

July 15, 1958

C. G. MYERS
THICK-SIDED BOX

2,843,305

Filed Sept. 30, 1955

3 Sheets-Sheet 1

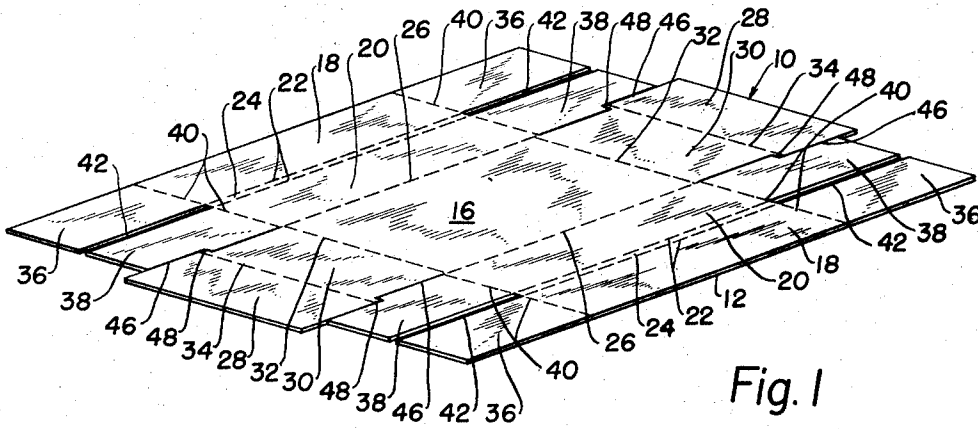


Fig. 1

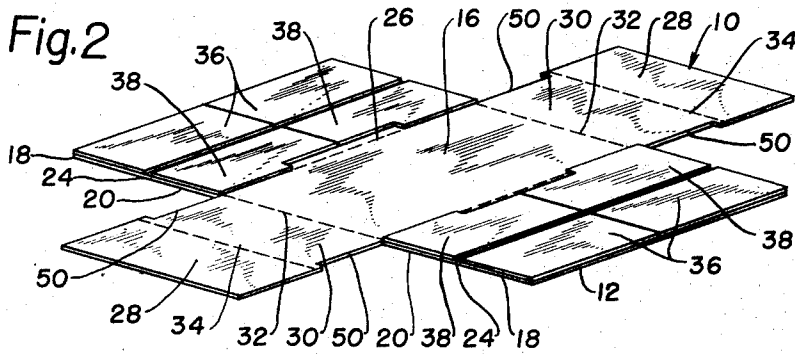


Fig. 2

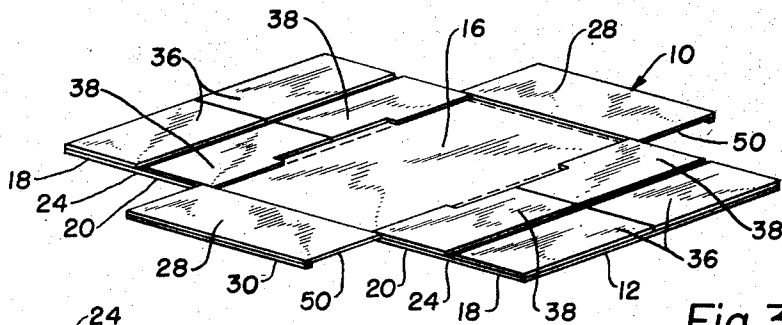


Fig. 3

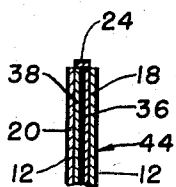


Fig. 7

INVENTOR.
Chester G. Myers
BY
C. G. Myers
Attorney

July 15, 1958

C. G. MYERS
THICK-SIDED BOX

2,843,305

Filed Sept. 30, 1955

3 Sheets-Sheet 2

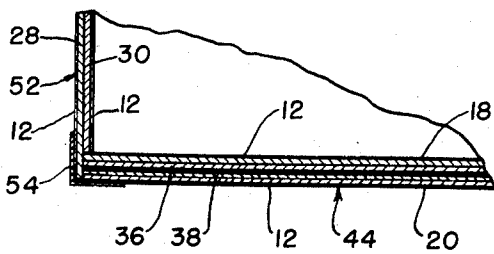
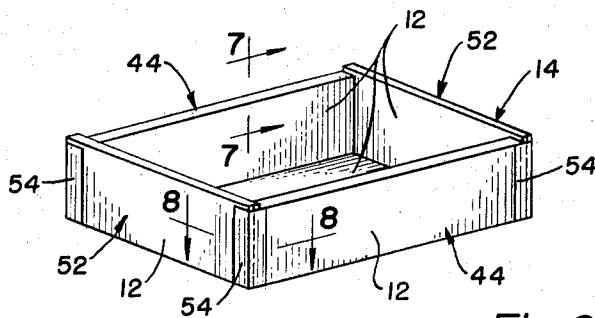
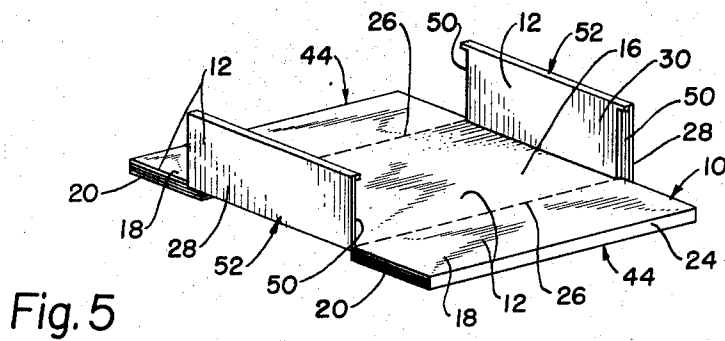
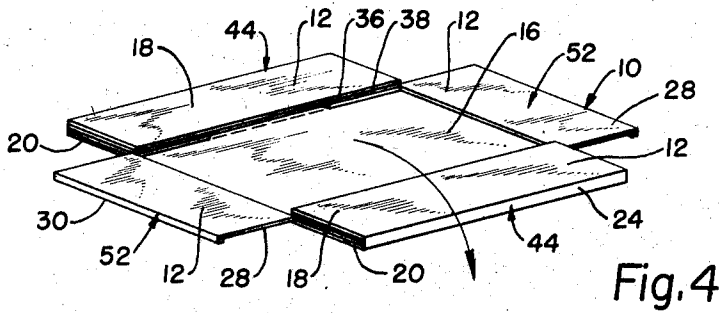


