United States Patent [19]

Hand

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[54] **CARTON FOR LAMP AND THE COMBINATION THEREOF**

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[73] Assignee: **Luxo Lamp Corporation,** Port Chester, N.Y.

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[52] **U.S. Cl.**..... **206/320,** 206/491, 206/521, 229/14 C, 229/16 R

[51] **Int. Cl.**..... **B65d 5/50,** B65d 5/00, B65d 85/30

[58] **Field of Search** ..... 206/320, 521, 491, 328; 229/14 C, 16 R, 38 R, 33

[56] **References Cited**

UNITED STATES PATENTS

1,669,169	5/1928	Moss	206/320
2,791,363	5/1957	Boeye	206/491
2,844,295	7/1958	Williams	229/33
3,027,061	3/1962	Locke	229/16 R
3,259,295	7/1966	Butz	229/16 R

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[57] **ABSTRACT**

A one-piece folded box or carton for enclosing a lamp of the type having a shade assembly and an extensive counter-balanced arm assembly. The box has a cubical compartment at the bottom in which the shade assembly of the lamp is firmly supported, and there is an upstanding cavity which encloses the arm assembly of the lamp. When the carton is assembled, the various panels are held together by integral tabs which mate with slots during assembly and provide a rigid structure. There are also fold-in panels which interfit with the contour of the lamp and provide firm cushioned support.

