

(No Model.)

W. S. KILLINGSWORTH.
FOLDING CRATE.

No. 420,908.

Patented Feb. 4, 1890.

Fig. 1.

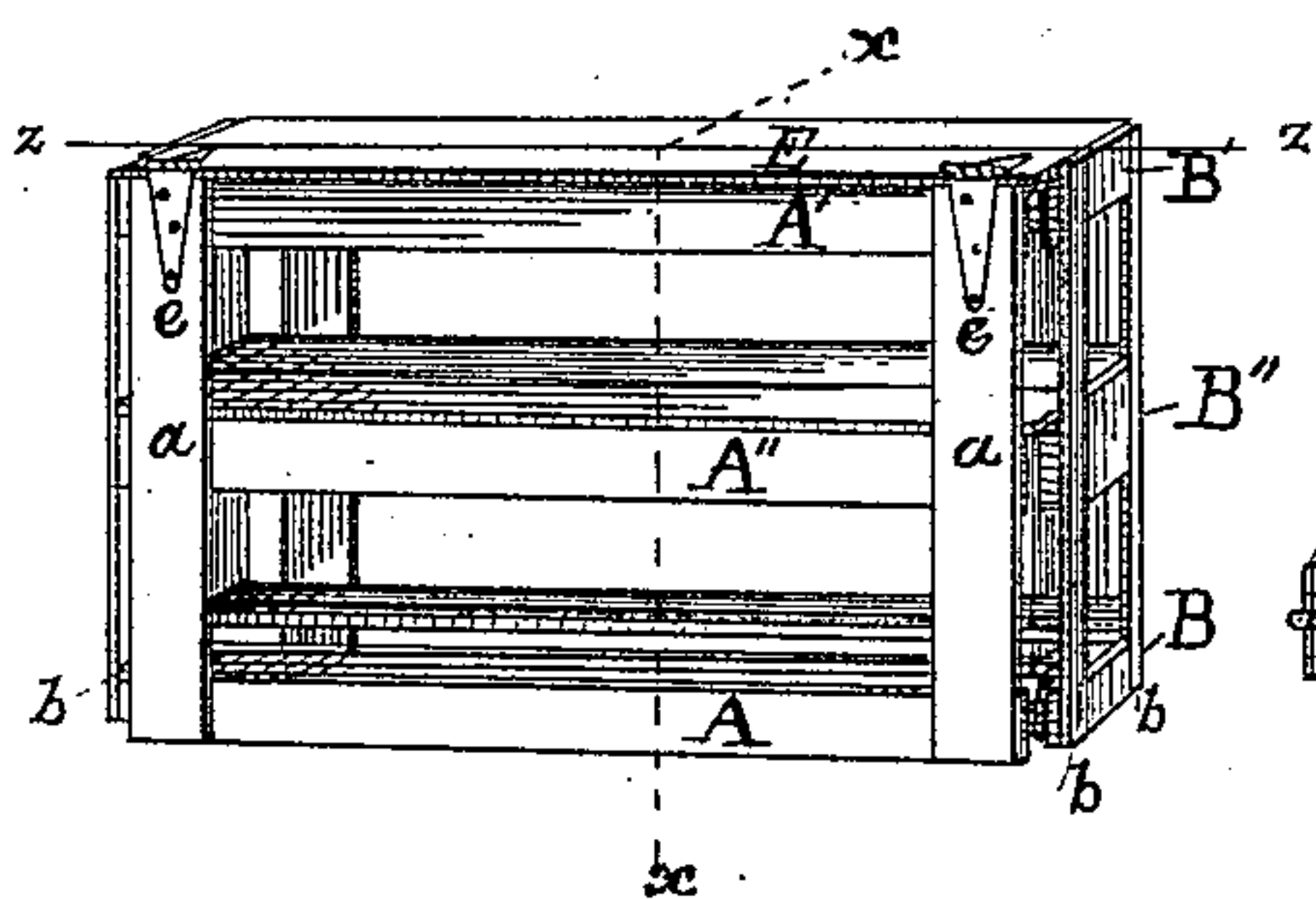


Fig. 2.

