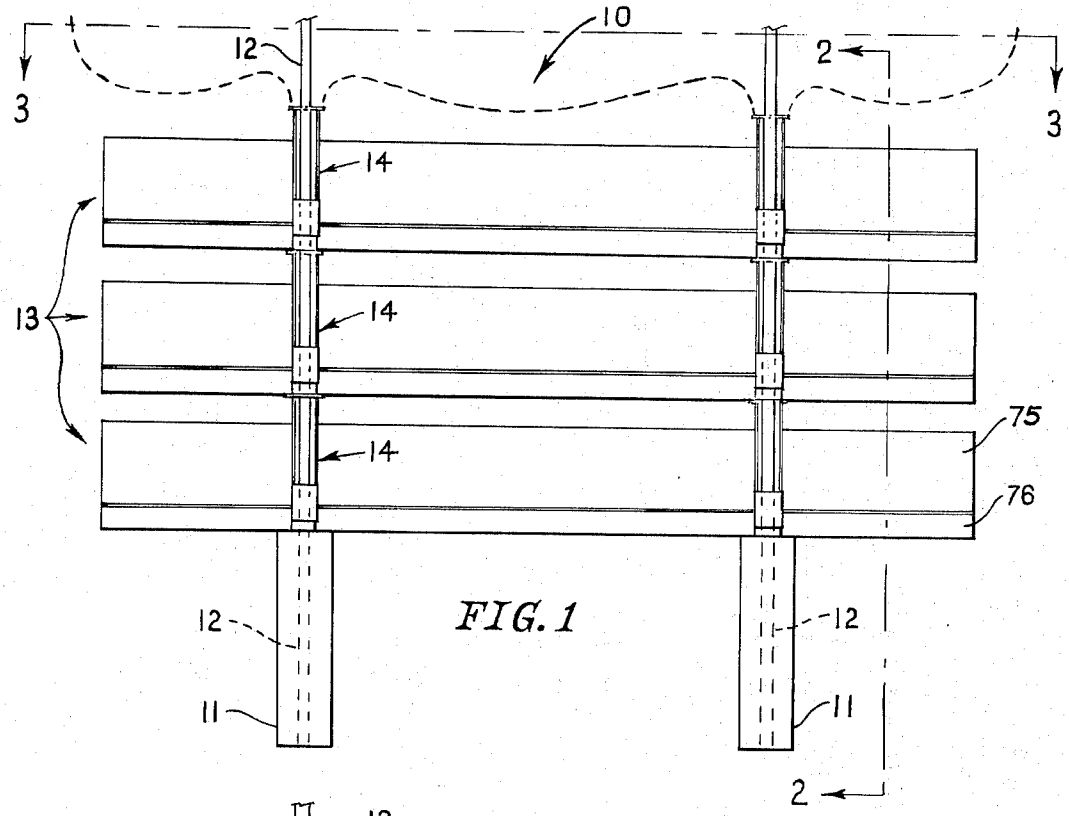


FIG. 1

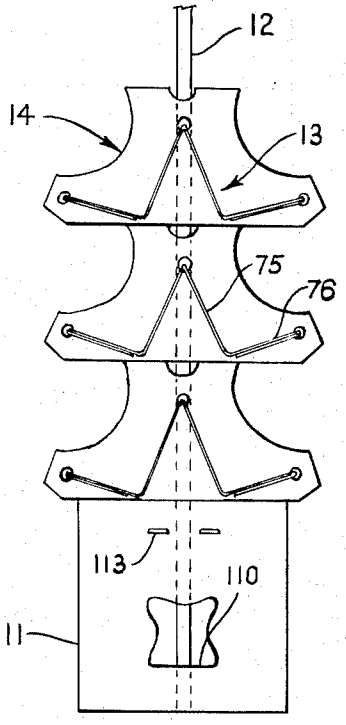


FIG. 2

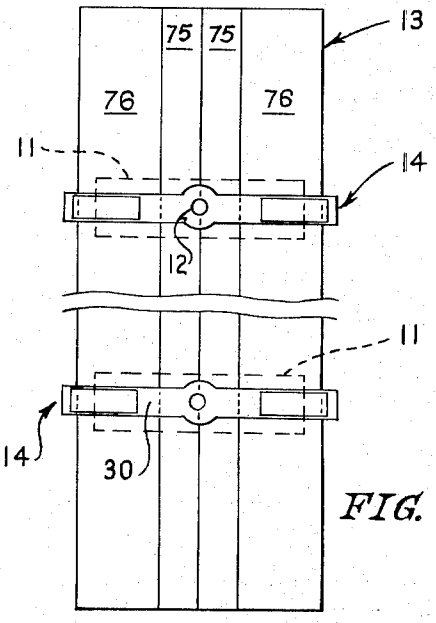


FIG. 3

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FIG. 4

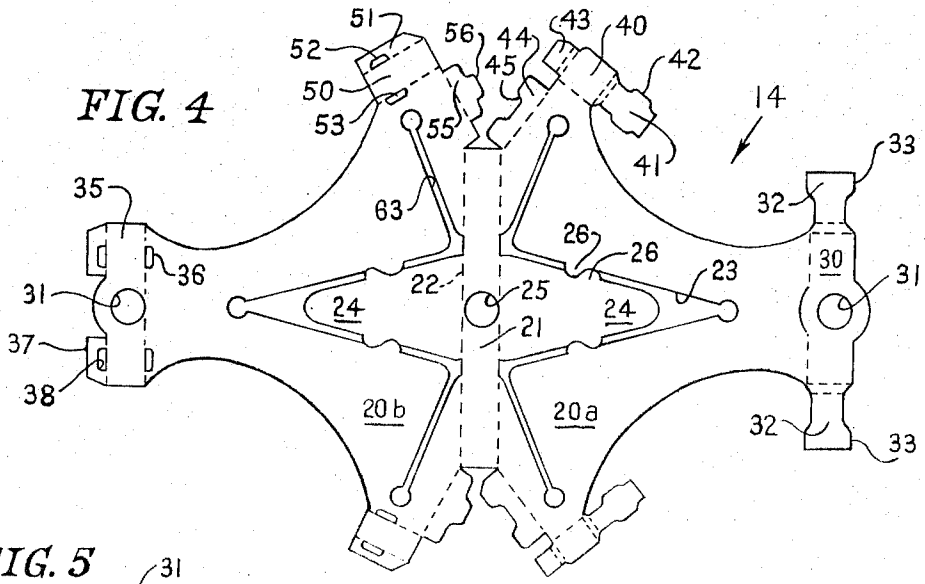


FIG. 5

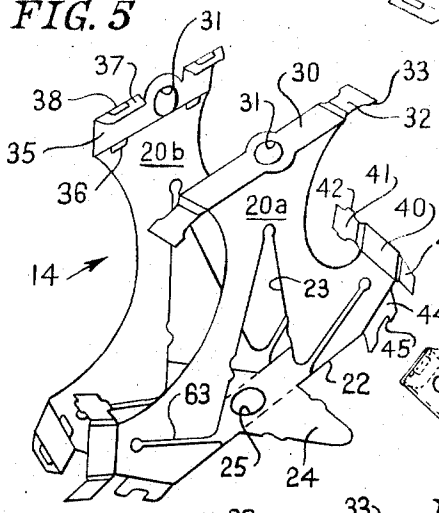


