Jan. 16, 1962 E. M. PRICE 3,017,018

SHIPPING AND DISPLAY CARTON

Filed May 12, 1959 2 Sheets-Sheet 1

Fig. 1.

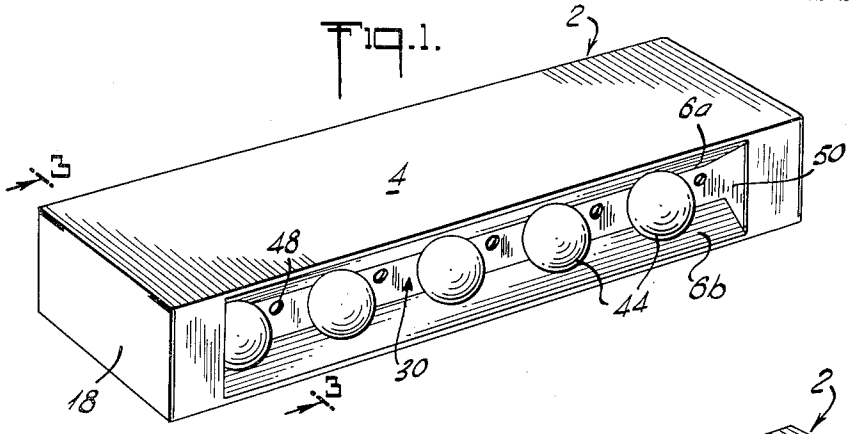


Fig. 2.

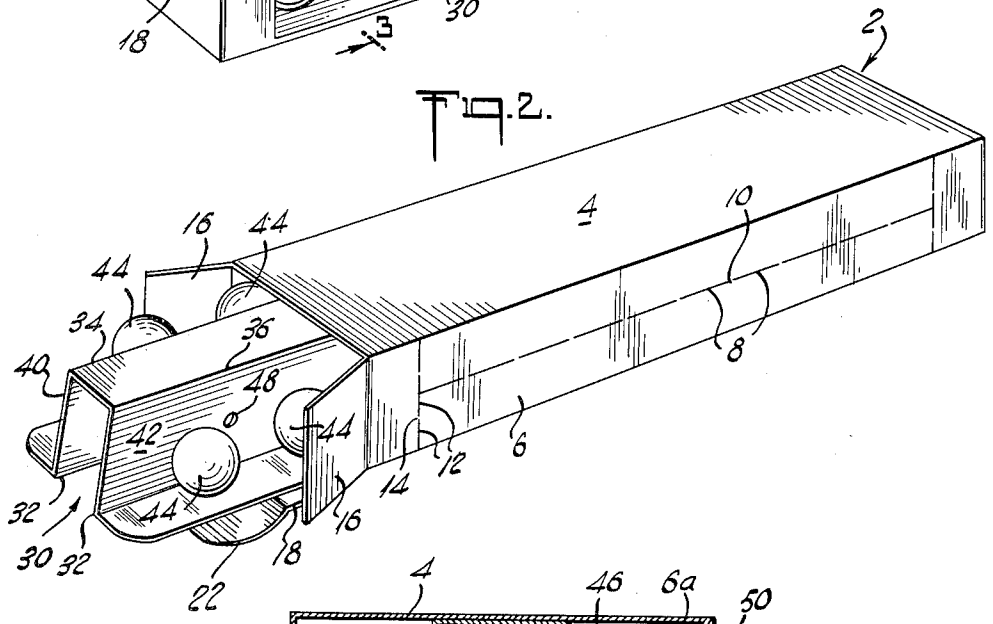
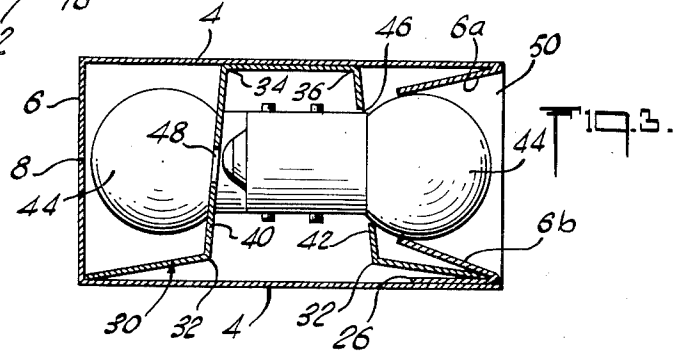


Fig. 3.



INVENTOR
EDWARD M. PRICE
BY
Eyre, Mann & Lucas
ATTORNEYS

Jan. 16, 1962 E. M. PRICE 3,017,018

SHIPPING AND DISPLAY CARTON

Filed May 12, 1959 2 Sheets-Sheet 2

Fig. 4.

