

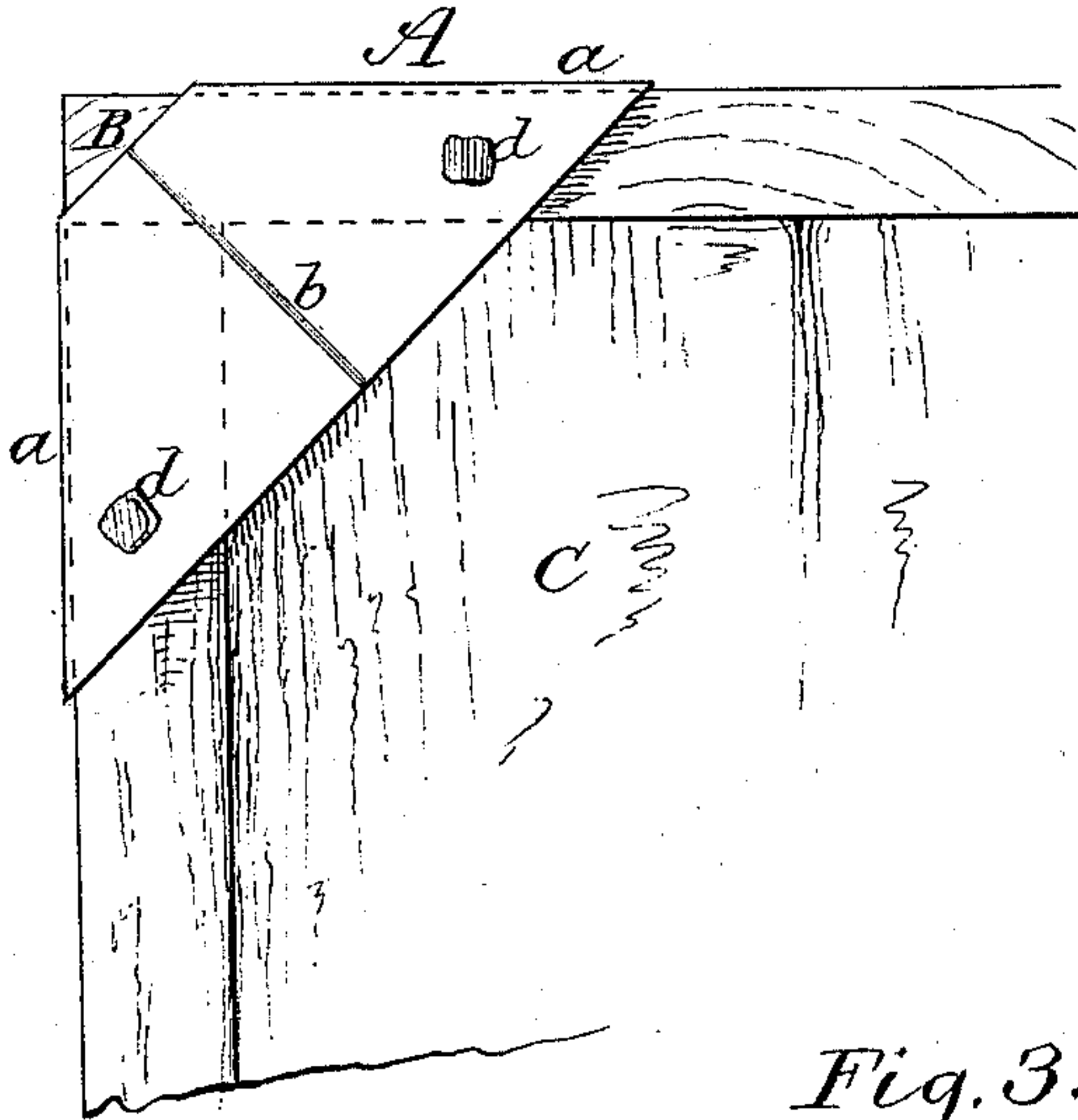
(Model.)