Fig. 8

INVENTOR.
Chester G. Myers

BY

A. H. ...
Attorney

July 15, 1958

C. G. MYERS
THICK-SIDED BOX

2,843,305

Filed Sept. 30, 1955

3 Sheets-Sheet 3

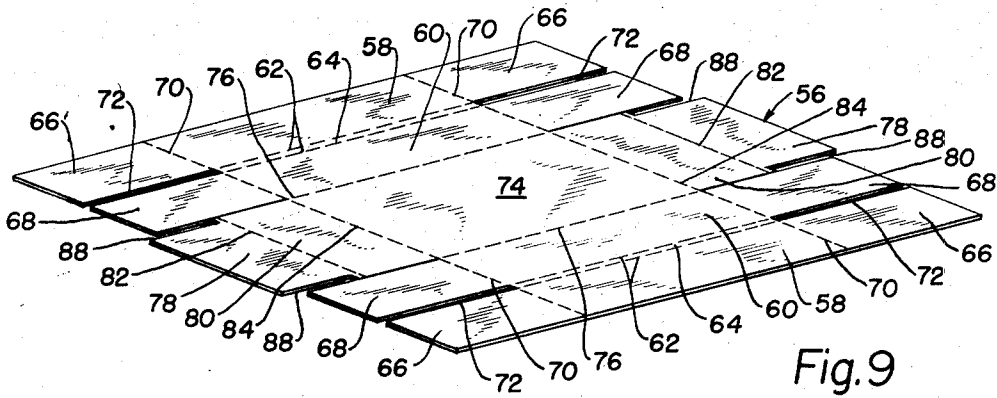


Fig. 9

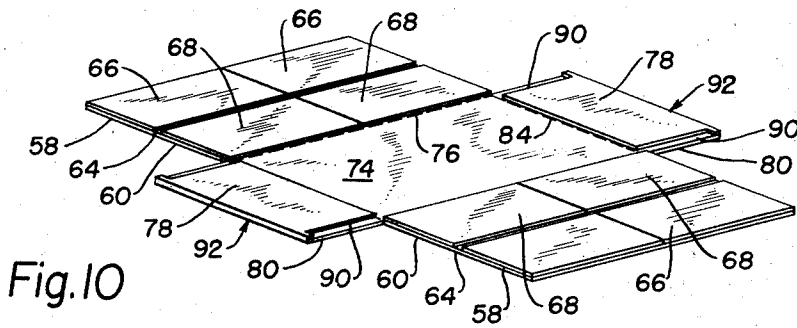


Fig. 10

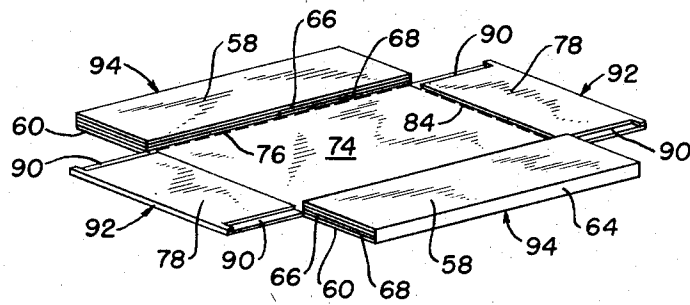


Fig. 11

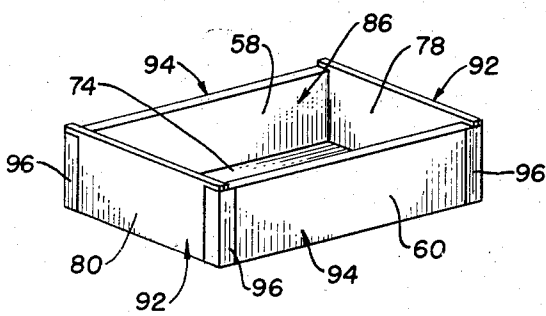


Fig. 12

INVENTOR.
Chester G. Myers
BY
C. G. Myers
Attorney

1

2,843,305

THICK-SIDED BOX

Chester G. Myers, York, Pa.

Application September 30, 1955, Serial No. 537,615

4 Claims. (Cl. 229—30)

This invention relates to improvements in a thick-sided box and, more particularly, but without restriction thereto, to a cigar box. Preferably, the box is formed by folding a blank cut or otherwise formed from suitable sheet stock materials such as un laminated chip-board.

Due particularly to the fragile nature of products such as cigars, it is necessary to use boxes which are stronger than conventional chip board boxes formed for example from only a single thickness of sheet chip-board stock. One reason for this is that the boxes are subjected to extensive wear during the normal life thereof. For example, when such a box contains fifty cigars, it is conceivable that such a box may be lifted in and out of a cigar counter as much as fifty times. Further, in some stores, the boxes are not displayed in a single layer or row of boxes with the tops open but, they are stored in stacked condition and the desired box of cigars is pulled from the stack while the boxes on top thereof are permitted to more or less fall down upon the next box.

In order to provide a box which will withstand the type of usage described in the foregoing sufficiently to protect the cigars contained therein, cigar boxes conventionally have been made from wood for many years. However, the greatly increased cost of wood in recent years has forced cigar manufacturers to use less expensive boxes, especially in merchandising low priced cigars. Chip-board accordingly has been used for supplying cigar boxes for low priced cigars, said boxes sometimes using either wood or pre-laminated panels of chip-board in order to provide the required thickness especially in the sides of the box. Not only is it customary to provide sides of substantial thickness for strength but the lids of cigar boxes conventionally for many years have been closed at the factory by using a nail driven through the lid and into the front side of the box.