7 Claims, 6 Drawing Figures

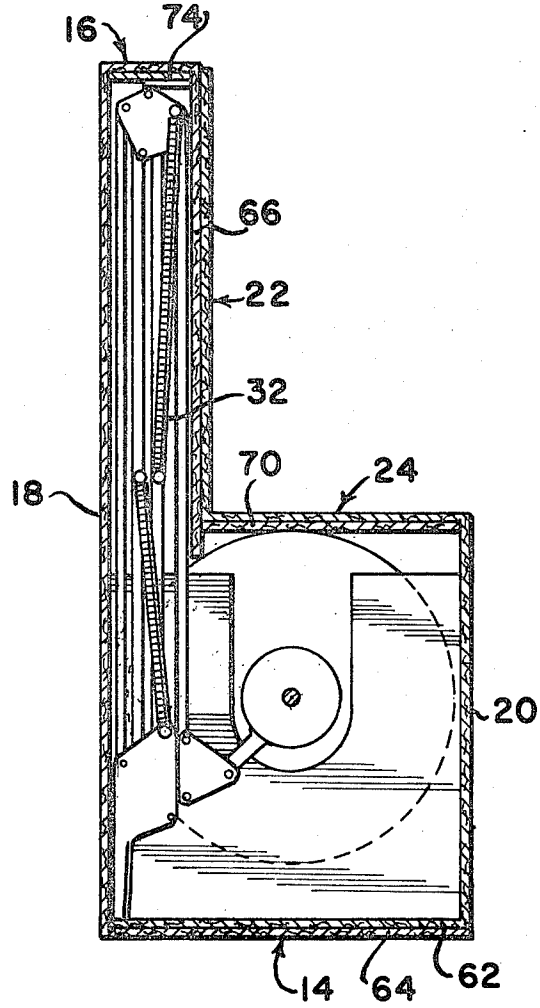


Fig. 1

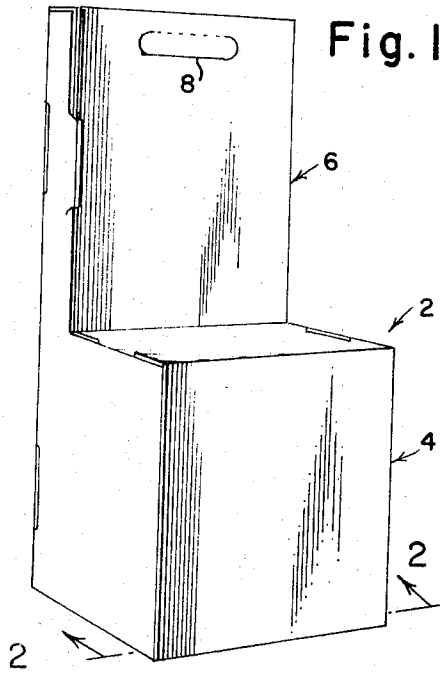
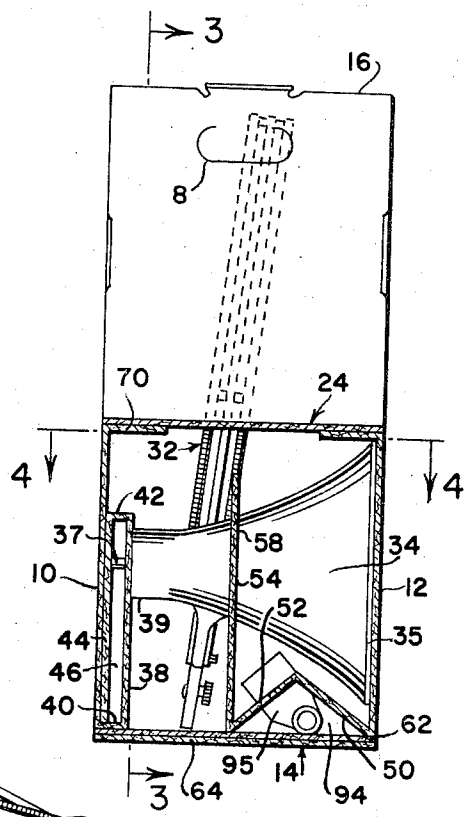