F. G. JOHNSON.  
METALLIC BINDER FOR BOXES.

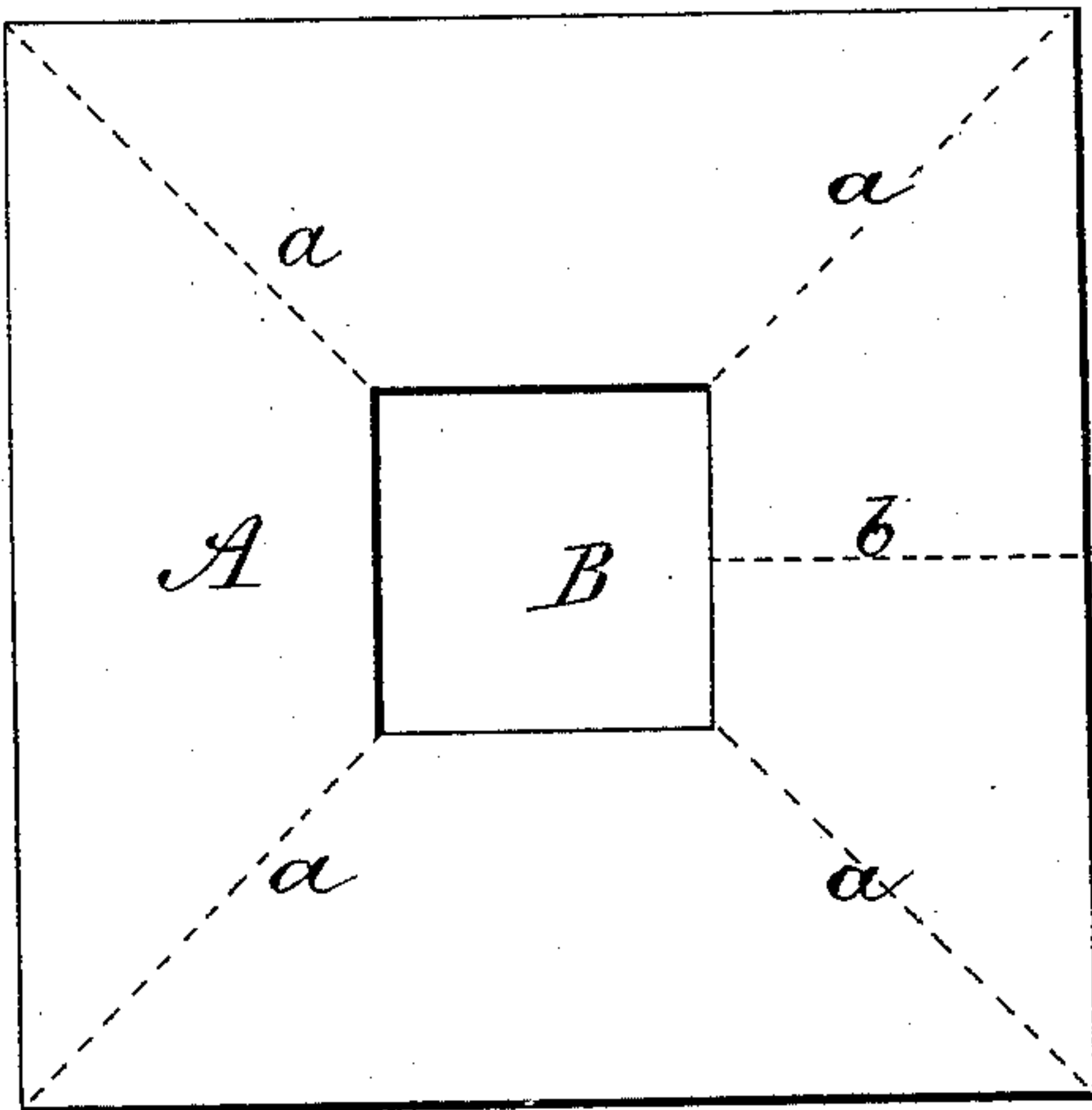
No. 405,359.

Patented June 18, 1889.

