

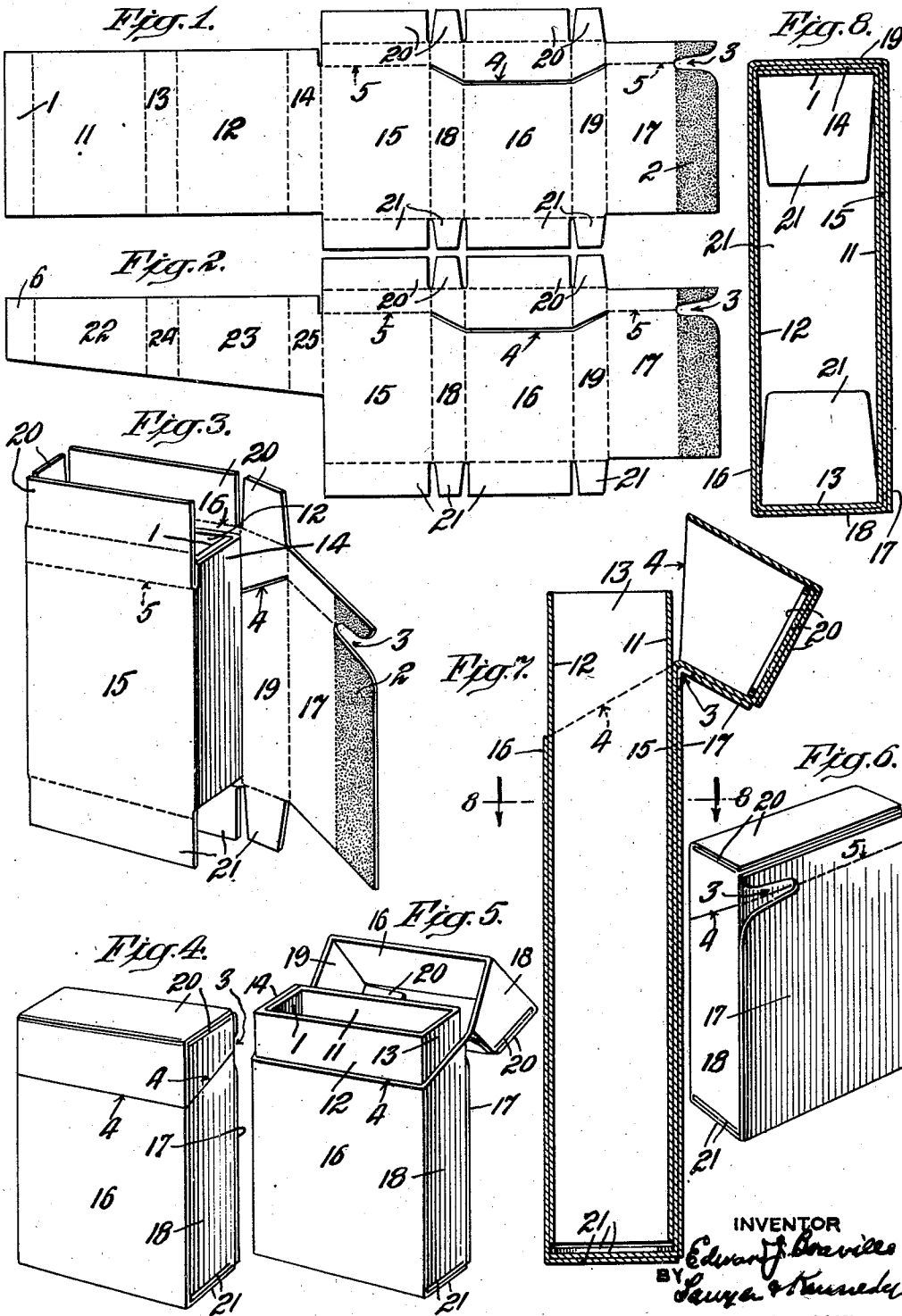
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BOXES

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BOX

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6 Claims. (Cl. 229-44)

This invention relates to boxes of that class in which a top cover tilts back to expose the contents, such boxes being used particularly for cigarettes, cigars, tobacco, candy and the like, the object being to provide such a box of cardboard that is cheap, suitable for manufacture by machine and strong, so that it may be substituted for the metal boxes largely used, and in which the tilting top may be strongly hinged without danger of breakage and is held in position to close the box by friction between the cover and box walls.

