

F. J. YOUNGREN.
FOLDING SHIPPING CRATE.
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970,362.

Patented Sept. 13, 1910.

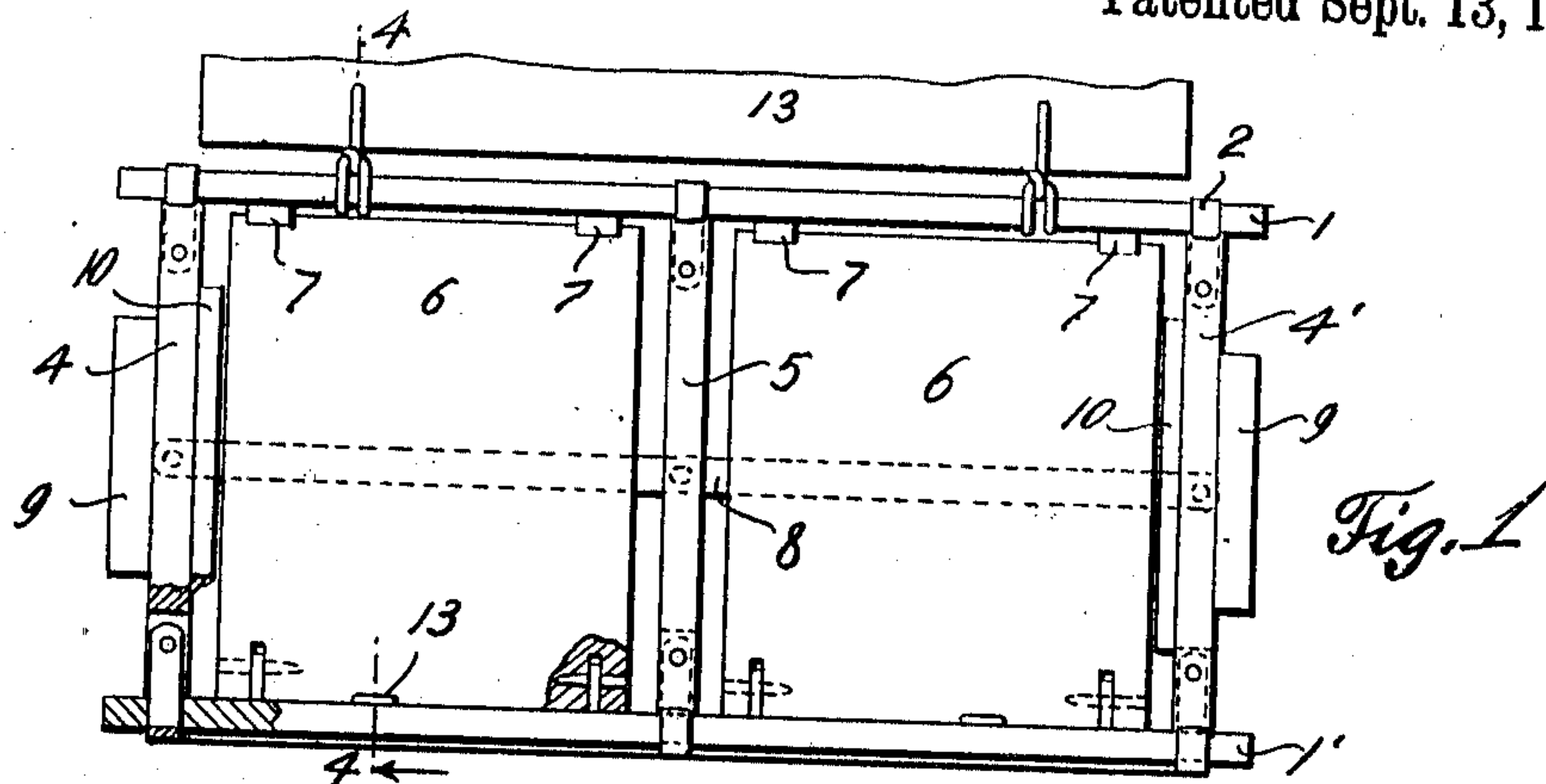


Fig. 1

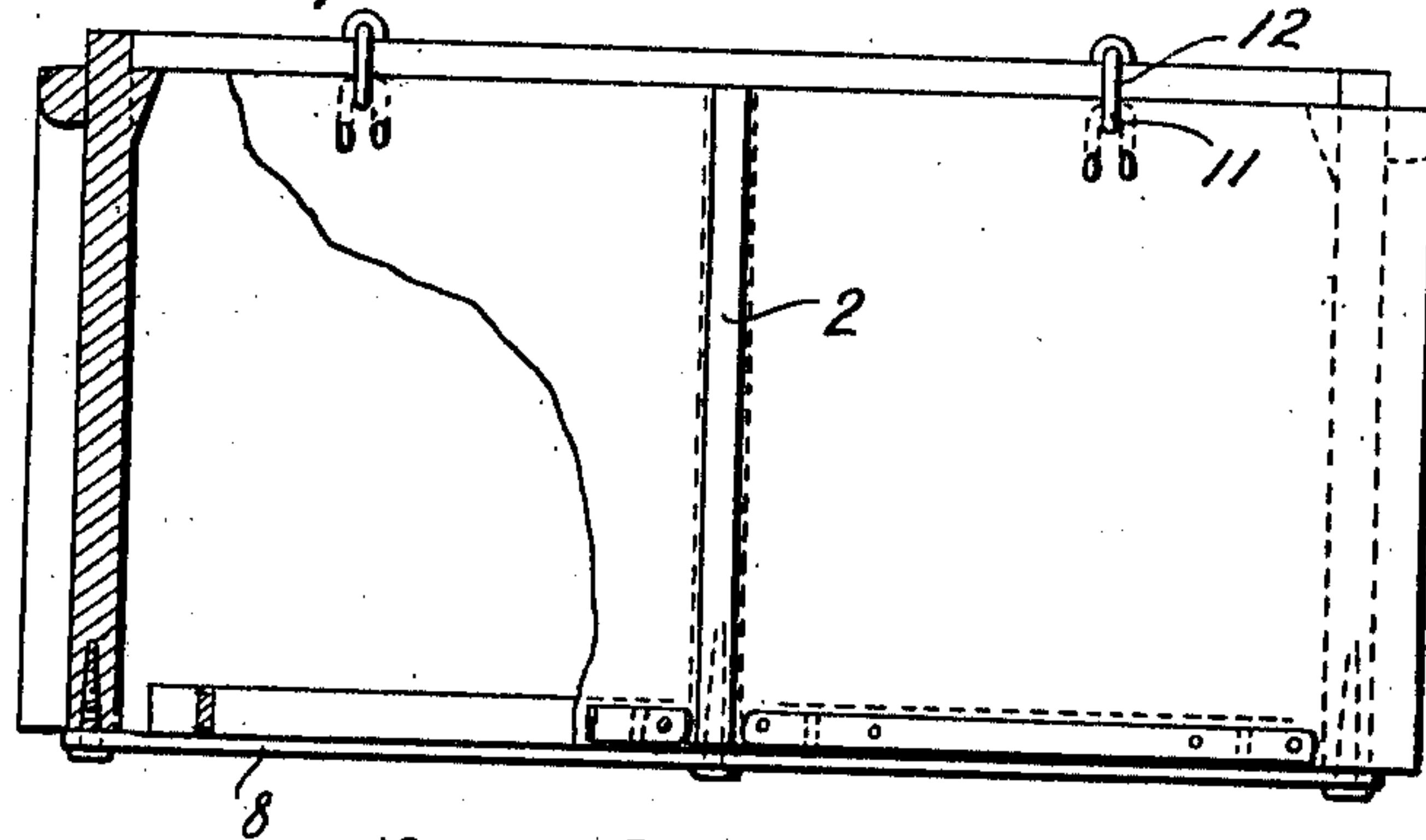


Fig. 2