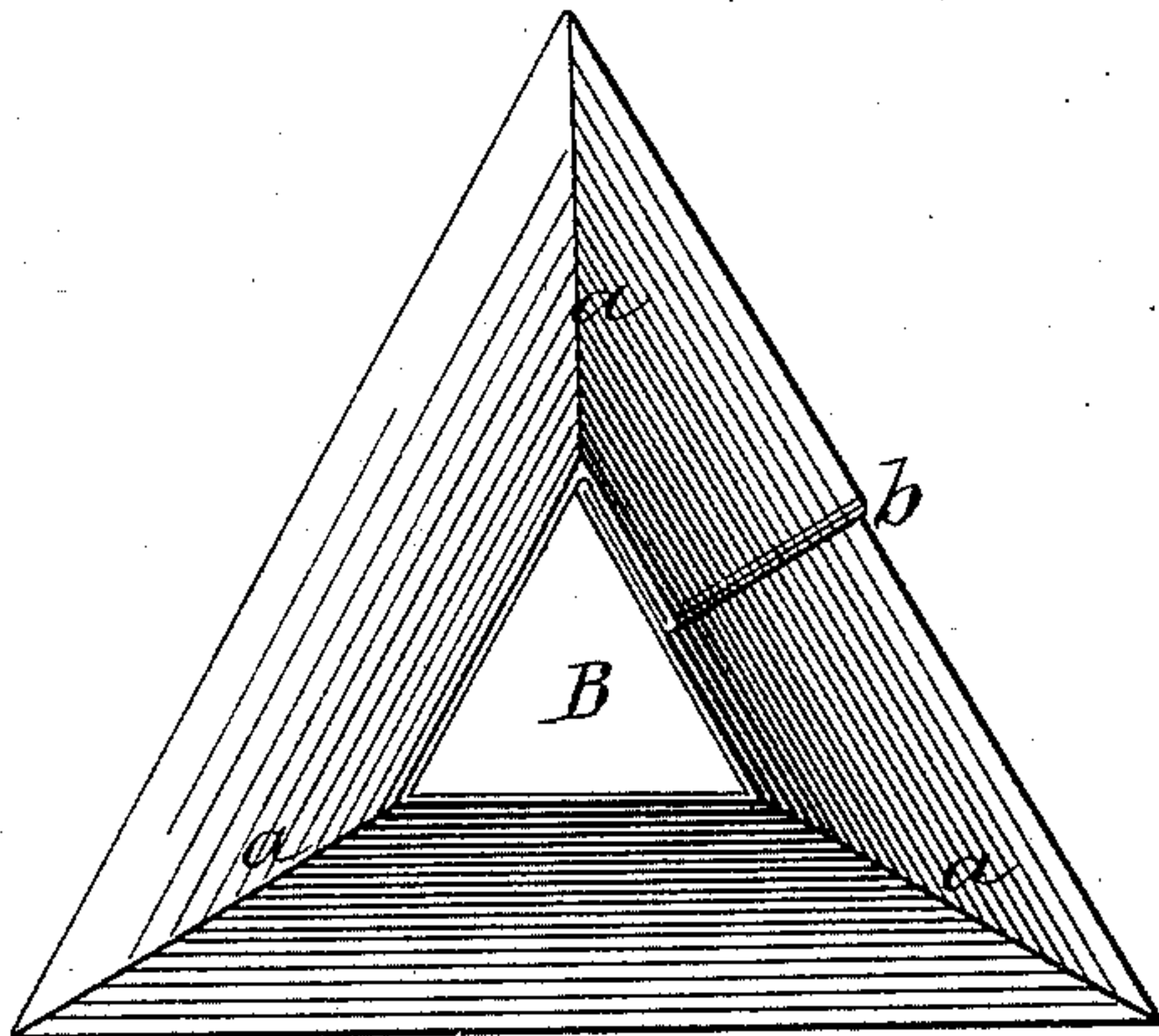
*Fig. 1.*



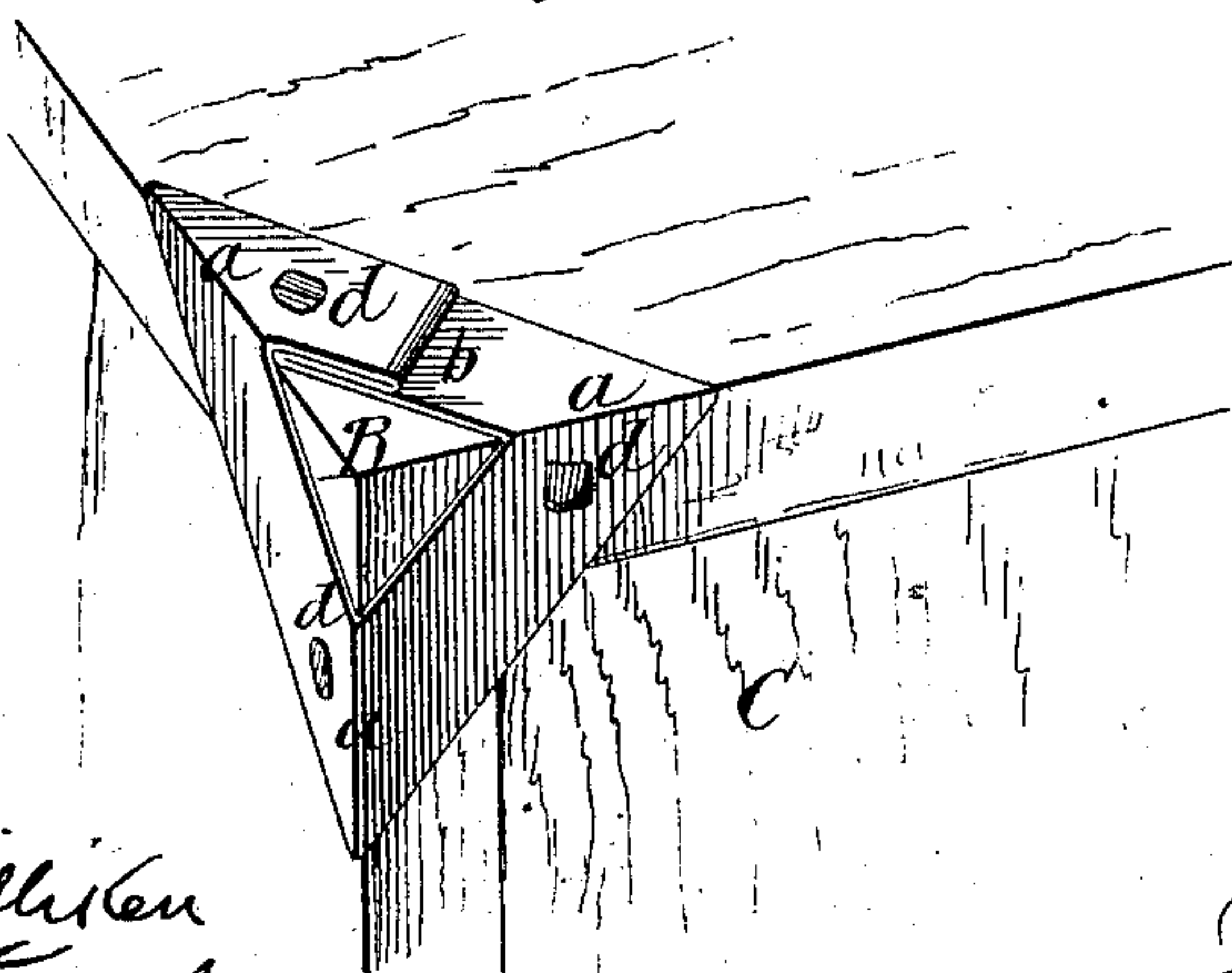
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses.

