No. 749,702. PATENTED JAN. 12, 1904.

J. W. REED.

CURTAIN STRETCHER.

APPLICATION FILED OCT. 24, 1903.

NO MODEL.

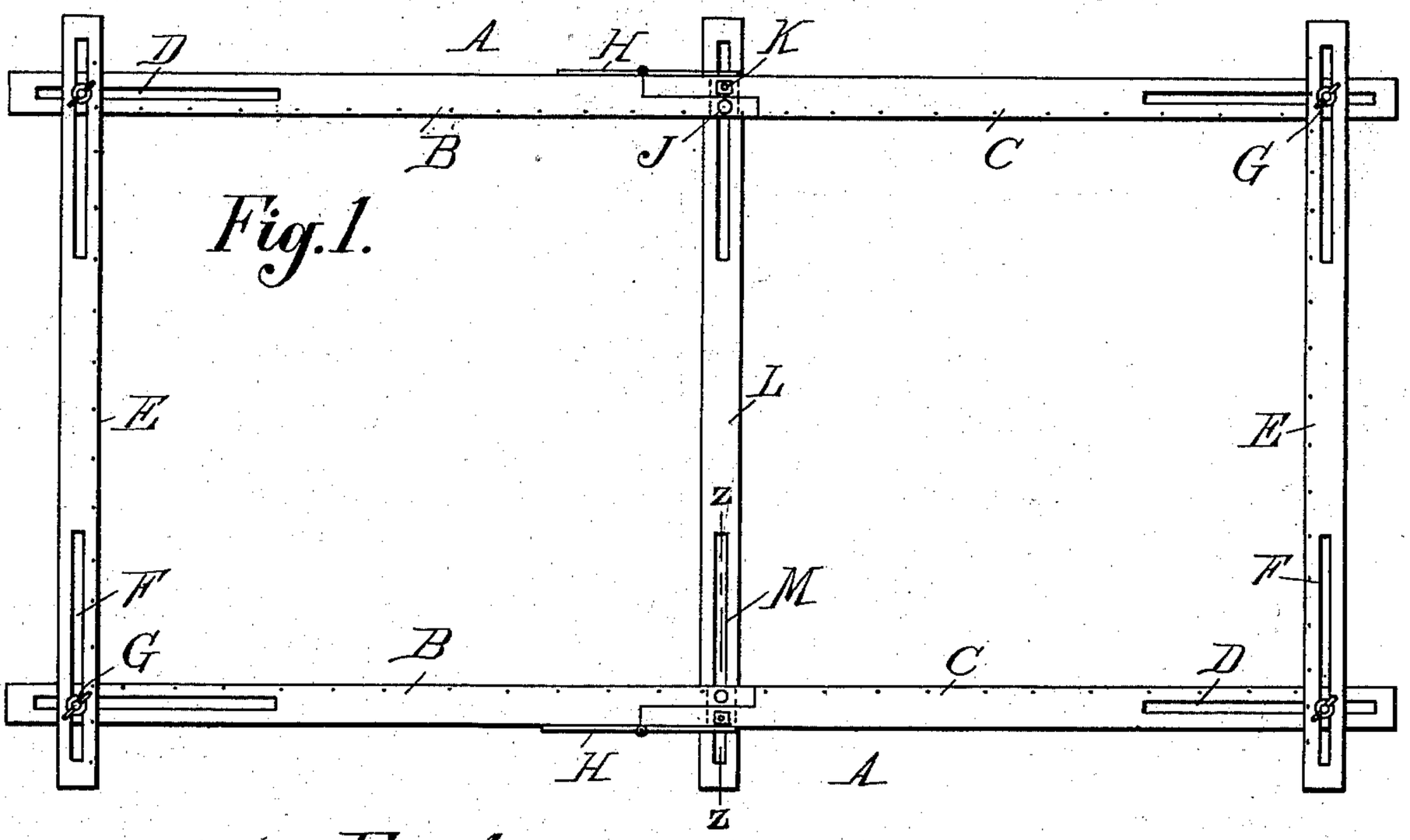


Fig. 1.

Fig. 4.