The use of pre-laminated chip-board stock, for example having a thickness of $\frac{3}{16}$ of an inch, considerably increases the cost of a box including such stock due to the fact that chip-board stock which is pre-laminated at the factory and sold to the cigar box manufacturer in such condition increases the cost of the sheet stock as much as \$12.00 or more per ton over the cost of non-laminated stock. This is a substantial factor in the manufacturing of cigar boxes, particularly for the low priced lines of cigars.

The present invention was developed to provide a box having particularly front and rear sides of substantial thickness, so as to compare favorably in appearance and function with boxes having wooden front and rear sides for example, yet the box is far less expensive due to the fact that it is formed from single thickness chip-board sheet stock of 50 points gauge more or less, and the desired thickness particularly in the front and rear sides thereof is acquired by laminating juxtapositioned panels of said single thickness stock automatically by machinery and affixing the laminated panels together by a suitable adhesive such as glue, whereby the completed box has the required strength, the desired thickness in the front

2

and rear sides particularly, but costs a minimum to produce as compared with boxes of similar dimensions which are formed either totally or partially from wood or pre-laminated chip-board stock.

Several embodiments of the invention are illustrated and described herein, these differing slightly from each other, particularly in the method contemplated for forming the product in order to dispose the various side-forming and end-forming panels thereof in slightly different arrangements, whereby the embodiments might be adapted advantageously to different types of automatic machinery for forming boxes by folding from blanks of chip-board stock.

Still further, it is an object of the invention which is ancillary to the foregoing to provide a box construction which is especially adapted to the formation of cigar boxes or the like in which the ends of the box are formed with mortices to receive the ends of the sides of the box and thereby produce a box having greater strength than boxes not provided with such mortices.

