

## INMAN MANUF'G CO. v. BEACH.

(Circuit Court of Appeals, Second Circuit. December 2, 1895.)

## PATENTS—VALIDITY AND INFRINGEMENT—BOX MACHINES.

The Beach reissue, No. 11,167 (original No. 447,225), for improvements in machines for attaching stays to the corners of boxes, held valid and infringed both as to claims 1, 2, and 3, which cover broadly every device for affixing stay strips to the outside of box corners by the combined action of a feeding mechanism, a cutting mechanism, and a pasting mechanism, in combination with any opposing clamping dies whose faces diverge, and also as to claims 4, 5, and 7, which have the same combinations, with the added element of a turning-in feature, and contemplate the affixing of the stay strip to both the outside and the inside of the box corner. 63 Fed. 597, affirmed.

Appeal from the Circuit Court of the United States for the Northern District of New York.

This is an appeal from an interlocutory decree of the circuit court, Northern district of New York, November 13, 1894, enjoining defendants (appellants), Horace Inman, John Warner, and A. A. De Forrest, trading together as copartners under the name of Inman Manufacturing Company, from infringing claims 1, 2, 3, 4, 5, and 7 of complainant's patent, reissue No. 11,167, dated May 26, 1891, for "improvements in machines for attaching stays to the corners of boxes."

Edmund Wetmore, W. A. Redding, and A. W. Kiddle, for appellants.

John Dane, Jr., for appellee.

Before WALLACE, LACOMBE, and SHIPMAN, Circuit Judges.

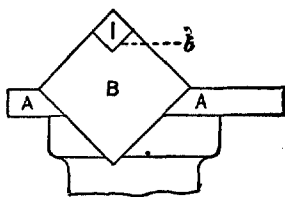
LACOMBE, Circuit Judge. The complainant, who is the inventor, filed his application June 10, 1885. Interference in the patent office delayed the issue of the patent (No. 447,225) until February 24, 1891. The reissue, No. 11,167, May 26, 1891, differs from the original only by the correction of an error in the drawings.

The specification states that:

"It has been customary heretofore in making paper or strawboard boxes to apply a stay or fastening strip over the joints at the corners of boxes, which strip is pasted down on the outside of the box, or is folded over the edge of the box, and is secured by paste both outside and inside of the corner, and such work, as far as I am aware, has heretofore been done by hand. My invention relates to a machine for doing this work."

The specification then goes on to describe the machine in connection with the drawings. Its essential features are as follows: To a frame of suitable form there is affixed a block, B, having two oblique faces on its upper surface, upon which the inside of the corner of the box is to be placed. Above this block, B, there is located a vertically reciprocating plunger, G, with a die at its end having divergent faces, so arranged as to engage surface to surface with the divergent faces of the block when the plunger descends. Thus, when in operation, the block fits into the inside of the box corner, and the plunger die fits over the outside of the same. Suitable shaft-

ing, cams, guides, etc., to supply and regulate the motion of the various parts, are described. The stay strip, which is paper or cloth of a proper width wrapped in a continuous roll upon a reel located to the side of the block and plunger, is fed forward and over a pasting wheel. The forward end of the roll of stay strip, after passing the pasting mechanism, protrudes transversely to the box corner, over said corner; and, at or about the time when the plunger descends, a cutting mechanism shears off the end of the strip, so as to leave a sufficient length of stay strip upon the box corner subject to the action of the affixing mechanism. When this short stay strip is thus placed over the outside of the box corner, the engagement of block and plunger die, with the box corner interposed between, applies the pressure necessary to secure such stay strip in place. In the drawings the block and die are shown with faces diverging to inclose an angle of  $90^\circ$ , and are thus adapted to fit the rectangular corner of a four-sided box. They are not, however, restricted to this precise shape, and the divergence of the faces may be changed to meet the varying angles which would be found in boxes with three sides, or with more than four sides, and still be clearly within the patent. The mechanism to fold the strip over the edge of the box, and affix it to the inside of the corner, is fully described. The block, B, is shown in section thus:



It is of sufficient length to accommodate the width of stay strip to be affixed. The square-sided block, B, is firmly fixed in the frame, A, so that its upwardly projecting portion displays two diverging surfaces of the proper angle to fit inside the box corner. B, of course, projects forward of the frame, A, so as to allow the operator to place the box corner on the block without obstruction by the frame. In its top is cut a V-shaped notch, b, into which fits the square-sided anvil, I. When the anvil is in place, the block and anvil fill the entire inside of the corner. When the anvil is withdrawn, so much of the inside surfaces of the box as are next the corner are free from contact with block or anvil, and an unobstructed space is left, sufficient to accommodate the tucked-in part of the stay strip. The rest of the inside surfaces are still supported by the block. In operation, the box corner is so placed upon the block that, when the cut-off stay strip falls upon it, a portion of the stay strip projects inwardly beyond the edges of the two box sides which make up the corner. In the rear of plunger, G, which, it will be remembered, falls upon the outside surfaces of the box corner, there is a secondary plunger reciprocating vertically, and synchronously with plunger, G. This