

April 12, 1960

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2,932,439

RIGID CARDBOARD GIFT BOXES

Filed July 9, 1956

2 Sheets-Sheet 1

Fig. 1.

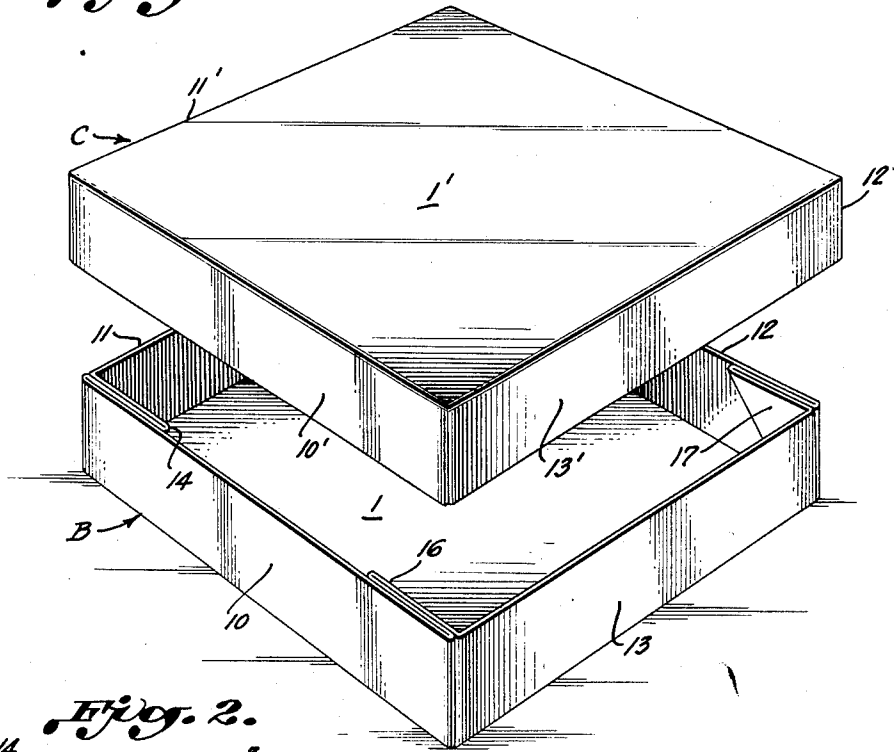


Fig. 2.

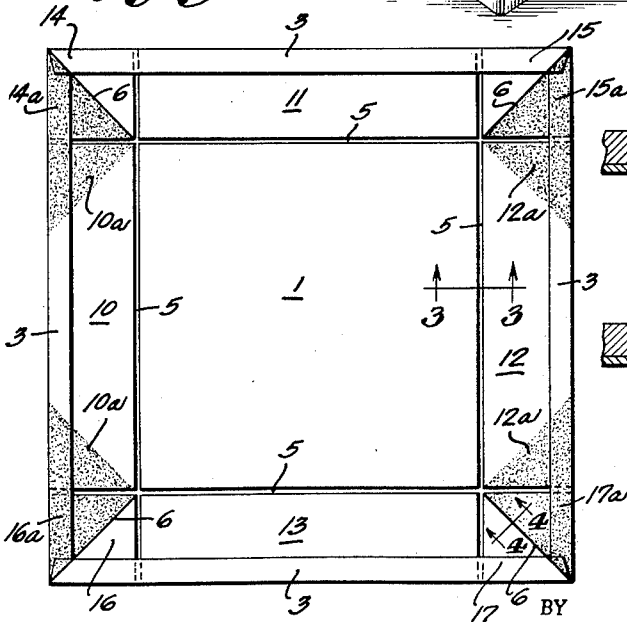


Fig. 3.

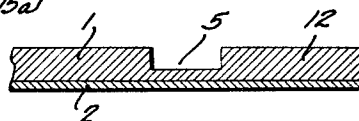
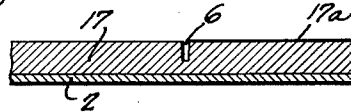


Fig. 4.



