COLLAPSIBLE MERCHANDISING DISPLAY

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Publication Classification

(51) Int. Cl.
A47B 47/06 (2006.01)

(52) U.S. Cl. 211/186

ABSTRACT

A one-piece, easily erected, collapsible cardboard display for merchandise. Shelves formed from the display’s front panel are secured to a longitudinally displaceable sliding panel providing support for the device and facilitating assembly and disassembly thereof.
FIG. 2
COLLAPSIBLE MERCHANDISING DISPLAY

RELATED APPLICATIONS

[0001] There are no related applications.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] Not applicable.

REFERENCE TO SEQUENCE LISTING, A TABLES OR A COMPUTER PROGRAM LISTING COMPACT DISC APPENDIX

[0003] None.

FIELD OF THE INVENTION

[0004] The present invention relates to display devices, and more particularly, to a foldable, portable display for supporting articles of merchandise.

BACKGROUND OF THE INVENTION

[0005] Corrugated fiberboard (i.e., cardboard) is a well-known structural material commonly used for manufacturing storage boxes and the like. The relative inexpense of the material, its structural qualities, and the ease with which it can be manipulated has resulted in an ever growing number of items manufactured from it. The use of this material in merchandising displays is well known and range from its use as a structural component in an advertising message to various support structures for display of merchandise for sale in an aesthetically pleasing manner. In general, these merchandising displays are box-like structures with bins or shelves sized to hold the merchandise for sale. The displays can be quite bulky and difficult to transport in their assembled state and hence are generally shipped flat and assembled at the point of use. The displays, however, often consist of multiple pieces and, as these displays become ever more sophisticated, the degree of expertise and training necessary to assemble them increases accordingly.

[0006] What is needed is a merchandising display that is intuitive to assemble, yet equally sturdy and aesthetically pleasing in use. Preferably, the device ships flat for easier transport and is then assembled on site when needed. More preferably, the device can also be easily disassembled and re-used. Any such display should be easy to manufacture and its design should entail a minimum of waste material during construction.

[0007] Collapsible displays that may be used for merchandising are known in the prior art. U.S. Pat. No. 5,826,732 issued Oct. 27, 1998 is a point-of-purchase shelving display device constructed from a “single blank” of corrugated material that may be collapsed into a “substantially flat” configuration for efficient shipment. The device uses various “locking tab[s]” and “locking slot[s]” to lock the device into its three-dimensional configuration. Additionally, the flat shelves of the device are separate structures that are mounted into slots die cut in the superstructure of the display. Unlike the present inventive combination, this device entails the assembly of multiple, interconnected pieces and significant training and/or instructions for assembly.

[0008] U.S. Pat. No. 6,715,623 issued Apr. 6, 2004 discloses a collapsible display shelving unit fabricated from corrugated paperboard. The sides and multiple, flat shelves are hinged to the rear wall of the device thereby enabling the entire structure to be folded flat for convenient transport. The structures of the device are mounted only to the rear wall and are not in communication with one another. Assembly of the device entails a series of steps requiring the user to individually pivot the sidewalls outward, then swing individual shelves downward, thereafter locking them into place against the sidewalls.

[0009] U.S. Pat. No. 4,493,424 issued Jan. 15, 1985 is a three shelf foldable display stand constructed from a single sheet of cardboard including shelves with raised front and side flanges to facilitate containing merchandise therein. The device is shipped unassembled and the free ends must be glued together by the customer in order to erect the device. In a separate step, individual die cut shelves pivot from the front panel of the device and are folded upwardly into individual attachment slots on the rear panel of the device. No shelf slide is used to coordinate positioning or fixation of the shelves. In contrast, the present invention is shipped pre-assembled, requiring that the user simply longitudinally displace its rear shelf support in order to erect the apparatus.