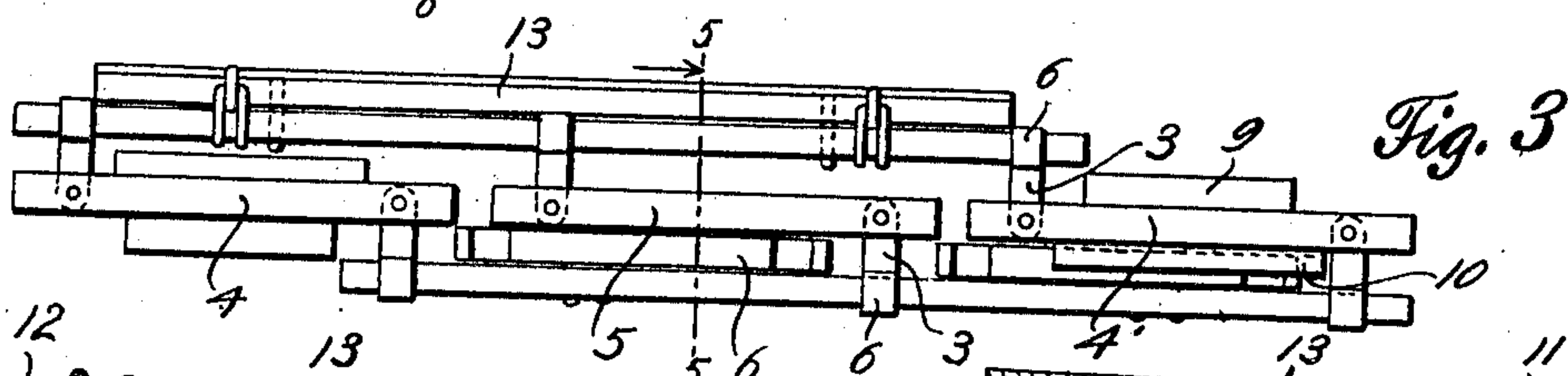


Fig. 3

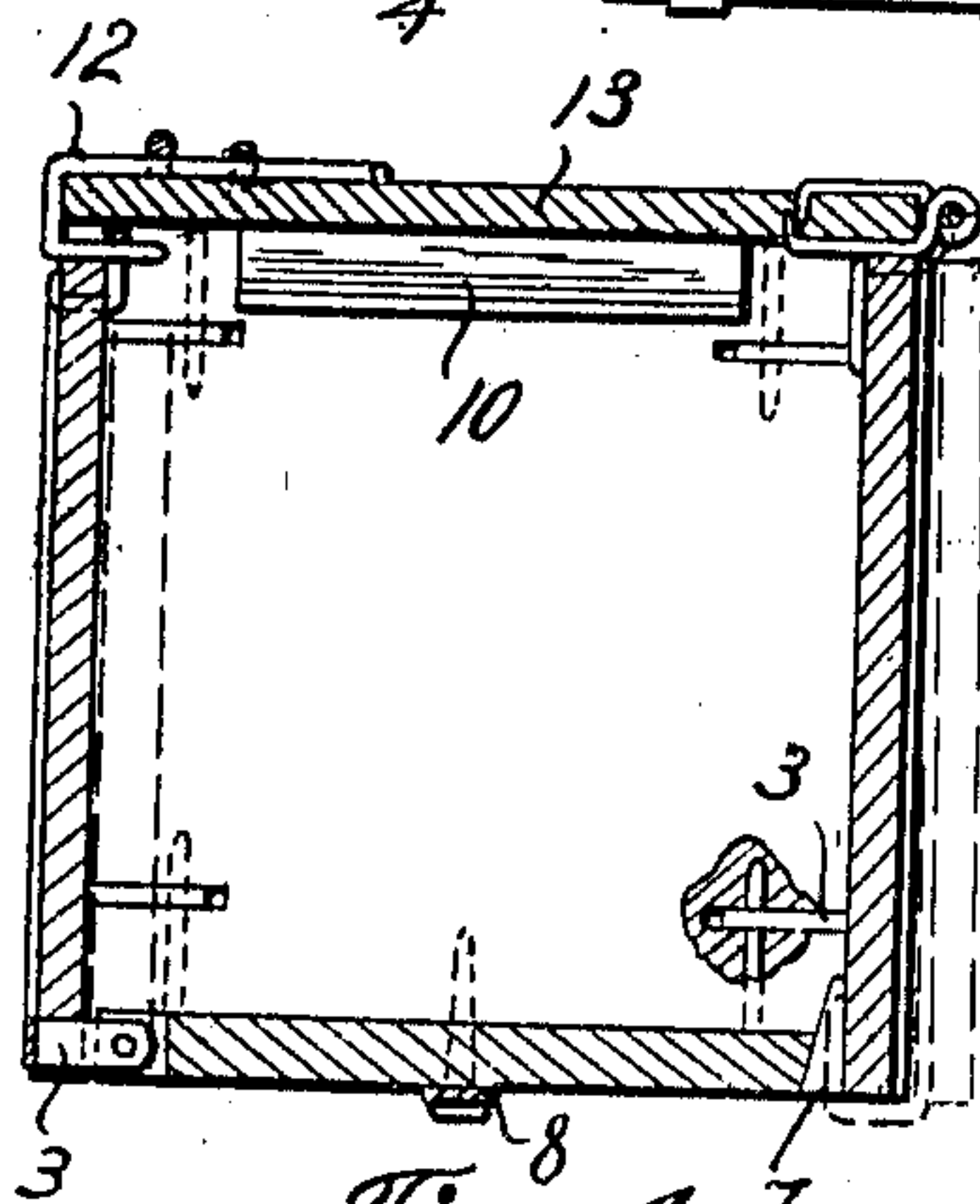


Fig. 4

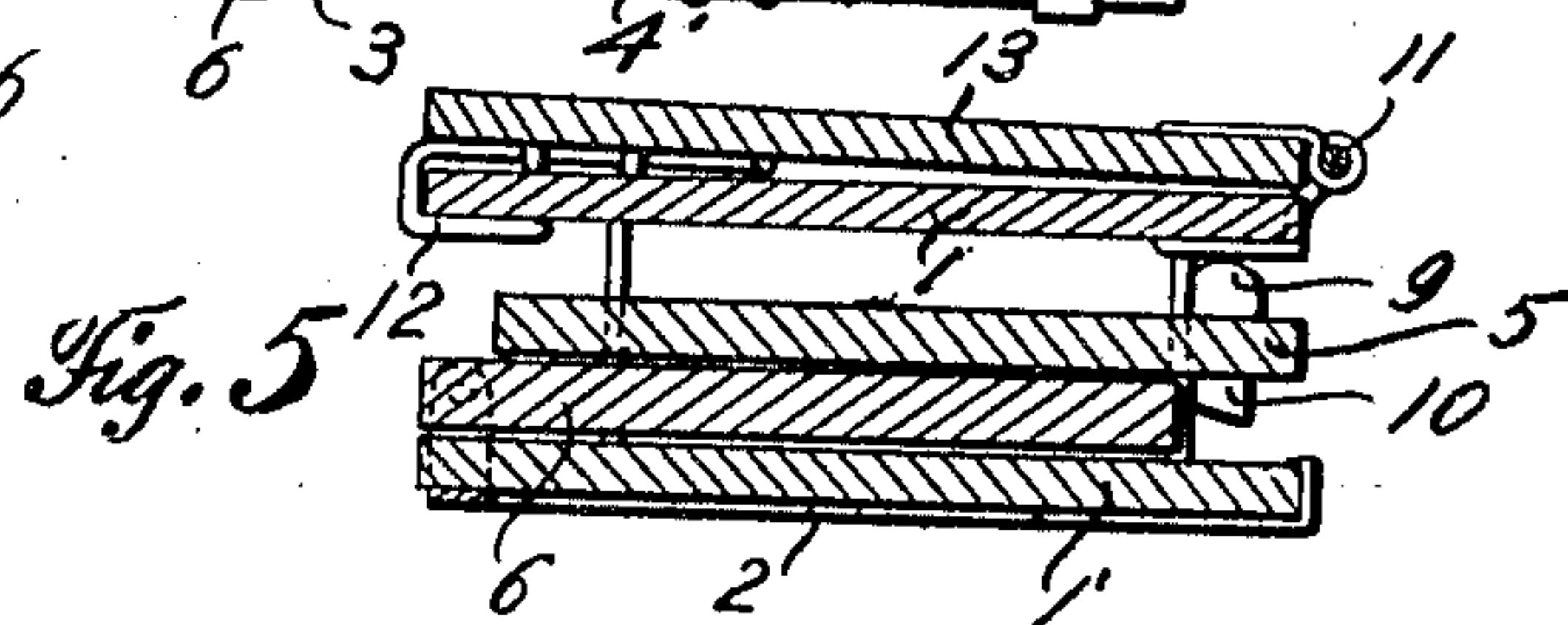


Fig. 5

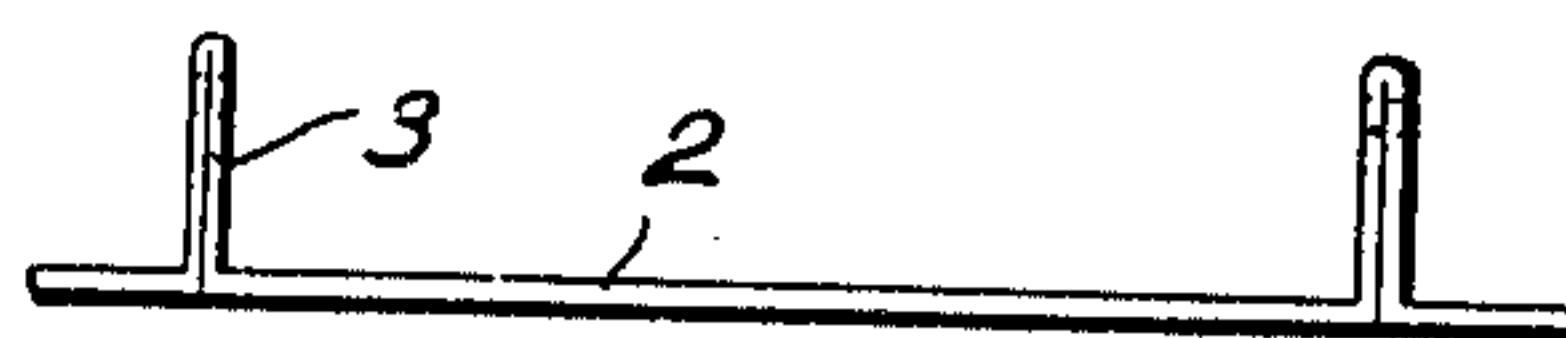


Fig. 6

Witnesses

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FRANCE J. YOUNGREN, OF RENNER, SOUTH DAKOTA.

FOLDING SHIPPING-CRATE.

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To all whom it may concern:

Be it known that I, FRANCE J. YOUNGREN, a citizen of the United States, residing at Renner, in the county of Minnehaha and State of South Dakota, have invented certain new and useful Improvements in Folding Shipping-Crates, of which the following is a specification.

This invention relates to collapsible crates or boxes, preferably of wood, and has special reference to a device of this character which is simple of construction, easy to operate, and one in which the cover is retained to the body of the box in either its normal or collapsed positions.