FIG. 11

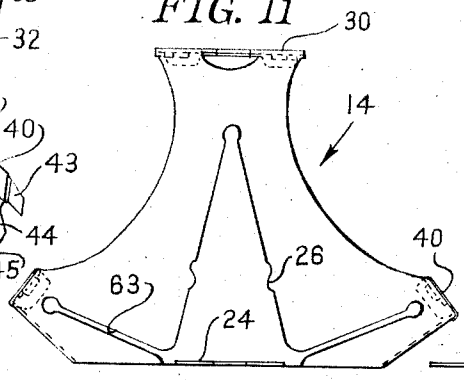


FIG. 12

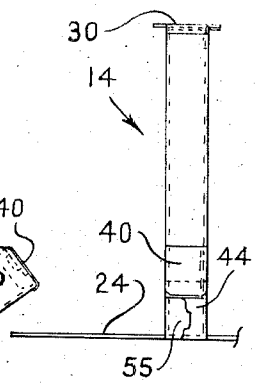


FIG. 6

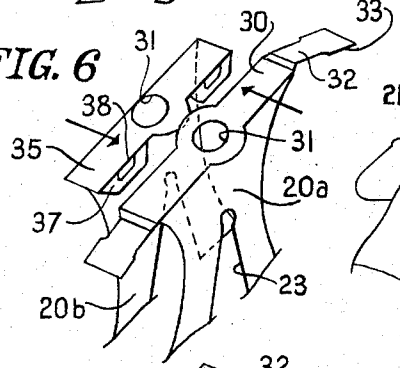


FIG. 9

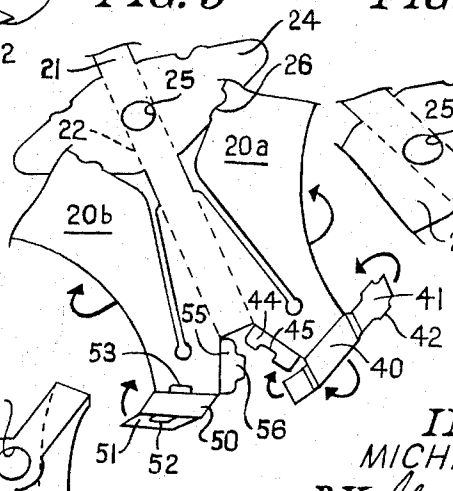


FIG. 10

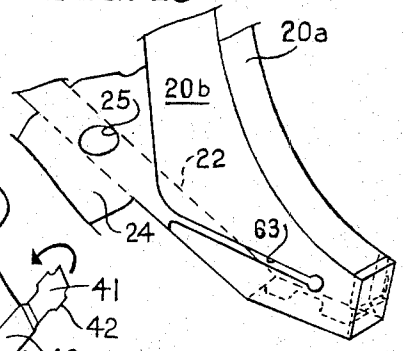


FIG. 7