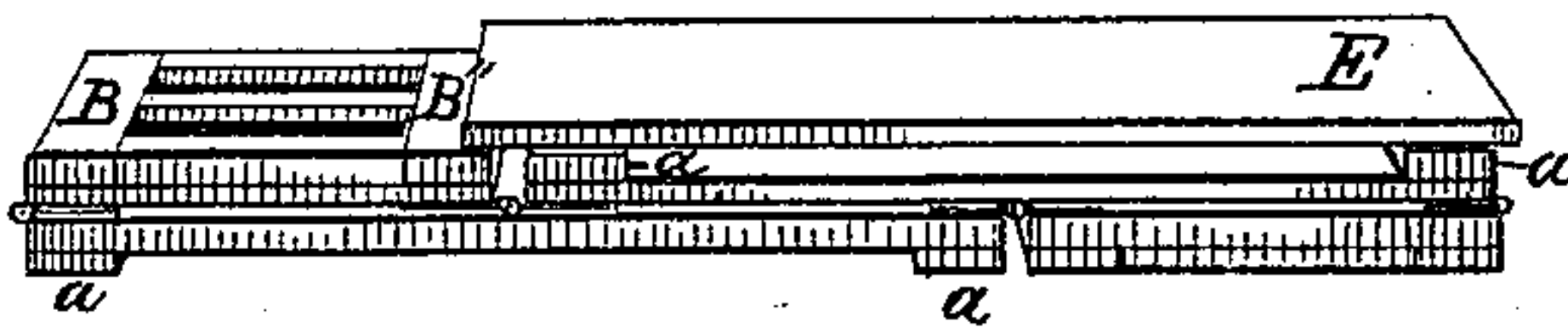


Fig. 3.

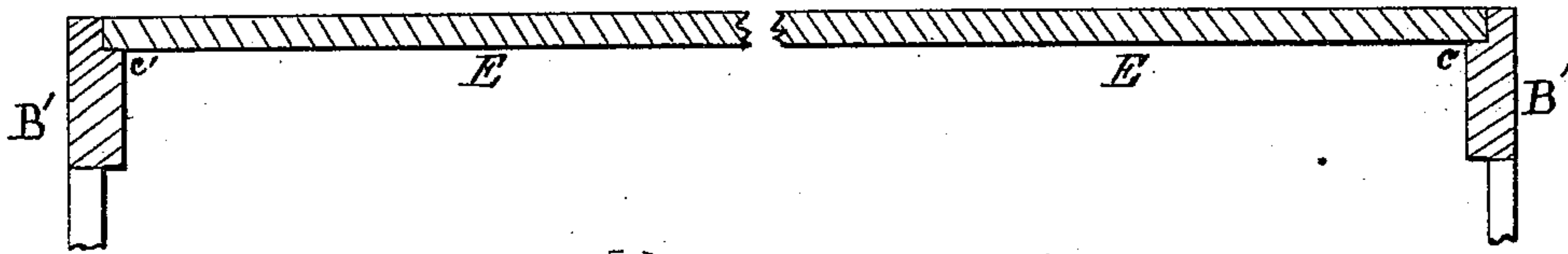


Fig. 4.