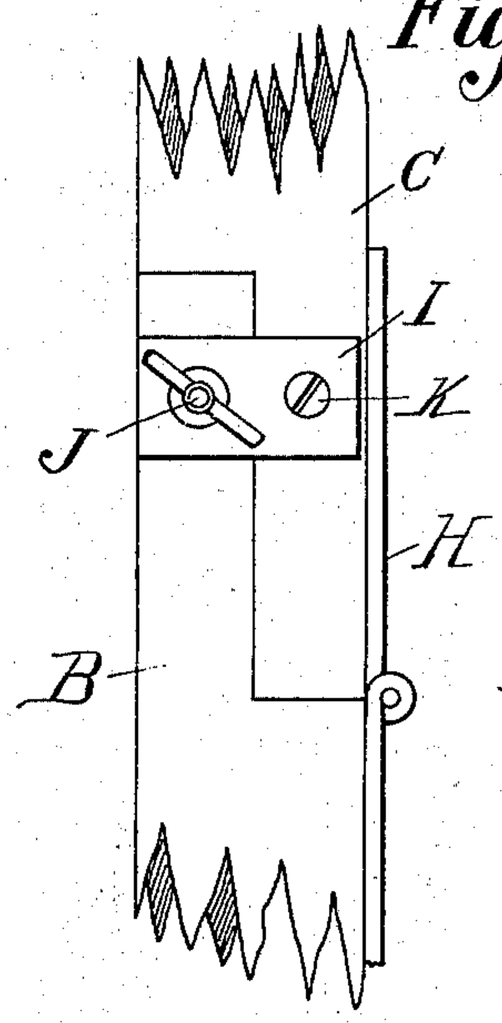


Fig. 2.

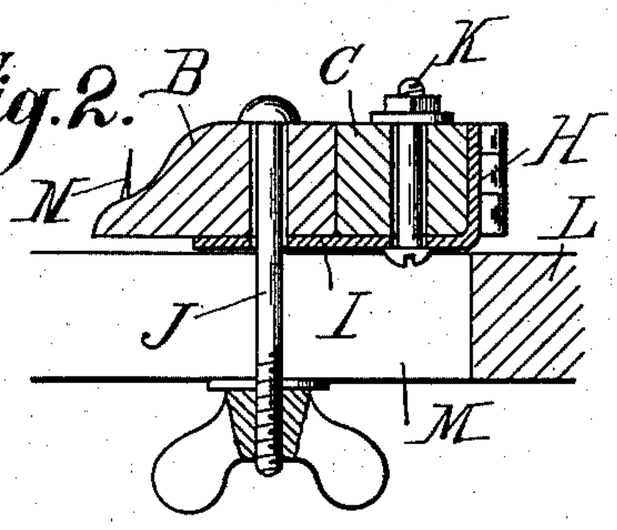
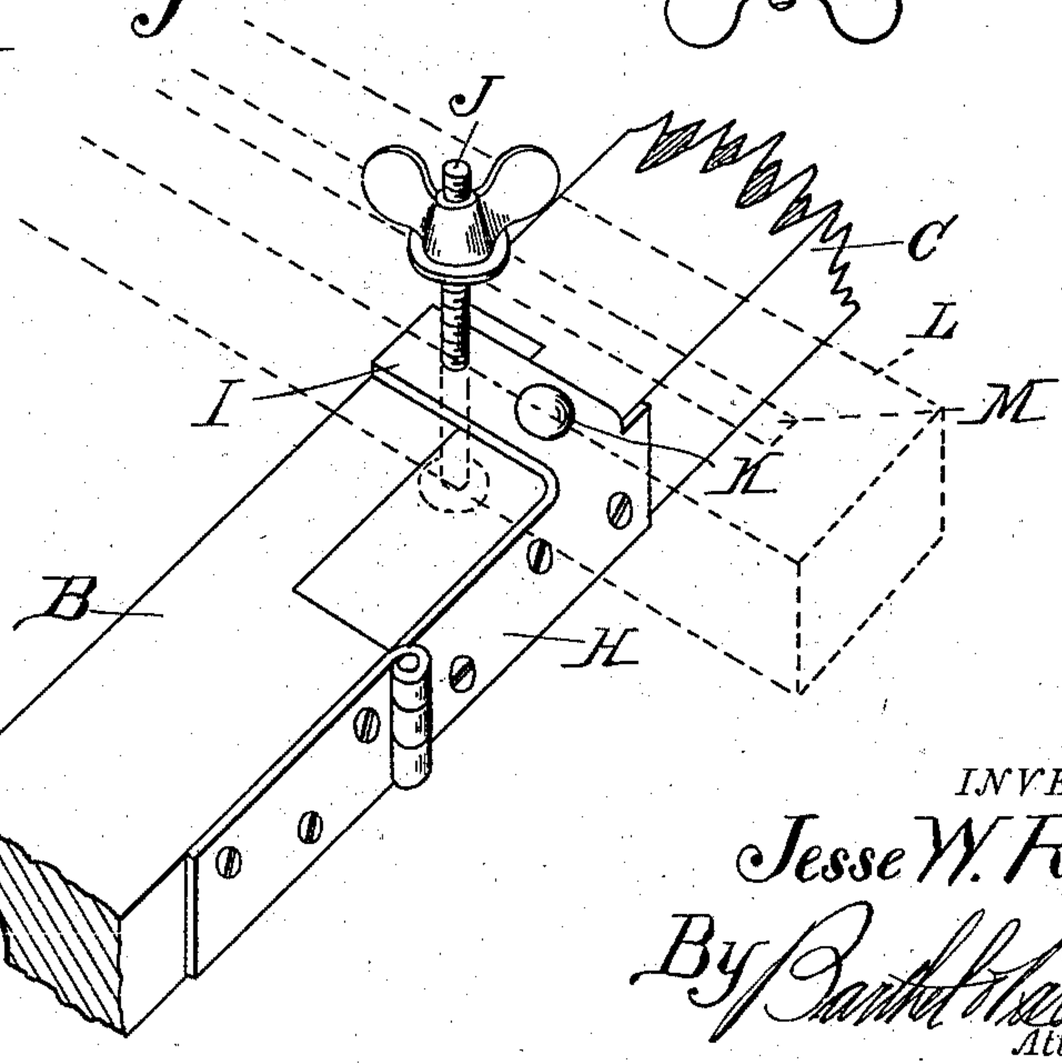