For a full understanding of the invention, a detailed description of the box will now be given in connection with the accompanying drawing showing the box in a preferred form and a modification thereof, and the features forming the invention will then be specifically pointed out in the claims.

In the drawing:

Figure 1 is a plan view of the box blank in the preferred form;

Figure 2 is a similar view showing a modified form of the blank;

Figure 3 is a perspective view of the box made from the blank of Figure 1, showing the inner box formed before the closing of the outer panels and the cover;

Figure 4 is a perspective view of the box from the front side;

Figure 5 is a similar view of the box with the top open;

Figure 6 is a view similar to Figure 4 showing the rear or hinge side of the box;

Figure 7 is a longitudinal central section of the box open; and

Figure 8 is a cross section of the box looking down from line 8 of Figure 7.

Referring to the drawing, the blank shown in Figure 1 and the box shown in Figures 3 to 8 consist of the two wide panels 11, 12 and the narrow panels 13 and 14 forming the inner box with end flap 1 on panel 11, which in the box overlaps narrow panel 14 and may be of the same width as shown or of less width or omitted entirely. It is preferably used, however, to strengthen the inner box and glued to panel 14 or it may simply overlie panel 14.

Wide panels 15, 16, 17 and narrow panels 18, 19 form the outer box enclosing the inner box formed by panels 11 to 14, panel 17 being provided with glue on its outer portion 2 and cut away near the top to form notch 3 for a purpose presently to be described. Panels 15, 16, 18, 19 are provided with top flaps 20 and bottom flaps 21, the flaps 20 on their top edges and flaps 21 on their bottom edges

folding over and are glued together to form the cover of the outer box, as usual in such tilting cover boxes. A portion of the upper part of the panels 16, 18 and 19 are cut through or partially on the line 4 so as to be broken on this line for tilting the cover formed by the upper part of these panels and their flaps 20 to open the box and the panels 15, 17 are partially or less deeply cut or weakened on the line 5 to provide a hinge upon which the cover tilts back, this hinge line 5 being in line with the notch 3 of the panel 17. The blank is weakened preferably by shallow scoring between the panels and flaps of the blank, so that these parts may be readily folded together to form the box.

In forming the box, the panels are folded successively from panel 11 to form the inner box with the flap 1 overlying narrow panel 14 and preferably glued thereto, and to form the outer box enclosing the inner box with the panels 15, 18, 16, 19, overlying respectively panels 11, 13, 12, 14 and panel 17 overlapping outer box panel 15 and glued thereto to complete and secure together the parts of the inner and outer boxes except the ends, which are secured by closing and glueing together the end flaps 20, 21.

In glueing the panel 17 onto the panel 15 it will be seen that the two panels 15, 17 are not secured by glue along the hinge line 5 because of the notch 3 extending the depth of the glued portion of the panel 17, so that there is no danger of breaking the hinge as there would be if these panels were glued together on the hinge line. This is an important feature of the construction in assuring the strength and durability of the box.

The folding of the blank to form the box and the construction of the inner and outer boxes will be readily understood from Figures 3 to 8 and the above description and it will be seen that the construction shown and above described forms a very strong multiple layer box which is simple, cheap and convenient and in which the cover hinge is strong because formed in the two panels and is well held in position by the friction between the walls of the cover and the walls of the inner box. This box is especially well adapted to mass machine manufacture by the folding of the blank as described.

If economy of material should be of such importance as to make this desirable, the blank of Figure 2 may be used instead of the blank of Figure 1, but the blank and box shown in Figures 1 and 3 to 8 is preferred for strength and durability. The blank of Figure 2 is the same as Figure 1 except that the lower portion of the blank, panels

and flap, are cut away, preferably on an incline, as shown in Figure 2, so that the inner box formed of modified panels 22, 23, 24, 25 and flap 6 is not the full depth of the outer box, weakening to some extent the lower portion of the complete box but leaving the upper portion of the inner box the same and coacting with the outer box and cover as in the box formed from the blank of Figure 1.

It will be understood that the portion of the blank thus cut away for economy of material may be varied in size according to the requirements of manufacture, that the panel 17 may be made of less width than the box, although the construction shown is preferred for strength and appearance, and that other modifications in the construction shown may be made within the invention defined by the claims.