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Fig. 5.

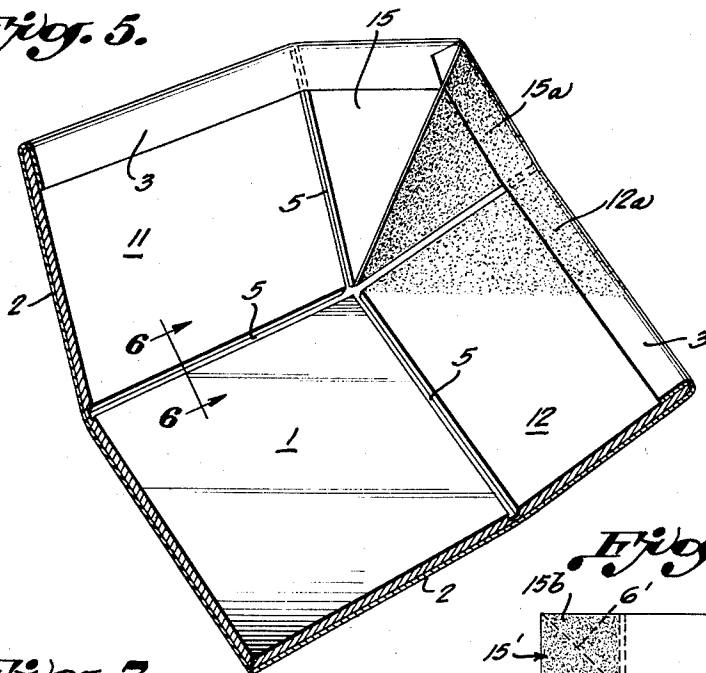


Fig. 7.

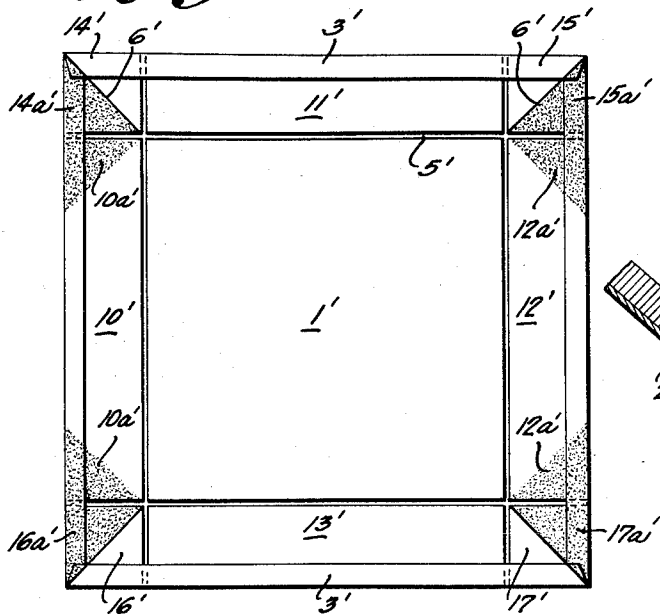


Fig. 8.

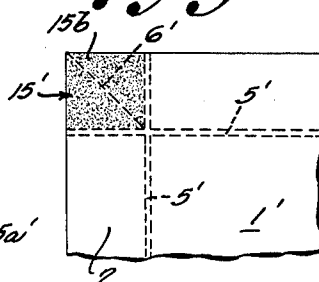
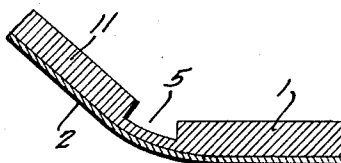


Fig. 6.