For a full understanding of the invention reference is to be had to the following detail description and the accompanying drawings, in which—

Figure 1 is a top plan view of the crate, parts thereof being broken away; Fig. 2 is a side elevation, parts thereof being broken away; Fig. 3 is a similar view of the box in its collapsed position; Fig. 4 is a cross section taken on line 4—4 of Fig. 1; Fig. 5 is a similar view taken on line 5—5 of Fig. 3; Fig. 6 is a side elevation of one of the members used as hinges.

Referring more particularly to the drawings, it will be observed that 1 and 1' indicate the front and rear sides of the box. Piercing the said sides from the outer surfaces are a plurality of bars 2, said bars being bent upon themselves at regular intervals forming projections or supporting members 3, which are provided at their outer extremities with coinciding openings. The ends of the box 4 and 4' and the central partition 5, which forms compartments in the said box, are pivotally supported by the supporting members 3, said ends and partition being slotted at intervals coinciding with the said supporting members. A rod or spike, as is preferably shown, may be inserted through the ends and partition into the openings provided in the supporting members 3.

In each of the compartments formed is a bottom 6 which is pivoted to either the front or rear sides by a similar connection used in connecting the sides and ends of the box together. These bars or plates 2 may be secured to the box by any means, those running vertically having their extremities clamped over the upper and lower edges of

the sides, thus further strengthening the structure. The bottoms are adapted to fold inward when ready to collapse the box and when the box is in its normal position, said bottoms are adapted to wedge in between the blocks or members 7 provided for that purpose, thus retaining the bottom in its normal position. A bar 8 is centrally pivoted to the bottom edge of the end members and partition which further tends to strengthen the structure when the same is in its normal or open position. The bar 8 is also provided to limit the downward movement of the bottom sections 6. Each end member is provided on its outer surface, adjacent to its top edge, with a hand grip or handle 9 by which the box or crate may easily be carried. Similarly connected to the inner surface of each end member is a ledge 10 on which the top or cover 14 is adapted to rest, the central partition being shorter in height than the end members, thus permitting the cover to rest on the partition and ledges in between the said end members. The top or cover is hinged to the box, each hinge 11 comprising two pieces of wire or like material, one piece being formed into a loop and connected to the inner sides of the body and the other piece of wire being threaded through the loop thus formed and connected to the cover as illustrated in the drawing. Reversible hooks 12 are movably mounted on the cover for retaining the same to the box, said hooks being longitudinally slidable into, and out of, engagement with a loop or staple 13. Each may be reversed or inverted so as to engage the rear side of the box, as shown in Fig. 4, when the same is to be collapsed.

The box may be folded or collapsed in either direction due to the formation of the box. The bottom members or sections may be notched, if desired, to receive the wedge blocks 7 and yet at the same time the bottom must not fully extend the width of the box as the hooks engage in the spaced portion when the lid or cover is desired to be locked in an open position.

Having thus fully described my invention, what is claimed as new is:

1. A collapsible crate comprising side and end members pivotally connected to each other, the bottom pivotally connected to one side and a wedge member secured to the other side adapted to engage said bottom as set forth.

2. A collapsible crate comprising a plurality of side members, a plurality of end members pivotally connected thereto, a plurality of wedge members secured to one side member, and a plurality of bottom sections pivotally secured to the other side member and adapted to engage the wedge members, said bottom sections being notched to receive said wedge members.
3. A collapsible crate comprising a plurality of side members, a plurality of end and partition members pivotally secured thereto, a plurality of wedge members secured to one of the side members, a plurality of bottom sections pivotally secured to the other side member and adapted to engage said wedge members, and a bar pivotally mounted on

said end and partition members to limit the movement of said sections as set forth.

4. A collapsible crate comprising a plurality of side members, a plurality of end and partition members pivotally secured thereto, a plurality of bottom sections pivoted to one side member, and a plurality of plates secured to said side members each of said plates having integral supporting members formed intermediate its extremities said supporting members piercing the side members to form the pivoted sections as set forth.

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