Details of the invention and the foregoing objects, as well as other objects thereof, are set forth in the following specification and illustrated in the accompanying drawings comprising a part thereof.

In the drawings:

Fig. 1 is a perspective view of a blank arranged to be folded to produce a box having incorporated therein the principles of one embodiment of the invention.

Fig. 2 is a view similar to Fig. 1 but showing certain panels of the blank of Fig. 1 folded in accordance with preliminary steps of the invention.

Fig. 3 is a view similar to Fig. 2 but showing still additional panels folded relative to other panels in accordance with intermediate steps of forming a box according to the present invention.

Fig. 4 is still another view similar to Fig. 3 but showing the blank after having received further folding operations in accordance with the invention.

Fig. 5 shows the blank illustrated in Fig. 4 turned entirely over about an axis parallel to one edge of the partially folded blank, as indicated by the arrow in Fig. 4, and the end-forming panels of the box blank have been folded to extend transversely to the bottom-forming panel of the box.

Fig. 6 is a perspective view showing the completely folded blank which now constitutes a box including the principles of said one embodiment of the invention.

Fig. 7 is a fragmentary section view, taken on the line 7—7 of Fig. 6, and showing certain details of construction embodied in the invention.

Fig. 8 is a fragmentary sectional plan view, taken on the line 8—8 of Fig. 6, and illustrating certain details of construction in the invention.

Fig. 9 is a perspective view of a blank which is slightly modified from that shown in Fig. 1 and arranged to be folded into a box comprising another embodiment of the invention.

Fig. 10 is a perspective view of the blank shown in Fig. 9 after it has received certain intermediate folding operations of a number of panels of the blank.

Fig. 11 is a view similar to Fig. 10 but showing the blank after having received still further folding operations.

Fig. 12 is a perspective view of a completely formed box embodying the principles of the invention included in the embodiment of the invention shown in Figs. 9 through 11.

In the drawings, there are illustrated two typical embodiments of the invention. Said specific embodiments are intended primarily to be illustrative however rather than restrictive in that it is conceivable that the principles of the invention could be employed in still other,

3

but similar, embodiments. Further, while the embodiments of the boxes comprising the present invention are adapted admirably for use as cigar boxes, it is not intended to restrict the invention to boxes for such use, since the principles of the invention may be employed in boxes intended for other purposes.

The embodiment of the invention illustrated in Figs. 1 through 8 now will be described. A typical example of blank 10 which incorporates the principles of said one embodiment of the invention is illustrated in these figures. This embodiment of the invention also lends itself to the economical use of a finished surface sheet 12 which is affixed to only a single surface of the blank 10 such as the bottom surface as viewed in Figs. 1 through 4. As will be described hereinafter, a completed box 14, shown in Fig. 6, will be formed by folding the blank 10 in such a way that the finish surface sheet 12 will be disposed on all outer surfaces of the sides and ends of the box 14, as well as on all interior surfaces of the box. Hence, a box having such finish surface sheet covering all essential surfaces thereof may be formed from sheet stock having such finish surface sheet 12 only on one surface thereof, thereby minimizing the cost of the sheet stock. It is to be understood of course that such finish surface sheet 12 may be of any desired color or have any desired surface characteristics.

One suitable form of sheet stock material from which the blank 10 may be formed is known in the trade as chip-board. Single thickness stock of 50 point gauge more or less, for example, is highly suitable. Sheet stock of this type is formed into blanks readily on a die cutting and creasing machine, not illustrated, such machine being provided with suitable dies operable simultaneously to cut the blank 10 from the sheet stock and also form the various slits as well as perforated or scored lines along which the various panels of the blank are to be folded relative to each other, as will be explained hereinafter.

Referring particularly to Fig. 1, the blank 10 comprises a bottom panel 16. Pairs of side-forming panels 18 and 20 respectively are foldably connected to each other by compound lines of folding perforations 22, which are parallel to each other and are slightly spaced apart to provide an intermediate, narrow connecting strip 24. When the side-forming panels 18 and 20 of each pair are folded into parallelism with each other, a space substantially as wide as strip 24 is provided between the inner surfaces thereof to accommodate certain panels of the blank as will be described hereinafter, as shown in somewhat exaggerated manner in Fig. 7. It will be seen that the side-forming panels 18 are disposed outermost from the bottom panel 16, while the panels 20 will be referred to as inner side-forming panels. Said inner side-forming panels each are foldably connected to opposite edges of the bottom panel 16 by preferably parallel lines of folding perforations 26.

