L. M. TODD.

BOX AND BOX BLANK.

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1,152,240. Patented Aug. 31, 1915.

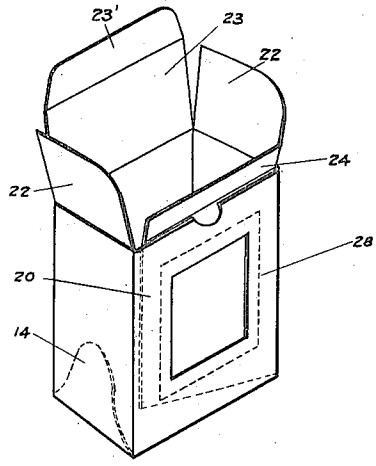


FIG. 1

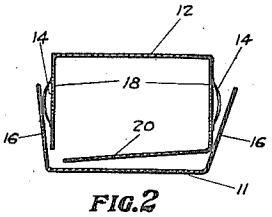


FIG. 2

FIG. 3

WITNESSES:

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BOX AND BOX-BLANK.

1,152,240. Specification of Letters Patent. Patented Aug. 31, 1915.

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To all whom it may concern:

Be it known that I, LOUIS M. TODD, a citizen of the United States, and resident of New Rochelle, county of Westchester, State of New York, have invented an Improvement in Boxes and Box-Blanks, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

The present invention relates to blanks for the production of paper boxes and to the boxes so produced, such boxes being adapted to a wide variety of common uses such as for holding tacks, screws, washers, bolts, or other articles.

Among the prime objects of the invention are to provide a box blank adapted to be formed into a box by the automatic operation of a machine, the box so formed being exceptionally strong, self-bracing and rigid and adapted to be held assembled by a gluing or like fastening of the laps in a manner to be described.

A further object is to provide two front walls having a well or pocket between them into which the tuck may be readily inserted after the box is packed. The inner wall thus protects the contents of the box from interfering with the tuck. To these ends my improved blank provides a box having a solid bottom which is set up automatically and securely by the machine so that the box is at once ready for packing and an inner wall at the front is provided by a flap or panel preferably integral with one side wall and adapted to be readily bent around into place and glued to the adjacent outer box wall by the operation of the machine, this flap thus coöperating to add strength and rigidity to the box formation and in conjunction with the solid bottom making the box very secure and strong. My improved construction is also specially adapted for automatic handling by a machine throughout and all hand manipulation is avoided. It is also to be noticed that the blanks wherefrom boxes are formed, in accordance with my invention are of such shape that they can be laid out economically with a minimum waste of stock in the blanking out operation.

The above and other objects and features of the invention will be better understood from the following detailed description taken in connection with the accompanying drawings and will be thereafter pointed out in the appended claims.

Referring to the drawings, Figure 1 is a perspective view of a box formed in accordance with my invention. Fig. 2 is a cross section through an upper portion of the box partly assembled; and Fig. 3 is a plan showing the blank wherefrom the box is made.

The bottom of the box is indicated at 10, and the front and back of the box 11, 12 respectively join said bottom along the score or crease lines 13, and bottom side tabs 14 also join the bottom along the score or crease lines 15. The front panel 11 of the box has at its sides the outer, side panels 16 joining it along the score lines 17 and the back panel 12 of the box carries the inner, side panels 18 joining it along the score lines 19. In accordance with my invention one of these inner side panels carries the inner front flap 20 joining it along the score line 21. The tops of the back 12 and the innerside panels 18 carry cover 23 and side laps 22 respectively to fold down over the top of the box as is usual, and in accordance with my invention the inner front flap 20 also carries a top flap portion 24 adapted to fold down over or under the laps 22 and air in protecting an extension tuck 23′ on the cover from the tacks or other box contents as it is inserted into its well so that this, in conjunction with the inner wall flap or panel 20 effectually guards the cover, and tuck 23′ from the tacks and permits said tuck to be easily inserted.

In assembling the blank as described to form the completed box, glue is applied to the outer, side panels 16, to the bottom side tabs 14 and to the lower portion of the front 17 in the places indicated at *g*. The back 12 is bent up, the inner side panels 18 bent in, the inner front flap 20 bent around along the line 21 and the tabs 14 bent up, preferably so as to be between the inner side panels 18 and the outer side panels 16 as seen in Fig. 2. The outer front panel 11 is bent up and the outer side panels 16 carried thereby are bent around to cover and embrace the inner side panels 18 as clearly shown in Fig. 2. To facilitate the setting up operation and give clearance to the various parts or panels in getting them into proper position I preferably bevel off the bottom thereof as seen at 25 in a manner so that the upcoming outer front 11 and side panels 16 will properly con-

tact therewith for bending the inner front flap around to place. It will be observed that the score lines 17, 19 are so formed that the inner side panels 18 are less in width than the outer side panels 16 thus allowing for the outer panels to fit over the inner ones properly, and that the other score or crease lines are so arranged relative to one another that the same result is attained, viz.;—that the box parts interfit in correct relation. My improved construction having the two front walls also lends itself especially well to the provision of a transparent front or window and to this end I show the outer and inner front panels 11, 20 with openings 26, 27 which register when the box is assembled and a gelatin or other transparent sheet 28 is slipped in between the panels 11, 20 to cover this opening. It will be observed that the provision of the inner and outer front panels is adapted to hold this gelatin sheet in place without gluing or other fastening and that such sheet can be readily and quickly inserted to place after the box is assembled and held from possible displacement by the tuck extremity 23′ which fits into the top of the wall. It will be further observed that the described construction provides a box having a permanently closed bottom which is set up as the box is folded up, in a perfectly secure manner, while double side panels are provided in conjunction with double front panels, the inner flap or panel of the front being attached to a side panel along the length thereof in a manner to secure the best and most effective interbracing of parts.

While my improved blank is well adapted for folding and setting up by an automatic machine it is not to be understood as limited to such use nor is the invention to be understood as limited to the precise constructional details shown, since I am aware that these can be varied considerably without departing from the spirit thereof. I therefore refer to the appended claims rather than to the foregoing description to indicate the scope of my invention.

Having described my invention what I claim as new and desire to secure by Letters Patent is;

1. A box blank formed and divided by score or crease lines to constitute a bottom with tabs extending from the bottom ends, front and back panels having outer and inner side panels extending from the sides thereof respectively, and an inner front panel or flap extending from a side of one of said inner side panels, said inner front panel having its lower outer corner cut away diagonally to afford clearance in the mechanical set-up of the box, the construction of the blank as a whole and of its said parts including said inner front panel being such as to permit folding and setting up of the box over a form by a mechanical folder with a single gluing operation and with no projecting portions to catch or interfere with the folding.

2. A one piece solid bottom box having a double front wall with a well between the portions thereof and a window opening therein, and a transparent sheet fitted in said well between the parts of said double front wall, the box having a cover with an extension tuck adapted to fit into said well and cooperate for holding said transparent sheet in place.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

LOUIS M. TODD.

Witnesses:

ELLENA T. MCHALE,

STEPHEN C. NOLAND.