W. J. B. Milliken

Frank R. Johnson.

Inventor

Frank R. Johnson.

# UNITED STATES PATENT OFFICE.

FRANK G. JOHNSON, OF NEW YORK, N. Y.

## METALLIC BINDER FOR BOXES.

SPECIFICATION forming part of Letters Patent No. 405,359, dated June 18, 1889.

Application filed July 12, 1888. Serial No. 279,793. (Model.)

*To all whom it may concern:*

Be it known that I, FRANK G. JOHNSON, a citizen of the United States, residing in the city, county, and State of New York, have invented a new and useful Metallic Box-Binder for Securing the Corners of Packing-Boxes, of which the following is a specification.

The object of my invention is to provide a metallic binder for securing the corners of packing and other boxes, which can be cheaply made and conveniently applied by unskilled labor, and to boxes of various sizes.

The construction of my binder is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents one of the said binders as it is applied to the corner of a box. Fig. 2 represents the square piece of sheet metal with a small part of the central portion cut out, which, when folded, forms the binder, as shown in Fig. 1. Fig. 3 shows the binder as seen when looking toward its apex. Fig. 4 shows it as applied to a box and seen when looking toward the apex.

Similar letters refer to similar parts throughout the several views.

A is a square piece of sheet metal having the central portion B cut out, as seen in Fig. 2. It is not necessary, however, to cut out any part of the center, only as it might be desirable, for reasons hereinafter explained. By bending this square sheet A at right angles on the dotted lines *a a a a*, Fig. 2, and bending one of its sides inward closely upon itself on the line *b* by bringing the adjacent corners toward each other, which doubles this side upon itself, then by bending the folded side down upon one of the adjacent sides of the square, as shown in Fig. 3, the triangular right-angled corner-binder is formed, as seen in Fig. 1, which is mathematically perfect in form. *d d*, Fig. 1, represent the heads of nails which fasten the binder to the box C.

The only object of cutting a small piece out of the center of the sheet before it is formed, if thought desirable, is to allow the extreme corner of the box B to protrude through the binder, as seen in Fig. 1, to prevent the binder from being knocked out of place or bent, as the box, by handling, may chance to fall upon its corners; hence it will be seen that these metallic binders are not so much intended to protect the extreme corners of the box as to bind and strap together the three pieces of board that form the corners to prevent them from coming apart.

I am aware that cast-iron corner-pieces have been employed as shields on corners of trunks to protect the same from damage; and I am also aware that corner-pieces for paper boxes have been made of sheet metal, as shown in patent granted to David Steinburg, No. 216,237; also that they have been made of cloth and paper for the same use, as shown in patent granted to George M. Hendrickson, No. 96,108. I am also aware that strips of sheet metal have been employed to bind the corners of packing-boxes, as shown in patent granted to Henry C. Stone, No. 196,876. Therefore I do not claim, broadly, the employment of metallic corners for binders of boxes irrespective of the manner of constructing the same; but

What I do claim as new and useful, and desire to secure by Letters Patent, is—

The jointless sheet-metal binder having three sides at right angles to and inclined toward each other, one side being composed of a main portion and a folded portion, as set forth.

FRANK G. JOHNSON.

Witnesses:

W. T. B. MILLIKEN,  
GEO. H. WOOSTER.