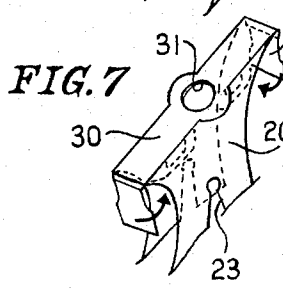
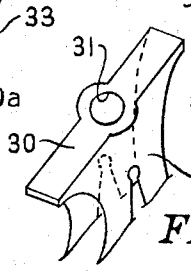


FIG. 8



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FIG. 13

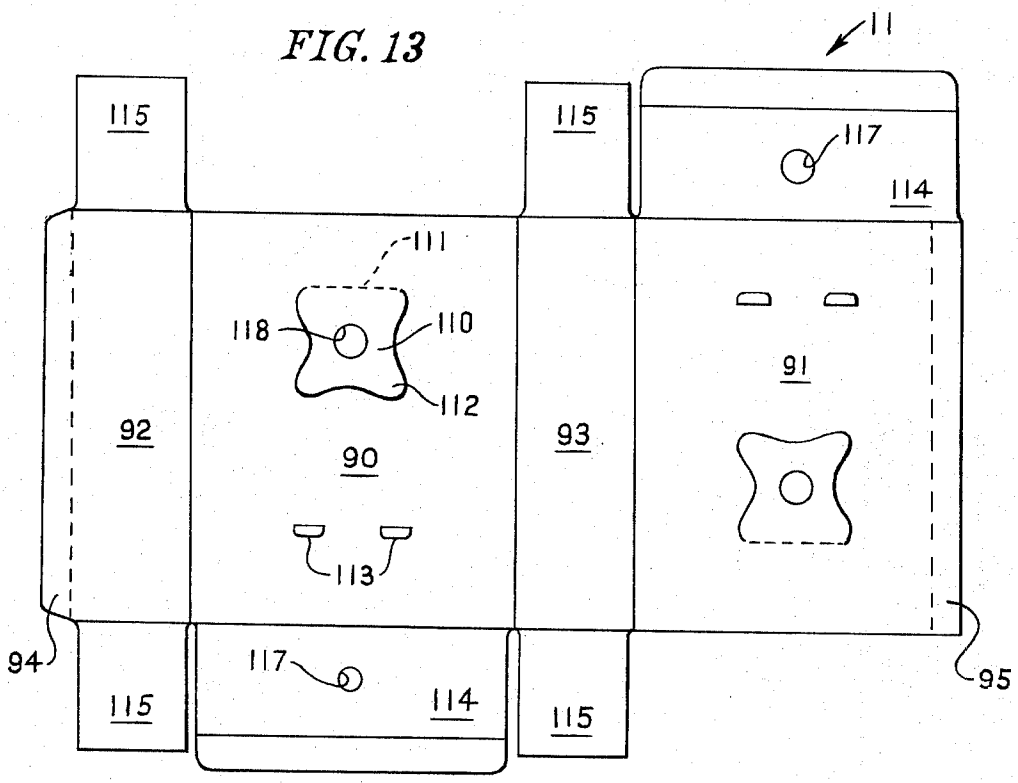


FIG. 14

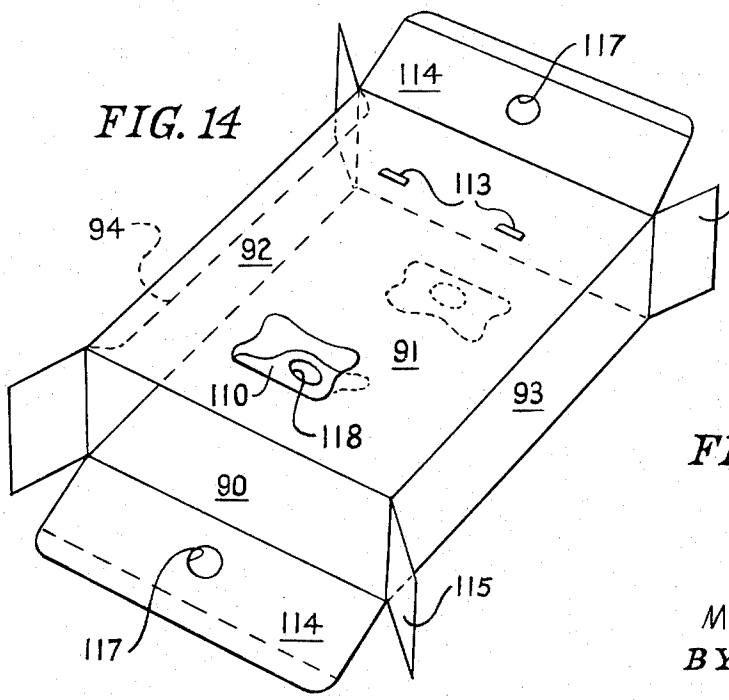
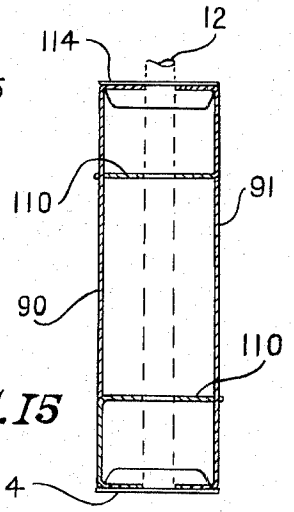