Fig. 2



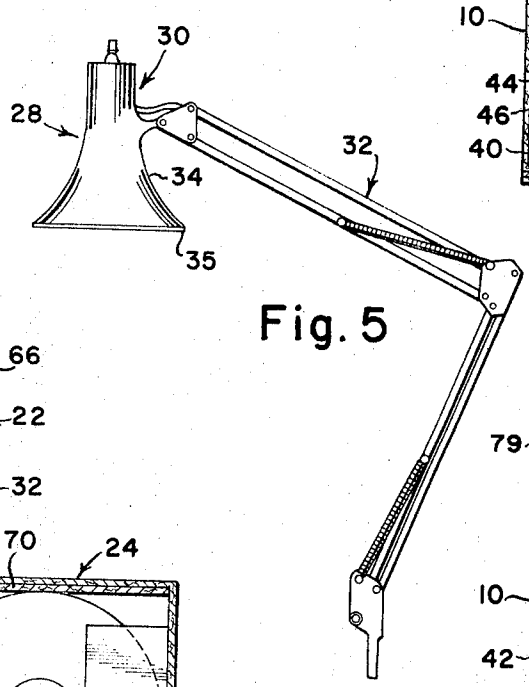


Fig. 5

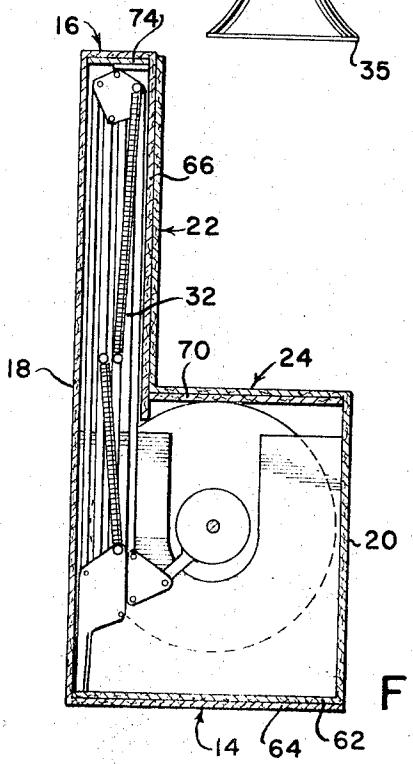


Fig. 3

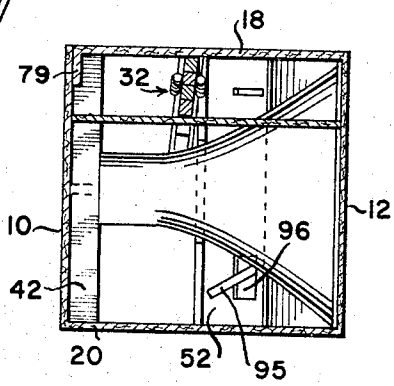


Fig. 4

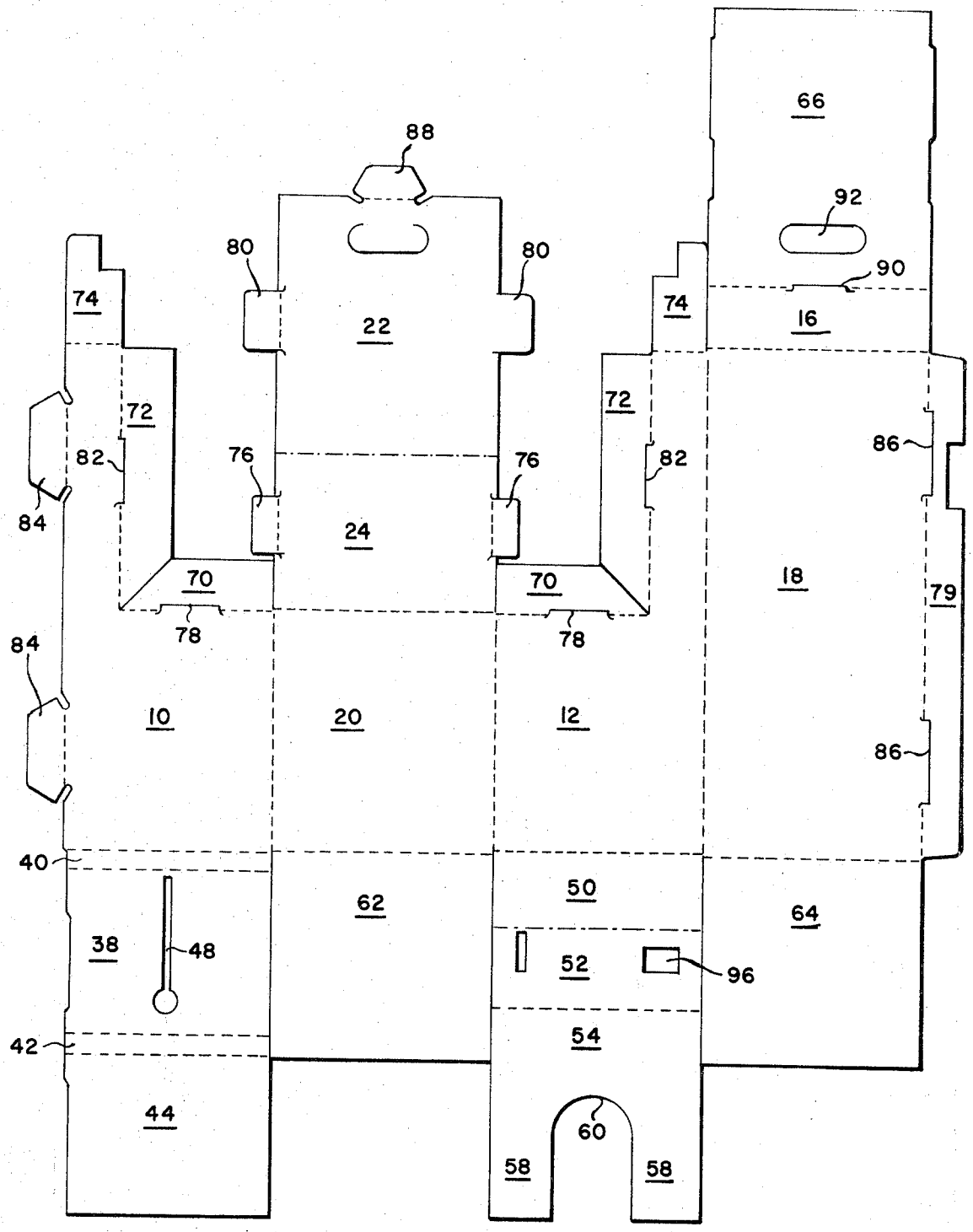

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Fig. 6

CARTON FOR LAMP AND THE COMBINATION THEREOF

This invention relates to storage and shipping cartons, and more particular to cartons for lamps of the type having a shade assembly and an extensible counterbalanced arm assembly.

An object of this invention is to provide compact and sturdy cartons for lamps of the type referred to above. A further object is to provide a one-piece carton which is readily assembled and which protects the lamp from damage. Another object is to provide a carton of the above nature into which the lamp is received in snug, secure manner with a minimum amount of free space within the carton so as to provide a high ratio of weight relative to volume. A further object is to provide for the above with a carton for packaging a lamp which gives satisfactory protection for the lamp at all times. A still further object is to provide for the above with an arrangement wherein the lamp and carton constitute a compact unit which is easily handled and stored, and with respect to which neither the lamp nor the carton is damaged during normal conditions. These and other objects will be in part obvious and in part pointed out below.