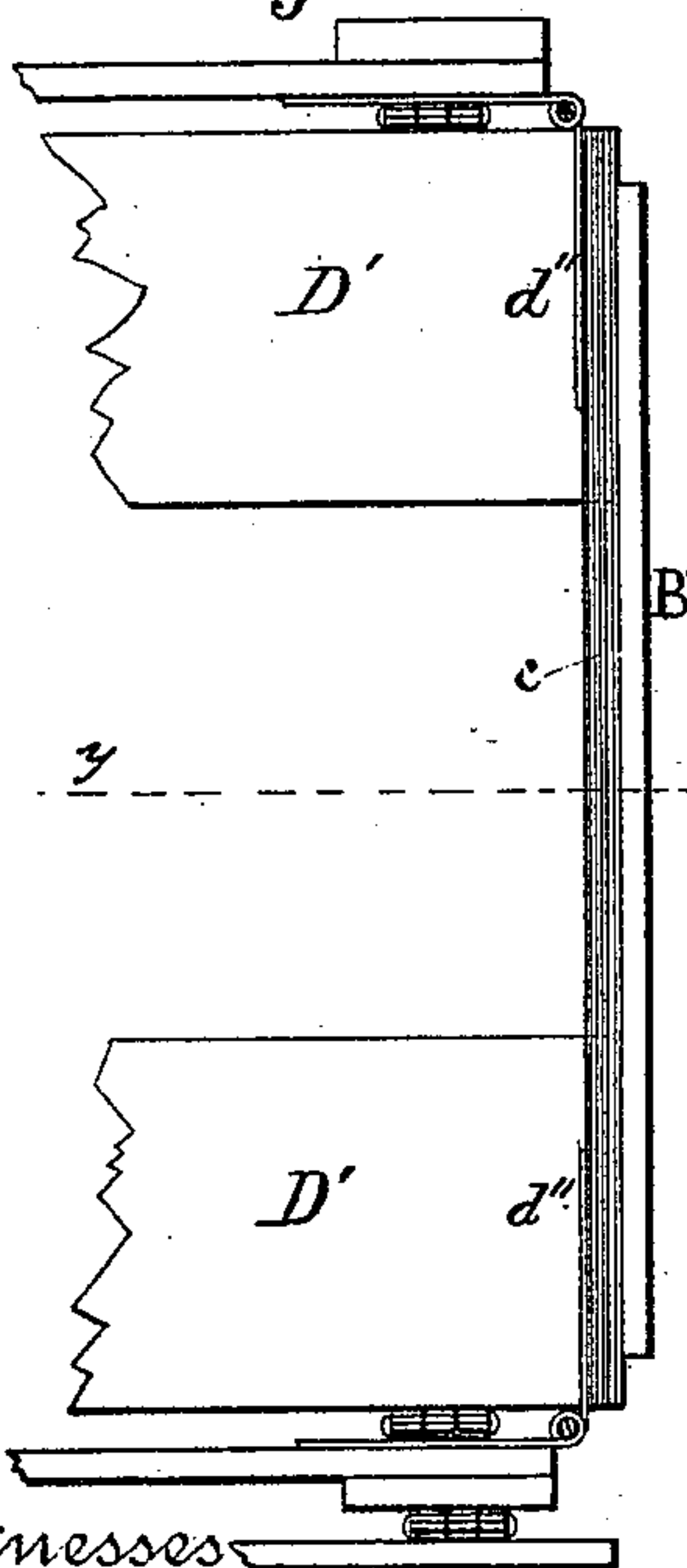
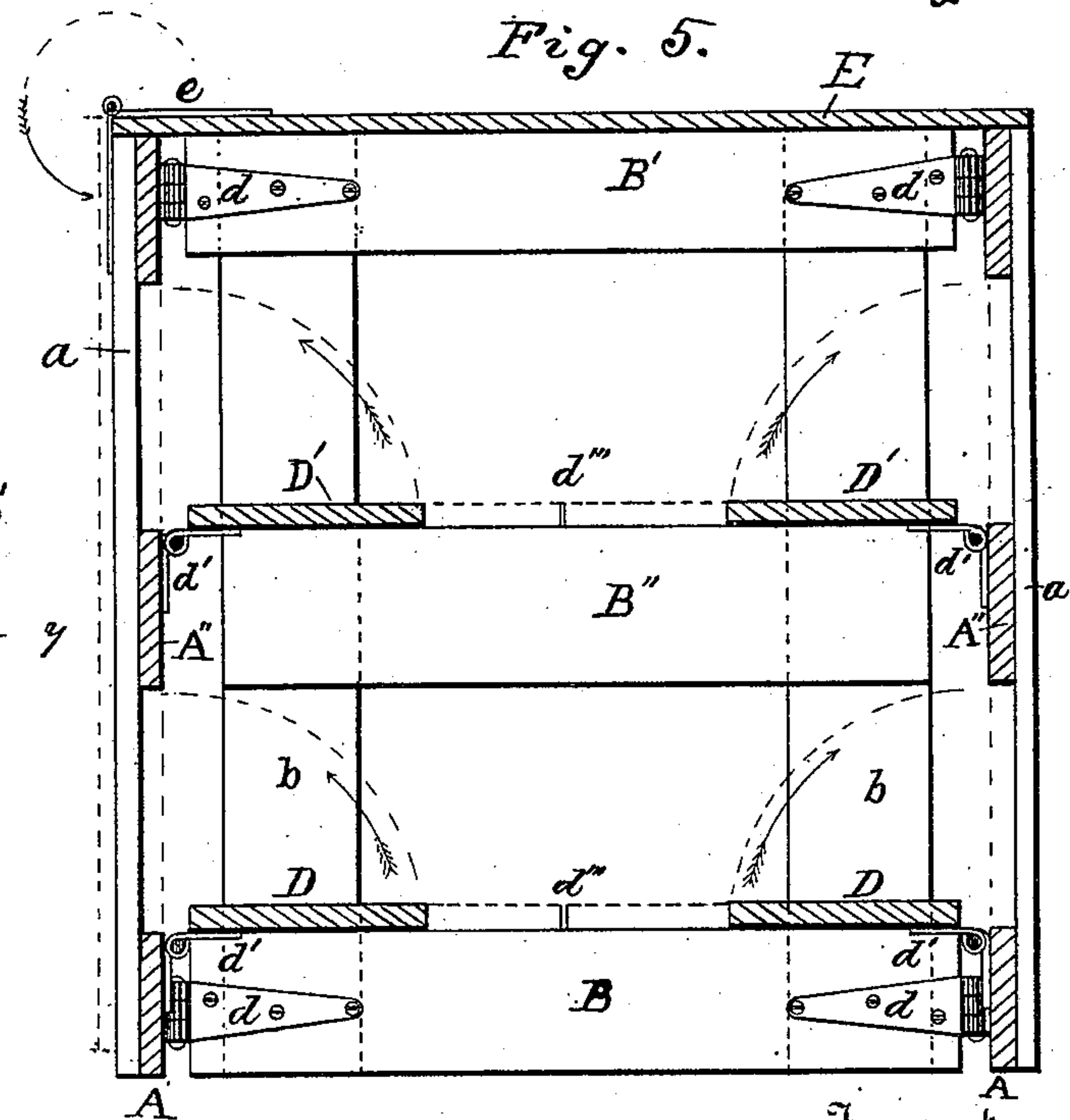


Fig. 5.



