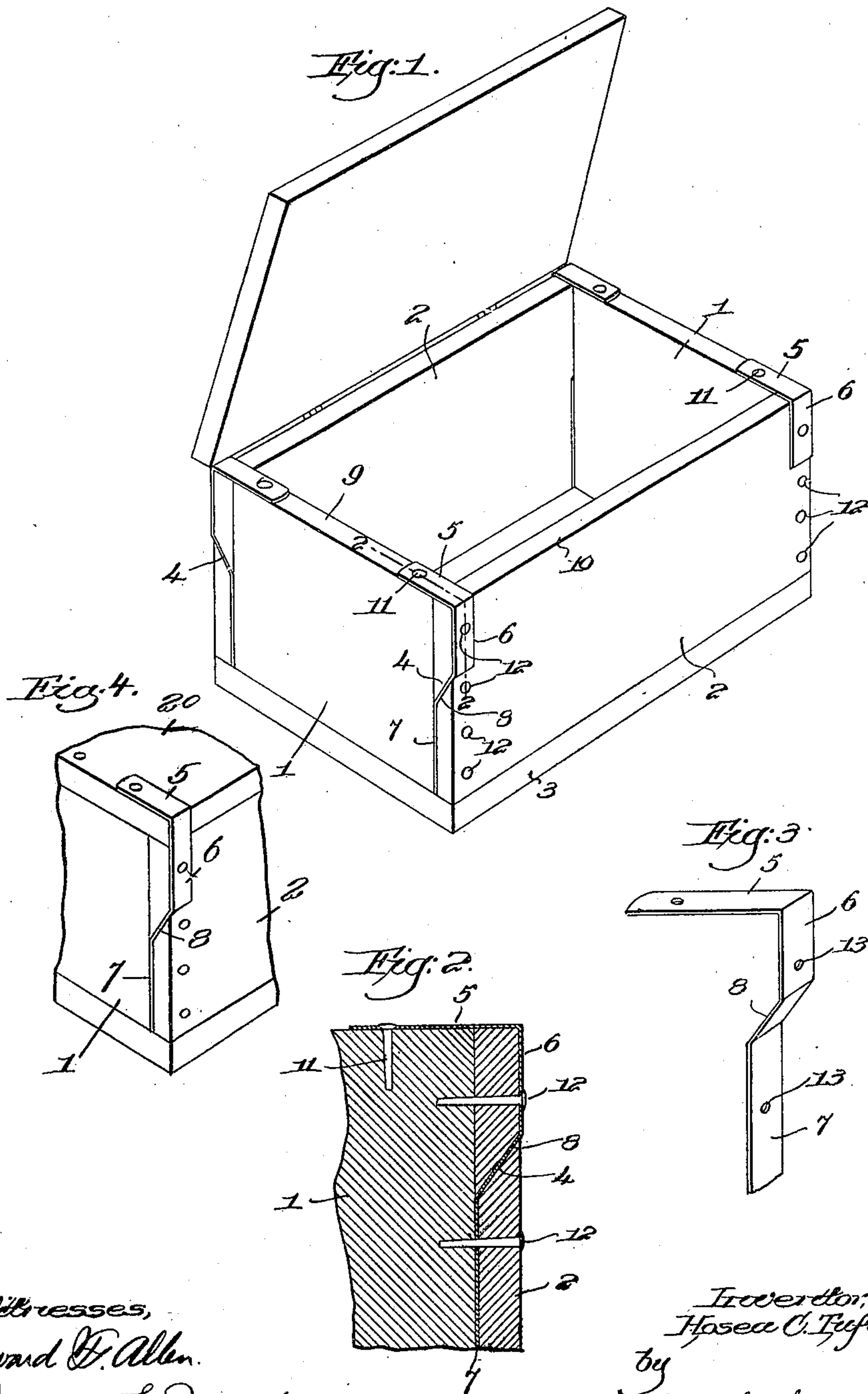


H. C. TUFTS.
 CORNER STAY AND REINFORCE FOR BOXES.
 APPLICATION FILED AUG. 26, 1908.

922,066.

Patented May 18, 1909.



Witnesses,
 Edward D. Allen.
 James F. Ward

Inventor,
 Hosea C. Tufts,
 by
 Crosby & Company Attys.

UNITED STATES PATENT OFFICE.

HOSEA C. TUFTS, OF ROCKPORT, MASSACHUSETTS.

CORNER-STAY AND REINFORCE FOR BOXES.

No. 922,066.

Specification of Letters Patent.

Patented May 18, 1909.

Application filed August 26, 1908. Serial No. 450,326.

To all whom it may concern:

Be it known that I, HOSEA C. TUFTS, a citizen of the United States, and resident of Rockport, county of Essex, State of Massachusetts, have invented an Improvement in Corner-Stays and Reinforces for Boxes, of which the following description, in connection with the accompanying drawing, is a specification, like numerals on the drawing representing like parts.