FIG. 15



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FIG. 17

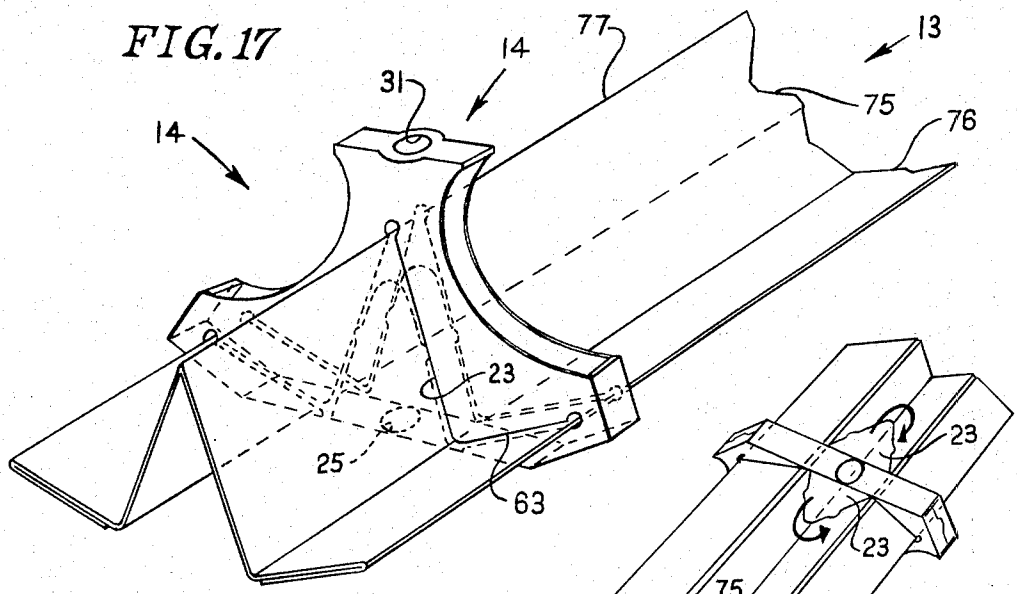


FIG. 18

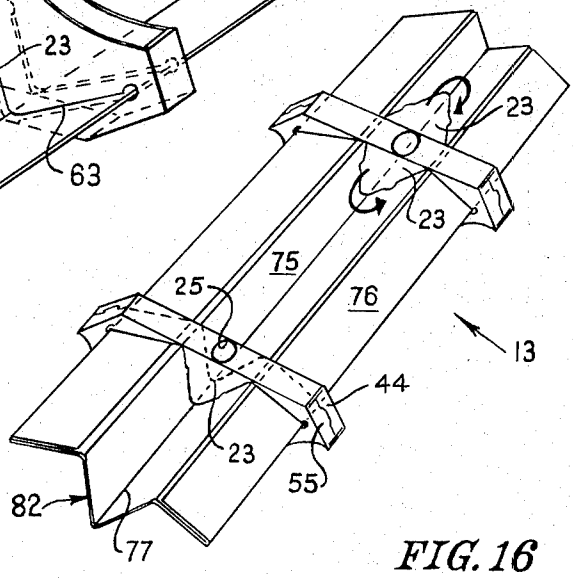


FIG. 16

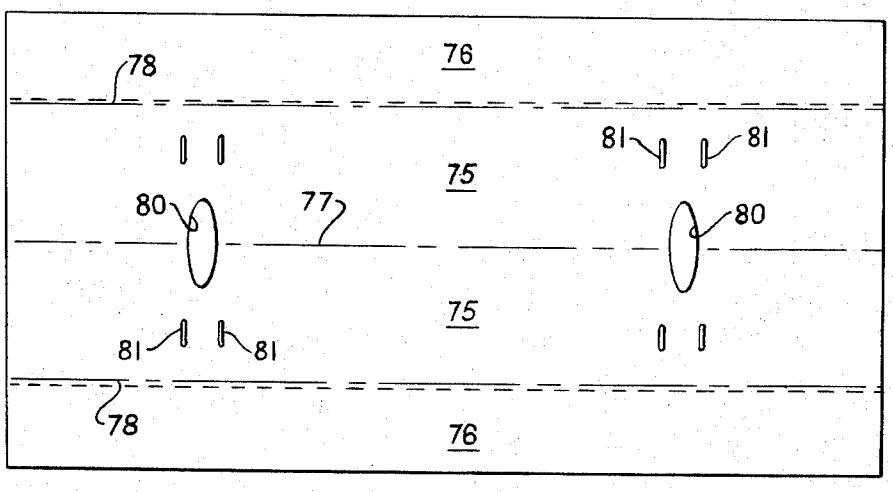
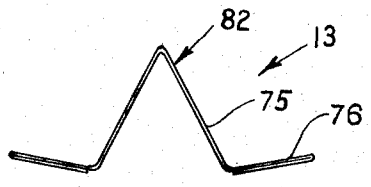


FIG. 19



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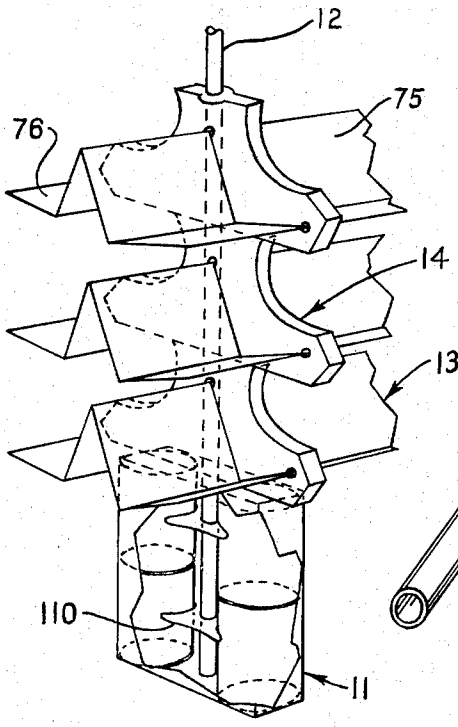