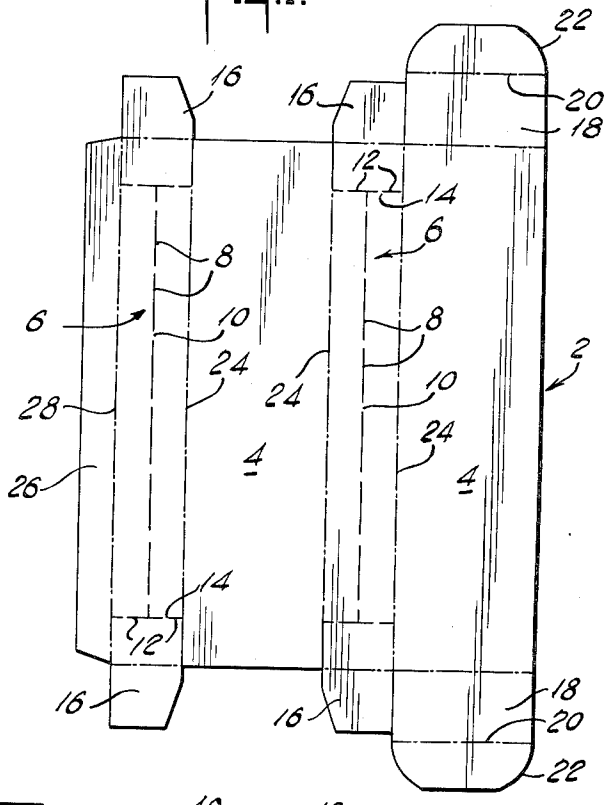
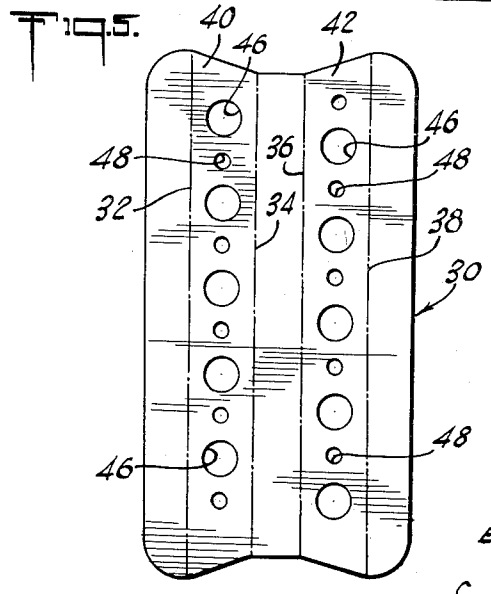


Fig. 5.



INVENTOR
EDWARD M. PRICE
BY
Eyre, Mann & Lucas
ATTORNEYS

United States Patent Office 3,017,018 Patented Jan. 16, 1962

3,017,018

SHIPPING AND DISPLAY CARTON

Edward M. Price, Bloomfield, N.J., assignor to Tung-Sol Electric Inc., a corporation of Delaware

Filed May 12, 1959, Ser. No. 812,615
1 Claim. (Cl. 206—45.31)

The present invention relates to shipping and display cartons for small components such as miniature lamps and comprises a novel carton of this type which is economical to manufacture, strong enough to withstand handling in shipment, is adapted for safe shipment of relatively fragile components and converts into an attractive display container from which the articles mounted therein may be readily dispensed. More particularly, the new carton comprises two elements one an outer container readily assembled from a single blank having score and fold lines therein and an inner article carrier formed from a blank having apertures and fold lines therein and adapted to support, in spaced relation, articles such as miniature lamps.

A feature of the invention is the scoring of the blank from which the outer container is to be formed that permits the side walls of the formed container to be opened to form a window through which the contents may be viewed and removed.

Another feature of the invention is the simple construction of the insert which permits the lamps or other articles to be firmly mounted in the insert in spaced relation and in position for access through the side walls of the outer container. The new shipping and display carton is simple to make and to assemble as the outer container requires only folding and one gluing operation and the insert requires only folding.

For a better understanding of the invention and of a specific embodiment thereof particularly adapted for shipment and display of miniature lamps, reference may be had to the accompanying drawings of which

FIG. 1 is an isometric view of a carton containing ten miniature lamps and shown with one side wall opened for display of the lamps;

FIG. 2 is an isometric view illustrating introduction of the insert carrying the lamps into the outer container;

FIG. 3 is a transverse sectional view taken on the line 3—3 of FIG. 1;

FIG. 4 is a plan view of the scored blank destined to become the outer container of the carton; and

FIG. 5 is a similar view of the blank destined to become the insert of the carton.

In the particular embodiment of the invention illustrated in the drawings, the outer container 2 is of generally rectangular cross section and has unapertured rectangular upper and lower walls 4, and side walls 6. There is a medial line of cuts 8 separated by short uncut lengths 10 in each side wall 6. The line of cuts 8 in each side wall 6 terminates short of the end of the wall and intersects, at each of its ends, a transverse line of cuts 12 separated by uncut sections 14, the end cuts 12 terminating at the junction of the side walls with the upper and lower walls 4. Each end of the container 2 comprises a pair of side flaps 16 which are extensions of the side walls 6, and a central and wider flap 18 which is an extension of one wall 4. The central flap 18 is longer than either flap 16 and has a transverse crease or fold line 20 therein. Beyond the fold line the flap 18 is rounded at its outer corners, as indicated at 22 to facilitate insertion between the inwardly folded flaps 16 and the under surface of the opposite wall when the container is to be closed.