Fig. 3



WITNESSES.

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UNITED STATES PATENT OFFICE.

JESSE W. REED, OF DETROIT, MICHIGAN.

CURTAIN-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 749,702, dated January 12, 1904.

Application filed October 24, 1903. Serial No. 178,308. (No model.)

To all whom it may concern:

Be it known that I, JESSE W. REED, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Curtain-Stretchers, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to that class or kind of lace-curtain stretchers which are designed to be set up for use and folded or taken down when not in use.

The object of this invention is to obtain a lace-curtain stretcher which shall be cheap, simple, and durable and capable of folding into a compact form when not in use.

In lace-curtain stretchers of the kind named side rails each composed, respectively, of two bars joined together at their adjacent ends are secured at their outer ends to end rails, thereby obtaining a rectangular frame, such frame being made adjustable by the connections at the meeting ends of the side and end rails being made through slots. In order to construct the side rails of light material, it is necessary to provide specially-constructed hinges for joining the bars together at the adjacent ends thereof in the side rail wherein such bars are hinged together, and it is further necessary to provide a cross-bar and means for securing it near its ends to the side rails adjacent to the joined ends of the bars constituting such side rails; and this invention comprises, first, a specially-constructed hinge for joining together adjacent ends of the bars, forming a hinged side rail, and for securing one end of the cross-bar to such side rail all by the use of a single common bolt in a manner to prevent sagging of the side rail, as well as any bowing inward thereof, all as more fully hereinafter described and shown in the accompanying drawings, in which—

Figure 1 is a plan of my curtain-stretcher; Fig. 2, a section on the line *z z*, Fig. 1; Fig. 3, a perspective view looking at the under side thereof; Fig. 4, a bottom plan view of a modified construction of hinge in which the hinge and connecting-bar are made separate.

A A are the side bars of a curtain-stretcher divided at their center by means of a lap-joint into sections B C, and each bar or rail at its ends has a slot D permitting of the endwise adjustment of the end bars or rails. The end bars or rails E each have longitudinal slots F in their opposite ends, permitting of a sidewise adjustment of the side bars by means of bolts G, passing through the slots D F in the crossed corners of the frame, each bolt being provided with a winged nut for convenient manipulation in adjusting or setting up the frame.

H is a strap-hinge pivotally uniting the adjacent ends of the side rail-sections, so that they may fold edgewise against each other, and I is a strap or bar extending at right angles to the hinge proper and preferably formed integral therewith, adapted with its free end to overlap the lapped ends of the rail-sections and detachably unite the same by means of a bolt J, passing through an aperture in the section B and strap and provided with a suitable winged nut for clamping the parts together.

K is a bolt passing through the strap and section C to more firmly unite the parts together, although this bolt may be dispensed with where the strap is made integral with the hinge.

L is a cross or stiffening bar of a length corresponding to the length of the end bars or rails extending from side rail to side rail and overlapping the joint of each bar or rail at the abutting ends of its sections, and this bar has at its opposite ends the slots M for the passage of the clamping-bolts J, which firmly unite the cross-bar with the side rails and at the same time form the only connection between the lapped ends of the side-rail section, thus the one bolt connecting the ends of the side rail together and at the same time clamping the cross-bar thereto in any of its adjusted positions, the cross-bar being guided on the side rails by the heads of the bolts K, traveling in the slots M, as shown in Fig. 2.