SUMMARY OF THE INVENTION

[0011] The present invention is a multi-shelved merchandising display made from corrugated cardboard or a similar lightweight board-like material. In its collapsed state it is substantially flat thereby minimizing the space needed for storage and ensuring easier transport. The apparatus is erected by simply pressing its exposed, transversely opposing corners towards one another, then longitudinally displacing a sliding panel to position and support attached shelves. An interlocking flap-style box closure may then be used to maintain the display in this open, ready-for-use configuration. Alternatively, the display is held open via the friction of its interfitting parts and/or the weight of the merchandise being displayed on its shelves.

[0012] The primary superstructure of the device is die-cut from a single sheet of corrugated cardboard and folded to create its front, rear, and side panels, as well as its shelves. Its sliding panel may also be cut from the same sheet of material. The instant invention employs flap-like shelves cut from its front panel. The free ends of these shelves are then attached to a sliding panel to facilitate assembly of the display, coordinate positioning of its shelves, and provide support to the erect device. In assembling the display, the user need only displace the sliding panel longitudinally or press the transversely opposing corners of the device towards one another. Movement of the sliding panel thereby erects the display, including positioning the shelves in a generally horizontal position.

[0013] Forming the shelves of the instant invention from the front panel of the device also creates the apertures through which items displayed on the shelves may be accessed, thereby minimizing waste and the materials needed for manufacture. Additionally, biased incisions in its side panels at the junction of the unit’s shelves and the front panel cause the shelves to be slightly recessed when the device is assembled,
thereby helping to protect the display and the items displayed therein, for example, being upset by the loose clothing of passersby.

The instant invention is simple to manufacture, minimizes waste, is intuitive to assemble, and otherwise solves the aforementioned problems noted in the discussion of the prior art.

It is an object of the invention to provide an inexpensive display device which is sturdy in construction and capable of supporting the weight of the articles of merchandise being exhibited.

It is another object of this invention to provide a display device for arranging articles of merchandise thereon.

It is yet another object of this invention to provide a box-like display device having display niches, pockets, or shelves therein for the merchandise.

It is still another object of this invention to provide a merchandising display device having article displaying areas.

It is an object of this invention to provide a display device suitable for displaying articles of merchandise.

It is a further object of this invention to provide a display device which is easily set up and collapsed by simple folding operations.

It is an object of this invention to provide a display device which is easily collapsed for transport and is reusable.

It is yet another object of this invention to provide a merchandising display which does not require any particular degree of skill or training to assemble.

It is an object of this invention to provide a corrugated cardboard merchandising display which is simple to manufacture, with minimum waste.

The invention will be better understood and objects other than those set forth above will become apparent when consideration is given to the following detailed description thereof. Such description makes reference to the annexed drawings herein.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the inventive display device;

FIG. 2 is a partially collapsed perspective view of the display invention shown in FIG. 1;

FIG. 3 is a front elevation of the display invention shown in FIG. 1;

FIG. 4 is a top plan view of the display invention shown in FIG. 1;

FIG. 5 is a top plan view of the primary die-cut sheet of the display invention shown in FIGS. 1-4;

FIG. 6 is a top plan view of the sliding panel of the display invention;

FIG. 7 is a perspective view of another embodiment of the display invention;

FIG. 8 is a partially collapsed perspective view of the display invention shown in FIG. 7;

FIG. 9 is a front elevation of the display invention shown in FIG. 7;

FIG. 10 is a top plan view of the display invention shown in FIG. 7;

FIG. 11 is a top plan view of the primary die-cut sheet of the display invention shown in FIGS. 7-10; and,

FIG. 12 is a top plan view of the sliding panel of the display invention.

DETAILED DESCRIPTION OF THE INVENTION

While the invention is described in connection with certain preferred embodiments, it is not intended that the present invention be so limited. On the contrary, it is intended to cover all alternatives, modifications, and equivalent arrangements as may be included within the spirit and scope of the invention as defined by the appended claims.

This invention may be constructed from any board-like material that is amenable to precision cutting and is easily foldable. In preferred embodiments, the invention is manufactured from corrugated cardboard. The invention may also be constructed from felterboard, pulpboard, or corrugated board.

