June 18, 1935. R. E. DE LUCE 2,005,131

FOLDING BOX

Filed Nov. 17, 1934 2 Sheets-Sheet 1

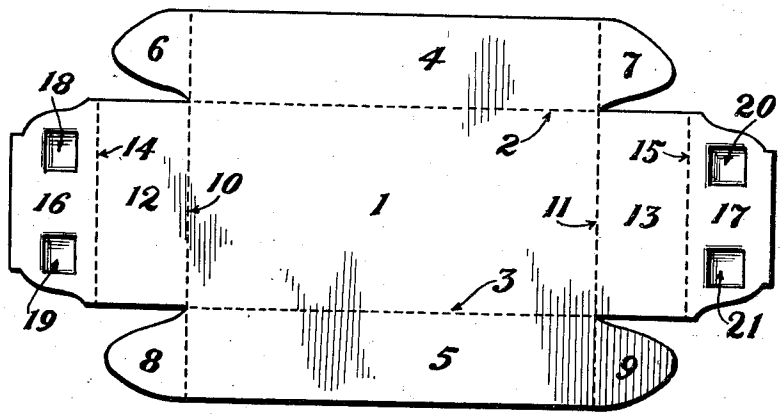


Fig. 1.

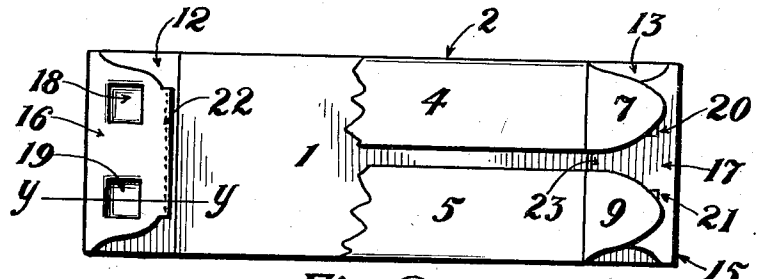


Fig. 2.

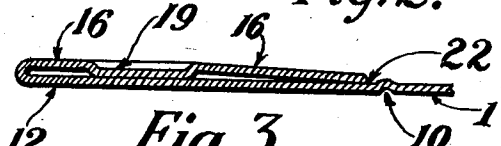


Fig. 3.

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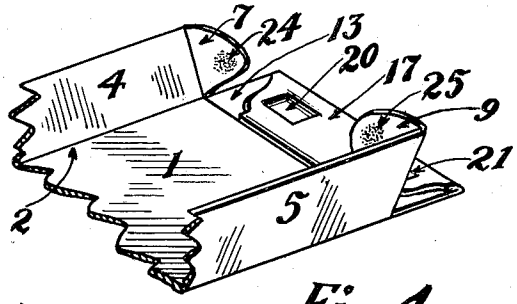


Fig. 4.

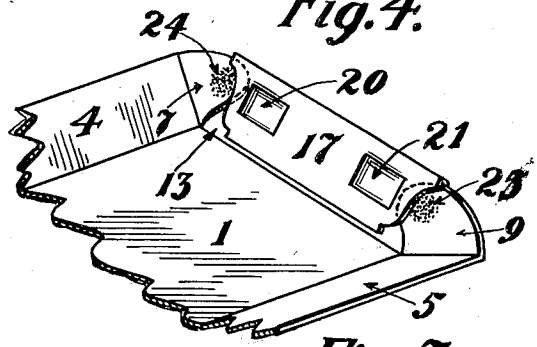


Fig. 5.

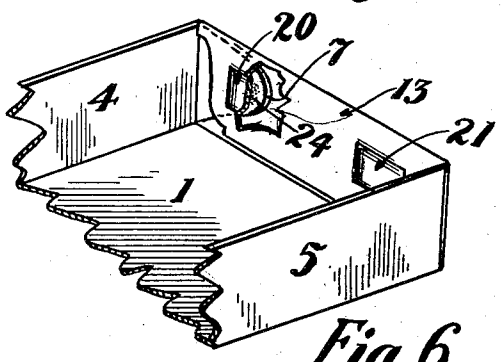


Fig. 6.

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Patented June 18, 1935 2,005,131

UNITED STATES PATENT OFFICE

2,005,131

FOLDING BOX

Robert E. De Luce, Chattanooga, Tenn., assignor to Star Box & Printing Co., Chattanooga, Tenn.