N represents the pins around the inner edge of the stretcher for fastening the curtain to in drying.

In Fig. 4 the strap I is made separate from

the hinge, in which case an ordinary stock strap-hinge is used, and the bolt K acts both to hold the strap in place and at the same time guide the bar L by reason of its head traveling in the slot M.

It will be seen that in my construction no metal is permitted to come in contact with the curtain in drying, and the whole joint connection and cross-bar fastening is made by two bolts, thus doing away with the loss of unnecessary parts, and which can be replaced at any hardware store.

Having thus fully described my invention, what I claim is—

1. In a curtain-stretcher, side rails detachably joined to end rails, a brace-bar connecting the side rails at the middle of the stretcher, said side rails comprising bars edgewise foldably secured together by a connecting-hinge integrally formed with a strap adapted to lap the joint of the side rail, the joint between the members of each side rail being formed by a lap-joint.

2. In a curtain-stretcher, the combination with the end rails of side bars or rails divided at their middle by a lap-joint, hinges edgewise foldably connecting together the divided side rails and integrally formed with a strap adapted to lap the joint of the side rail, a brace-bar extending from side to side and crossing the rails at the joints and clamping-bolts one for each end of the brace-bar passing through apertures in the brace-bar, strap and side rail to rigidly unite the rail-sections and clamp the brace-bar thereto.

3. In a curtain-stretcher, side rails adjustably secured to end rails, such side rails comprising bars divided at their middle by a lap-joint edgewise foldably hinged together by a hinge secured to the outer edge of the bars and integrally formed with a strap lapping one side of the bars at the joint and having an aperture in alinement with an aperture in the other bar, a brace-bar having apertures at its opposite ends extending across the frame at the joint and bolts passing through said apertures to rigidly lock the bars of the side rails together and adjustably clamp the brace-bar thereto.

4. In a curtain-stretcher, side rails adjustably secured to end rails, such side rails comprising bars divided at their middle by a lap-joint and edgewise foldably secured together by a hinge secured to their outer edge, a strap adapted to lap the side of the joint, apertures in said strap and bar in alinement with each other, bolts passing through said apertures to lock the members of the side bars together, a brace-bar formed with slots at its opposite ends sleeved on said bolts and nuts on the bolts for clamping the bar to the side rails to form a rigid frame.

5. In a curtain-stretcher, side rails joined to end rails, such side rails comprising bars divided at their middle by a lap-joint and edgewise foldably secured together by a hinge, straps adapted to lap the side of the bars carried by one member of each bar and having an aperture in alinement with an aperture in the other member of each bar, and bolts passing through said apertures to rigidly unite said members.

6. In a curtain-stretcher, side rails joined to end rails, a brace-bar connecting the side rails, such side rails comprising bars divided at their middle by a lap-joint and edgewise foldably secured together by a hinge secured to the edge of the bars at their lapped ends and provided with a strap adapted to lap the side of the bars at the joint, apertures in the strap, bar and brace-bar in alinement with each other, and a bolt provided with a winged nut passing through said apertures for clamping the parts together.

7. In a curtain-stretcher, side rails joined to end rails each provided with slots in the opposite ends and bolts provided with winged nuts adjustably securing the parts together through said slots, a brace-bar provided with slots in its opposite ends adjustably connecting the side rails, such side rails comprising bars divided at their middle by a lap-joint and edgewise foldably secured together by a hinge secured to the outer edge of the bars at their lapped ends and integrally formed with a strap adapted to lap the side of the joint, apertures in said strap and in the lapped ends of said bars, and bolts in said apertures, one of a length to pass through said apertures and clamp the slotted brace-bar.

8. In a curtain-stretcher, side rails adjustably joined to end rails, a brace-bar adjustably connecting the side rails of the stretcher, such side rails comprising bars divided at their middle by a lap-joint and edgewise foldably secured together by a hinge secured to the edge of the bars and provided with a strap adapted to lap the side of the bars at the joint, apertures in said strap and bars and bolts therein extending in opposite directions, one adapted to clamp the strap to the fixed bar and guide the brace-bar and the other adapted to unite the strap and movable bar and adjustably clamp the center bar to the side bar.

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

JESSE W. REED.

Witnesses:
OTTO F. BARTHEL,
THOMAS G. LONGSTAFF.