FIG. 21

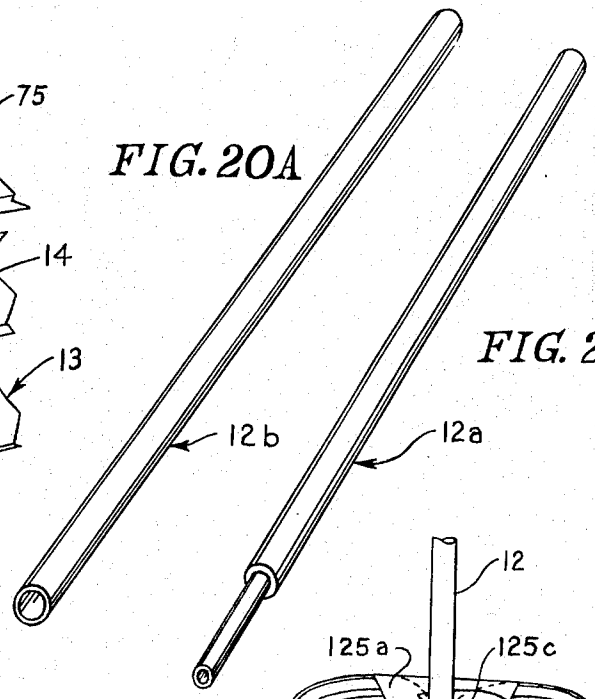


FIG. 20A

FIG. 20B

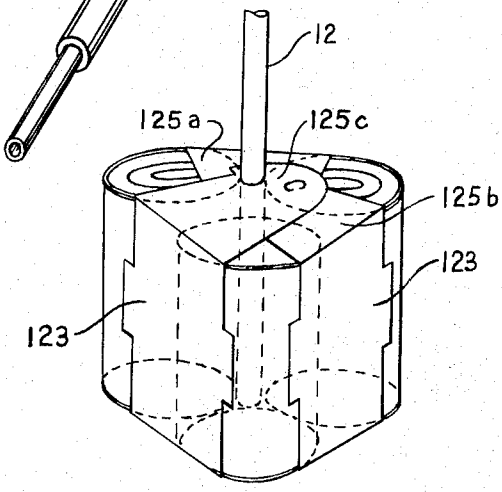


FIG. 23

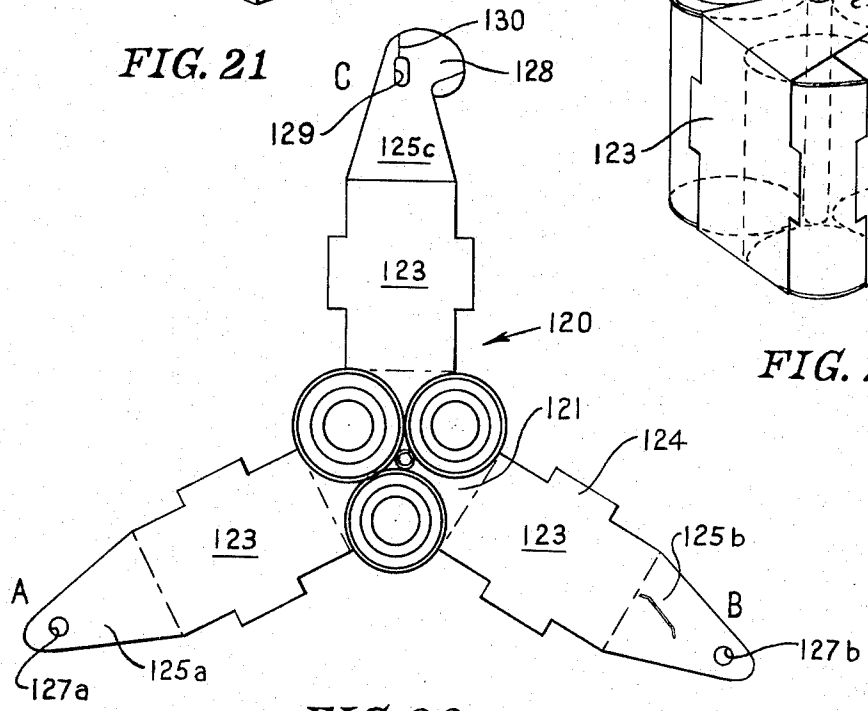


FIG. 22

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ADVERTISING AND DISPLAY DEVICE

This invention relates to a display device, more particularly to a display device made from components which are die cut from paper/board, which can be shipped and stored flat and which are readily set up in operative condition, the set up structure being sturdy and lending itself to safe, dependable and conspicuous display of merchandise such as canned foods and the like.

It is an object of the invention to provide a display device which can be die cut from paper/board or the like, which can be stored and shipped in flat condition, which can be readily set up at the point of use and which, when set up, provides a sturdy, dependable device for displaying merchandise.

The above and other objects of the invention will be apparent from the ensuing description and the appended claims.

Certain forms of the invention are shown by way of example in the accompanying drawings in which:

FIG. 1 is a view in side elevation of the display device of the invention in set up, erected condition;

FIG. 2 is a view as seen from either end of the Fig. 1;

FIG. 3 is a top view as seen along the line 3—3 of FIG. 1;

FIG. 4 is a plan view of one of the elements (the transverse brace element) of the structure, such element being shown in flat condition prior to setting it up;

FIG. 5 is a perspective view showing the first stage in setting up the brace element of Fig. 4;

FIG. 6 is a fragmentary view showing a later stage in the process of setting up the brace element;

FIGS. 7 and 8 are similar fragmentary views showing succeeding steps in the setting up of the brace element;

FIGS. 9 and 10 are successive views showing the final stages in the setting up of the brace element of Fig. 4;