I claim:

1. A box consisting of an inner box comprising four panels, an outer box comprising four panels and folded about the inner box to enclose it, the panels of the outer box having end flaps folded to close the ends of the outer box, and an outer panel folded about said outer box and having at its end a portion widthwise of the panel glued to the underlying outer box panel, three adjacent walls of said outer box panels being cut at one end to form a tilt back cover hinged on a panel on the fourth side of the outer box and on said outer panel in line with said cuts to close over the ends of the walls of the inner box, said glued portion widthwise of the outer panel being cut away opposite the hinge line to avoid glueing the outer panel on the hinge line, all said panels forming a single blank with the panels in line and scored for folding the blank over and over longitudinally from one end of the blank to form the box.

2. A box blank comprising four panels arranged in line and scored for folding the blank to form an inner box, four panels scored to fold over the inner box to form an outer box enclosing the inner box and an outer panel scored to fold over one of the panels of the outer box and covering substantially the entire underlying outer box panel, flanges on the ends of the outer box panels folding to close the ends of the outer box, three adjacent walls of the outer box and said outer panel being cut at one end to form a tilt back cover hinged on the fourth panel of the outer box and said outer panel in line with said cuts to close over the ends of the walls of the inner box, said outer panel being cut away through a portion of the panel at its end widthwise in line with the hinge to permit glueing said portion to the underlying panel without glue on the hinge line, all said panels of the blank being in line and arranged for folding the blank over and over longitudinally of the blank from the inner box end to form the inner and outer boxes.

3. A box consisting of an inner box comprising four panels, an outer box comprising four panels and folded about the inner box to enclose it, end flaps on the panels folded to close the ends of the box, three adjacent walls of said outer box panels being cut at one end and forming a tilt back cover hinged in line with said cuts to close over the end of the inner box, said hinge being formed by two of the box panels overlying each other and scored in line with said cuts, said overlying panels forming the hinge being glued to-

gether on a portion widthwise of the panels, said glued portion of the outer panel being cut away on the hinge line to avoid glueing the panels together on the hinge line, all said panels forming a single blank with the panels in line and scored for folding the blank over and over longitudinally from the inner box end of the blank to form the box.

4. A box blank comprising four panels arranged to form an inner box, an outer box comprising four panels arranged to fold about the inner box to enclose it, end flaps on the panels folded to close the ends of the box, three adjacent panels of the outer box panels being cut at one end to form a tilt back cover hinged in line with said cuts and two of the box panels arranged to overlie each other in the box and scored in line with said cuts to form the cover hinge, one of said panels arranged to overlie and form the hinge being provided with glue on a portion widthwise of the panel and one of said overlying panels being cut away on the hinge line through the glued portion to avoid glueing the panels together on the hinge line, all said panels forming a single blank with the panels in line and scored for folding the blank over and over longitudinally from the inner box end of the blank to form the box.

5. A box blank for forming a rectangular box, comprising a single piece of cardboard having spaced parallel transverse score lines defining a series of eight panels in line for folding over and over longitudinally of the blank, starting at one end of the blank and ending with a terminal glue panel at the other end of the blank, so as to form an inner box and an outer box enclosing the inner box, the panels having flaps for folding to form box ends including flaps at one edge of the blank on the outer box panels for forming a closed outer box end, and the blank having adjacent said edge a cut running longitudinally of the blank and traversing only the three panels adjacent the terminal glue panel, and score lines across the terminal glue panel and the fourth panel therefrom and forming continuations of said cut and functioning as a hinge line for the portion severed by said cut, whereby the blank may be folded to form a box having a tilt back cover hinged upon said terminal panel and fourth panel along said score lines across the same.

6. A box blank for forming a rectangular box, comprising a single piece of cardboard having spaced parallel transverse score lines defining a series of eight panels in line for folding over and over longitudinally of the blank to a terminal glue panel at one end of the blank, so as to form an inner box and an outer box enclosing the inner box, the panels having flaps for folding to form box ends including a closed outer box end having flaps at one edge of the blank on the outer box panels, and the blank having adjacent said edge a cut running longitudinally of the blank and traversing only the three panels adjacent the terminal glue panel, and score lines across the terminal glue panel and the fourth panel therefrom and forming continuations of said cut and functioning as a hinge line for the portion severed by said cut, whereby the blank may be folded to form a box having a tilt back cover hinged upon said terminal panel and fourth panel along said score lines across the same.

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