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RIGID CARDBOARD GIFT BOXES

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Application July 9, 1956, Serial No. 596,567

1 Claim. (Cl. 229—31)

This invention relates to paper boxes or cartons and more particularly to knock-down or collapsible boxes or cartons formed of rigid cardboard stock provided with a finish layer on the exterior thereof.

It is the object of the present invention to provide cardboard box blanks for forming rigid gift boxes which are reenforced at the corners and which may be set up quickly and easily for utilization by the user of such boxes as the need therefor arises.

It is another object of the invention to provide an economical construction of rigid gift boxes formed of rigid cardboard stock ranging from 0.030" to 0.060" in thickness and covered with a finish layer so that upon setting up of the box the same presents a finished appearance comparable to conventional gift boxes. However, the invention presents the advantage of compactness in shipment and storage, with consequent economies.

It is a further object of the invention to simplify the formation of gift boxes, fabricated from laminated sheets of rigid cardboard stock covered on one face thereof with a finish layer, with the aid of pressure-sensitive adhesive applied to predetermined areas of the box blank to effectuate rapidly the corner construction of the boxes while maintaining the finished appearance of the boxes, closely resembling conventional gift boxes which are covered with a finish layer following their assembly into box forms.

Other objects and purposes will appear from the detailed description of the invention following hereinafter, taken in conjunction with the accompanying drawings, wherein—

Fig. 1 is a perspective view of a gift box formed of rigid cardboard stock and covered with a finish layer of paper, and shown consisting of a base and superposed cover;

Fig. 2 is a plan view of the box blank for the base portion of the box;

Fig. 3 is a vertical sectional view along line 3—3 of Fig. 2;

Fig. 4 is a vertical sectional view along line 4—4 of Fig. 2;

Fig. 5 is a perspective view of the upper right hand corner of the box blank at an intermediate point in the bending of the blank into box form;

Fig. 6 is a transverse sectional view along line 6—6 of Fig. 5;

Fig. 7 is a plan view of the box blank for the cover; and

Fig. 8 is a bottom view of the upper right hand corner of the blank shown in Fig. 7.

While knock-down boxes of cardboard and carton stock have been known and used for many years in the past, it has been impossible heretofore to derive the advantages of such box constructions in the field of gift boxes which require a finished appearance on the exterior thereof, thus necessitating costly resort to the provision of storage space for such gift boxes in the course of transportation of these boxes, as well as storage by

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the merchandiser while awaiting need for the utilization of these boxes. The instant invention serves to prepare a box blank which may be retained in flat form in the course of shipment and storage until it is necessary that the same be set up for use, when the assembly may be quickly and effectively consummated to attain a gift box of finished appearance which is as strong and as satisfactory as conventional gift boxes known heretofore.

Fig. 1 illustrates the finished box formed of a base B and a cover C which are substantially identical in construction except for the fact that the center portion 1' of the cover C is dimensioned slightly larger than the center portion 1 of the base B, so that the former may be readily superposed upon the latter. The sides of the cover C may be of lesser depth than those of the base B, if the external dimensions of the blanks for the base and cover are maintained identical.

In Fig. 2 is shown the box blank for the base of the box which is shown square in configuration, but which may be of any rectangular outline, depending upon specific needs. The box is formed of a full rectangular blank of non-bending cardboard stock ranging in thickness from 0.030" to 0.060". The rigid stock is first cut or blanked into full blanks of the requisite dimensions and thereafter a high speed cutter or milling tool is employed to remove the stock from one face thereof by skiving or grinding along straight lines spaced uniformly from each edge of the rectangular blank. These grooves 5 are preferably cut into the stock for more than one-half of the depth thereof and preferably to a depth of two-thirds its thickness and of a width of approximately twice the thickness of the stock. Thereafter, a finish layer 2 of ornamental paper is applied to the face of the box blank opposite the exposed face in which the grooves have been cut, and the margins of the finish layer may be overlapped over the edges of the blank on the exposed faces, as shown at 3.