FIG. 11 is a plan view of the brace element of FIG. 4 in its set up, erected condition;

FIG. 12 is an edge view of the same as seen from the right of FIG. 11;

FIG. 13 is a plan view of another of the elements (the base element) of the structure, such element being shown in flat condition prior to setting it up;

FIG. 14 is a view of the base element of FIG. 13 in semi-erected condition;

FIG. 15 is a vertical mid-section taken through the base element in its erected condition and showing one of the support poles therein;

FIG. 16 is a plan view of another of the elements (the shelf element) of the structure such being shown in flat condition before it is set up;

FIG. 17 is a perspective view showing one of the brace elements of FIG. 11 mounted on one of the shelf elements;

FIG. 18 is a bottom or inverted view of the same showing two of the brace elements mounted on a shelf element and showing the step of locking one of the brace elements in place;

FIG. 19 is an end view of one of the shelf elements;

FIGS. 20*a* and 20*b* are perspective views of two segments of one of the pole elements;

FIG. 21 is a fragmentary perspective view showing the manner in which one of the base elements is used as a support;

FIG. 22 is a plan view of another embodiment of the invention shown in flat die cut condition before it is erected, and

FIG. 23 is a perspective view of the embodiment of FIG. 23 in erected condition.

Referring now to the drawings and preliminarily the FIGS. 1, 2 and 3, the structure of the present invention is there shown and is generally designated by the reference numeral 10. It comprises a pair of base elements or supports 11 a pole 12 for each base, several horizontal shelf members 13 and two brace elements 14 for each shelf member. A three shelf (each shelf being a double shelf) structure is shown with two brace elements for each shelf but, as will be apparent, a greater or lesser number of bases, poles, shelves and braces may be employed.