Application November 17, 1934, Serial No. 753,531

4 Claims. (Cl. 229—34)

My invention relates to folding telescopic boxes which are shipped flat to the customer and packer, and set up by them through a gluing medium, the box being so constructed as to permit applying the adhesive at a minimum expense. It is also an object of my invention to produce a very rigid box after same is set up and glued. I attain these and other objects of my invention by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an illustration of the blank for either the lid or bottom of the box, before it is folded or assembled;

Fig. 2 is a top plan view of the blank, with the sides 4 and 5 folded over the main body 1 of the blank, in which shape the boxes are shipped to the customer ready for setting up, a portion of sides 4 and 5 being broken away in this figure to show how the end 16 is folded;

Fig. 3 is a section on line *y—y* of Fig. 2, enlarged;

Fig. 4 is a perspective view of one end of either the lid or bottom, with the side walls 4 and 5 raised and flaps 7 and 9 bearing adhesive being bent inward;

Fig. 5 is a perspective view showing how tabs 7 and 9 are inserted between end portions 13 and 17 of the box; and

Fig. 6 is a perspective view of the assembled lid or bottom of the box with tabs 7 and 9 fully inserted, and with a part of end portion 17 broken away to show the position of flap 7 when assembled.

The same numerals are applied to the same parts in each of the several views.

Referring to the accompanying drawings, I provide a lid and bottom of like shape, either of which may be formed from a blank like that shown in Fig. 1. This blank has a body 1, side scores 2 and 3, by which the sides 4 and 5, respectively are separated from body 1, end tabs 6 and 7 on the side 4, end tabs 8 and 9 on the side 5, each of these end tabs being of similar shape and size as shown, end scores 10 and 11 at the end of the box, separating the end portions 12 and 13, respectively from body 1, edge scores 14 and 15 separating the end portions 12 and 13 from the end extensions 16 and 17, respectively.

I have devised novel indentations 18 and 19 in end extension 16, and similar indentations 20 and 21 in the opposite end extension 17, as illustrated in Figs. 1 and 3. I apply a suitable adhesive to the ends of the tabs 7, 9, 6 and 8, as illustrated in Figs. 4, 5, and 6, as at 24 on tab 7 and at 25 on tab 9, and similarly on tabs 6 and 8.

In use the blank is first formed in the shape shown in Fig. 1. It is then folded as shown in Fig. 2 for shipment to the customer and packer. In this flat form it can be conveniently packed for shipment. The end extension 17 is bent over the end 13, and the end extension 16 is bent over the end 12, the gluing being disposed on edge portion 22 of member 16 and edge portion 23 of member 17, as shown in Fig. 2. The side strips 4 and 5, with their tabs 6, 7, 8, and 9 are bent over and folded flat, at the score lines 2 and 3.

In setting up the box for use, the sides 4 and 5 with their respective tabs, are raised to a slanting position as shown in Figs. 4 and 5 and the tabs 7 and 9 are inserted between members 17 and 13 while the tabs 6 and 8 are inserted between the members 16 and 12. Each of the tabs has adhesive applied to its inner side either by hand or by suitable mechanical means as illustrated at 24 and 25 in Fig. 4. As the tabs are inserted between the ends and folded over end extensions, the adhesive comes in contact with the respective indentations 20 and 21 on extensions 17, 18 and 19 on the extension 16. These indentations automatically apply pressure on the glued portions of the tab as will be apparent by referring to the sectional view, Figs. 3 and 6. In other words, there is a wiping contact between end of the tab carrying the adhesive and the adjacent end extension which has the indentations. It will also be noted that the tabs 6, 7, 8 and 9 are of a rather unusual shape having their outer edges arcuate and having their inner edges formed in an approximately S-shaped curve. This shape of the tabs, as shown in the drawings, has been found to be necessary in order to have them work satisfactorily.

What I claim is:—

1. In a folding box of the type described, the combination of a body portion, opposite ends having scores disposed between the ends and the body, and extensions on each of the ends having scores disposed between said ends and end extensions, each of the end extensions having indentations, sides having scores disposed between the sides and body of the blank and tabs at opposite ends of the respective sides and having scores disposed between said tabs and said sides, said tabs being adapted to receive an adhesive and being of suitable shape for insertion between the end extensions and end portions of the box when the latter are folded over in position for assembling and being of suitable size and shape to effect a wiping contact of the portions carrying the adhesive with the indentations of the end extensions.

2. In combination with the box defined in claim 1, the end extensions having adhesive applied close to their edge portions whereby the end extensions can be glued to the end portions for the purpose of making a flat compact package of the blank for purposes of shipment.

3. In a folding box of the type described, the combination of a body portion, opposite ends having scores disposed between the ends and the body, and extensions on each of the ends having scores disposed between said ends and end extensions, each of the end extensions having a plurality of indentations, sides having scores disposed between the sides and body of the blank and tabs at opposite ends of the respective sides and having scores disposed between said tabs and said sides, said tabs being adapted to receive an adhesive and being of suitable shape for insertion between the end extensions and end portions of the box when the latter are folded over in position for assembling the indentations on the end extensions being disposed to receive a wiping contact with the tabs when the latter are inserted.

4. In combination with the box defined in claim 1, the aforesaid tabs having their outer edges of arcuate shape and having their inner edges of an approximately S-shape as shown to facilitate insertion of the tabs in the manner defined.

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