This invention has for its object the production of a novel and efficient means for strengthening and bracing the corners of wooden boxes, whereby by means of a combined corner stay and reinforce the strength of the box is so much increased that much lighter or thinner material may be used.

By means of my invention a light and relatively frail box is so braced, strengthened and its rigidity increased so much that it can be used for the reception and transportation of material of very considerable weight.

I have so constructed the corner stay and reinforce that its application to the box during the construction thereof is very much simplified, the fastenings which connect the walls being utilized to retain the stay and reinforce in place.

The various novel features of my invention will be fully described in the subjoined specification and particularly pointed out in the following claims.

Figure 1 is a perspective view of a box with the corner stay and reinforce applied thereto in accordance with my invention; Fig. 2 is an enlarged sectional detail on the line 2—2, Fig. 1; Fig. 3 is a perspective view of the corner stay and reinforce detached; Fig. 4 is a similar view showing the stay arranged to embrace the box cover.

In the box shown in Fig. 1 I have shown the end walls 1, 1 interposed between the side walls 2, 2, and erected upon the bottom 3, a well known box structure. Herein I have shown each wall 2 as provided with an upwardly and outwardly inclined or diagonal kerf 4, at each end, the depth of the kerf being substantially equal to the thickness of the abutting wall 1.

The combined corner stay and reinforce is shown separately in Fig. 3, and I prefer to make it of a metal strap, of suitable length and width depending upon the dimensions of the box to which it is to be applied. The strap is bent to form at one end a right-

angled bend, 5, 6 constituting the corner stay, a straight, flat extension 7 laterally offset from and parallel to one side 6 of the corner stay constituting the reinforce, connected with the corner stay by a diagonal portion 8.

In the application of the device the part 8 is introduced to the kerf 4, so that the side 6 of the stay engages the outer face of the box wall 2, while the extension 7 engages the inner face, below the kerf. When the wall 2 is applied to the abutting wall 1 the side 5 of the corner stay lies upon or engages its top edge 9, and crosses the top edge 10 of the wall 2, as is clearly shown in Fig. 1, while the extension or reinforce 7 is interposed between wall 2 and the adjacent edge of the abutting wall 1. The fastenings 12 are now applied in any suitable manner, as by a box nailing apparatus, to connect the walls, such fastenings passing through holes 13 made previously in the stay and reinforce Fig. 3, or if the same is of thin metal the nails will puncture it without previous perforating. A fastening 11 is driven through the side 5 of the corner stay into the top of the wall 1, completing the operation.

From the foregoing description it will be manifest that the corners of the box are stiffened and strengthened from the top to the bottom thereof, and the corner stays prevent any opening or starting of the joints at or near the top of the box, while the reinforce strengthens the lower portions of the corners. I prefer to make the kerfs diagonal as there is less danger of splitting, and the bends in the strap are also less acute. By making the corner stay and reinforce in one piece the device is more efficient as a whole, it is more readily and quickly applied in making up the box, and is neater in appearance in the finished box. The corner stay can be utilized to assist in holding on the top or cover of the box, or its bottom, as shown in Fig. 4, wherein the box cover 20 is shown as embraced at the corner by the corner stay 5, 6, the only difference over the previously described arrangement being that the side 5 of the corner stay lies upon the surface of the cover of the box, instead of upon the top edge of the wall 2, shown in Figs. 1 and 2. Manifestly the top 20 would become the bottom of the box, Fig. 4, if the box is turned upside down, so that it is to be understood the invention is applicable to the top or bottom, either or both.

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

1. The combination, with a box having a
5 kerf formed in the end of one of its walls, between its upper and lower edges, of a metallic strap interposed between said wall and the adjacent edge of the abutting wall, below the
10 kerf, said strap being bent to pass through the kerf and lie against the face of the kerfed wall above the kerf, the strap having a final bend across the upper edge of said wall and onto the upper edge of the abutting wall, to form a reinforce and corner stay, and fasten-
15 ings connecting the walls and strap.

2. The combination, with a box having an upwardly and outwardly inclined kerf formed in the end of one of its walls, between its

upper and lower edges, of a metallic strap
passed through the kerf and interposed 20
between said wall and the adjacent edge of the abutting wall, at the inner end of and extended below the kerf to the lower edges of the walls, the external portion of the strap above the kerf being carried upward against 25
the face of the kerfed wall and bent over the top edge thereof and onto the top edge of the abutting wall, and fastenings connecting said walls and the strap.

In testimony whereof I have signed my 30
name to this specification, in the presence of two subscribing witnesses.

HOSEA C. TUFTS.

Witnesses:

JOHN C. EDWARDS,
FREDERICK S. GREENLEAF.