This invention relates to a boxing and display unit and is particularly concerned with a box structure that is useful as an advertising poster and pedestal when the merchandise shipped therein has been removed, it being a general object of this invention to provide a simple and inexpensive shipping unit useful to retailers, or the like, in merchandising and promoting sales of the goods shipped in the unit.

This application is copending with my applications for Letters Patent Serial No. 455,383 entitled, "Shipping Container and Display Unit," and now abandoned, Serial No. 455,381 entitled, "Shipping Container and Poster Unit," and Serial No. 455,382 entitled, "Shipping Container and Advertisement Unit," filed September 13, 1954.

The manufacturing, shipping and retailing of articles of manufacture, such as stoves, refrigerators, washing machines, radio and television sets and air conditioners, etc., are all extremely competitive operations and advertising is an important and costly item of expense. It is highly desirable to print advertising media on one or more faces of a shipping container or box, and it is also extremely effective to provide posters and display units to be used by the retailer in show rooms and in display windows, etc. Ordinarily a shipping container or box is useless after it has been used for transporting purposes and advertising purposes, which unit is extremely effective for both purposes, particularly for advertising by presenting and selling of the product concerned.

It is also an object of this invention to provide a shipping unit of the character referred to which makes into an extremely simple and inexpensive media of advertising manufactured goods shipped therein, all without added expense.

The display unit of the present invention is a tubular triangular unit and it is an object of the invention to provide such a structure wherein all three sides present advertising media and wherein instructions which are ordinarily printed on the exterior of shipping containers are covered and hidden from view.

It is still another object of this invention to provide a unit of the character referred to which eliminates waste of material used in a container by making the material of the container useful as an advertising poster, or the like.

It is a further object of this invention to provide a unit of the character referred to which eliminates waste of material used in a container by making the material useful as a pedestal adapted to place the object shipped in the box or container in an elevated position.

Another object of the invention is to provide boxing of the character referred to with lines of demarcation that show and instruct a person handling a product shipped in the container how to cut and treat the panels of the box so as to form an advertising poster and/or an advertising pedestal, or the like.

It is still another object of this invention to provide a display unit of the character referred to that is strengthened by reinforcements and fastening means or couplers to the end that substantial weight may be safely supported thereby.

The various objects and features of my invention will be fully understood from the following detailed description of a typical preferred form and application of my invention, throughout which description reference is made to the accompanying drawings, in which:

Fig. 1 is a perspective view of the boxing of the present invention. Fig. 2 is a perspective view of a typical unit of merchandise adapted to be shipped or nested in the container shown in Fig. 1, and showing the box after it has been formed and shaped into the display unit of the present invention. Fig. 3 is a flat pattern of the sheet of material used both as a box and a display unit. Fig. 4 is an enlarged detailed sectional view taken as indicated by line 4—4 on Fig. 1. Fig. 5 is a perspective view of the other end of the box shown in Fig. 2. Fig. 6 is a sectional view taken as indicated by line 6—6 on Fig. 2. Fig. 7 is a view taken as indicated by line 7—7 on Fig. 5. Figs. 8 and 9 are sectional views taken as indicated by lines 8—8 and 9—9, respectively, on Fig. 6 and Fig. 10 is an enlarged detailed sectional view taken as indicated by line 10—10 on Fig. 7.

The boxing and display unit of the present invention is particularly useful in the shipping and selling of products of manufacture, such as evaporative coolers or air conditioners and, therefore, I have illustrated it in that connection throughout the drawings and description. However, it is to be understood that such application of the invention does not in any way limit the scope or utility thereof.

As shown, the box or container and display unit that I have provided is, firstly, usable as a shipping container S and is, secondly, usable as a display unit D. As indicated, the evaporative cooler X is a sizeable and weighty unit decoratively finished with the desired surface ornamentation and requires protection from foreign objects and substances, and from heat and light. The particular evaporative cooler X that I have shown is substantially square in configuration and has flat sides 10 in the form of panels that include louvers and air handling openings, etc.

The shipping container S is a box-shaped structure adapted to receive and house the evaporative cooler X, or the like, and involves a plurality of side panels 11 and top and bottom panels 12 and 13, respectively. As illustrated in Fig. 3 of the drawings, the side panels 11 may be formed integrally of a single sheet or length of material 14, such as corrugated cardboard, while the top 12 and bottom 13 are separate elements of similar material that are applied to the sides at the top and bottom margins thereof.

