

(No Model.)

J. J. McDONALD.
KNOCKDOWN BOX.

No. 472,797.

Patented Apr. 12, 1892.

Fig. 1.

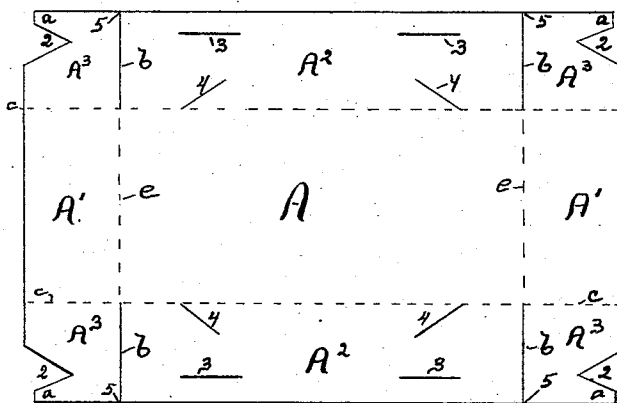
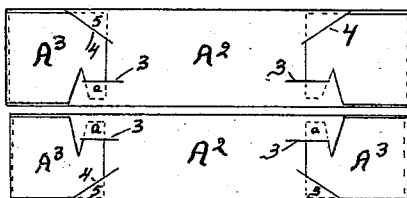


Fig. 2.



Witnesses

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JOHN J. McDONALD, OF LOUISVILLE, KENTUCKY.

KNOCKDOWN BOX.

SPECIFICATION forming part of Letters Patent No. 472,797, dated April 12, 1892.

Application filed August 7, 1891. Serial No. 401,952. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. McDONALD, of Louisville, in the county of Jefferson, in the State of Kentucky, have invented new and useful Improvements in Knockdown Boxes, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to that class of paper boxes in which the box proper and its cover are each formed of a single sheet of paper or paper-board; and it consists in a novel arrangement whereby a very strong and rigid box is produced at a small cost of manufacture, all as hereinafter more fully described, and specifically set forth in the claim.

In the annexed drawings, similar letters and figures of reference denote corresponding parts in all the views, in which—

Figure 1 is a plan view of the sheet or blank from which the box is made, and Fig. 2 is a view showing the box and cover as about to be brought together as in use.

A is the paper blank from which is formed the box, while A' A' are parts thereof to be folded on the dotted lines *cc* to form ends for the box.

A² are the side walls, around which bend the four corners or corner-sections, detached by scores or slots, as shown, from the side walls, but integral with the ends of the box.

Cut into the sides of the box near both ends are the slots or scores 3 4, the slots 3 being parallel, or nearly so, with the top and bottom edges of the box when folded, as shown in Fig. 2. The slots or scores 4 extend diagonally from the bottom of the box for a short distance on a line in the general direction toward the middle of the length of the box.

The end walls A' are provided with four corner-pieces A³, which when the blank is properly folded are folded around and lock at the side of the side walls at the corner, thus presenting a double thickness of material at each corner of the box and its cover, so as to the better resist any pressure or weight which may rest upon the box.

These boxes are used very largely in shipping suits of clothing, &c., by express; and it is desirable that the box may be made as rigid

as possible, and it is for that purpose that the corners are constructed as shown herein. The corner-pieces are cut free from the side walls of the box-blank by the score *b* at right angles to the top and bottom edges of the blank and are each provided with the lips *a* and V-shaped excision 2.

A description of one section of my improved box will answer for both sections, as they are alike, except in size, the one telescoping with the other. Having cut the blank shown in Fig. 1, it is folded on the two lines *cc*, the end sections are bent up, and the corners A³ are bent around to the sides of the box. The right-angled corner of the section A³ is passed through the score 4 at each corner of the box till the bottom of the box is encountered by said corner 5, when the material between the said corner and the tongue *a* is bent outwardly to permit said tongue entering the score 3, through which it is passed, so that the V-shaped excision 2 bears against the material composing the sides of the box at the edge of the slot or score 3 at each corner, thus preventing any accidental slipping or movement of the parts when once placed in position and locked. The square corner 5, bearing against the bottom of the box, and the inner edge of the tongue *a*, bearing against the outer end of the score 3, prevent any movement of the end of the box or of the corner-pieces in either direction, and thus form a very stiff and strong box which will not become accidentally unlocked no matter in what position it may be placed, and the only manner in which the box may be "knocked down" is by first forcing the tongues *a* from the slots 3 by bending the corner-pieces, so as to shorten the right-line distance between the right-angled corner 5 and the end of the tongue *a* sufficiently to withdraw said tongue from its slot, whereupon the corner 5 may be withdrawn from its score and the lock broken, so as to permit of spreading open the blank from which the box is formed. It will be observed that the ends of the side walls extend to and bear against the end pieces A' at the corners, thus serving to effectually brace the ends of the box and make it more rigid.

I have shown the corner-pieces locked at

the outer side of the side walls; but I wish it distinctly understood that I do not limit myself to that particular location, as they may be secured in the same manner, except placed
5 inside the side walls.

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

10 A blank for forming a paper box provided with side walls, in which are cut slots or scores 3 4, in combination with the corner-pieces A³, left integral with the end walls, said corner-pieces each having the right-angled corner 5 and tongue *a*, which, with the V-shaped ex-

cision 2, are adapted to coincide with and 15 lock in the scores 3 4 to form a box provided with reinforced corners, substantially as set forth and described.

In testimony whereof I have hereunto signed my name, in the presence of two at- 20 testing witnesses, at Louisville, in the county of Jefferson, in the State of Kentucky, this 4th day of August, 1891.

JOHN J. McDONALD.

Witnesses:

FREDERICK H. GIBBS,
H. H. LONG.