FIG. 4 shows the blank from which the container 2 is assembled by folding along crease or fold lines stamped

in the blank. The fold or crease lines which separate the side walls 6 from the upper and lower walls 4 are indicated in FIG. 4 by the reference numeral 24. Along one long side of the blank is a relatively narrow strip 26 which, when the container is to be assembled by folding at the lines 24, is folded along the crease line 28 of the blank and brought flush against the inner surface of the wall 4 at the other side of the blank and cemented thereto by glue, paste or the like. The blank for the container 2 is preferably of cardboard or similar inexpensive material that may be stamped from stock and have the fold and cut lines readily formed therein.

The article carrier comprises an insert 30 formed from a flat sheet having parallel longitudinal fold lines 32, 34, 36 and 38 therein, the panel or strip 40 between the lines 32 and 34 and the panel or strip 42 between the lines 36 and 38 being somewhat less in width than the depth of the walls 6 of the container. When lamps, such as those illustrated at 44 in the drawings, are to be mounted on the insert 30 a plurality of spaced holes 46 of a diameter for friction fit with bases of the lamps, are punched in the insert 30 in the panels 40 and 42. As shown best in FIG. 5 the holes 46 in the panel 40 are staggered with respect to the holes 46 in the panel 42. Intermediate each punched hole 46 is a smaller hole 48 for a purpose hereinafter to be described. When the insert 30 is to be introduced into the container 2 the blank is folded substantially at right angles at each of the lines 32 to 38, thus bringing the panels 40 and 42 generally parallel. A lamp 44 is then inserted into each hole 46 and the so folded insert is introduced through one open end of the container 2 as shown in FIG. 2 . Upon inward folding of the flaps 16 and upward folding of the flap 18 with the end thereof folded along the line 20 and introduced under the opposite wall 4, the carton is ready for shipment.

When the carton is to be used for displaying and dispensing the lamps the uncut portions 10 between the cuts 8 and the uncut portions 14 between the cuts 12 are broken by pressure on opposite sides of the lines of cuts. With a carton material of cardboard or the like, there is sufficient flexibility to permit the edges of the separated halves 6*a* and 6*b* of the side wall to be pushed past the lamps into the position shown in FIGS. 1 and 3. When the parts 6*a* and 6*b* are in this position a window 50 is formed in the side wall through which the lamps are exposed to view and through which access may be had to the lamps. Because of the staggering of the lamps on the two strips of the insert when the insert is folded on the crease lines and introduced into the container 2, the base of each lamp is substantially aligned with a hole 48 in the other panel of the insert. Thus the bases on one panel can be seen through the holes 48 in the other panel and danger of disposal of a carton before depletion of the lamps is minimized. The staggering of the lamps 44 in the panels of the insert also conserve space by insuring that the bases of the lamps will not abut.

The invention has now been described in connection with a single embodiment and in connection with the packaging of small lamps such as those used for automobiles. Obviously the invention is not limited to such specific use as the new container is equally applicable for packaging, shipping and displaying articles other than lamps. Although the openings in the insert have been shown as round holes, because the particular carton is illustrated as containing lamps having round bases, obviously the shape of the holes in the insert would be such as to conform to the shape of the particular article to be supported. Other variations within the scope of the accompanying claims will be apparent to those skilled in the art.

The following is claimed:

A shipping and display package of incandescent lamps comprising an outer container of rectangular cross section, an inner carrier member and a plurality of incandescent based lamps mounted on said carrier member, said outer container having four rectangular side walls and two end walls providing closure means for the container, each of two opposing side walls of the container having a medial line of perforation therein terminating short of the end walls and two transverse lines of perforations intersecting the medial line at each end thereof, said two opposing side walls of the container, when severed at the lines of the perforation therein being divided into two sections which, when inwardly folded, define a window for display of the lamps and for dispensing the lamps therethrough, said inner carrier having a pair of spaced walls facing said perforated walls of the container and having a row of circular openings therein within which are friction mounted the bases of said lamps with the lamp bulbs facing the perforated walls of the

container, the openings in one spaced wall being staggered with relation to those in the other spaced wall and the spacing between the spaced walls being at least equal to the length of a lamp base, said carrier member including a pair of outwardly extending panels engaging said opposed perforated side walls of the container and spacing the spaced carrier walls equidistant therefrom, said carrier member with the lamps mounted thereon being introducible into the container through an open end wall thereof.

References Cited in the file of this patent

UNITED STATES PATENTS

1,876,120	Wilson	Sept. 6, 1932
2,883,047	Candell	Apr. 21, 1959

FOREIGN PATENTS

491,587	Canada	Mar. 24, 1953
530,769	Great Britain	Dec. 19, 1940
714,467	Great Britain	Aug. 25, 1954