The preferred embodiment of the apparatus and best mode is rendered in FIGS. 1 through 6. An alternative embodiment is depicted in FIGS. 7 through 12. The elements described herein apply to both the aforementioned preferred and alternative embodiments.

FIGS. 1-2 are perspective views of the preferred embodiment. In FIG. 1, the display device 100 is depicted fully erect and ready for use. FIG. 2 is a partially collapsed view 101 of the display device. The present device is constructed with a rear panel 20, front panel 30, and side panels 40. Flap-like shelves 31 are formed from the front panel 30 with a leading end section 32 being the remainder of the panel 30 after shelf 31 has been folded back. The leading end section 32 is perpendicular to the ground and has biased end cuts 35 shown in FIG. 1 which allow the leading end section to be folded in a recessed manner back into the side panels 40 so that it will not engage passersby. A trapezoidal shaped sliding panel engagement flap 34 is also formed on the trailing end section 33 of the shelves which facilitates mounting of the shelves 31 to a sliding panel 41. The panel engagement flap 34 is secured to the sliding panel 41. The sliding panel engagement flaps 34 have a length which is less than the shelf length, with the top of the flaps 34 or trailing end section 33 being positioned adjacent the sliding panel 41 such that the shelves 31 are substantially horizontal when the display is in its erect conformation with the flaps 34 extending above the shelf base. The sliding panel 41 is longitudinally displaced during erection and disassembly of the apparatus 100 and serves to position and provide support to the shelves 31 at their trailing end section 34.

FIGS. 5-6 show the die cut material from which the display device 100 is constructed. Solid lines indicate cuts through the material. Dashed lines indicate score lines or creases created, for example, by embossing pressure or by a plurality of periodic incisions along the desired crease. Apertures 44 are formed in the side panels 40 of the display 100 to create an aesthetically pleasing effect and allow viewing of the stored merchandise. The shelves 31 which are formed from front panel 30 of the device are single piece shelves. It is also clear from these figures that in order for the device to function properly, the depth of the shelves 31 formed from the front panel 30 are approximately equal to the width of the side panels 40 and when assembled the leading edge section 32 is positioned below the planar surface of shelf 31.

The display 100 is manufactured by simply securing or affixing assembly flap 50 of the die cut sheet to the opposing free end of the sheet to thereby form a box structure when erected. The sliding panel 41 is then inserted and the trailing
end section 33 or sliding panel engagement flaps 34 of the shelves 31 are then secured to the sliding panel 41 such that, when erected, the shelves 31 are in a generally horizontal position with the sliding panel engagement flaps 34 parallel and adjacent the sliding panel 41. It is noted that the general position of the shelves 31 relative to the base of the display 100 may be varied according to the positioning of the sliding panel engagement flaps 34 on the sliding panel 41. Mounting the sliding panel engagement flaps 34 at relatively higher or lower positions on the sliding panel will result in shelves 31 having a forward or rearward cant as desired. The display is manufactured and delivered substantially flat such that its front panel 30 is displaced laterally relative to its rear panel 20. In this flattened conformation, the opposing side panels 40 are generally coplanar with the front 30 and rear 20 panels and either side panel 40 is coplanar with, for example, the front panel 30 and is attached to the rear panel 20 along a fold line. The opposing side panel 40 is therefore similarly coplanar with the rear panel 20 and attached to the front panel 30 along a fold line.

To operate the display device 100, one need only press the side panels 40 towards one another at the afore-described acute angles formed at their junction with the front panel 30 and rear panel 20, then longitudinally displace its sliding panel 41 to position and support the attached shelves. Alternatively, the display may be erected by simply displacing the sliding panel 41 downward, thereby causing the front 30 and rear 20 panels to separate while at the same time positioning and supporting the shelves 31 attached thereto.

