No. 895,508. PATENTED AUG. 11, 1908.

P. S. SMITH.

BOX COVERING BLANK.

APPLICATION FILED JAN. 22, 1903.

Fig. 1.

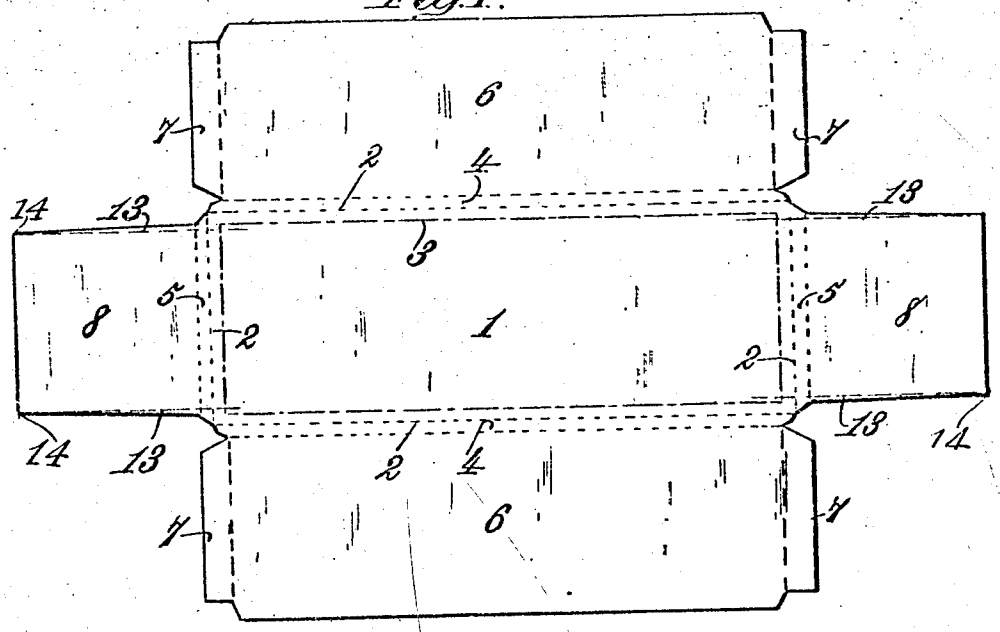


Fig. 2.

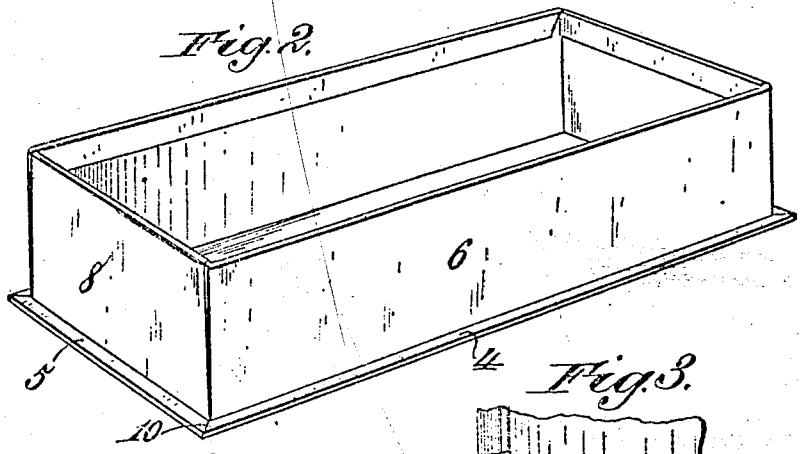


Fig. 3.

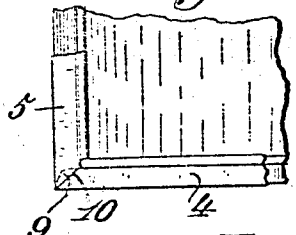
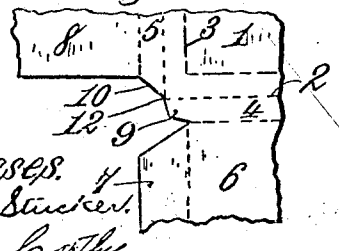


Fig. 4.