Referring to the drawings which show one embodiment of the invention:

FIG. 1 is a perspective view of a complete unit of the illustrative embodiment of the invention;

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

FIGS. 3 and 4 are sectional views, respectively, on the lines 3—3 and 4—4 of FIG. 2;

FIG. 5 is a perspective view of the lamp of FIGS. 1 to 4; and,

FIG. 6 is a plan view of the paperboard blank from which a carton of FIGS. 1 to 5 can be formed.

Referring to FIG. 1 of the drawings, a carton 2 has a somewhat cubical lower main cavity 4 which is open to an upper riser cavity 6 which is rectangular in cross-section. Near the top of cavity 6 there is a score line 8 along the sides and bottom of an area of the side wall which can be pushed in and hinged at the top to provide a handle. The carton (see FIGS. 6, 2 and 3) has panels forming side walls 10 and 12, a bottom wall 14, a top wall 16, a rear wall 18, a lower front wall 20, an upper front wall 22, and a ledge or top wall 24. Wall 24 forms the top of the lower cavity 4, and extends between front walls 20 and 22. Hence, a closed storage cavity is provided by the cubical cavity 4 at the bottom, and the riser cavity 6 which extends upwardly from the rear vertical side of cavity 4.

As shown in the drawings, a lamp 28 has its shade assembly 30 positioned in the cubical cavity 4, and the collapsed arm assembly 32 extending vertically into the riser cavity 6. The lamp shade 34 (FIG. 2 has a circular rim 35 at its flared end resting against the right-hand side wall 12, and the projecting left-hand end of a switch 37 at the small left-hand end or top 39 of the shade provides support at wall 38, as will be explained below.

Referring to FIG. 6, a wall panel 38 is an extension of side wall 10 and is connected thereto by a narrow panel 40. A narrow panel 42 connects wall panel 38 to a wall panel 44, and during assembly of the carton (see also FIG. 2), walls 38 and 44 and strips 40 and 42 are folded in the manner shown so that a space 46 is provided between walls 38 and 44. Wall 38 has a keyhole slot 48 (FIG. 6) into which the projecting end of the lamp switch 37 is nested so as to provide the above-mentioned support for the end of the lamp shade.

Side wall 12 has a fold-in extension (FIG. 2) formed by inter-connected panels 50, 52 and 54 which are positioned as shown when the lamp has been placed in the carton to form the assembled carton and lamp unit. The fold between panels 50 and 52 is near shade 34, and panel 54 is bifurcated by a cutout with two legs 58 between which the shade is nested against a semicircular edge 60 so as to give support.

Front wall 20 and rear wall 18 have integral bottom extension panels 62 and 64, respectively, which interfold to provide bottom wall 14. Front wall 20 has a top extension which forms walls 24 and 22, and wall 18 has a top extension which forms top wall 16 and an inner wall panel 66 which is assembled behind and coextensive with wall panel 22. Each of side walls 10 and 20 has three extensions 70, 72 and 74 which are folded rearwardly as an initial step of assembly into the carton. Thereafter, walls 10 and 12 are folded rearwardly from wall 20 and panel 70 form horizontal ledges at the bottom edge of panel 24 so that wall 24 rests on those ledges when it is folded rearwardly. At the same time, wall 22 is folded forwardly with respect to wall 24, and wall 22 nests against panels 72. Panels 74 extend beneath wall 16, and, as indicated above, panel 66 is positioned behind wall 22. An extension panel 79 along the side of panel 18 is folded back and (see FIG. 4) fits in behind the edge of panel 10. During assembly: two tabs 76 on panel 24 are projected through slots 78 at the tops of panels 10 and 12; two tabs 80 on panel 22 are projected through slots 82 on panels 10 and 12; two tabs 84 on panel 10 are projected through slots 86 along the edges of panels 18 and 79; and tab 88 on panel 22 is projected through slot 90 at the top of panel 16. A cutout 92 permits the portion above score line 8 to hinge inwardly to provide a handle, as discussed above.