Witnesses

Thos. Houghton.
W. H. Singleton.

Inventor

Wiley S. Killingsworth
Per
W. R. Singleton Attorney

UNITED STATES PATENT OFFICE.

WILEY S. KILLINGSWORTH, OF GREENVILLE, SOUTH CAROLINA, ASSIGNOR
OF ONE-HALF TO J. C. FITZGERALD, OF SAME PLACE.

FOLDING CRATE.

SPECIFICATION forming part of Letters Patent No. 420,908, dated February 4, 1890.

Application filed June 12, 1889. Serial No. 314,049. (No model.)

To all whom it may concern:

Be it known that I, WILEY S. KILLINGSWORTH, a citizen of the United States, residing at Greenville, in the county of Greenville and State of South Carolina, have invented certain new and useful Improvements in Folding Crates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain improvements in folding crates, which will be hereinafter more particularly described, and pointed out in the claim.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of the crate standing. Fig. 2 is a perspective view of the crate folded. Fig. 3 is a vertical longitudinal section of the lid on line *z z* of Fig. 1. Fig. 4 is an enlarged view of one end, looking down into Fig. 1, the cover being turned up. Fig. 5 is an enlarged transverse vertical section on line *x x* of Fig. 1.

The sides and ends are formed into panel-frames by top, bottom, and middle rails and stiles. The panels are not closed for fruit and similar crates, but may be closed whenever the materials to be transported require a close crate.

A is the bottom rail, A' the top rail, and A'' the middle rail, of the side frames.

B B' B'' are the bottom, top, and middle rails of the end frames.

a a are the stiles of the side frames, and *b b* are the stiles of the end frames. These are all fastened together securely in any suitable manner. The rails of the sides are inside of the stiles, forming recesses between them on the inside, for a purpose which will be hereinafter explained. The two top rails of the end frames have rabbets on their upper edges to receive the ends of the lid or cover.

The bottom edges of the lower end rails are even with the side bottom rails A. When the lid E covers the crate, as in Fig. 1, every part of it on the outside will present a flush surface.

At the four corners of the crate, at the top and bottom, are suitable hinges *d d*, &c., inside of the sides and ends, whereby the sides and ends are secured together permanently,

and yet admit of being folded together in either direction, as shown in Fig. 2.

To the bottom rails A of each side frame there are secured by hinges *d'* the bottom slats D, which in the drawings, Fig. 5, are narrow (shown in solid lines) for fruit-boxes, but may be nearly half the width of the crate, as shown in broken lines at *d'''*. There are also similar slats D' hinged to the middle rails A'' of the side frames, which can also be made wide, as shown in dotted lines. These slats D and D' are hinged to fold into recesses in the sides formed by the rails, which is the purpose referred to above, and they occupy no more space when folded than the rails do. When these slats D D' are in position, as seen in Figs. 1 and 5, their ends fit snugly within the stiles of the end frames, as shown at *d''*, Fig. 4, thereby bracing the crate, preserving it in its rectangular form.

The lid or cover E is hinged, as shown, with hinges *e e*. When the lid E is turned down for folding the crate, it lies snugly against one of the sides, as shown by dotted lines on the left of Fig. 5. It is intended to place the direction or address of the merchant to whom the crate is consigned on the cover on one side, and on the other the address of the shipper, so that when the crate is folded, as in Fig. 2, the latter address will be outside, whereas when the crate is full and closed the address of the consignee will be outside. When the lid or cover is turned down, as in Fig. 1, the ends will fit in the rabbets on the end rails, and thus assist greatly in bracing the crate.

When the crate is to be used for large articles without separate boxes, the slats D', forming the intermediate partition, are to be left upright in their recesses in the sides.

What I claim is—

A folding crate hinged interiorly at its four corners and having a reversible hinged lid and turning slats for the bottom and middle partition hinged to the side rails, all constructed substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

WILEY S. KILLINGSWORTH.

Witnesses:

WM. R. SINGLETON,
THOS. H. YOUNG.