Witnesses.
J. M. Stucker.
J. J. Mc Carthy.

Inventor.
Philip S. Smith.
By Meyer, Cushman & Rea
Attorneys.

UNITED STATES PATENT OFFICE.

PHILIP S. SMITH, OF PHILADELPHIA, PENNSYLVANIA.

BOX-COVERING BLANK.

No. 895,508. Specification of Letters Patent. Patented Aug. 11, 1908.

Application filed January 22, 1906. Serial No. 297,198.

To all whom it may concern:

Be it known that I, PHILIP S. SMITH, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Box-Covering Blanks, of which the following is a specification.

My present invention relates to certain new and useful improvements in box covering blanks, and more especially to blanks designed for covering what are known in the trade as "extension edge" or "extension bottom" boxes; although, as will hereinafter more fully appear, certain features of the invention may be embodied in box covering blanks of other forms. As blanks of this type are used only on the higher grades and expensive boxes, it is important and necessary that the blanks shall be so cut and formed as to neatly fit and cover all walls, corners and angles of the box, and this is especially true with respect to the extension edges or bottom, otherwise the finished box will be rejected as being faulty in construction and appearance.

The present invention, therefore, comprises a box blank of the character described having a body portion and integral side and end wings, and provided with an intermediate portion between each wing and the body to cover the projecting edge or bottom of the box, and also having a relatively small flap or lip-extension on each intermediate portion at the corners of the blank to form a "lap-joint" at the points where the said intermediate portions are folded over the projecting edge of the box bottom. These small flaps or lip-extensions insure a neat and perfect joint at the corners and positively prevent the formation of "gaps" at these points, which it has been found almost impossible to avoid with blanks not having the said flaps or lip-extensions referred to.

Another feature of the invention resides in cutting the side edges of the end flaps of the blank so that said edges form a little less than a right angle with the base of the end flaps. In other words, I make the end flaps regular rhomboids with their bases inward and their apexes outward, and I so proportion the angle that the apex of the rhomboid is approximately as wide as the interior of the end of the box; and the distance between a perpendicular let fall from one of the outer corners of the end flaps onto the base and the junction of the side and end flaps would be equal to the thickness of material of which the box is constructed. By this construction it will be apparent that when the free ends of the end flaps are folded over the upper edge of the box walls and down into the box, a neat and smooth corner will result with no overlapping of the edges of the side and end wings or flaps of the covering blank.

In the drawing—Figure 1 represents a plan view of a complete blank made in accordance with this invention; Fig. 2 is a perspective view of a box covered with one of my improved blanks; Fig. 3 is a top plan view of a corner of a box, a part of which is covered with the blank forming the subject of this invention; and Fig. 4 is an enlarged detail plan view of one corner of a blank made in accordance with this invention.

My improved blank consists of a body portion 1, inclosed by the dotted lines 2 of the size of the extension bottom of the box, the heavy dotted lines 3 representing the size of the box proper.

Surrounding the body portion 1 of the blank and formed integral therewith are arranged extension edge covering portions, those for covering the side extension edges of the bottom being indicated by the numerals 4, and those for covering the end extension edge portions being indicated by the numerals 5. Also formed integral with the side extension edge portions are the side flaps 6, having end laps 7 at opposite ends thereof, and formed integral with the end extension edge portions 5 are the end flaps 8.

As indicated in the drawings, and especially in the enlarged detail Fig. 4, each side extension covering portion 4 has at its opposite ends a projecting lip portion 9, while the opposite ends of the end extension covering portions 5 are cut away on a straight inclined line, indicated by the numeral 10. In other words, two of the extension edge covering portions are longer than the other two extension edge covering portions. The object of forming the lipped extensions 9, or of making two of the extension covering portions longer than the others, is to insure a close joint at the mitered corners of the extension bottom, which would not be the case if all the extension covering portions were cut off on inclined lines like those for covering the end extensions, as indicated by the numeral 10. In practice it has been

found to be almost impossible to make a closed joint at the four mitered corners of the extension edges with a blank having the ends of all the extension edge portions cut off on an inclined line, and unless extreme care be taken a "gap" at the mitered corners is certain to appear, and this will so far detract from the appearance of the box as to make the same objectionable and unsalable.