The sheet of material 14 when in flat pattern is rectangular in plan configuration, having spaced parallel edges, there being upper and lower edges 15 and 16 and end edges 17. The upper and lower marginal portions of the sheet 14 are defined by lines of scoring or weakening 18 and 19 that are parallel to the edges 15 and 16. Thus, the marginal portions may be folded from the plane of the sheet 14 to form tabs 20 and 21.

In order to define four separate side panels, lines of scoring or weakening 24 extend transversely of the sheet 14 between the lines 18 and 19. The lines 24 are parallel with each other, and with the end edges 17 occur at the corners of the shipping container S when the sheet 14 is
3 folded and assembled as shown in Fig. 1 of the drawings. The tabs 20 and 21 are ultimately folded or manipulated from the plane of the side panels 11 and, therefore, notches or openings 25 are provided at the ends of the lines 24 so that the side panels 11 can be folded separately relative to each other.

In order to form a shipping container S, the end edges 17 of the sheet 14 are brought together and secured to each other in any suitable manner as by a strip of tape 23 or the like. The individual panels are then established and defined by bending or folding the sheet 14 at the scoring 24 and joined edges 17 thereby forming a tubular structure. The bottom 13 may then be applied and fastened to the lower tabs 31, which are folded outwardly to lie adjacent the side panels. At this stage of assembly the evaporative cooler X may be put into the container S, whereupon the top 12 may then be applied in the same manner as the bottom 13. The bottom 13 and top 12 are engaged with the tabs 20 and 21 as clearly illustrated in Fig. 5 of the drawings, and may be secured to the tabs 20 and 21 by glueing or stapling. In practice, a strap or binder 22 may be applied that locks the parts together. It is to be understood that there are various manners of utilizing the tabs 20 and 21 and of applying the top 12 and bottom 13.

In accordance with the present invention three of the side panels 11 are selected as display panels 29, 30 and 31, while one of the panels is selected as an introduction panel 32. As shown, there are three advertising or display panels and a single instruction or back panel 32 that occurs between the panels 29 and 31 when the container is assembled. As clearly illustrated in Fig. 5 of the drawings, the advertising panels and instruction panel are arranged in a series extending longitudinally of the sheet 14. The panels 29, 30 and 31 may be considered front panels and these panels and the back panel 32 are flat rectangular sections of the sheet 14 defined by the lines 18, 19, 24, and the edges 17, and may be provided with the usual shipping instructions which are ordinarily required and as clearly illustrated throughout the drawings. For example, the instruction panel 32 may include printed handling instructions and warnings, etc.

In Fig. 3 of the drawings, I have illustrated a line of demarcation 40 that is provided by the present invention, making the shipping container S usable for additional purposes. As shown, the shipping container S is usable as a display unit P by cutting along the line of demarcation 40 and by reforming or reshaping the sheet 14. The line of demarcation 40 may be a simple printed line or may be a line of scoring or weakening, and is provided to indicate the proper point of separation that is to be established in order to reform the container S into the display unit P. When the sheet 14 is one single piece of material the end edges 17 are preferably coincident with one side of the back panel 32, for example, the right side, while the other side of the back panel 32 is coincident with the line 24 of the adjoining front panel. With this relationship of parts the end edges 17 are abutted and the tape 23 is applied to the panels to join them, in which case, the line of demarcation 40 is applied to the tape 23 at the point of joiner to extend between the lines 18 and 19. The line of demarcation 40 is a straight line, being an easy matter to cut the tape 23 along said line thereby separating the end edges 17 of the container S.

In Figs. 5 and 6 I have shown the display unit of the present invention as it is formed or shaped from the sheet 14 of the shipping container S. After the evaporative cooler X has been removed from the container S, the upper and lower tabs 20 and 21 may be parted or separated from the top and bottom 12 and 13 and the material 14 is parted or severed along the line 40. At this stage of treatment the structure includes the front panels 29, 30 and 31 and the back panel 32 which is joined to and extends from the front panel 31.

As shown in Figs. 5, 6 and 9 of the drawings, the panels are folded toward each other at an acute angle along the lines 24 and the panels 29 and 32 are arranged adjacent each other to have overlapping engagement. The panels 29 and 32 may be secured together in any suitable manner as by glueing or stapling. However, and in accordance with the present invention, it is not necessary to secure the said panels together, the tabs 20 and 21 being employed for this purpose. When the front or advertising panel 29 is manipulated to overlie and cover the back panel 32, a triangular display unit P is formed.