If the finish layer 2 is of smooth non-stretchable paper or other material it may be desirable to pre-bend the sides of the box blank relative to the central portion thereof prior to the complete drying of the adhesive joining the two laminations in order to facilitate the ultimate bending of the sides from the central portion at the time of final assembly. On the other hand, if the finish paper 2 is of a stretchable character, as is the case with alligator or crepe finishes, this pre-bending step is not necessary.

The grooving of the cuts 5 in the blank serves to delineate the sides 10, 11, 12 and 13 of the box arranged peripherally with respect to the center portion 1. These grooves also delineate squares 14, 15, 16 and 17 at the corners of the box blank and following the application of the finish layer to the obverse side of the blank, diagonal scores 6 are cut in each of the squares extending from the corners of the box to the respective points of intersection of the grooves 5. The scoring cuts are executed by means of a knife and may extend for about one-half the thickness of the rigid cardboard stock.

Thereafter, pressure sensitive adhesive is applied to predetermined areas on the opposite faces of the box blank. As shown in Fig. 2, the adhesive is applied to one-half of each square at the corners of the box blank and to the end of the side immediately adjacent thereto, for example, 14a, 15a, 16a and 17a of corners 14, 15, 16 and 17, respectively, and to ends 10a and 12a of the sides 10 and 12, respectively. Preferably the adhesive is applied to corresponding ends of two opposed sides such as the ends 10a of side 10, and the ends 12a of side 12, leaving sides 11 and 13 free of adhesive. Such an arrangement results in the corner folds being arranged symmetrically on the opposite sides of the box, as clearly

shown in the folded condition of the box in Fig. 1, showing the construction of the corners 14, 16 and 17.

The box blank for the cover, shown in Fig. 7, is similar in construction to the blank for the base shown in Fig. 2, so that corresponding parts are designated with the primes of the corresponding numerals. As stated above, if the external dimensions of the blanks for the base and cover are the same, the sides 10' to 13' of the cover are slightly narrower than the sides 10 to 13 of the base to permit the central portion 1' of the cover to be slightly larger than the central portion 1 of the base.

The pressure sensitive adhesive is applied to both semi-squares of the corners 14, 15, 16 and 17 of the finish layer so that when the box is assembled from its flat form shown in Fig. 2 to the form shown in Fig. 1, the two halves of the corners on the finish layer are adhered together and the adhesive portion on the exposed face of the corner is adhered to the adhesive on one end of the side adjacent thereto (Fig. 5), resulting in the setting up of the corners as shown in Fig. 1. Fig. 8 is illustrative of the adhesive applied to the finish layer at each corner of the blank for the base as well as the cover. In this figure, the adhesive 15b covers the entire area or both semi-squares of the corner 15' of the box blank for the cover C.

The pressure-sensitive adhesive which is employed is of any type known in the art of gums and rubber latex adhesives, having cohesive but non-adhesive properties. Thus, it is non-adhesive to extraneous matter and is activated into cohesion only when it is in contact with another portion which is coated with adhesive. In order to preclude any possibility of the sticking of the box blanks at the corners, wax paper spacers may be provided between the superposed blanks.

While I have described my invention as embodied in

a specific form and as operating in a specific manner for purposes of illustration, it should be understood that I do not limit my invention thereto, since various modifications will suggest themselves to those skilled in the art without departing from the spirit of my invention, the scope of which is set forth in the annexed claim.

I claim:

A rectangular parallelepipedic box of rigid cardboard stock having a finish surface layer on the exterior thereof adapted to be formed in situ from a flat rectangular blank of cardboard scored along lines having a uniform displacement from its four edges to form four sides of equal height extending perpendicularly to the central portion thereof with semi-square gusset folds at each corner of the box maintained in interconnected position solely by pressure-sensitive adhesive, said pressure-sensitive adhesive being disposed on both semi-squares of each corner on the exterior finish surface layer and on only one semi-square of the interior surface together with the corresponding area of the side of the box in juxtaposition to said last-mentioned semi-square.

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