Connected to the other opposite edges of bottom panel 16 are pairs of end-forming panels 28 and 30, the innermost panel 30 of each pair respectively being foldably connected to the other opposite edges of bottom panel 16 by preferably parallel lines of folding perforations 32. The panels 28 and 30 of each pair also are foldably connected by lines of folding perforations 34. Particularly when the invention is adapted to cigar boxes, the ends should be slightly higher than the sides of the box in the finished form as shown in Fig. 6, to accommodate a lid between said ends. Hence, under these circumstances, the end-forming panels 28 and 30 are slightly wider than the side-forming panels 18 and 20 to afford such additional height to the ends of the box.

Pairs of additional panels 36 and 38 respectively are connected to the opposite ends of side-forming panels 18 and 20 by lines of folding perforations 40 which are slightly offset toward the ends of the panels from the

4

lines of folding perforations 32 which connect the inner end-forming panels 30 to the bottom panel 16. The panels of each pair of additional panels 36 and 38 also preferably are separated from each other by slots 42 preferably as wide as the strip 24. The spaces 42 facilitate the folding of the additional panels 36 and 38 between the side-forming panels 18 and 20 when the latter are folded upon the additional panels to form the composite sides 44 shown in Figs. 4 through 6. Further, the panels 38 are separated from the end-forming panels 28 and 30 by slits 46 having transverse offsets 48 therein in order to render the inner panels 30 shorter than outer panels 28, thereby to provide mortices 50, as seen in Fig. 5, which receive the ends of the composite sides 44 when said sides are folded into the final position thereof shown in Fig. 6.

After the blank 10 has been formed in a die cutting and creasing machine to produce the resulting blank illustrated in Fig. 1, said blank is transferred to a folding and gluing machine which first applies glue or other adhesive and then folds the additional panels 36 and 38 endwise upon the side-forming panels to which they are foldably connected, whereby partially laminated structure is produced. The product of this operation is illustrated in Fig. 2. Also, the same machine folds the outermost end-forming panels 28 upon the innermost end-forming panels 30 as shown in Fig. 3. Such folding of said pairs of end-forming panels produces the mortices 50 shown best in Fig. 5. Also, it will be understood that suitable adhesive such as glue is applied between the juxtapositioned surfaces of the pairs of end-forming panels in order that the lamination of the panels becomes permanent to form the composite ends 52 shown in Figs. 4 through 6.

After the folding operations described above have been performed, as shown in Fig. 3, the side-forming panels 18, with the additional panels 36 folded thereupon and adhesively connected thereto, are folded by the same machine along the lines of perforations 22 into overlapping juxtaposition, incidentally applying adhesive to the upper surfaces of the additional panels 36 and/or 38, as shown in Fig. 3, in order to produce the further folded blank shown in Fig. 4 which includes the composite sides 44 and ends 52.

The blank shown in Fig. 4 then is transferred to a machine in which this blank is finally set up into the final box form shown in Fig. 6. One example of suitable machine for accomplishing this automatically is known in the industry as a "quad-stayer." Before the blank shown in Fig. 4 is placed in such a setup machine, it is first reversed by turning the same substantially 180° about one of the side edges as indicated by the arrow shown in Fig. 4. As the blank is viewed in Fig. 4, the finish surface sheet 12 will be disposed on all exposed surfaces of the composite sides 44 and ends 52 as a result of the preliminary folding indicated in Figs. 2 and 3 and in which the finish surface sheet 12 is disposed on the bottom surface of the blank illustrated in Figs. 1 through 4. After the folded blank of Fig. 4 is reversed as described, the finish surface sheet 12 covering one surface of the bottom panel 16 now will be disposed uppermost, whereby, due to the fact that said finish surface sheet 12 is disposed on all normally exposed surfaces of the ends 52 and sides 44, all interior surfaces of the box 14 are covered with said finish surface sheet 12.

The setup machine referred to but not illustrated first folds either the ends 52 or the sides 44 upwardly as shown in Fig. 5, or transversely to the bottom panel 16, and the other composite members such as the sides 44 next are folded transversely to the bottom panel 16 so as to dispose the ends of the composite sides 44 within the mortices 50. If desired, suitable adhesive first may be applied to the surfaces of the mortices and then to the sides 44 which are to abut each other. Such setup machine also automatically affixes strips 54 to the corners

of the now setup box 14. The strips 54 may be either of strong paper such as kraft, suitable sheet resin, woven textile fabric, or the like, or any other suitable sheet material to which adhesive either is initially applied to one surface or is applied at the time the strips are affixed to the corners of the box 14.