Referring now to FIG. 4 one of the brace elements 14 is there shown in flat condition. This element, and also the elements 11 and 13 are fabricated from paper/board of a suitable thickness, e.g., of double ply thickness with a corrugated core. In FIG. 4 and similarly in other figures, certain fold lines are shown in full or dotted lines but are unnumbered. The element 14 comprises two very similar but not identical body portions 20*a* and 20*b* separated from one another by a base portion 21 which is separated from the body elements 20*a* and 20*b* by scored fold lines 22. A round hole 25 is formed at the center of the base portion 21. The body portions 20*a* and 20*b* are cut at 23 to form identical wings 24 the cuts being such as to form mating tongues 26 in the wings 24 and in the body portions 20*a* and 20*b*.

At its right hand extremity as viewed in FIG. 4 the body member 20*a* is formed with a foldable end portion 30 having a circular hole 31 of the same diameter as the hole 25 in base portion 21. The end portion 30 terminates in foldable tabs 32 formed with ears 33. At its left hand extremity as viewed in FIG. 4 the body portion 20*b* is formed with a foldable end portion 35 having a hole 31 of the same diameter as hole 25 in base portion 21. Slots 36 are formed adjacent and inwardly of the end portion 35. Projecting ears 37 are formed adjacent and outwardly of the end portion 35 each of which is formed with a slot 38.

At its inner end and upper side as viewed in FIG. 4 the right hand body portion of 20*a* is formed with a foldable tab 40 having a foldable extension at 41 formed with projecting ears 42. At its opposite end the tab 40 is formed with a foldable ear 43. Below and to the left of tab 40 a foldable tab 44 having a slot 45 is formed. The inner and lower side of body portion 20*a* is similarly formed.

The inner end and upper edge of the left hand body portion 20*b* is formed with a foldable tab 50 having a foldable extension 51 and slot 52 and weakened area 53 are formed as shown along the fold lines. Also shown is a foldable tab 55 having a projecting ear 56. The inner and lower edge of the body portion 20*b* is similarly formed. Further, the body portions 20*a* and 20*b* are formed with radial slots 63 each open at its inner end to one of the triangular openings 23.

Referring now to FIGS. 5, 6, 7 and 8 the body portions 20*a* and 20*b* are folded about the score lines 22 and the end portions 30 and 35 are folded about their respective fold lines. The ears 37 are folded down as are the tabs 32. The end portion 30 is folded over the end portion 35 and the tabs 32 are folded underneath the end portion 35 and the ears 33 are inserted into the slots 36 and 38. This locks the top part of brace ele-

ment 14 is close position. The bottom part of brace element 14 is closed in the manner shown in FIGS. 9 and 10; and as now described. Tabs 44 and 55 are folded and tongue 56 is inserted in recess 45; tab 50 is folded in and tongue 51 is folded at 90° to tab 50 so as to lie adjacent the inner surface of body portion 20a; tab 40 is folded in and tongue 44 is folded at 90° to tab 40 and is seated underneath tab 50 and adjacent folded, nested tabs 44, 55; and tab 41 is folded down over the inner surface of tab 50 and ears 42 are caused to seat, one in slot 52 and the other in weakened area 53.

Referring now to FIGS. 16 and 19, the shelf element 13 is (in the flat condition) rectangular in shape; it has two center panels 75 and two lateral panels 76; it has a center fold line 77 and lateral fold lines 78; it is formed with oval shaped holes 80 centered on center fold lines 77 and with a pair of spaced slots 81 on each side of each hole 80. As will be seen in FIG. 19 (which shows the folded shape of the shelf element) the panels or shelves 76 are of double thickness. One of the erected brace elements 14 is fitted over the folded shelf element 13 by bringing aligned slots 63 into registry with shelves 76 and aligned central openings 23 into registry with the triangular portion 82 of shelf element 13. The brace element 14 is caused to slide along the shelf element 13 with the wings 24 of the brace element in outstretched condition until the aligned tongues 26 of the brace element are brought into registry with the slots 81 of the shelf elements; then the wings 24 are bent in as shown in FIG. 18 and the ears 26 of wings 24 are pressed into slots 81 thereby locking the brace element in place. The other brace element 14 (and as many brace elements as desired for which holes 80 and slots 81 are provided) are similarly mounted.

Referring now to FIGS. 13 to 15 the base element 11 is constructed of panels 90, 91, 92 and 93 which are folded about their respective fold lines; a flat extension 94 of panel 92 is glued to a glued strip 95 of panel 91; then each of two brace members 110 is folded inwardly about a scored line 111 so that the ears 112 thereof are brought into registry with slots 113 of the opposite panel and are caused to snap into such slots. This effectively braces the box and gives it adequate strength and rigidity. Then, the end panels 114 and flaps 115 and 116 are folded about their fold lines to close the box. The end panels 114 are formed with aligned holes 117 which align with holes 118 in braces 110. A sectional pole such as shown at 12 in FIGS. 20*a* and 20*b* is assembled and is inserted in the base element 11 through these aligned holes. If desired (and is as usually the case) the base 11 is weighted before it is closed, for example, by means of cans such as shown in FIG. 21. In a typical instance cans of the same goods as are displayed are used for this purpose.