As will be seen by referring to Fig. 3 of the drawing, when the covering blank is applied to the box and over the corners of the extension edges thereof, the projecting lips of the side extension covering portions 4 will extend beyond the mitered corners so that when the end extension covering portions 5 are folded over in position, such portions 5 will overlap the lipped portions 9 and a closed joint is certain to result with absolutely no gap. This is a feature of considerable importance in a blank of this type, inasmuch as no special care need be taken in covering the box to bring the mitered corners together.

A further advantage in a blank formed according to this invention and resulting from making the projecting lip portions as described, resides in the fact that the angle 12 formed by the meeting portions of the line 10, with the projecting lip portions 9 at each corner of the box, forms a centering gage indicating to the operator where to set or place the four corners of the box in order to insure a perfect application of the blank.

As before stated, another feature of this invention resides in so forming the end flaps of the blank that neat corner folds will result at the points where the free ends of the end flaps are turned over the upper edge of the box and down into the inside thereof. To accomplish this result the end flaps 8 are formed of regular rhomboidal shape having their bases attached to the end extension covering portions 5; that is, I cut the opposite edges of the end flaps obliquely, as shown by the dotted lines 13, making the angle between the adjacent edges of the side and end flaps more than a right angle. This oblique cut is so proportioned that the outer free end of each end flap is approximately as wide as the inner wall of the adjacent box side, and the difference between a perpendicular let fall from the corner 14 cuts the base of the flap, and the junction of the side and end flaps is equal to the thickness of the material from which the box is constructed. By this construction the corners of the flaps do not overlap as they are turned down, but form a smooth and neat corner on the inside of the box as indicated in the drawings.

It will be understood that the flaps are designated as side and end flaps merely for convenience and that the end laps may be formed upon the end flaps in which case the side flaps would be of rhomboidal shape. This part of my invention lies in the making of one pair of flaps of rhomboidal shape and forming the other pair of approximately the length of the length of the box side.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A box covering blank for extension edge boxes, comprising a body portion having side and end wings, extension edge covering portions intermediate said body portion and said wings, and lip extensions at the ends of the intermediate extension edge covering portions to close the corner joint.

2. A box covering blank for extension edge boxes comprising a body portion having side and end wings, and extension edge covering portions intermediate said body portion and said wings, two of said extension edge covering portions being of greater length than the other of said extension edge covering portions, whereby the last named extension edge portions will overlap the opposite ends of the other extension edge portions to close the corner joints when the blank is applied to an extension edge box.

3. A box covering blank for an extension edge box comprising a body portion shaped to cover the bottom of the box, side and end extension covering portions shaped to fold over and cover the extension edge of the box, each side extension covering portion having projecting lips at its opposite ends to close the corner joints, and side and end flaps shaped to cover the side and end walls of a box, said side flaps having end laps at opposite ends.

4. A box covering blank, comprising a bottom and pairs of side and end flaps, one of said pairs having their free ends of less width than their attached ends and the other pair of flaps having end laps.

5. A box covering blank for an extension edge box comprising a body portion shaped to cover the bottom of the box, side and end extension covering portions shaped to fold over and cover the extension edge of the box, two of said extension covering portions terminating at their ends on straight lines and the two corresponding portions terminating in lip-extensions adapted to underlie the ends of the first named extension covering portions whereby to close the corner joints, and side and end flaps shaped to cover the side and end walls of the box, said side flaps having end laps at opposite sides.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

PHILIP S. SMITH.

Witnesses:
GEO. Z. SUTTON,
W. H. RICE.