The resulting box is strong and durable and is provided with both front and rear sides 44 which are a composite structure of preferably four thicknesses of basic sheet stock from which the blank 10 is formed. Said composite sides 44, which are shown in enlarged sectional view in Fig. 8, may be any desired thickness within reason, depending upon the gauge of the sheet chip-board stock from which the blank 10 is formed. While it is found in practice that chip-board of approximately 50 point gauge is highly satisfactory, it is to be understood that the gauge of chip-board contemplated within the spirit of the invention may vary in thickness from approximately 60 points, down to whatever gauge is found necessary or desirable below 50 points for example.

Affixing the various laminated panels together by means of adhesive as described above results in the production of composite sides 44 and ends 52 which are substantially as rigid as pre-laminated chip-board stock, yet the cost of formation of the box is materially less than that resulting from the use of pre-laminated stock due to the lower cost of single thickness stock from which the blanks 10 are formed. Further, the use of automatic machinery to perform all of the die cutting and creasing, folding and cementing or gluing, and setup and taping operations also contributes to the production of a very inexpensive box by utilizing the principles of the invention.

The outer side-forming panels 18 and the outer end-forming panels 28 are disposed on the exterior of the box 14 when completed as shown in Fig. 6. However, a box having the same number of thicknesses of sheet stock which are laminated together during the folding of the blank to form the box as in the embodiment shown in Figs. 1 through 8 also may be formed by varying slightly the blank and the folding operations. An additional embodiment employing the same basic principles of the invention is illustrated in Figs. 9 through 12. It will be noted also by observing the blanks respectively shown in Figs. 1 and 9 that a minimum of waste scrap stock results from the production of the blank, whereby practically all of the material provided in the blank is consumed usefully in the production of rigid and strong, yet inexpensive boxes.

Referring now particularly to Fig. 9, it will be seen that the blank 56 generally is similar to the blank 10 shown in Fig. 1 in that pairs of side-forming panels 58 and 60 are foldably connected to each other by composite lines of folding perforations 62, said composite lines actually comprising two narrowly separated lines of perforations which define narrow strips 64 therebetween. Additional panels 66 and 68 are connected to the ends of side-forming panels 58 and 60 by rows of perforations 70. Further, the additional panels 66 and 68, like the additional panels 36 and 38 of the embodiment shown in Figs. 1 through 8, preferably are substantially half as long as the side-forming panels 58 and 60. Thus, when the additional panels 66 and 68 are folded upon the side-forming panels as shown in Fig. 10, the free ends of the panels 66 and 68 preferably substantially meet. The various pairs of additional panels 66 and 68 also are separated by slots 72 which are preferably substantially the same width as the narrow strips 64.

The innermost side-forming panels 60 are foldably connected to opposite edges of the bottom panel 74 by preferably parallel lines of folding perforations 76. Pairs of end-forming panels 78 and 80 are connected together by lines of folding perforations 82 and the innermost end-forming panels 80 are foldably connected to

the other opposite edges of bottom panel 74 by preferably parallel lines of folding perforations 84, said lines of perforations 84 being offset slightly outwardly from the lines of folding perforations 70 by which the additional panels 66 and 68 are foldably connected to side-forming panels 58 and 60. This is for purposes of disposing the end-forming panels suitably to provide mortices to receive the ends of the composite sides in the final setting up of the box, as will be described.

Also as in the embodiment illustrated in Figs. 1 through 8, the end-forming panels 78 and 80 preferably are slightly wider than the side-forming panels 58 and 60 in order that the ends of the box 86 shown in Fig. 12, will be slightly higher than the sides in order that a lid may be received between the upper portions of the ends of the box and rest upon the upper edges of the sides of the box. Thus, the upper surface of the lid and the upper edges of the ends will be flush with each other. This is also true of the embodiment shown in Figs. 1 through 8. The end-forming panels 78 are shorter than the panels 80 as is clearly seen from Fig. 9, this being achieved by the formation of notches 88 in the ends of the panels 78 so as to provide mortices 90 in the composite ends 92 as is readily seen from Figs. 10 and 11.

After the blank 56 is formed in a die cutting and creasing machine, the blanks are transferred to a folding machine where the additional panels 66 and 68 first are folded inwardly upon the side-forming panels 58 and 60 and are affixed thereto, by the automatic application of adhesive, as shown in Fig. 10. The same machine also folds the outermost end-forming panels 78 upon the innermost end-forming panels 80 as likewise is shown in Fig. 10, suitable adhesive also automatically being applied to affix the panels of each pair firmly together.