Two of the base elements with poles attached (or three or more if the shelf-brace elements are so designed) are provided and the assembled shelf-brace elements are mounted on the poles by threading the poles through aligned holes 25, 31, 80. In a typical installation such as shown in FIG. 1, a pair of base elements 11 and poles 12 support three shelf-brace structures 13, 14 one above the other. The shelves 76 serve to hold merchandise, e.g., cans such as used as ballast for the base elements 11. The upward and outward tilt of shelves 76 and the backward tilt of panels 75 provide secure support for merchandise; the merchandise is easily loaded onto a and taken from the shelves; and it is conspicuously displayed.

The display device is very easily set up; it is light in weight yet strong; it can be taken apart very easily; and can be stored and shipped flat.

Referring now to FIGS. 22 and 23 another embodiment of the invention is thereshown. The die cut paper/board structure there shown is indicated generally by the reference numeral 120. It comprises a triangular base 121 separated by score lines from radial, equiangular wings 123 each of which is formed on opposite sides with tongues 124. Two of the wings 123 are formed with triangular tongues 125*a* and 125*b*, one of which (125*b*) is formed with a slot 126 and both of which are formed with holes 127. The third wing 123 is formed with a generally triangular tongue 125c which, is formed with an extension 128. Tongue 125*c* is formed with a hole 127*c* and a slot 130 extending from the hole 129 to the edge of the wing.

In erecting structure 120, wings 123 are folded up 90° to base 121, then the tongues 125*a*, 125*b* and 125*c* are folded over in that order so as to align holes 127*a*, 127*b* and 127*c* and tongue 128 is inserted in slot 126. A pole such as shown at 131 and ballast such as shown at 132 are inserted as shown. The pole may carry a flag, banner or any other desired display material; the ballast material 132 may be, for example, the canned goods advertised; and the wings 123 may be imprinted with similar advertising material.

It will therefore be apparent that convenient, economical advertising display devices are provided which are easy to set up and which accomplish the intended purposes.

I claim:

1. A display structure of folded paper/board construction comprising at least two vertical, horizontally spaced support members; at least one horizontal shelf member; and at least one transverse brace member; said horizontal shelf member having an inverted V-shape in vertical transverse section with at least one shelf projecting upwardly and outwardly from a lower edge of the inverted V; each said brace member straddling the shelf member including the inverted V portion and the shelf thereof and being detachably locked to the shelf member; each said vertical support member extending through the shelf member including the apex of the inverted V and through one of the brace members.

2. The structure of claim 1 wherein each brace member is slidable along the shelf member and the brace and shelf members are formed with complementary locking means which inter-engage when brought into registry to detachably lock the brace member and shelf member together.

3. The structure of claim 2 wherein there are at least two such shelf members arranged one above the other, each such shelf member having at least two such brace members, the brace members being arranged in pairs with the members of each pair in vertical alignment and said vertical support members extend through the lower and upper brace members and the lower and upper shelf members.

4. A brace structure for a horizontal shelf member said horizontal shelf member having an inverted V-

shape in vertical transverse section and having at least one shelf projecting upwardly and outwardly from a lower edge of the inverted V, such shelf member being of folded paper/board construction; said brace member being also of folded paper/board construction and having in its flat, unfolded condition a pair of body portions extending oppositely from and connected at their inner ends to a base portion, the outer ends of said body portions having complementary attachment means which attach to one another when the body portions are folded toward one another about said base portion, the inner portions of said body portions being formed on each side adjacent said base portion with complementary attachment means which inter-engage when the wings are so folded to connect the body portions at each end of the base portion when the body portions are folded, said body portions being also provided with openings to permit sliding the folded brace structure along the inverted V and the shelf of said shelf member.

5. The structure of claim **4** wherein the openings in the body portions include aligned, inverted V openings to receive the inverted V portion of said shelf member and wings within said V openings each attached at its base to said base portion, said wings being foldable about said base portion and serving to engage the inner sides of the inverted V of said shelf member, said openings including also radial slots opening into said V openings to receive shelves projecting from the inverted V of said shelf member.

6. A display structure of the character described comprising a paper board structure having, in flat unfolded condition, a base and a plurality of outwardly and radially extending wings foldable about the base, each such wing terminating in an outwardly projecting tongue foldable about its respective wing, the outer ends of said tongues being formed with holes which are in alignment when the wings are folded about the horizontal base to vertical position and the tongues are folded inwardly to overlapping, horizontal positions.

7. The display structure of claim **6** wherein there are three such wings.

8. The display structure of claim **7** wherein said tongues are formed with means to connect and hold them together when in such inwardly folded positions.

* * * * *