With the tubular triangular display unit P thus far described the tabs 20 and 21 project from the upper and lower lines 18 and 19 above referred to. In order to secure the tubular unit into a stable and reliable structure, the tabs 20 and 21 are folded inwardly as shown in Figs. 8 and 9 of the drawings and are held in that position by the end portions of the tabs that engage the walls of adjacent panels. When the tabs are turned inwardly the panels 29, 30, 31 and 32 are locked together, and the lower edges thereof engage the ground or supporting surface along the line 19 so that the unit P stands vertically and upwardly. The upper and lower terminal ends of the display unit P are reinforced by the tabs 20 and 21 that are folded inwardly and are defined by the lines 18 and 19 which are in a plane normal to the vertical axis of the display unit.

When the sheet 14 is parted or severed and the panels rejoined as above referred to, a straight column-like tubular structure results that forms the display unit P. The edges of the display unit are straight and flat and the unit is triangular in cross section preferably equilateral. Such a structure is mechanically stable and will not bend or shift laterally, providing the panels 29, 30 and 31 remain flat. It has been found that an evaporative cooler X of the character referred to is adequately and safely supported by the display unit of the present invention if it is formed of ordinary corrugated cardboard. It will be apparent from Fig. 2 of the drawings that the display unit provides a pedestal or mounting for the evaporative cooler X which holds and supports the cooler in an elevated position for better display.

In accordance with the present invention I have provided fastening means A for maintaining the panels 29 and 32 flat, one against the other. The fastening means A acts to secure the inner face of the end portion or edge 17 of the panel 29 in close engagement with the outer face of one side of the panel 32 and involves, generally, spaced couplers 50. The couplers 50 are alike and involve spaced parts formed in the two panels. As shown, there is a plurality of couplers 50 forming a series of couplers along or at the end edge 17 of the panel 29. As illustrated in Fig. 10 of the drawings, each coupler 50 includes a tongue 51 carried by the panel 29 and projecting through and engageable in an opening 52 in the panel 32, and a tongue 53 carried by the panel 32 and projecting through and engageable in another opening 54 for the panel 29. The openings in adjacent panels are in alignment with each other and are established by the tongues which are deflected from the plane of the material forming the panel. The configuration of the tongues and openings are alike and curved and are preferably
semi-circular, as shown. It is to be observed that the tongues 53 project or extend outwardly and downwardly through the opening 54 in panel 29, while the tongues 51 project or extend inwardly and upwardly through the opening 52 in panel 32. By providing the tongues and openings of curved or circular configuration, the coupler parts are locked by wedging action and hold the panels 29 and 32 securely together.

From the foregoing it will be apparent that I have provided a simple and useful shipping container and display unit which is useful for both transporting, advertising and displaying an article of manufacture without additional cost or expense to either the manufacturer, wholesaler or retailer of the product. It will be apparent to the person using the shipping container that I have provided how it can be reformed or reshaped into the display unit P or pedestal by simply observing the lines of demarkation and the instructions as printed or formed in the instruction side 32 of the sheet 14 which forms the unit.

Having described only a typical preferred form and application of my invention, I do not wish to be limited or restricted to the specific details herein set forth, but wish to reserve to myself any variations or modifications that may appear to those skilled in the art and fall within the scope of the following claim:

Having described my invention, I claim:

A convertible box having removable unitary top and bottom panels and four vertically disposed side panels of equal vertical and horizontal extent, formed of an elongate rectangular sheet of material having horizontally disposed top and bottom edges and vertically disposed ends and having three longitudinally spaced lines of scoring formed therein, the sheet being bent at 90° along each line of scoring whereby the ends of the sheet occur adjacent to each other and the sheet establishes the sides of the box, the sheet being adapted to be bent at 60° along each line of scoring after the top and bottom panels are removed and so that the panels at the ends of the sheet are shifted into lapped engagement with each other and the sheet establishes an equilateral triangular pedestal, and coupling means adapted to secure the panels at the end of the sheet in lapped engagement and including, a row of vertically spaced openings adjacent the free end of one of said end panels, a row of vertically spaced openings adjacent the line of scoring defining the other end panel and adapted to register with the first mentioned row of openings, and tongues on the end panels adjacent the openings therein to project through the adjacent opening in the other end panel, the tongues on one end panel occurring adjacent the top of the openings therein and the tongues on the other end panel occurring adjacent the bottom of the openings therein.

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