The partially folded blank then is transferred to a setup machine, such as a "quad-stayer" as referred to above, wherein the side-forming panels with the additional panels 66 folded thereinto are folded over upon the side-forming panels 60 upon which the additional panels 68 previously have been folded and affixed thereto. This operation results in the formation of the composite sides 94 shown in Fig. 11. Then, rather than requiring this partially folded blank to be reversed as is necessary in the embodiment shown in Figs. 1 through 8, the composite sides 94 are folded upon the lines of folding perforations 76 to dispose the same transversely to the bottom panel 74. The composite ends 92 may be folded then by the setup machine about the lines of folding perforations 84 so as to place the ends 92 transversely to the bottom panel 74 as well as dispose the mortices 90 into position to receive the ends of the composite sides 94. It will be understood of course that the ends 92 may first be folded and then the sides 94 folded relative to the bottom panel 74, or vice versa, as described above.

Due to the ends 92 and sides 94 being formed by the inward folding of the composing panels and then the inward folding of the composite panels, it will be necessary for the pairs of lines of perforations 76 and 84 to be spaced farther apart respectively than the pairs of lines of perforations 26 and 32 in the embodiment shown in Figs. 1 through 8 when it is desired to form a box having the same interior area.

Further, suitable adhesive such as glue preferably is first applied either to the mortices 90 or the ends of the sides 94, or both, before the same are brought into registry with each other automatically in the setup machine. While the sides and ends are held in such assembled relationship, reinforcing or binding strips 96 may be applied at each corner of the box 86 in the same manner as the strips 54 are affixed to the box 16 in the embodiment shown in Figs. 1 through 8.

It will be seen that in the embodiment of Figs. 9 through 12, the outermost side-forming panels 58 of the blank 56 are disposed on the interior of the box and the

same is also true of the outermost end-forming panels 78 of the blank 56.

One of the principal advantages of both embodiments of the invention resides in the fact that the composite sides, particularly in the finished boxes, have substantial thickness produced by lamination in the course of formation of the boxes as distinguished from previous lamination of the initial stock. Also, the substantial thickness of the sides of the boxes permits the ready use of nails to fasten the lid closed upon the box in accordance with conventional practice. Such substantial thickness in both the sides as well as the ends of the boxes affords strength easily comparable to that afforded by wooden boxes, yet the cost of producing the same is materially less.

It also will be understood that when boxes embodying the present invention are used as cigar boxes, suitable decorative finish sheets of paper will be affixed to the exterior thereof and sometimes to the interior. However, it is readily feasible to provide the interior surfaces at least of the boxes with finish surface sheets initially provided on one or both surfaces of the sheet stock from which the blanks are formed.

While the invention has been shown and illustrated in its several preferred embodiments, and has included certain details, it should be understood that the invention is not to be limited to the precise details herein illustrated and described since the same may be carried out in other ways falling within the scope of the invention as claimed.

I claim:

1. A box formed from a blank cut from sheet stock suitable for folding into a box formation, said box comprising in combination, a bottom panel, end-forming panels respectively foldably connected to opposite edges of said bottom panel and extending transversely therefrom, a plurality of pairs of similar side-forming panels, one panel of each pair being foldably connected respectively to the other opposite edges of said bottom panel, a narrow strip of said sheet stock extending between each pair of said side-forming panels and foldably connected at opposite edges respectively to adjacent edges of said pair of panels, the panels of each pair of side-forming panels also being folded into parallelism with each other and extending transversely from said bottom panel and spaced apart by said narrow strip which forms the upper edge of each box side, pairs of additional panels each substantially half as long as a side-forming panel and respectively foldably connected to the opposite ends of said pairs of side-forming panels, there being a space between adjacent edges of each pair of additional panels substantially as wide as said narrow strip when the blank is in flat condition, said additional panels each being folded inwardly upon the side-forming panel to which they are connected, whereby two pairs of flatly abutting additional panels are disposed with the pairs in end-to-end relationship within the space between the panels of each folded pair of side-forming panels to produce box sides of four thicknesses of said sheet stock, said additional panels and side-forming panels of each box side being secured adhesively to comprise rigid laminated sides, and means connecting the ends of said end-forming panels to the ends of said side-forming panels.