In that way, carton 2 is fully assembled, and the lamp is inserted from the bottom between the bottom panels 62 and 64. As indicated above, the projecting end of the switch assembly is inserted in the keyhole slot and panels 50, 52 and 54 are moved into position as shown in FIG. 2. Lamps of this type have a mounting bracket 95 which is fixed to a table or other base, and panels 50 and 52 provide a pocket 94 adjacent the bottom wall in which the mounting bracket is nested. Referring to FIGS. 4 and 6, panel 52 has a cutout 96 into which the corner of the mounting bracket projects so as to anchor it in place. The bottom walls 62 and 64 are then folded into place and are secured to each other by adhesive.

The unit comprising the carton and the enclosed lamp is compact and easily handled. The lamp provides rigidity and yet it is protected from damage, even when the package is subjected to normal abuse. The structure formed by panels 38, 40, 42 and 44 provides reinforcement from the front and rear walls and resists a tendency for the corner of the carton to be twisted or deformed. Panels 50, 52 and 54 perform a similar reinforcing function. The center of gravity of the entire unit is to the left of the upper portion of panel 54 so that the package is properly balanced for being supported from the top handle. Panel 66 and wall 22 cooperate to insure the desired rigidity relative to walls 18 and 24.

Walls **20** and **22** are the same size so that one unit can be inverted and mated with another with the two walls **24** co-extensive and each wall **20** extending along a wall **22.** The two units occupy a rectangular upight space so that they can be stored and shipped without space between them. The lamps and cartons are fully protected from damage, and yet the weight per volume is relatively high.

What is claimed is:

1. A closed carton for a lamp of the type having a flared shade assembly with a small end which is attached to a support arm assembly, said carton having a main cavity which is substantially cubical and within which the shade assembly is positioned and an extension cavity in which a portion of the arm assembly is positioned, said carton having a first vertical wall which is common to said main cavity and said extension cavity, said main cavity having a second vertical wall which is parallel to said first wall and having a right angle extension which forms a top wall for said main cavity and a second vertical wall for said main cavity, third and fourth parallel vertical side walls for said main cavity, a fold-in extension on said fourth vertical wall having a first panel which is positioned at an acute angle with respect to said fourth vertical wall and which is connected to a second panel along a fold, said second panel having its edge opposite said fold portion connected to a third panel at substantially the bottom of said main cavity, said third panel being bifurcated to form two extensions which are positioned upon the opposite sides of said shade with a curved edge which engages said shade and provides support therefor, and additional panels to provide a closed carton.

2. A carton as described in claim **1** wherein the first- and second-named walls have extensions which provide the bottom wall for the carton and wherein said first-named wall has an extension which provides the top wall for said extension cavity and a reinforcing wall which is coextensive with said parallel wall.

3. A carton as described in claim **2** which includes a fold-in extension on said third wall which is folded into said main cavity and which has fouor panels each of which is folded and connected by a right angle fold to the next and which form a narrow side cavity within said main cavity adjacent said third vertical wall.

4. A closed carton for a lamp of the type having a flared shade assembly with a small end which is attached to a support arm assembly, said carton having a bottom main cavity which is substantially cubical and within which the shade assembly is positioned and a vertical extension cavity in which a portion of the arm assembly is positioned, said carton having a first vertical wall which is common to said main cavity and said extension cavity, said main cavity having a second vertical wall which is parallel to said first wall and an adjacent right angle horizontal wall which forms the top wall for said main cavity, a second vertical side wall for said extension cavity, third and fourth parallel vertical side walls for said main cavity, the lamp shade having its flared end resting against said fourth wall and having a switch assembly adjacent said third wall, a fold-in extension on said fourth vertical wall having a first portion extending from said fourth vertical wall and a second portion which is bifurcated to form two extensions which are positioned upon the opposite sides of said lamp shade and a curved edge which engages said shade and provides support therefor, additional panels to provide a closed carton, and means adjacent said third vertical wall into which an end of said lamp is held, one of said side walls for said extension cavity having a cut-out portion adjacent its top which provides a supporting handle.

5. The construction as described in claim **4** which includes the lamp positioned as set forth and having its center of gravity in the upper central portion of said main cavity.

6. The construction as described in claim **5** wherein said extension cavity is substantially the same in its vertical dimension as said main cavity, and wherein said cavities are substantially rectangular in vertical and horizontal sections throughout, whereby two of the constructions described may be positioned with the extension cavity of each extending coextensive with the main cavity of the other.

7. The construction as described in claim **4** which includes tab portions projecting into slots to hold said carton in assembled condition throughout the vertical dimension.

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