FIGS. 7-8 are perspective views of an alternative embodiment of the invention. In FIG. 7, the display device 102 is depicted fully erect and ready for use. FIG. 8 is a partially collapsed view of the display device. The apparatus is constructed with a rear panel 120, front panel 130, and side panels 140 comprising its superstructure. Flap-like shelves 131 are formed from the front panel 130 with their leading end sections 132 being the remainder of the respective panel 120, 130 after shelf 131 has been folded back. The leading end section 132 of the shelf 131 is perpendicular to the ground with biased end cuts 135 which allow it to be folded in a recessed manner back into the side panels 140 so that it will not engage passersby, as is seen in FIG. 8. A trapezoidal sliding panel engagement flap 134 or trailing end section 133 is also formed from the front panel 130, which facilitates mounting of the shelves 131 to the sliding panel 141. The flap 134 is folded downward from the plane of the shelf 131. The sliding panel engagement flaps 134 have a length which is less than the shelf length, with the engagement flaps 134 being positioned adjacent the sliding panel 141 such that the shelves 131 are substantially horizontal when the display is in its erect conformation. The sliding panel 141 is longitudinally displaced during erection and disassembly of the apparatus 102 and serves to position and provide support to the shelves 131 at their trailing end sections 134. Referring specifically to FIG. 8, shown are extensions at the base of the front 130 and side 140 panels forming a traditional, flap style, box base closure 151. The base closure 151 has a locking flap 152 mounted to the rear panel 120 (FIG. 11) which engages a locking slot 153, shown in FIG. 8 formed in the front panel 130, to ensure positive closure. The invention also encompasses additional methods to fix the display in its open configuration, for example, a traditional four-flapped box end closure, or locking tabs and slots.
8. A collapsible cardboard merchandising display comprising:
a cardboard rear panel, front panel, and side panels defining a generally rectilinear box shape having top and bottom portions;
a cardboard sliding panel disposed between said cardboard rear panel and said cardboard front panel;
cardboard shelves excised from, and downwardly and rearwardly folded from said front panel, with leading end sections of said cardboard shelves being foldably attached to said cardboard front panel and the trailing end sections being secured to said cardboard sliding panel; and,
said cardboard shelves having a leading end section projecting downward from a shelf base and being recessed in said sliding panel.

9. A collapsible cardboard merchandising display as claimed in claim 8 wherein said merchandising display is manufactured from a single sheet of cardboard.

10. A collapsible cardboard merchandising display as claimed in claim 8 wherein said display is parallelepiped.

11. A collapsible merchandising display as claimed in claim 8 wherein said cardboard side panels define a plurality of apertures adjacent said shelves.

12. A collapsible cardboard merchandising display as claimed in claim 8 wherein said leading end of said shelves is recessed in said side panels.

13. A collapsible merchandising display as claimed in claim 8 wherein said display is substantially flat when collapsed.

14. A collapsible cardboard merchandising display comprising:
a unitary cardboard rear panel, front panel, and side panels defining a generally rectilinear box shape having top and bottom portions;
a cardboard sliding panel disposed between said cardboard rear panel and said cardboard front panel;
lipped cardboard shelves excised from, and upwardly and rearwardly folded from said front panel to form shelves with a leading end section of said cardboard shelves being foldably attached to said cardboard front panel; and,
a trailing end section of said cardboard shelves engaging said sliding panel.

15. A collapsible cardboard merchandising display as claimed in claim 14 wherein said merchandising display is manufactured from a single sheet of cardboard.

16. A collapsible merchandising display as claimed in claim 14 wherein the base of said front and side panels define box closure flaps and a locking flap mounted to said rear panel engages a locking slot in said front panel closure flap.

17. A collapsible cardboard merchandising display as claimed in claim 14 wherein said leading end section of said shelves is recessed in said side panels.

18. A collapsible merchandising display as claimed in claim 14 wherein said display is substantially flat when collapsed.

19. A collapsible cardboard merchandising display as claimed in claim 14 wherein the base of said front and side panels define box closure flaps.

20. A collapsible merchandising display as claimed in claim 19 wherein a locking flap mounted to said rear panel engages a locking slot in said front panel closure flap.

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