2. A box formed from a blank cut from sheet stock suitable for folding into a box formation, said box comprising in combination, a rectangular bottom panel having pairs of substantially parallel opposite edges, end-forming panels restrictively foldably connected to one pair of opposite edges of said bottom panel and extending transversely therefrom, a plurality of pairs of side-forming panels respectively foldably connected to each other along adjacent longitudinal edges by compound spaced scorings disposed at the upper edges of said panels and one panel of each pair being connected foldably along the other longitudinal edge respectively to the other pair of opposite edges of said bottom panel, the panels of each pair of side-forming panels being folded into parallelism

with each other and extending transversely from said bottom panel, pairs of additional panels substantially half as long as said side-forming panels respectively foldably connected to the opposite ends of each of said pairs of side-forming panels and each additional panel being folded inwardly upon the side-forming panel to which it is connected, whereby two pairs of flatly abutting additional panels are disposed with the pairs in end-to-end relationship between the panels of each folded pair of side-forming panels to produce box sides of four thicknesses of said sheet stock, the compound scorings connecting the upper edges of said side-forming panels providing a space between said panels to accommodate said pairs of flatly abutting additional panels and forming a finished upper edge for said box sides covering the upper ends of said additional panels, said additional panels and side-forming panels of each box side being secured adhesively to comprise rigid laminated sides, and means connecting the ends of said end-forming and side-forming panels.

3. A box formed from a substantially rectangular blank cut from sheet stock suitable for folding into a box formation, said box comprising in combination, a bottom panel having pairs of opposite edges, laminated ends for said box each comprising a pair of end-forming panels respectively foldably connected to each other along adjacent edges and the opposite edge of one panel of each pair respectively being connected foldably to the opposite edges of said bottom panel and extending transversely therefrom, the panel of each pair which forms the inside of the box being shorter at each end than the outer panel which flatly abuts the inner panel to provide mortise recesses at the ends of said box ends and said panels being secured flatly together adhesively, a plurality of pairs of similar side-forming panels respectively foldably connected to each other along adjacent longitudinal edges and one panel of each pair being connected foldably along the other longitudinal edge respectively to the other pair of opposite edges of said bottom panel, the panels of each pair of side-forming panels being folded into parallelism with each other and extending transversely from said bottom panel, the fold between said panels comprising the upper edge of sides of the box, pairs of additional panels substantially as wide and half as long as said side-forming panels and respectively foldably connected to the opposite ends of each of said pairs of side-forming panels, each additional panel being folded inwardly upon the side-forming panel to which it is connected, whereby two pairs of flatly abutting additional panels are disposed in end-to-end relationship between the panels of each folded pair of side-forming panels to produce box sides of four thicknesses of said sheet stock, said additional panels and side-forming panels of each box side being secured adhesively to comprise rigid laminated sides and the ends of said laminated sides being disposed within the mortise recesses in said laminated ends, and means connecting the ends of said end-forming and side-forming panels.

4. A box formed from a blank provided with a finish on one surface and cut from sheet stock suitable for folding into a box formation, said box comprising in combination, a bottom panel having pairs of opposite edges and the finish surface uppermost, laminated ends for said box respectively comprising an inner panel extending upwardly from and foldably connected to one edge of said bottom panel and an outer panel foldably connected at the top to said inner panel and flatly abutting the exterior of said inner panel, said inner and outer panels being connected adhesively and the finish surface of said blank comprising the outer surfaces of said laminated ends and said ends being connected to opposite edges of said bottom panel, a plurality of pairs of similar side-forming panels, one panel of each pair comprising an inner panel foldably connected respectively to the other opposite edges of said bottom panel and extend-

ing upwardly therefrom and the other panel of each pair being foldably connected at the top to said inner panel and extending downwardly exteriorly therefrom, whereby the finish surface of said blank is disposed outermost on each panel to comprise a finish surface for each box side, the panels of each pair of side-forming panels being substantially parallel to each other and spaced apart and the connecting fold therebetween comprising the upper edge of each side of said box, pairs of additional panels each substantially half as long as a side-forming panel and respectively foldably connected to the opposite ends of each panel of said pairs of side-forming panels, said additional panels each being folded inwardly upon the side-forming panel to which they are connected, whereby two pairs of flatly abutting additional panels are disposed with the pairs in end-to-end relationship within the space between the panels of each folded pair of side-forming panels to produce laminated box sides of four thicknesses of said sheet stock, said additional panels

and side-forming panels of each box side being secured adhesively to comprise rigid laminated sides, and means connecting the ends of said laminated ends and laminated sides, whereby a box is provided having the finish surface of said blank on the entire interior and the exterior of said sides and ends also comprise the finish surface of the blank.

References Cited in the file of this patent

UNITED STATES PATENTS

1,956,124	Jackson -----	Apr. 24, 1934
2,074,314	Fleischer -----	Mar. 16, 1937
2,129,965	Roscoe -----	Sept. 13, 1938
2,143,308	Flach -----	Jan. 10, 1939
2,728,449	Rheinfrank -----	Dec. 27, 1955

FOREIGN PATENTS

1,000,136	France -----	Oct. 11, 1951
-----------	--------------	---------------